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Immediate Postpartum Long-Acting Reversible Contraception Programs in Texas Hospitals Following Changes to Medicaid Reimbursement Policy

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Abstract

Objectives Provision of long-acting reversible contraception (LARC) after delivery and prior to discharge is safe and advantageous, yet few Texas hospitals offer this service. Our study describes experiences of Texas hospitals that implemented immediate postpartum LARC (IPLARC) programs, in order to inform the development of other IPLARC programs and guide future research on system-level barriers to broader adoption.

Methods Eight Texas hospitals that had implemented an IPLARC program were identified, and six agreed to participate in the study. Interviews with 19 key hospital staff covered (1) factors that led the development of an IPLARC program; (2) billing, pharmacy, and administrative operations related to implementation; (3) patient demand and readiness; (4) the consent process; (5) staff training; and (6) hospital plans for monitoring and evaluation of IPLARC services.

Results Most hospitals in this study primarily served Medicaid and un- or under-insured populations. Participants from all six hospitals perceived high levels of patient demand for IPLARC and provider interest in providing this service. The major challenges were related to financing IPLARC programs. Participants from half of the hospitals reported that leadership had concerns about financial viability of providing IPLARC. The hospitals with the longest-running IPLARC programs were safety net hospitals with family planning training programs.

Conclusions for Practice We found that hospitals with IPLARC programs all had strong support from both providers and hospital leadership and had funding sources to offset costs that were not reimbursed. Strategies to reduce the financial risks related to IPLARC provision could provide the impetus for new programs to launch and support their sustainability.

Keywords IPLARC · Hospitals · Texas · Medicaid

Significance

In Texas, hospitals with the longest-running IPLARC programs had strong leadership support, trainees committed to learning IPLARC procedures and providing this service for their patients, efficient billing and device stocking processes, cooperation across hospital departments, and funding sources to overcome financial risk.

Introduction

In 2015, an estimated 35% of pregnancies in Texas were unintended (American College of Obstetricians and Gynecologists 2016; Texas Health and Human Services Commission 2017c). An unintended pregnancy can have negative effects

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on the health and economic well-being of children and families (Centers for Disease Control and Prevention 2015; Cleland et al. 2011; Ruane 1989). Unintended pregnancy disproportionately impacts low income, unmarried Black and Hispanic women, thus contributing to economic and health disparities (Finer and Henshaw 2006; Foster et al. 2013; Frost et al. 2014). Healthy People 2020 objectives include increasing the proportion of pregnancies that are intended and increasing use of the most effective forms of contraception among adult females at risk of unintentional pregnancy (Department of Health and Human Services, Office of Disease Prevention and Health Promotion 2020). The most effective forms of birth control are the intrauterine device (IUD) and subdermal contraceptive implant, together referred to as long-acting reversible contraception (LARC) (American College of Obstetricians and Gynecologists 2016; Association of State and Territorial Health Officials 2014).

A particularly advantageous time for a woman to obtain LARC is during the immediate postpartum period (i.e., after delivery and prior to discharge from the hospital) (Ero et al. 2006). Immediate postpartum LARC (IPLARC) has been shown to be safe and is supported by both the Centers for Disease Control and Prevention (CDC) (Centers for Disease Control and Prevention 2017) and the American College of Obstetricians and Gynecologists (ACOG) (American College of Obstetricians and Gynecologists 2016).

Despite the safety, efficacy and convenience of IPLARC, a number of barriers prevent its widespread adoption. One significant barrier has been the lack of a payment mechanism in Medicaid, and most private insurance plans do not reimburse LARC provision independent from the global fee for newborn delivery. To help address this barrier, the Centers for Medicare and Medicaid (CMS) included in a list of Medicaid payment strategies to improve access to LARC, released in April 2016, the unbundling of LARC payment from global delivery fees (Centers for Medicare & Medicaid Services 2016). As of January 2018, eighteen state Medicaid programs had unbundled reimbursement for both device and procedure costs for IPLARC (Moniz and Dalton 2018).

While the Medicaid reimbursement policy guidance is an important step forward, increasing access to IPLARC requires overcoming remaining barriers at patient, provider and system levels. Previous studies identified other barriers to IPLARC provision, including hospital policies restricting provision of contraception, reimbursement challenges, perceived lack of interest among patients, concerns about safety, and lack of provider skills for IPLARC insertion (Hathaway et al. 2014; Kroelinger et al. 2015; Tocce et al. 2015). Exploring these issues in the context of hospitals that have initiated or sustained IPLARC provision can help inform efforts towards broader adoption within hospital settings.

Texas, which has approximately 238 birthing hospitals, accounts for 10% of the nation's annual births (Hamilton et al. 2015). Three months prior to the CMS bulletin release, Texas changed its Medicaid reimbursement policy to allow hospitals to bill for both the IPLARC device and procedure separately from the global fee for delivery (Texas Health and Human Services Commission 2016). The purpose of this study was to document the characteristics and experiences of hospitals in Texas that have implemented IPLARC programs, to better understand contextual factors affecting IPLARC implementation and identify patterns that can inform directions for future, more in-depth research.

Methods

Identification of IPLARC Hospitals and IPLARC Champions

For this study, we sought to identify and invite participation from all Texas hospitals with IPLARC programs. Currently, no publicly available list of IPLARC-providing hospitals exists. At the outset of this project, we were aware of two hospitals that were providing IPLARC services. To expand this list, we asked maternal/child health physician leaders and other Texas LARC experts to identify additional hospitals either known or thought to be providing IPLARC, and for contact information of providers known to be advocates for IPLARC at those hospitals (i.e., IPLARC champions). In addition, we asked the IPLARC champions at each identified hospital for the names of other Texas hospitals that might be providing IPLARC services. Through this approach, we identified six additional hospitals with IPLARC programs, for a total of eight hospitals.

Recruitment of Hospitals and Interview Participants

IPLARC champions identified at each hospital were sent an email inviting them to participate in a study to document and understand the facilitators, challenges, and key steps required for implementation of IPLARC programs in Texas hospitals. Of the eight hospitals identified and invited, IPLARC champions at seven hospitals (88%) responded; of these, six (86%) agreed to participate in the study. To recruit interview participants within each hospital, IPLARC champions were asked to identify and invite staff representing departments involved in developing or implementing their IPLARC program, including labor and delivery, pharmacy, billing, and administration.

Data Collection

The interview guide used in this study was adapted from prior studies (Hofler et al. 2016; Moniz et al. 2016) and reviewed by a clinician-researcher from outside of Texas

with expertise in clinical, programmatic, and policy issues surrounding IPLARC provision. Interview questions assessed participants' experiences related to implementing IPLARC at their institutions and focused on (1) factors that led to the development of an IPLARC program; (2) financing and billing; (3) patient demand and readiness; (4) the counseling and consent process; (5) staff training; and (6) pharmacy operations related to implementation. The interview guide is provided as supplemental information.

Interviews took place between January and March 2017. Potential participants were informed that participation was voluntary, the interviews would be audio-recorded to facilitate capturing all the information, not all questions may be relevant or within their knowledge, and they could opt out of any questions that they preferred not to answer. Willingness to proceed with the interview was considered consent to participate. Four interviews were conducted in-person; the other two interviews were conducted by phone (n = 1) or email (n = 1) to accommodate participants' preferences and schedules. All participants who were interviewed in-person or by phone agreed to be audio recorded. At least three members of the research team were present for each in-person or phone interview, each of which lasted between 45 and 90 min. The lead author (AH) led the interviews, and at least two co-authors (EN, DP) were present and took extensive notes during the interviews.

To describe characteristics of hospitals included in this study, several publicly available data sources were used, including the 2017 Texas Department of State Health Services Annual Survey of Hospitals (Texas Department of State Health Services 2017), Accreditation Council for Graduate Medical Education (ACGME) list of accredited obstetrics and gynecology (OB/GYN) programs (Accreditation Council for Graduate Medical Education 2017), and the Health Resources and Services Administration Office of Pharmacy Affairs 340B database of covered entities (Health Resources & Services Administration 2018b). The study did not involve clinical or patient data and was deemed exempt from human subject oversight by the Institutional Review Board of the University of Texas Health Science Center at Tyler.

Data Analysis

Interview notes were consolidated and reviewed for completeness and accuracy within 1 week of the interview by the core interview team (AH, EN & DP) and other members of the research team who were present during the interview. Recordings were reviewed when clarification or exact quotes were needed. Due to funding limitations, recordings were not transcribed. Results were summarized to describe timing and impetus for launching an IPLARC program, and each of the following components of IPLARC programs: financing and billing, demand for IPLARC, patient counseling and consent, provider training, and device ordering, stocking and dispensing. Quotes were selected to help illustrate the salient points.

Results

Characteristics of Hospitals and Composition of Interviews

The six hospitals included in this study were located in five Texas cities (Fig. 1). Table 1 provides information on each hospital obtained from publicly available sources. Three hospitals were public, two were for-profit, and one was non-profit. Three hospitals had ACGME accredited OB/GYN teaching programs. In all hospitals included in this study, the patient mix included at least 49% Medicaid or self-pay.

Across the six hospitals, 19 hospital staff members participated in interviews. An average of three hospital staff were present for each interview (range 1–8). All of the IPLARC champions included in this study were practicing OB/GYN physicians, with half being chief of service or chair of their departments. Interview teams consisted of the IPLARC champion and staff representing a range of positions across hospital departments, including OB/GYN physicians, labor and delivery nurses, and staff from patient/provider billing and pharmacy operations.

Timing and Impetus for IPLARC Program Launch

Four of the six hospitals began their IPLARC programs after the release of the updated Medicaid policies in January 2016. The two remaining hospitals (in the same public hospital system) launched in 2011 and 2014. At the conclusion of the interviews, all hospitals had placed at least one IPLARC device.

In all study hospitals, clinicians who felt the service was important for their patients initiated the IPLARC program. Participants from teaching hospitals indicated that their residents wanted to be able to provide effective and timely birth control options and quickly recognized the value of IPLARC, which aligned with their overall training around postpartum contraception.

> Procedures are easy to perform, [and] fit curriculum naturally (Chair, OB/GYN).

> [It is] ingrained in residents to ask about postpartum contraception and document in the antepartum record and the hospital H&P when [a patient is] admitted to the hospital. (Chair, OB/GYN).

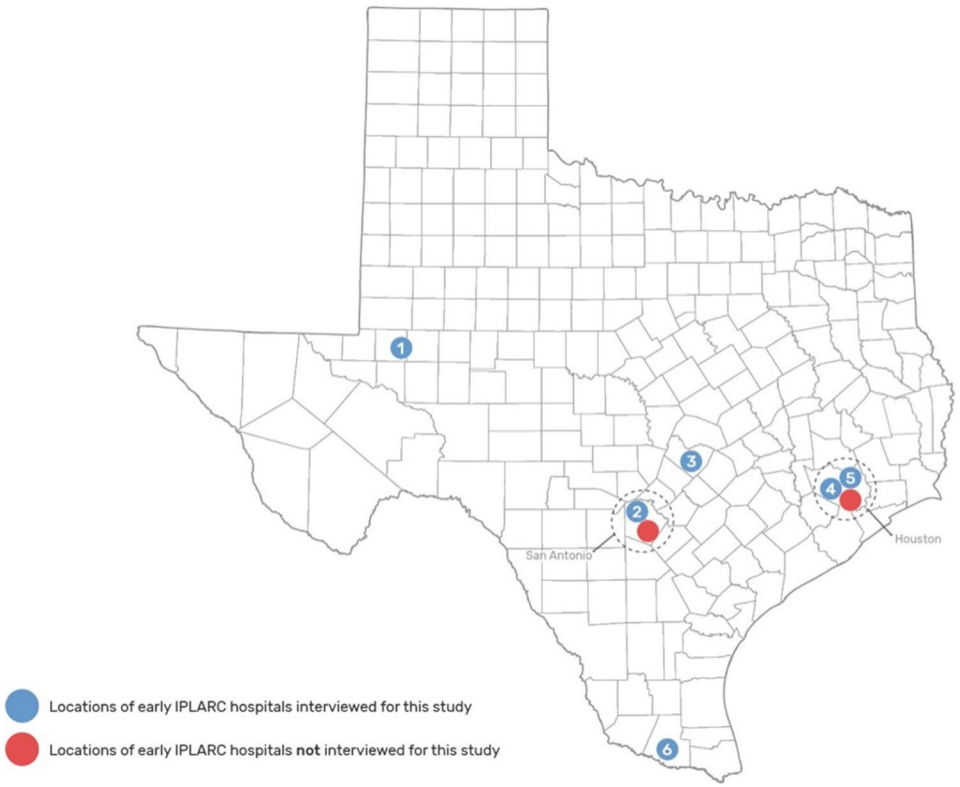

Fig. 1 Texas hospitals identified as having IPLARC programs as of January 2017

> Residents were eager to learn new things and can take it away as an advantage to them professionally. (Chair, OB/GYN).

Another consistent factor was strong support from hospital leadership for the idea of IPLARC, and apprehension regarding its financing. Clinicians did not have difficulty convincing leadership of the value of offering IPLARC; however, leaders in half the hospitals were concerned about the financial viability of programs. In one hospital, leadership became particularly supportive after participating in a research study that identified a high unmet demand for postpartum contraception in their population, though concerns about cost had to be overcome:

> Was not very hard to establish the need for the project. Previous project had already described the need. Hardest to convey was the cost, that it wasn't going to cost the hospital any money. (Faculty, OB/GYN).

At another hospital, participants described the response of their leadership as:

> Happy to do it, but how do we make it financially work? (Nurse, Labor & Delivery).

The change to Medicaid reimbursement policy was an impetus to launching an IPLARC program for the four hospitals that had not previously provided IPLARC.

> Not a lot of hard core arm twisting, since Texas Medicaid was an impetus to do something about it. The timing was kind of perfect for it here. (Chair, OB/GYN).

Components of IPLARC Programs

Financing and Billing

The biggest and most frequently reported challenges to IPLARC programs related to financing and billing. Experiences with financing and billing were shared by billing department representatives at three of the six hospitals and by OB/GYN department chairs at the remaining three hospitals. Offering IPLARC services requires that the hospitals cover the costs of both the LARC devices and the service delivery. LARC devices are expensive, and price increases from the manufacturer are not immediately reflected in Medicaid reimbursement rates. Participants from five of the six hospitals reported having claims for IPLARC rejected. All

Table 1 Characteristics of participating Texas hospitals with immediate postpartum long-acting reversible contraception (IPLARC) programs as of January 2017 (n = 6)

Hospital	Year launched IPLARC program	Hospital county	Metro status	Hospital ownership	ACGME accredited OB/GYN program	340B drug pricing program participant	Gross patient revenue by payer source			
							Government (%)		Self-pay (%)	3rd party (%)
							Medicaid	Other government[a]	Self-pay	3rd party
1	2016	Ector	Metro	Public	Yes	Yes	42.7	11.6	11.8	33.9
2	2016	Bexar	Metro	For-profit	No	No	49.1	13.7	7.9	29.3
3	2016	Travis	Metro	Not for-profit	No	Yes	51.1	11.5	6.7	30.7
4[b]	2011	Harris	Metro	Public	Yes	Yes	23.4	20.0	51.1	5.5
5[b]	2014	Harris	Metro	Public	Yes	Yes	23.4	20.0	51.1	5.5
6	2016	Hidalgo	Metro	For-profit	Yes	No	43.3	29.4	5.6	21.5

Hospitals included were out of a total of eight hospitals identified that had implemented IPLARC programs as of January 2017 in Texas

[a]Other Government includes Medicare and other government payer sources

[b]Hospitals are part of a health system and report same statistics

of the hospitals with rejected claims had submitted appeals and were awaiting a response. One hospital had halted their program until billing issues could be addressed:

> All the claims were denied, which slowed the process and [re]focused on working to appeal the rejections. (Faculty, OB/GYN).

Two other challenges related to financing and billing were noted. When billing Medicaid according to their updated policy, IPLARC claims must be submitted as an outpatient service, which concerned some interviewees given that the service is actually being provided in an inpatient setting. Further, while updates to the Texas Medicaid policy have allowed hospitals to bill for IPLARC, a lag in commercial health plans adopting similar policies was identified as a concern by the two for-profit hospitals that had a relatively larger share of patients covered by commercial plans.

Overcoming Financing and Billing Challenges

Billing staff from two hospitals indicated that they had successfully addressed any reimbursement issues by closely following guidelines specified by Texas Medicaid, and having a strong relationship with their Medicaid representative, who they spoke with when questions arose and coached them through problems. Participants from these hospitals cited the Texas Medicaid (Texas Health and Human Services Commission 2015, 2017b) website as a key resource for successful billing.

> The TMHP [Texas Medicaid Health Partnership] website had all good information. The website had a publication on how to bill for IPLARC. (Hospital billing representative).

The hospitals with the most established IPLARC programs were those that were not fully reliant on insurance reimbursement to cover the costs of the program. Participants at two public hospitals indicated their financial justification for providing IPLARC services was based on the potential to reduce the need for high cost services resulting from poor maternal and birth outcomes. One safety net hospital explained that their motivation for offering IPLARC was driven by a question of:

> …how do we lose less money, instead of how do we increase our profit margin? (Department Chair, OB/GYN).

Three of the six hospitals had Kenneth J. Ryan Residency Training Programs, which funds family planning training for obstetrics and gynecology residents, and funds IPLARC provision for women without health insurance coverage (Steinauer et al. 2013). Ryan funding supported the development of the two IPLARC programs that launched prior

to the Medicaid policy change and has remained the primary funding support for these programs to date. Interview participants from four of the six hospitals discussed the importance of their HRSA 340B Drug Pricing program rates, which provide outpatient pharmaceutical products to covered entities at significantly reduced prices (Health Resources & Services Administration 2018a; Medicaid Payment Advisory Commission 2015). Although IPLARC insertion is completed during an inpatient stay, it is billed as an outpatient service, which allows the devices to be paid for under the reduced 340B drug pricing. Participants from these hospitals expressed concerns that this approach might affect their eligibility for the 340B program.

IPLARC Demand

Interview participants at all six hospitals perceived high patient demand for IPLARC. Demand was assessed informally, through individual patient requests and the overall reception of IPLARC during contraceptive counseling. None of the hospitals systematically tracked patient requests and utilization. Participants from all of the teaching hospitals highlighted their residents' proactivity in counseling their patients on devices and credited the residents with increasing patient demand and comprehension of the service.

> Patients are seemingly telling their friends 'if you go deliver at [facility name], then you can get an IUD'. (Faculty member, OB/GYN).

Several interview participants from different hospitals suggested that the demand for IPLARC could be explained in part by Medicaid rules for obtaining tubal ligations. Currently, Medicaid requires that women interested in obtaining a tubal ligation must complete and sign a consent form a minimum of 30 days, but no more than 180 days prior to the procedure. The waiting period is waived for women undergoing preterm delivery, but still requires a 72-hour period between signed consent and the procedure (Borrero et al. 2014). Indeed, one participant expressed:

> [it is] harder to get your tubes tied than to get a hand gun. (Chair, OB/GYN).

Several participants mentioned that most women were unaware of the rules for consent and authorization processes for tubal ligations and were therefore not able to have the procedure performed during the immediate postpartum period. By contrast, IPLARC does not have a waiting period requirement, and is a temporary alternative.

Patient Counseling and Consent

Counseling for IPLARC was done at different time points across the hospitals. Most interview participants felt that contraception counseling would ideally occur during prenatal care, allowing women to make the most informed decisions about their contraceptive options and preparing them for LARC placement after delivery. At minimum, prenatal care providers needed to be made aware that IPLARC was an option at the hospital. One hospital representative suggested:

> Now that the providers are aware it is an option, they will discuss this with women who present with no prenatal care or by transfer from other hospitals. Can also discuss during prenatal care in their office. (Faculty, OB/GYN).

Although it is optimal for comprehensive counseling on postpartum contraception to take place during the prenatal period, participants from two hospitals reported that their populations often had minimal to no prenatal care. At these hospitals, postpartum contraceptive counseling for IPLARC occurred at triage for delivery and included information on all available postpartum contraception options. For patients with no prenatal care, counseling at triage for delivery was essential. At five of the six hospitals, patient consent was obtained at labor and delivery triage along with general consent for delivery. At one hospital, individual written consent for the device and service was obtained separately from general consent for labor and delivery. Documentation of the LARC device was most commonly collected in the patient progress notes on the EMR system. All facilities used an EMR system that allowed for documentation of patient request for IPLARC, but type of LARC device, and provision of LARC-related counseling was not typically monitored.

Provider Training

At three hospitals, general obstetric faculty members conducted most IPLARC insertion trainings for the other faculty, fellows and residents. Two hospitals conducted specific faculty trainings hosted by IPLARC researchers and obstetrician-gynecologists from other states; one of these two hospitals retained a trainer provided by the agency from which they received external funding and the other conducted a provider-led training by an obstetrician with extensive experience with IPLARC placement from another hospital included in this study. IPLARC champions conducted trainings at their hospitals after obtaining vendor training and translated their own research of appropriate IPLARC techniques into best practices for placing devices. One hospital indicated that it had a written protocol for training nursing staff. Most of the participants interviewed indicated that they researched other IPLARC programs but found few training materials, which encouraged them to create their own.

Device Ordering, Stocking and Dispensing

Ordering refers to the process for purchasing the devices, stocking refers to the physical space to store devices, and dispensing refers to the availability of the device in the location needed. All hospitals had created logistic operations that allowed them to stock and dispense devices when they were needed at the time of delivery. All hospitals maintained some stock of devices and submitted claims for reimbursement after devices were placed, had the physical space to store devices, and had the operational acuity to deliver devices from the pharmacy to the point of service when devices were needed.

One hospital had an established standard operating procedure for purchasing and stocking devices. Another hospital had a pharmacy process that linked written consent forms and device dispensing. In several facilities, devices were stocked on the labor and delivery floor for ease of access. In order to restock the devices, the physician's vendor license number had to be entered at the time of order. The ordering process was mentioned to be particularly useful by the smaller for-profit hospitals, as it links a physician directly to a device for accounting purposes and allows a smooth process for device reordering. Collaboration between departments of pharmacy, billing, leadership, nursing, and labor & delivery was viewed as essential to successful implementation of IPLARC programs.

Participants from four of the six hospitals indicated they used automated dispensing machines for device stocking on the labor and delivery floor, and participants from the remaining hospitals indicated plans to use a similar dispensing machine. Hospitals without dispensing machines had logistical procedures in place to retrieve devices from the pharmacy when needed and deliver them to the appropriate location.

Discussion

Of the approximately 238 birthing hospitals in Texas, we identified eight hospitals that had implemented IPLARC programs by 2017. In this study, we documented characteristics and experiences of six of these hospitals. The longest-running IPLARC programs had strong leadership support, trainees committed to learning IPLARC procedures and providing this service for their patients, efficient billing and device stocking processes, cooperation across hospital departments, and funding sources to overcome financial risk. These characteristics provided the motivation and necessary support for implementing IPLARC programs in the hospital setting.

The predominant challenge expressed by interview participants was establishing financial viability of their IPLARC programs. Moreover, fluctuating vendor costs for devices and relatively new reimbursement policies have dissuaded providers from offering IPLARC services (Texas Health and Human Services Commission 2017a). While Texas Medicaid regularly reviews vendor device costs and adjusts the reimbursement rate, the reviews do not occur as frequently as needed to match the increases in device costs. Sources of funding outside of Medicaid reimbursement that help cover program costs (i.e., public funding for safety net services and Ryan Residency Training Program funds) and lower device costs (i.e., 340B drug pricing) reduced financial risk of IPLARC programs.

One system-level challenge for IPLARC programs is that the current system for LARC reimbursement and 340B drug pricing eligibility is based on services provided in an outpatient or ambulatory context. In our study, participants expressed concerns about billing IPLARC as an outpatient service when it was provided during an inpatient stay. Medicaid acknowledgment of these concerns directly and providing assurance that the reimbursement strategies are in compliance with current state policy may help ease hospital apprehensions. In addition, participants had concerns about utilizing 340B drug pricing for procuring devices inserted in the inpatient setting. This is a concern for hospitals, as 340B covered entities are responsible for maintaining compliance with the HRSA requirements. Specific guidance on whether the LARC devices inserted immediately postpartum are eligible to be procured under the 340B pricing is needed.

Strategies to reduce the financial risks related to IPLARC provision could provide the impetus for new programs to launch and support their sustainability. Such strategies could include more frequent updates to the Medicaid reimbursement rates for LARCs to better mirror current prices. Promoting use of the low-cost IUD Liletta could also help reduce financial risk. With 340B pricing, the cost of the Liletta IUD is $50 per unit (Roth et al. 2018). Reductions in cost can be significant for the covered entity and be particularly advantageous for both the facility and the patient.

An effective Medicaid billing process was also critical to IPLARC programs. Some of the challenges with rejected claims may have been a reflection of the hospitals having to adapt to new billing processes following the recent Medicaid policy change. Establishing relationships with Medicaid representatives and close attention to state Medicaid updates may help hospitals address rejected claims. A study of hospitals in Georgia found that success of implementing IPLARC programs was driven by hospitals' preparedness to work through billing challenges and their awareness of ongoing policies and updates to procedures from Medicaid (Hofler et al. 2016). Moniz and colleagues interviewed Medicaid representatives about their experiences with IPLARC, finding that continuous collaboration between Medicaid agencies and hospitals

is necessary for successful, sustainable programs (Moniz et al. 2016). In our study, despite some initial confusion with the process, most hospitals were able to find solutions to overcome billing issues. Other aspects of financing, including high upfront costs for devices, fluctuating cost of devices, and lack of or inconsistent coverage by private insurance plans, were seen as a challenge to more widespread adoption of IPLARC programs.

Beyond the ability to overcome financial challenges of IPLARC programs, having an OB/GYN residency program helped support IPLARC program implementation. Two-thirds of the hospitals in this study had an ACGME-accredited OB/GYN program. Jatlaoui et al. (2014) found that residents felt well prepared to place IPLARC after training and supervised placements under the observation of a trained faculty member within their hospital.

Logistic processes such as timing of consent, stocking devices in the pharmacy and retrieval of devices at the time of delivery were well established at most of the hospitals in this study. Patient demand for devices was perceived as high, however, quantitative measures of counseling, consent, and receipt of IPLARC were not readily available in these hospitals. Having this information might help address concerns regarding patient demand in other hospitals considering IPLARC programs.

We acknowledge several limitations of this study. First, it is possible that we did not identify all Texas hospitals with IPLARC programs in 2017. The eight hospitals recruited for this study were identified through our ongoing collaboration with maternal/child health physician leaders and policy experts throughout Texas and by referrals from hospitals with IPLARC programs. However, while we are reasonably sure that the hospitals recruited for this study represent all Texas hospitals that were providing IPLARC at the time of our study, currently there are no publicly available data which could be used to verify completeness. Second, data were collected from participants either in-person, by phone, or via email. While in-person interviews were preferred, information was collected in the form most convenient to participants. The information collected from in-person interviews may be more robust than the information collected via other methods. Further, the range of perspectives provided during each interview was based on a limited number of participants and reflected the composition of the hospital team that was interviewed. For example, hospitals that included pharmacy staff in the interview may have provided more in-depth information on device stocking and dispensing, while hospitals that included billing staff may have focused more on issues related to coding and reimbursement. Third, data were collected and analyzed without use of rigorous qualitative research methods. While our methodology is inadequate to fully explore the issues, the purpose of this study was to identify key ideas that emerged across Texas hospitals that had implemented IPLARC programs in order to inform directions for future, more in-depth research.

Despite these limitations, our study documents experiences of hospitals that had implemented IPLARC programs in Texas, a state that accounts for 10% of the nation's annual births (Hamilton et al. 2015). Every program known to be providing IPLARC in Texas at the time of the study was contacted to participate, and we included the perspectives of a wide range of personnel that contributed to the development and sustainability of their hospitals' IPLARC program. This formative work can help guide future research efforts to delve into issues surrounding 340B pricing, the role of commercial payers, and the challenges related to device stocking and reimbursement particular to the hospital setting, using an implementation science framework.

Conclusions for Practice

Standardizing the process for postpartum contraception counseling during prenatal care, and uniformly offering IPLARC as an option, could help improve uptake of IPLARC in settings where IPLARC services are available. IPLARC training for providers should include patient counseling on plans for postpartum contraception, and the use of the ACOG (American College of Obstetricians and Gynecologists 2016) and CDC (Centers for Disease Control and Prevention 2017) criteria to assess patient suitability for IPLARC. Efforts to launch new IPLARC programs may be most successful by focusing on public/safety net hospitals, hospitals with accredited OB/GYN residency programs and 340B pricing, and hospitals with alternate funding mechanisms to ensure program stability. In addition, addressing ambiguity in the application of 340B pricing to LARC procurement in the inpatient setting and encouraging alignment across all major payers in Texas could further support both initial development and sustainability of IPLARC programs.

Compliance with Ethical Standards

Conflict of interest The authors report no conflict of interest.

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