

# UCSF

## UC San Francisco Previously Published Works

### Title

Postpartum Family Planning in Pediatrics: A Survey of Parental Contraceptive Needs and Health Services Preferences

### Permalink

<https://escholarship.org/uc/item/0tg0c4j1>

### Journal

Academic Pediatrics, 23(7)

### ISSN

1876-2859

### Authors

Congdon, Jayme L

Bardach, Naomi S

Franck, Linda S

[et al.](#)

### Publication Date

2023-09-01

### DOI

10.1016/j.acap.2023.03.009

### Supplemental Material

<https://escholarship.org/uc/item/0tg0c4j1#supplemental>

### Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed

**Title:** Postpartum Family Planning in Pediatrics: A Survey of Parental Contraceptive Needs and Health Services Preferences

**Authors:** Jayme L. Congdon, MD, MS<sup>1</sup>; Naomi S. Bardach, MD, MAS<sup>2</sup>; Linda S. Franck, PhD, RN<sup>3</sup>; Claire D. Brindis, DrPH<sup>4</sup>; W. John Boscardin, PhD<sup>5</sup>; Zoe Carrasco, RN<sup>6</sup>; Michael D. Cabana, MD, MPH<sup>7</sup>; Christine Dehlendorf, MD, MAS<sup>8</sup>

**Affiliations:**

<sup>1</sup>Department of Pediatrics and Philip R. Lee Institute for Health Policy Studies, University of California San Francisco, 675 18<sup>th</sup> Street, San Francisco CA 94107 Box 3132, jayme.congdon@ucsf.edu

<sup>2</sup>Department of Pediatrics and Philip R. Lee Institute for Health Policy Studies, University of California San Francisco, 490 Illinois Street, San Francisco CA 94143, naomi.bardach@ucsf.edu

<sup>3</sup>Department of Family Health Care Nursing, University of California San Francisco, School of Nursing, 2 Koret Way Box 0606, San Francisco CA 94143, linda.franck@ucsf.edu

<sup>4</sup>Adolescent and Young Adult Health National Resource Center and Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco, 490 Illinois Street, San Francisco CA 94143, claire.brindis@ucsf.edu

<sup>5</sup>Departments of Medicine and Epidemiology and Biostatistics, University of California San Francisco, 490 Illinois Street, San Francisco CA 94143, john.boscardin@ucsf.edu

<sup>6</sup>School of Nursing, University of California San Francisco, 2 Koret Way, San Francisco CA 94143, zoe.carrasco@ucsf.edu

<sup>7</sup>Department of Pediatrics, Albert Einstein College of Medicine and the Children's Hospital at Montefiore (CHAM), 3411 Wayne Avenue, Bronx NY 10467, mcabana@montefiore.org

<sup>8</sup>Department of Family and Community Medicine, University of California San Francisco, 995 Potrero Avenue, San Francisco, CA 94110, christine.dehlendorf@ucsf.edu

**Corresponding Author:** Jayme Congdon; UCSF Nancy Friend Pritzker Psychiatry Building, 675 18<sup>th</sup> Street, San Francisco CA 94107 Box 3132, jayme.congdon@ucsf.edu, phone 415-476-1000, fax 415-476-4009

**Keywords:** family planning, contraception, postpartum, pediatrics, health services research

**Running Title:** Postpartum Family Planning in Pediatrics

**Word Count:** Abstract 250 words, Main Text 3,265 words

**Funding:** This work was supported by the UCSF California Preterm Birth Initiative (Congdon, Franck, Dehlendorf) and the National Center for Advancing Translational Sciences, National Institutes of Health UCSF-CTSI KL2 TR001870 (Congdon). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIH. Sponsors were not involved in the study design, data collection, data analysis, interpretation of data, writing of the report, or the decision to submit the article for publication.

**Acknowledgements:** The authors wish to acknowledge contributions from Apryl Olarte, Annalisa Watson, study participants, clinic site staff, and members of the California Preterm Birth Initiative Community Advisory Board and the Person-Centered Reproductive Health Program Patient Stakeholder Group.

**Potential Conflicts of Interest:** Dr. Cabana is a member of the United States Preventive Services Task Force (USPSTF). This manuscript does not necessarily represent the views of the USPSTF. The authors report no other conflicts of interest.

**Abbreviations:** LARC=long-acting reversible contraceptive, BIPOC= Black, Indigenous, and People of Color

## **Abstract**

**Objective:** Infant well-child visits are increasingly being explored as opportunities to address parental postpartum health needs, including those related to reproductive health. To inform potential pediatric clinic-based interventions, this study assessed postpartum contraceptive needs and health services preferences.

**Methods:** We surveyed postpartum individuals attending 2-6 month well-child visits at three Northern California pediatric clinics (2019-20). We examined unmet contraceptive need; the acceptability of contraceptive education, counseling, and provision at well-child visits; and sociodemographic and clinical correlates. We conducted univariate and multivariable regression modeling to assess associations between sociodemographic and clinical variables, status of contraceptive need, and acceptability measures.

**Results:** Study participants (n=263) were diverse in terms of race/ethnicity (13% Asian, 9% Black, 37% Latinx, 12% Multi-racial or Other, 29% White), and socioeconomic status. Overall, 25% had unmet contraceptive need. Unmet need was more common among participants who had delivered more recently, were multiparous, or reported  $\geq 1$  barrier to obtaining contraception; postpartum visit attendance, education, race, and ethnicity were not associated with unmet need. Most participants deemed the following acceptable in the pediatric clinic: receiving contraceptive information (85%), discussing contraception (86%), and obtaining a contraceptive method (81%). Acceptability of these services was greater among participants with unmet contraceptive need, better self-rated health, and private insurance (all  $p < .05$ ).

**Conclusions:** A quarter of participants had unmet contraceptive need beyond the early postpartum period. Most considered the pediatric clinic an acceptable place to address contraception, suggesting the pediatric clinic may be a suitable setting for interventions aiming to prevent undesired pregnancies and their sequelae.

## Introduction

There is a growing recognition of the need for innovation in the delivery of peripartum health services. In the U.S., as many as 40% of postpartum individuals do not attend a postpartum obstetric visit, representing important missed opportunities for contraceptive counseling and provision.<sup>1</sup> Consequently, mistimed and unwanted pregnancies are common among postpartum individuals,<sup>2</sup> leading to closely spaced pregnancies that carry a higher risk of morbidity and mortality<sup>3</sup> and adverse perinatal outcomes.<sup>4,5</sup> The COVID-19 pandemic and the overturning of *Roe v. Wade* have resulted in even greater barriers to obtaining reproductive health services and have exacerbated existing reproductive health inequities,<sup>6-8</sup> underscoring the growing need to ease access to reproductive care.

While postpartum individuals inconsistently attend obstetric visits,<sup>1,9</sup> they are more likely to attend well-child visits during the postpartum period.<sup>10</sup> This health care interface in the pediatric clinic presents an opportunity to identify and address unmet contraceptive need. Some studies have investigated rates of unmet contraceptive need among parents at pediatric visits,<sup>11-13</sup> though rates of contraceptive need specifically during the first six postpartum months are not known. This time period is significant, given this is when most birth parents resume contraceptive use, and when there is the greatest risk of an undesired short interpregnancy interval and its sequelae.<sup>3-5</sup> Aside from understanding the rates of contraceptive need, the preferences of postpartum parents must be explored, as they are also critical inputs to the development and implementation of potential

interventions to address contraceptive need during pediatric visits. The current literature on parental perspectives is limited to a few small, qualitative studies.<sup>14-16</sup>

To address these gaps in the literature and inform future interventional studies, we conducted a multi-site survey study to assess: (1) rates of unmet contraceptive need among postpartum individuals (i.e., six months after delivery) attending infant well-child visits, and (2) parental preferences for addressing postpartum contraception in the context of a well-child visit. Based on our prior qualitative research,<sup>14</sup> we hypothesized that the majority of postpartum individuals would deem pediatric clinic-based contraceptive services acceptable, and that the acceptability would be higher among people with unmet contraceptive need. We expected that acceptability might vary as a result of differential access to contraceptive care resulting from reproductive health inequities<sup>17</sup> and the quality of past reproductive health care experiences,<sup>18</sup> and thus, examined differences by sociodemographic characteristics.

## **Methods**

### ***Community Advisory Engagement***

During the design and conduct of this research, we engaged two established reproductive health equity-focused community advisory groups at the University of California San Francisco: the California Preterm Birth Initiative's Community Advisory Board (<https://pretermbirthca.ucsf.edu/community-advisory-board>) and the Person-Centered Reproductive Health Program's Patient Stakeholder Group (<https://>

pcrhp.ucsf.edu/patient-stakeholder-group). Both groups reviewed our initial research plan and survey instrument, considering the community relevance, cultural appropriateness, and equity implications. One community advisory board member (co-author ZC) remained on the study team throughout the project to review and provide input into recruitment and data collection procedures, interpretation of findings, and dissemination.

### ***Participants***

We conducted a cross-sectional survey study with 263 English or Spanish-speaking postpartum individuals presenting for their infant's 2-6 month well-child visit. We surveyed people who were two months or more postpartum to permit assessment of the rate of contraceptive need not met over the course of routine postpartum obstetric care, which generally occurs before two months.<sup>1</sup> Recruitment and data collection occurred at three pediatric primary care clinics in the San Francisco Bay Area, California, which were purposefully selected to sample from distinct clinical settings with socioeconomically, racially, and ethnically diverse patient populations. Two clinics were free-standing community clinics, and one clinic was an academic-affiliated clinic co-located with adult primary care and specialty services. None of the study sites routinely assessed parental contraceptive needs before or during the study period.

Data collection took place from July 2019 through October 2020. From July 2019 through March 2020, we approached potentially eligible individuals in-person during their child's visit to gauge interest, complete informed consent, and conduct a one-



time tablet-based Research Electronic Data Capture (REDCap) survey.<sup>19</sup> We paused recruitment in March 2020 due to COVID-19-related research restrictions. In May 2020, we resumed recruitment by telephone, contacting potentially eligible individuals up to three times within one week of their infants' scheduled 2-6 month well-child visit. Due to timing of clinic engagement and ability to host study staff, most of the pre-pandemic surveys were conducted at one clinic site, while the surveys conducted after May 2020 were mostly at the two other clinic sites. All participants received \$25 gift cards.

We obtained informed consent from all participants. The initial study protocol and the modified phone procedures were approved by the Institutional Review Board at the University of California, San Francisco.

### ***Survey Items***

Survey items assessed preferences for addressing contraceptive need during a pediatric encounter. Informed by the Person-Centered Contraceptive Care Framework<sup>20</sup> and prior research,<sup>14,17,21</sup> we assessed factors likely to relate to reproductive health services preferences. Survey items eliciting contraceptive needs and preferences and barriers to obtaining contraception were developed based upon community advisor and expert input<sup>20,22</sup> and preliminary qualitative research.<sup>14</sup> The full survey underwent cognitive testing with 10 individuals from the target sample. We developed a Spanish version of the survey by professional translation, back-translation, and cognitive testing.

**Participant Characteristics.** Demographic variables included self-reported age, race, ethnicity, and education. Health care access questions included type of insurance, postpartum visit attendance, presence of an established primary care provider, and an 18-item checklist of barriers to obtaining postpartum contraception (Appendix 1). Social support questions, drawn from the Centers for Disease Control and Prevention Pregnancy Risk Assessment Monitoring System,<sup>23</sup> assessed the degree to which participants felt supported (e.g., emotionally, with infant care, financially) by partners and others in their social networks. Specifically, we included five questions on general social support and eight questions on partner support (if applicable). We elicited symptoms of postpartum depression using the Patient Health Questionnaire-9.<sup>24,25</sup>

**Contraceptive Need.** Items to assess contraceptive need included desire to use contraception, current contraceptive use, and satisfaction with the current method. We defined unmet contraceptive need as: (1) desire to use contraception; and (2) not using any current method or feeling very or somewhat unsatisfied with the current method. This definition is intentionally broad to be inclusive of individuals who currently have unmet need for whatever reason. Items utilized yes/no, multiple choice, or 5-point Likert scale response choices. For women with unmet contraceptive need, we asked which methods they were considering.

**Health Services Preferences/Acceptability.** We queried participants' health services preferences for addressing contraception in the pediatric clinic using the following: *"The next questions are about addressing future pregnancy plans and birth control at a pediatric visit like the one your child had today. How would you*

*feel about the following during a pediatric visit?"* Question stems were: (1) *Receiving information about pregnancy planning and birth control*, (2) *Discussing future pregnancy plans and birth control*, and (3) *Getting a birth control method*. Response choices were on a 5-point Likert scale that that included labels 1-unacceptable, 3-neutral, and 5-acceptable. We also asked participants to rate the utility of receiving educational materials via different modes (i.e., face-to-face, paper handout, tablet in waiting room, text message, and email), with possible responses ranging from 1-not at all useful to 5-very useful.

### **Data Analysis**

We powered our study to estimate the proportion of individuals with unmet postpartum contraceptive need with reasonable precision. Using an estimated 20% prevalence of unmet postpartum contraceptive need in San Francisco and Alameda counties,<sup>26</sup> a sample size of 256 has a 95% confidence interval of half width +/- 5 percentage points (e.g., 20% [15%, 25%]).

We computed descriptive statistics for demographics, health care access, social support, postpartum depression, and contraception questions. For the PHQ-9 scale to assess postpartum depression symptoms, we created a sum score and categorized as follows: 0-4=None, 5-9=Mild, 10-14=Moderate, 15-19=Moderately Severe, and 20-27=Severe.<sup>24</sup> As in previous research that utilized the social support and partner support questions,<sup>27</sup> we created sum scores, then categorized as low, medium, or high support (social support: 0-1=Low, 2-3=Medium, 4-5=High; partner support: 0-3=Low, 4-5=Medium, 6-8=High).

We compared characteristics between participants with and without contraceptive need, using the Chi-square test for dichotomous variables and two sample t-tests for continuous variables. We computed descriptive statistics for health services preferences for the full sample. We assessed differences in mean acceptability ratings by age, time since delivery, race and ethnicity, education, insurance type, postpartum depression screen score, and status of contraceptive need using one way ANOVA.

We examined the association between participant characteristics and health services preferences, using multivariable linear regression, including prespecified variables of race and ethnicity and status of contraceptive need. We also included statistically significant variables from bivariate analyses of acceptability. For analyses that included race and ethnicity, white was specified as the reference group to explore possible differences in the acceptability of a new approach to contraceptive care among groups that have historically been affected by reproductive oppression.<sup>20</sup>

**Sensitivity Analysis.** We assessed for differences between participants surveyed before versus during the pandemic using the Chi-square test for dichotomous variables and two sample t-tests for continuous variables. We also repeated bivariate and multivariable analyses including only participants who completed surveys pre-pandemic (n=197), to compare the overall pattern of findings to the results from the full sample (n=263).

We used the University of California San Francisco Clinical and Translational Science Institute Sample Size Calculators for power calculations (<https://www.sample-size.net>) and IBM SPSS Statistics Version 28 for all other analyses.

## **Results**

### ***Participant Characteristics***

Two hundred sixty-three of 305 (86%) individuals contacted about the study completed a survey (90% of individuals approached in-person, and 75% of individuals reached by phone). We surveyed individuals presenting for their infant's 2-month (38%), 4-month (31%), or 6-month (31%) well-child visits. The sample was diverse in terms of race, ethnicity, and socioeconomic status (Table 1). Twenty-nine of 263 (11%) participants completed the survey in Spanish.

### ***Contraceptive Need***

A quarter of participants reported unmet contraceptive need. Participants were more likely to report unmet contraceptive need if they were multiparous, had delivered more recently, or experienced at least one barrier to obtaining postpartum contraception (Table 1). The most commonly cited barriers were: *I was more focused on my child(ren)* (11%) and *I didn't have time* (11%; Appendix 1).

Of the 66 participants with unmet contraceptive need, 45 (68%) were considering a method that would require a provider prescription or procedure. Specifically, 20

(44%) were considering a short-acting prescription method, 26 (58%) were considering long-acting reversible methods, and 6 (13%) were considering permanent methods (participants could select more than one method).

### ***Health Services Preferences/Acceptability***

Most participants rated the following as acceptable in the pediatric clinic (i.e.,  $\geq 3$  on a 5-point Likert scale): receiving contraceptive information (85%), discussing contraception (86%), and getting a contraceptive method (81%). Mean acceptability ratings were similar for receiving contraceptive information (M=3.8, SD=1.4), counseling and discussion (M=3.8, SD=1.3), and obtaining a contraceptive method in the pediatric clinic (M=3.6, SD=1.4; Table 2). In unadjusted analyses, acceptability ratings were slightly higher for participants with higher age, private insurance, worse postpartum depression symptoms, better self-rated health (Table 2), and unmet contraceptive need (Figure). In adjusted analysis, the associations with insurance, self-rated health, and status of contraceptive need remained (Table 3).

Regarding mode of communication for receiving postpartum contraception patient education, participant ratings on a 5-point scale were highest for face-to-face (M=3.8, SD=1.4) and were nearly as high for other paper and digital modes (range=3.5-3.7).

### ***Sensitivity Analysis***

Sensitivity analyses showed that while there were demographic and other clinical differences between participants surveyed before and during the pandemic (reflecting the distinct demographics of the participating clinics' patient populations), there were no differences in unmet need (Appendix 2). Overall patterns of acceptability in the subsample of participants surveyed pre-pandemic (n=197) closely aligned with the results for the full sample (Appendices 3 and 4).

## **Discussion**

The findings from this survey demonstrated that one in four postpartum individuals attending 2-6 month infant visits had unmet contraceptive need. Most participants, especially those with unmet contraceptive need, would be open to a range of potential pediatric clinic-based services to identify and meet their needs, including receipt of patient education, discussion and counseling with clinic providers, and obtaining contraception.

The high rate of unmet contraceptive need in our study aligns with another pediatric clinic-based study of parents with <36-month age children<sup>11</sup> and with related indicators in California's Maternal and Infant Health Assessment.<sup>26</sup> Previous studies did not focus on parents during the first six postpartum months, when a closely spaced pregnancy is associated with more serious health impacts.<sup>5</sup> Of note, our definition of unmet need was carefully defined to align with patients' needs, values and preferences by both not considering those who did not wish to be using contraception as having unmet need, and including those who were dissatisfied with their method. Taken together, these findings confirm a clinically significant rate of

postpartum patients in need of contraceptive care beyond the typical 8-week window for a postpartum visit. The most commonly cited barriers among participants were prioritization of newborn care and lack of time, supporting a need for improved flexibility and convenience in the delivery of postpartum health services, such as bundling services with routine infant care.

In addition, our study demonstrates broader generalizability of the findings from previous smaller studies on the acceptability of addressing parental contraception during a well-baby visit <sup>14-16,28</sup> and adds some specific, actionable targets for future interventional research. We found some statistically significant variation in the overall acceptability of pediatric clinic-based contraceptive services across parent characteristics, including type of insurance, postpartum depression, and status of contraceptive need. While these differences were generally small and may not be clinically meaningful, potential subgroup variation in preferences should be considered in subsequent initiatives. For example, we found that participants with higher self-rated health deemed pediatrics-based contraceptive services as slightly more acceptable compared to those with lower self-rated health. While all should have access to comprehensive and high-quality health care, this suggests that individuals with more complex health care needs may prefer or already have access to such care outside the pediatric setting. We found similar rates of acceptability of various methods for engaging postpartum parents (e.g., face-to-face, digital), raising the possibility of a variety of health services innovations. The role of community members with lived experience would be valuable in the development and testing of innovative community-oriented and clinic-based initiatives.



The small number of participants in our study who had greater than mild postpartum depression symptoms appeared to have considerably higher rates of unmet contraceptive need and endorsed the highest acceptability of pediatric clinic-based services compared to those with mild or no postpartum depression in bivariate analyses. Postpartum depression has been shown to predict postpartum visit nonattendance, and that nonattendance was mitigated by navigation support services.<sup>29</sup> While the present study was not adequately powered to make similar conclusions, the reproductive needs and preferences of individuals with postpartum depression is an important area of future investigation.

We observed small absolute differences in the acceptability of pediatric clinic-based services between racial and ethnic subgroups that did not reach statistical significance. Of note, this study may not have been adequately powered to meaningfully assess such variation. The reproductive health needs and health services preferences of Black, Indigenous, and People of Color (BIPOC) individuals is an important area of future inquiry, given the historical context of medical racism in reproductive health care.<sup>18,20</sup> If identified in future studies, any such variation should not be used as a rationale to target interventions toward any subgroup of individuals, which could inadvertently undermine reproductive autonomy and exacerbate reproductive health inequities.

Interventions conducted thus far have had limited impact due to poor uptake or feasibility limitations, suggesting an implementation science approach will be a critical next step toward the development of an intervention that is both acceptable and feasible to diverse patient stakeholders.<sup>30</sup> A randomized controlled trial of

same-day, long-acting reversible contraceptive (LARC) services co-located with pediatric care showed high likability of the intervention for a racially and ethnically diverse sample. However, the intervention had only 17% uptake,<sup>31</sup> potentially due to the time needed to both receive infant care and LARC placement in one visit. This factor may be particularly salient for multiparous women who potentially require additional childcare support while they access their own care. Another study in a pediatric resident clinic demonstrated the feasibility of screening postpartum parents for unmet contraceptive need, with a similarly low uptake rate of offered services.<sup>32</sup> A study of obstetrician-gynecologists embedded in a pediatric clinic showed high acceptability of co-located reproductive health services and earlier provision of postpartum contraceptive compared to patients receiving usual postpartum care;<sup>33</sup> while promising, the scalability and sustainability of such a model is uncertain. Finally, the IMPLICIT model of inter-conception screening at child-focused family medicine visits has been widely studied as a means to identify contraceptive and other health needs, yet its effectiveness at connecting parents with needed services has not been established.<sup>12,13</sup>

Considering our findings in context with the literature on interventions, the pediatric clinic is a promising setting for improving postnatal care for patients who are not already receiving care within an integrated practice, such as a family medicine clinic. However, interventional approaches will need to account for the complex and multi-level factors at play to effectively and flexibly meet needs of both patient and clinical stakeholders.<sup>20,34</sup> Primary care-based intervention designs will need to take into consideration the competing demands in a primary clinic for other preventive care and screening services,<sup>35</sup> and perhaps broaden their scope to engage

interdisciplinary health care team members and collaborate with adult reproductive health services providers. Such collaboration could also facilitate conversation about new or ongoing contraceptive needs that may not have been addressed during routine postpartum obstetric care, for example our study participants who attended postpartum visits though still reported unmet contraceptive needs at 2-6 months.

Our findings should be interpreted in light of study limitations. First, responses may have been influenced by social desirability bias, which could have been exacerbated by verbal administration of phone surveys during the COVID-19 pandemic. In addition, while we had nearly universal participation during in person recruitment, participation rates dropped when we shifted to phone recruitment, which may have increased recruitment bias. Reassuringly, we did not see significant differences in sensitivity analyses to assess the pandemic-related change in recruitment and data collection approaches. Finally, the findings may have limited generalizability to other patient populations or geographic areas due to differences in the barriers and facilitators to accessing health care. For example, our sample included a relatively high rate of partnered individuals who reported generally high levels of social support, which could affect their health care preferences. The study sample also had a high rate of insurance coverage, which likely reflects California's expanded Medicaid and other health insurance programs that facilitate postpartum contraceptive access for low-income individuals, suggesting that rates of unmet contraceptive need may be higher in states without such services. Despite the limitations, this study contributes to the field's growing acknowledgement of the need for a new set of approaches that respond to the myriad demands faced by

postpartum parents, when their families' needs and time pressures can take precedence over parents' own needs.

In conclusion, the current study provides useful insight into the reproductive health needs and health services preferences among a diverse sample of postpartum individuals, demonstrating the pediatric clinic is an acceptable and promising site for intervention. The variation in reproductive needs and preferences demonstrates the importance of flexibility and choice in the delivery of such health services. Given that a lack of postpartum contraception can lead to unintended, closely spaced pregnancies and subsequent worse infant and parent outcomes, innovations in pediatric health care services to improve postpartum contraception have the potential to substantially improve health.

## References

1. The American College of Obstetricians and Gynecologists. ACOG Committee Opinion No. 736: Optimizing Postpartum Care. *Obstet Gynecol.* 2018;131(5):e140-e150. doi:10.1097/AOG.0000000000002633
2. Ahrens KA, Thoma ME, Copen CE, Frederiksen BN, Decker EJ, Moskosky S. Unintended pregnancy and interpregnancy interval by maternal age, National Survey of Family Growth. *Contraception.* 2018;98(1):52-55. doi:10.1016/j.contraception.2018.02.013
3. Hutcheon JA, Nelson HD, Stidd R, Moskosky S, Ahrens KA. Short interpregnancy intervals and adverse maternal outcomes in high-resource settings: An updated systematic review. *Paediatr Perinat Epidemiol.* 2018;0(0):1-12. doi:10.1111/ppe.12518
4. Ahrens KA, Nelson H, Stidd RL, Moskosky S, Hutcheon JA. Short interpregnancy intervals and adverse perinatal outcomes in high-resource settings: An updated systematic review. *Paediatr Perinat Epidemiol.* 2018;0(0):1-23. doi:10.1111/ppe.12503

5. Congdon JL, Baer RJ, Arcara J, et al. Interpregnancy Interval and Birth Outcomes: A Propensity Matching Study in the California Population. *Matern Child Health J*. Published online May 1, 2022. doi:10.1007/s10995-022-03388-4
6. Kheyfets A, Miller B, Amutah-Onukagha N. Implications for racial inequities in maternal health if Roe v Wade is lost. *The Lancet*. 2022;400(10345):9-11. doi:10.1016/S0140-6736(22)01024-8
7. Diamond-Smith N, Logan R, Marshall C, et al. COVID-19's impact on contraception experiences: Exacerbation of structural inequities in women's health. *Contraception*. 2021;104(6):600-605. doi:10.1016/j.contraception.2021.08.011
8. Early Impacts of the COVID-19 Pandemic: Findings from the 2020 Guttmacher Survey of Reproductive Health Experiences. Guttmacher Institute. Published June 18, 2020. Accessed October 8, 2020. <https://www.guttmacher.org/report/early-impacts-covid-19-pandemic-findings-2020-guttmacher-survey-reproductive-health>
9. DiBari JN, Yu SM, Chao SM, Lu MC. Use of postpartum care: predictors and barriers. *J Pregnancy*. 2014;2014:530769. doi:10.1155/2014/530769
10. Abdus S, Selden TM. Adherence With Recommended Well-Child Visits Has Grown, But Large Gaps Persist Among Various Socioeconomic Groups. *Health Aff (Millwood)*. 2013;32(3):508-515. doi:10.1377/hlthaff.2012.0691
11. Upadhyia KK, Burke AE, Marcell AV, Mistry K, Cheng TL. Contraceptive service needs of women with young children presenting for pediatric care. *Contraception*. 2015;92(5):508-512. doi:10.1016/j.contraception.2015.07.004
12. Rosener SE, Barr WB, Frayne DJ, Barash JH, Gross ME, Bennett IM. Interconception Care for Mothers During Well-Child Visits With Family Physicians: An IMPLICIT Network Study. *Ann Fam Med*. 2016;14(4):350-355. doi:10.1370/afm.1933
13. Srinivasan S, Schlar L, Rosener SE, et al. Delivering Interconception Care During Well-Child Visits: An IMPLICIT Network Study. *J Am Board Fam Med*. 2018;31(2):201-210. doi:10.3122/jabfm.2018.02.170227
14. Congdon JL, Trope LA, Bruce JS, Chung PJ, Dehlendorf C, Chamberlain LJ. Meeting the Needs of Postpartum Women With and Without a Recent Preterm Birth: Perceptions of Maternal Family Planning in Pediatrics. *Matern Child Health J*. 2020;24(3):378-388. doi:10.1007/s10995-019-02829-x
15. Henderson V, Stumbras K, Caskey R, Haider S, Rankin K, Handler A. Understanding Factors Associated with Postpartum Visit Attendance and Contraception Choices: Listening to Low-Income Postpartum Women and Health Care Providers. *Matern Child Health J*. 2016;20(1):132-143. doi:10.1007/s10995-016-2044-7

16. Harris K, Sivamurthy S, Mohiuddin H, et al. Contraceptive Counseling in the Postpartum Period: Could Pediatricians Have a Role? *Matern Child Health J.* 2020;24(7):923-931. doi:10.1007/s10995-020-02947-x
17. Dehlendorf C, Rodriguez MI, Levy K, Borrero S, Steinauer J. Disparities in family planning. *Am J Obstet Gynecol.* 2010;202(3):214-220. doi:10.1016/j.ajog.2009.08.022
18. Gomez AM, Wapman M. Under (implicit) pressure: young Black and Latina women's perceptions of contraceptive care. *Contraception.* 2017;96(4):221-226. doi:10.1016/j.contraception.2017.07.007
19. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)—A metadata-driven methodology and workflow process for providing translational research informatics support. *J Biomed Inform.* 2009;42(2):377-381. doi:10.1016/j.jbi.2008.08.010
20. Holt K, Reed R, Perry JC, Scott C, Wulf S, Dehlendorf C. Beyond same-day LARC access: A person-centered framework for advancing high quality, equitable contraceptive care. *Am J Obstet Gynecol.* Published online December 3, 2019. doi:10.1016/j.ajog.2019.11.1279
21. Moseson H, Dehlendorf C, Gerdtz C, Vittinghoff E, Hiatt RA, Barber J. No one to turn to: low social support and the incidence of undesired pregnancy in the United States. *Contraception.* 2018;98(4):275-280. doi:10.1016/j.contraception.2018.06.009
22. Dehlendorf C, Fox E, Sobel L, Borrero S. Patient-Centered Contraceptive Counseling: Evidence to Inform Practice. *Curr Obstet Gynecol Rep.* 2016;5(1):55-63. doi:10.1007/s13669-016-0139-1
23. Centers for Disease Control and Prevention. Pregnancy Risk Assessment Monitoring System. Published December 3, 2018. Accessed January 3, 2019. <https://www.cdc.gov/prams/index.htm>
24. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9. *J Gen Intern Med.* 2001;16(9):606-613. doi:10.1046/j.1525-1497.2001.016009606.x
25. Gjerdingen D, Crow S, McGovern P, Miner M, Center B. Postpartum Depression Screening at Well-Child Visits: Validity of a 2-Question Screen and the PHQ-9. *Ann Fam Med.* 2009;7(1):63-70. doi:10.1370/afm.933
26. California Department of Public Health. *Maternal and Infant Health Assessment (MIHA) Survey County and Regional Data Snapshots for Subgroups, 2013-2015.*; 2018.
27. Almeida J, Mulready-Ward C, Bettegowda VR, Ahluwalia IB. Racial/Ethnic and Nativity Differences in Birth Outcomes Among Mothers in New York City: The Role of Social Ties and Social Support. *Matern Child Health J.* 2014;18(1):90-100. doi:10.1007/s10995-013-1238-5

28. Handler A, Bergo C, Dominik B, Bier E, Caskey R. A two-generation approach to postpartum care: Building on the well-baby visit. *Birth*. 2021;48(3):347-356. doi:10.1111/birt.12544
29. Martinez NG, Yee LM, Miller ES. Is Postpartum Patient Navigation Uniquely Beneficial for Women with Antenatal Depressive Symptoms? *Am J Perinatol*. 2022;39(11):1189-1195. doi:10.1055/s-0040-1721696
30. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci*. 2009;4(1):50. doi:10.1186/1748-5908-4-50
31. Haider S, Stoffel C, Rankin K, Uesugi K, Handler A, Caskey R. A Novel Approach to Postpartum Contraception Provision Combined with Infant Care: A Randomized, Controlled Trial. *Womens Health Issues*. 2020;30(2):83-92. doi:10.1016/j.whi.2019.12.001
32. Caskey R, Stumbras K, Rankin K, Osta A, Haider S, Handler A. A novel approach to postpartum contraception: a pilot project of Pediatricians' role during the well-baby visit. *Contracept Reprod Med*. 2016;1(1):7. doi:10.1186/s40834-016-0018-1
33. Kumaraswami T, Rankin KM, Lunde B, Cowett A, Caskey R, Harwood B. Acceptability of Postpartum Contraception Counseling at the Well Baby Visit. *Matern Child Health J*. 2018;22(11):1624-1631. doi:10.1007/s10995-018-2558-2
34. Trope LA, Congdon JL, Bruce JS, Chung PJ, Dehlendorf C, Chamberlain LJ. Meeting the Needs of Postpartum Women: Provider Perspectives on Maternal Contraceptive Care in Pediatric Settings. *Acad Pediatr*. Published online September 3, 2022:S1876-2859(22)00422-3. doi:10.1016/j.acap.2022.08.013
35. Porter J, Boyd C, Skandari MR, Laiteerapong N. Revisiting the Time Needed to Provide Adult Primary Care. *J Gen Intern Med*. Published online July 1, 2022. doi:10.1007/s11606-022-07707-x