Family Physicians and Provision of Immediate Postpartum Contraception: A CERA Study

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BACKGROUND AND OBJECTIVES: The Centers for Disease Control and Prevention (CDC) support the provision of intrauterine devices (IUDs) and the contraceptive implant to women immediately after childbirth. We aimed to assess perceived training needs and barriers to immediate postpartum contraceptive service delivery among US family physicians.

METHODS: We contributed items regarding postpartum contraception to the 2015 Council of Academic Family Medicine Educational Research Alliance (CERA) omnibus survey of a national cohort of family medicine educators. We assessed self-estimated adequacy of training to insert IUDs and implants immediately postpartum, how often these services are provided, and barriers to service provision.

RESULTS: Our sample of 409 respondents who provide labor and delivery maternity care was primarily Caucasian (79.9%) and female (56.0%). Significantly fewer respondents felt comfortable counseling about long-acting reversible contraception (LARC), inserting an IUD, and inserting an implant immediately postpartum compared to at 6+ weeks postpartum (all comparisons \( P<0.001 \)). Fewer respondents felt adequately trained to insert an immediate postpartum IUD (36.4%) than an implant (58.7%; \( P<0.001 \)). Most respondents had never placed an immediate postpartum IUD (81.17%) or implant (80.1%). Device unavailability was the most commonly cited reason for never having placed an immediate postpartum IUD (67.8%) or implant (71.2%) at one’s institution.

CONCLUSIONS: As reimbursement for immediate postpartum contraception becomes more common, family physicians are on the front lines to make these services available to patients who desire them. Training is necessary to enable family physicians to provide this evidence-based option to women.

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Long-acting reversible contraception (LARC; ie intrauterine devices (IUD) and the etonogestrel subdermal implant) is safe and effective for women after childbirth. However, these devices may be particularly hard to access after childbirth. While 6% of postpartum women nationally utilize LARC, as many as four in 10 women may wish to do so. Unmet demand for postpartum LARC is in part related to the standard practice of inserting LARC devices at an outpatient postpartum visit. Immediate postpartum LARC—that is, inserting IUDs and implants during the same hospitalization as a delivery—is a promising strategy to help postpartum women meet their family planning goals. A robust body of evidence suggests that immediate postpartum LARC is safe and reduces rapid repeat pregnancy rates. Furthermore, immediate postpartum LARC is cost-effective for payers and hospitals and associated with high patient satisfaction compared to delayed, outpatient insertion. The American College of Obstetricians and Gynecologists (ACOG) and the Centers for Disease Control and Prevention support the provision of LARC in the same hospitalization as a delivery.

Multiple barriers may impede access to immediate postpartum contraceptive services, including non-reimbursement by public and private payers, institutional barriers to device ordering or stocking, and challenges with billing for contraceptive care in the inpatient setting. Provider-level barriers also appear salient. One recent study of attending-level maternity care providers (obstetricians, midwives, and family physicians) at seven academic institutions from the University of Michigan Department of Obstetrics and Gynecology (Dr Moniz); University of Michigan Institute for Healthcare Policy and Innovation (Drs Moniz and Chang); and the University of Michigan Department of Family Medicine (Drs McEvoy, Hofmeister, and Chang, and Ms Plegue).
hospitals in Massachusetts documented low levels of immediate postpartum contraceptive knowledge and experience. Among family physicians in this sample, only two in 10 offered immediate postpartum IUDs. The most frequently cited reason for never having placed a postpartum IUD was inadequate training. There is critical need to understand provider capacity to offer immediate postpartum LARC at the national level. Family physicians provide a substantial proportion of perinatal care in the United States, delivering 100% of babies in some geographic areas. Prior work estimates that approximately six in 10 family physician educators place intrauterine devices and four in 10 place contraceptive implants. However, to date, there has been no formal assessment of the capacity of family physicians nationally to provide immediate postpartum contraception. We hypothesized that family physicians would report a need for additional training in immediate postpartum contraceptive insertion, and that training needs would be accompanied by multiple other barriers to service delivery. Our aim was to establish whether a national sample of US family physician maternity providers feels adequately trained to provide immediate postpartum contraception, measure frequency of service provision, and assess reasons for service non-provision.

Methods
We conducted a survey of a national sample of family physician educators. Our study was part of an omnibus survey conducted by the Council of Academic Family Medicine (CAFM) Educational Research Alliance (CERA). The CERA general membership survey design, sampling technique, and protocol have been described elsewhere. Briefly, eligible participants include members from four academic family medicine organizations: STFM (Society of Teachers of Family Medicine), NAP-CRG (North American Primary Care Research Group), ADFM (Association of Departments of Family Medicine), and AFMRD (Association of Family Medicine Residency Directors). CERA staff emailed invitations to eligible participants to complete a cross-sectional, online survey, which was open from February 2 through March 20, 2016. The response rate was 34.65%.

The CERA survey instrument includes a recurring set of demographic and profession-specific items (eg, gender, age, professional role). Additionally, we contributed 14 original questions related to immediate postpartum contraception. This manuscript reports on 11 questions related to immediate postpartum LARC training, experience, and reasons for non-insertion. We first assessed whether providers felt adequately trained to counsel about and to insert immediate postpartum IUDs and implants (yes, no, n/a). We defined immediate postpartum insertion as “in the same hospitalization as the delivery of a baby.” To establish a point of reference, respondents also self-estimated adequacy of training to counsel and insert IUDs and implants “at the 6-week postpartum visit.” We then asked about provision of immediate postpartum LARC (“I have placed an immediate postpartum IUD at time of vaginal delivery”, “I have placed an immediate postpartum implant”) in one’s career post-residency. Respondents could answer “Never”, “1-2 times”, “3-5 times”, “6-10 times”, or “>10 times”. Respondents who reported “never” having inserted an IUD or implant were then asked to identify all reasons for non-insertion. A range of potential barriers were provided as potential answer choices, and respondents were also allowed to provide free text responses.

The analytic sample was restricted to respondents reporting that they “currently provide labor and delivery maternity care in the United States.” Descriptive statistics were used to assess the demographic and professional characteristics of the sample. Proportions of respondents in the sample who responded they felt adequately trained to counsel about LARC, insert IUDs, and insert implants were compared with one another and between the immediate postpartum period and at the 6-week postpartum visit using McNemar’s test. Respondents were characterized as ever having placed an immediate postpartum LARC device if they responded that they had placed either an IUD or an implant immediately postpartum. Chi-square and independent samples t-tests were used to compare demographic and professional characteristics between those who had and had not placed immediate postpartum LARC. For the survey item assessing reasons for service non-provision, free text responses were manually reviewed and converted to quantitative categories and infrequently selected options were condensed into grouped categories. All analyses were performed using Stata 13.1. We set α=0.05. The American Academy of Family Physicians Institutional Review Board (IRB), a federally approved IRB, approved the study protocol as exempt.

Results
Our final sample included 409 respondents who provide labor and delivery maternity care in the United States (Table 1). Most (65.4%) identified clinical teaching as their primary role. Compared to the national family physician workforce, our sample was more likely to be female (56.0% vs 41.6%), report a terminal degree of MD (94.1% vs 63.7%), and identify clinical teaching as their primary professional role (65.4% vs 15%).

A majority of respondents reported feeling adequately trained to counsel women about LARC methods, with more affirmative responses regarding the 6-week outpatient postpartum visit (98%) than immediately postpartum (86%, P<0.001; Figure 1). Similarly, more respondents reported feeling adequately trained to insert an IUD (91.9% vs 36.4%, P<0.001) or an implant (81.9% vs 58.7%, P<0.001) at the 6-week outpatient postpartum visit.
than immediately postpartum during the delivery hospitalization. A significantly higher proportion of respondents felt adequately trained to insert an immediate postpartum implant than an IUD ($P<0.001$). Fewer respondents reported having access to training opportunities in immediate postpartum IUD (48.7%) than in immediate postpartum implant insertion (87.3%, $P<0.001$).

Overall, 72.1% of respondents reported that they had never placed a LARC device in the immediate postpartum setting, with 81.17% having never placed an IUD and 80.1% having never placed an implant during the delivery hospitalization. There were no statistically significant demographic differences among those who had previously inserted and those who had never inserted either LARC device immediately postpartum. Figure 2 differentiates the percentage of providers who had never placed each type of LARC device immediately postpartum based on whether the provider felt adequately trained to do so. Among those who felt adequately trained to insert an IUD immediately following vaginal delivery, less than half (44.3%) had ever placed an immediate postpartum IUD. Among those who felt adequately trained to insert an implant during the delivery hospitalization, only 32.4% had actually done so.

Respondents who had never placed an immediate postpartum IUD (n=332) or implant (n=326) reported multiple perceived barriers to immediate postpartum contraceptive services (Figure 2). The most commonly cited reason for non-placement of both IUDs and implants was “this device is not available at my institution” (67.8% IUD, 71.2% implant). Other commonly cited barriers to device placement included “my patients decline immediate postpartum insertion of this method” (18.4% IUD, 14.7% implant), “expulsion risk” (15.7% IUD), “reimbursement concerns” (15.7% IUD, 15.3% implant), and “not my standard practice” (11.5% IUD, 10.1% implant). “Religious institutional policy” was also cited as prohibiting immediate postpartum IUD (10.8%) and implant service provision (5.8%). Concern about adverse effects on breastfeeding was rarely cited as a reason for not providing immediate postpartum IUDs (1.5%) or implants (2.8%).

**Discussion**

This national, cross-sectional survey of family physician educators suggests that a majority feel inadequately trained to insert immediate postpartum contraceptives and most have no first-hand experience with device insertion in the immediate postpartum setting. In addition
to training needs, respondents in this survey identified multiple other barriers to immediate postpartum contraceptive service delivery, including provider concerns about IUD expulsion and reimbursement, and hospital-level barriers such as device unavailability and religious institutional policy.

Our findings build on the work of other investigators. Prior work suggests that 66% of family physician educators insert IUDs and 44% insert the contraceptive implant.20 Even higher proportions of maternity care providers in our survey reported adequate training in IUD and implant insertion in the outpatient setting (91.9% IUD, 81.9% implant). For those already trained to insert the contraceptive implant, no additional training is needed, as the implant insertion procedure is identical in the immediate postpartum and outpatient settings. Supplemental training in immediate postpartum IUD insertion will be necessary, even for those already trained to insert the IUD in the outpatient setting. A variety of provider training tools, including a LARC Resource Digest maintained by the American College of Obstetricians and Gynecologists, are available online to assist maternity care clinicians interested in offering immediate postpartum contraceptive services to patients who desire it.22-25

Provider training needs are only one of multiple barriers to immediate postpartum contraceptive service delivery. This is underscored by our finding that significant proportions of respondents who felt adequately trained to insert immediate postpartum IUDs and implants had nonetheless never done so. Among those who had never inserted an immediate postpartum IUD or implant during independent practice, unavailability was the most commonly reported barrier. Device unavailability may reflect institutional policy or social norms, lack of awareness of the benefits of immediate postpartum LARC services, or challenges with technical aspects of LARC service delivery (such as device ordering, stocking, and billing). Multiple respondents specifically cited religious institutional objections to immediate postpartum LARC services. One in six acute care beds in the United States is in a Catholic-owned or affiliated hospital, and in many states, 30 to 40% of acute care beds are in Catholic or Catholic-affiliated institutions.26 The Ethical and Religious Directives for Catholic Health
Care Services prohibit provision of hormonal contraception, and women delivering at these facilities may face specific institutional barriers to immediate postpartum LARC access.

Our survey also documents family physician concern about reimbursement for immediate postpartum contraception. Labor and delivery care has traditionally been reimbursed with one global, bundled payment. Recognizing that this may act as a financial disincentive to provide inpatient LARC services, 21 state Medicaid agencies to date have begun providing specific payment for immediate postpartum contraception in addition to the global fee. The Center for Medicaid and Children’s Health Insurance Program (CHIP) Services recently released an informational bulletin encouraging all state agencies to adopt reimbursement approaches that promote the availability of LARC, such as “reimbursing for immediate postpartum insertion of LARC by unbundling payment for LARC from other labor and delivery services.” Such guidance may encourage the remaining Medicaid agencies to provide specific reimbursement for immediate postpartum LARC. Less is known about the payment methodologies of Medicaid-managed care organizations and commercial payers. Eliminating reimbursement policies that deny postpartum women access to LARC prior to hospital discharge is an essential step in ensuring access to highly effective contraceptive methods and reducing unintended and short interval pregnancies.

Concern about IUD expulsion was another cited barrier to immediate postpartum contraceptive service provision. IUD expulsion rates are higher with immediate postpartum placement compared to insertion at or after six weeks postpartum. However, in randomized controlled trials of immediate versus outpatient insertion, overall continuation rates at 6 and 12 months are the same or higher with immediate placement, largely due to many women who report desiring an IUD never returning for outpatient insertion. Addressing expulsion rates is a critical part of informed consent. Helping patients develop a backup plan may be particularly important for adolescents, as early expulsion is common (~25%) and one in 10 may not recognize expulsion after immediate postpartum placement.

Perceived adverse effects on breastfeeding have been noted in other studies of provider barriers to
immediate postpartum LARC,\textsuperscript{35} but this was not a commonly cited barrier in this sample of family medicine educators. Both ACOG and the CDC suggest that immediate postpartum insertion of the implant, the non-hormonal IUD, and the levonorgestrel IUD is safe for breastfeeding mothers, while acknowledging that data on the implant is more robust than data on the levonorgestrel IUD.\textsuperscript{1,3,4} A randomized controlled trial evaluating the impact of immediate postpartum insertion of the levonorgestrel IUD on breastfeeding outcomes is underway (ClinicalTrials.gov Identifier NCT01990703).

Our findings should be interpreted within the context of our study’s limitations. The survey response rate is suboptimal, although consistent with other CERA surveys. Although high response rates are always desirable, physician surveys may be particularly resilient against non-response bias.\textsuperscript{35} Cross-sectional surveys will not capture changes over time in knowledge, attitudes, and expertise. Findings may not generalize to non-members of CERA. We do not report on IUD insertion during cesarean delivery, because relatively few family physicians perform this surgery and the CERA sample oversamples this group. There may be important clinician-level barriers not assessed in our surveys, although our team’s extensive prior work investigating LARC provision mitigates this risk. While the study’s anonymous, online design reduces the risk of social desirability bias, all self-report measures are subject to this concern.

Despite these limitations, our study provides a national, cross-sectional assessment of the family physician educators’ perspectives on immediate postpartum contraceptive service delivery. Family physicians are a critical part of the maternity workforce in the United States, delivering 100% of babies in some geographic areas.\textsuperscript{16,19} Women in these regions are more likely to be poor, rely heavily on Medicaid, travel longer distances to see a medical provider, report the highest rates of delayed or non medical care due to cost, and have an unintended pregnancy compared to women in more urban areas.\textsuperscript{19} Our findings can be used to inform targeted interventions to train family physicians in immediate postpartum contraception and address hospital-level barriers to immediate postpartum contraceptive services. The American College of Obstetricians and Gynecologists (ACOG) has published multiple opinions and clinical practice guidelines that support immediate postpartum LARC as safe, effective, and desirable to many women after child birth.\textsuperscript{14,25,34} ACOG’s LARC Program has highlighted a variety of resources available to providers and institutions seeking to offer immediate postpartum contraceptive services.\textsuperscript{35} Parallel advocacy from family medicine professional organizations may help enhance access to immediate postpartum LARC. While addressing barriers at the clinician, hospital, and policy levels will be challenging, such coordinated efforts will be essential to making this evidence-based service available to all women who desire highly effective, reversible contraception immediately after childbirth. Enhancing access to immediate postpartum LARC is a safe, effective strategy with promise to help women meet their family planning goals, achieve healthy birth spacing, and reduce unintended pregnancy rates.

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