

JUNE 2023

**SYSTEMATIC REVIEW AND META-ANALYSIS**

# Postpartum Care up to 1 Year After Pregnancy

*In Partnership with*



## **Postpartum Care up to 1 Year After Pregnancy: A Systematic Review and Meta-Analysis**

**Prepared for:**

Agency for Healthcare Research and Quality  
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Rockville, MD 20857  
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**Contract No. 75Q80120D00001**

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This report is based on research conducted by the Brown Evidence-based Practice Center (EPC) under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. 75Q80120D00001). The Patient-Centered Outcomes Research Institute® (PCORI®) funded the report (PCORI Publication No. 2023-SR-01). The findings and conclusions in this document are those of the authors, who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ or PCORI, its Board of Governors, or Methodology Committee. Therefore, no statement in this report should be construed as an official position of PCORI, AHRQ, or the U.S. Department of Health and Human Services.

Drs. Alison Stuebe and Alex Peahl have published research studies that were considered for inclusion in this report. As a result, they did not participate in screening or determination of studies to be included in the systematic review, assessing risk of bias in studies, extracting data from studies, or grading of the strength of evidence. None of the other investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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AHRQ and PCORI appreciate appropriate acknowledgment and citation of their work. Suggested language for acknowledgment: This work was based on an evidence report, Postpartum Care up

to 1 Year After Pregnancy: A Systematic Review and Meta-Analysis, by the Evidence-based Practice Center Program at the Agency for Healthcare Research and Quality (AHRQ) and funded by the Patient-Centered Outcomes Research Institute (PCORI).

**Suggested citation:** Saldanha IJ, Adam GP, Kanaan G, Zahradnik ML, Steele DW, Danilack VA, Peahl AF, Chen KK, Stuebe AM, Balk EM. Postpartum Care up to 1 Year After Pregnancy: A Systematic Review and Meta-Analysis. Comparative Effectiveness Review No. 261. (Prepared by the Brown Evidence-based Practice Center under Contract No. 75Q80120D00001.) AHRQ Publication No. 23-EHC010. PCORI Publication No. 2023-SR-01. Rockville, MD: Agency for Healthcare Research and Quality; June 2023.

DOI: <https://doi.org/10.23970/AHRQEPCCER261>. Posted final reports are located on the Effective Health Care Program [search page](#).

## Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of systematic reviews to assist public- and private-sector organizations in their efforts to improve the quality of healthcare in the United States. The Patient-Centered Outcomes Research Institute® (PCORI®) requested this report from the EPC Program at AHRQ. AHRQ assigned this report to the EPC (Brown Evidence-based Practice Center, Contract No. 75Q80120D00001).

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Systematic reviews are the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention. In the context of developing recommendations for practice, systematic reviews can help clarify whether assertions about the value of the intervention are based on strong evidence from clinical studies. For more information about AHRQ EPC systematic reviews, see <https://effectivehealthcare.ahrq.gov/about/epc/evidence-synthesis>.

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If you have comments on this systematic review, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to [epc@ahrq.hhs.gov](mailto:epc@ahrq.hhs.gov).

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## Acknowledgments

The authors gratefully acknowledge Associate Editor Mary Butler, Ph.D., M.B.A., from the Minnesota Evidence-based Practice Center, Minneapolis, MN, for her contributions to this project.

## Key Informants

In designing the study questions, the EPC consulted several Key Informants who represent the end-users of research. The EPC sought the Key Informant input on the priority areas for research and synthesis. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches, and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than \$5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any conflicts of interest.

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In designing the study questions and methodology at the outset of this report, the EPC consulted several technical and content experts. Broad expertise and perspectives were sought. Divergent and conflicted opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Therefore, in the end, study questions, design, methodologic approaches, and/or conclusions do not necessarily represent the views of individual technical and content experts.

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## Peer Reviewers

Prior to publication of the final evidence report, EPCs sought input from independent Peer Reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report do not necessarily represent the views of individual reviewers.

Peer Reviewers must disclose any financial conflicts of interest greater than \$5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential nonfinancial conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential nonfinancial conflicts of interest identified.

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# Postpartum Care up to 1 Year After Pregnancy: A Systematic Review and Meta-Analysis

## Structured Abstract

**Objectives.** This systematic review assesses postpartum care for individuals up to 1 year after pregnancy. We addressed two Key Questions (KQs) related to the comparative effectiveness and harms of: (1) alternative strategies for postpartum healthcare delivery and (2) extension of postpartum health insurance coverage.

**Data sources and review methods.** We searched Medline<sup>®</sup>, Embase<sup>®</sup>, Cochrane CENTRAL, CINAHL<sup>®</sup>, and ClinicalTrials.gov from inception to November 16, 2022, to identify comparative studies in the United States and Canada (for KQ 1) and in the United States (for KQ 2). We extracted study data into the Systematic Review Data Repository Plus (SRDR+; <https://srdplus.ahrq.gov>). We assessed the risk of bias and evaluated the strength of evidence (SoE) using standard methods. The protocol was registered in PROSPERO (registration number [CRD42022309756](https://www.crd42022309756)).

**Results.** We included 50 randomized controlled trials (RCTs) and 14 nonrandomized comparative studies (NRCSs) for KQ 1 and 28 NRCSs for KQ 2. Risk of bias was moderate to high for most RCTs and all NRCSs. **KQ 1:** Regarding where healthcare is provided, for general postpartum care (6 studies), whether the visit is at home/by telephone or at the clinic may not impact depression or anxiety symptoms (low SoE). For breastfeeding care (8 studies), whether the initial visit is at home or at the pediatric clinic may not impact depression symptoms up to 6 months postpartum, anxiety symptoms up to 2 months, hospital readmission up to 3 months (summary relative risk [RR] 1.38, 95% confidence interval [CI] 0.90 to 2.13; 4 studies), or other unplanned care utilization up to 2 months (low SoE, all outcomes). Regarding how care is provided, for general postpartum care (4 studies), integration of care (i.e., care provided by multiple types of providers) may not impact depression symptoms or substance use up to 1 year (low SoE). Regarding when care is provided, for contraceptive care (9 studies), compared with later contraception, earlier contraception start is probably associated with comparable continued IUD use at 3 and 6 months but greater implant use at 6 months (summary RR 1.36, 95% CI 1.13 to 1.64; 2 RCTs) (moderate SoE). Regarding who provides care, for breastfeeding care (19 studies), compared with no peer support, peer support is probably associated with higher rates of any breastfeeding at 1 month (summary effect size [ES] 1.13, 95% CI 1.03 to 1.24; 4 studies) and 3 to 6 months (summary ES 1.22, 95% CI 1.06 to 1.41; 4 studies) and of exclusive breastfeeding at 1 month (summary ES 1.10, 95% CI 1.02 to 1.19; 6 studies) but probably yields comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months (all moderate SoE). Compared with no lactation consultant, breastfeeding care by a lactation consultant is probably associated with higher rates of any breastfeeding at 6 months (summary ES 1.43, 95% CI 1.07 to 1.91; 3 studies) but not at 1 month or 3 months (all moderate SoE). Lactation consultant care may not be associated with rates of exclusive breastfeeding at 1 or 3 months (moderate SoE). Regarding coordination/management of care, provision of reminders for testing is probably associated with greater adherence to oral glucose tolerance testing up to 1 year postpartum but not random glucose testing or hemoglobin A1c testing



(moderate SoE). Regarding use of information or communication technology (IT; 8 studies), IT use for breastfeeding care is probably associated with comparable rates of any breastfeeding at 3 months and 6 months and of exclusive breastfeeding at 3 months (all moderate SoE). Because of sparse evidence, inconsistent results, and/or the lack of reporting of prioritized outcomes, no conclusions related to interventions targeting healthcare providers are feasible (4 studies). **KQ 2:** Regarding health insurance (28 studies), more comprehensive health insurance is probably associated with greater attendance at postpartum visits (moderate SoE) and may be associated with fewer preventable readmissions and emergency room visits (low SoE).

**Conclusion.** Most studies included in this systematic review enrolled predominantly healthy postpartum individuals. Researchers should therefore design studies that, either entirely or in part, enroll individuals at high risk of postpartum complications due to chronic conditions, pregnancy-related conditions, or incident or newly diagnosed conditions. New high-quality research is needed, especially for interventions targeting healthcare providers and the impact of more comprehensive or extended health insurance on postpartum health. Patient-reported outcomes, such as quality of life, should also be reported. Researchers should report separate data for various population subgroups, which could help close gaps in health outcomes among the races of postpartum individuals in the United States.

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# Executive Summary

## Main Points

- **Healthcare Delivery Strategies – Where Care Is Provided**
  - For *general postpartum care* (5 randomized controlled trials [RCTs] and 1 nonrandomized comparative study [NRCS]), whether the visit is conducted at home/by telephone or at the clinic may not impact depression or anxiety symptoms (low strength of evidence [SoE]).
  - For *breastfeeding care* (7 RCTs and 1 NRCS), whether the initial visit is conducted at home or at the pediatric clinic may not impact depression symptoms (up to 6 months postpartum), anxiety symptoms (up to 2 months), hospital readmission (up to 3 months), or other unplanned care utilization (up to 2 months) (all low SoE).
- **Healthcare Delivery Strategies – How Care Is Provided**
  - For *general postpartum care* (4 RCTs), integration of care (e.g., combined versus separate postpartum/well-child visits, multidisciplinary postpartum clinic versus standard care) may not impact depression symptoms or substance use up to 1 year (all low SoE).
- **Healthcare Delivery Strategies – When Care Is Provided**
  - For *contraceptive care* (9 RCTs), earlier, compared with later, contraception is probably associated with comparable continued intrauterine device (IUD) use at 3 and 6 months but greater implant use at 6 months (all moderate SoE).
- **Healthcare Delivery Strategies – Who Provides Care**
  - For *breastfeeding care*, peer support (10 RCTs) is probably associated with higher rates of any breastfeeding at 1 month and 3 to 6 months and of exclusive breastfeeding at 1 month but with comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months (all low SoE). Care by a lactation consultant (6 RCTs and 1 NRCS) is probably associated with higher rates of any breastfeeding at 6 months but not at 1 month or 3 months. Lactation consultant care is probably associated with comparable rates of exclusive breastfeeding at 1 or 3 months (all moderate SoE).
- **Healthcare Delivery Strategies – Coordination and Management of Care**
  - For *screening/testing care* (1 RCT and 2 NRCSs), provision of reminders for testing is probably associated with greater adherence to oral glucose tolerance testing up to 1 year postpartum but not random glucose testing or hemoglobin (Hb) A1c testing (moderate SoE).
  - For *general postpartum care* (2 NRCSs) and *screening* (1 RCT and 2 NRCSs), no conclusions are feasible because of insufficient evidence.
- **Healthcare Delivery Strategies – Use of Information or Communication Technology (IT)**
  - For *breastfeeding care* (7 RCTs), IT use and nonuse are probably associated with comparable rates of any breastfeeding at 3 months and 6 months and of exclusive breastfeeding at 3 months (all moderate SoE).

- **Healthcare Delivery Strategies – Interventions Targeting Healthcare Providers**
  - For *breastfeeding care* (2 RCTs), no conclusions are feasible because none of the prioritized outcomes were reported.
  - For *screening care* (1 RCT and 1 NRCS), no conclusions are feasible because of insufficient evidence.
- **Health Insurance – *More comprehensive insurance*** (28 NRCSs) is probably associated with greater attendance at postpartum visits (moderate SoE based on 11 NRCSs) and may be associated with fewer preventable readmissions and emergency room (ER) visits (low SoE based on 1 NRCS). There was insufficient evidence regarding symptoms or diagnoses of mental health conditions.

## Background and Purpose

In recent decades, the United States has witnessed a considerable rise in maternal morbidity and mortality.<sup>1</sup> In 2020, the maternal mortality ratio was 23.8 per 100,000 live births (the highest among industrialized countries), with wide racial and ethnic gaps (e.g., non-Hispanic Black: 55.3 deaths per 100,000 live births, non-Hispanic White: 19.1, and Hispanic: 18.2).<sup>2</sup> Clinical practice guidelines (CPGs) that are explicitly evidence-based are needed to ensure that postpartum care is effective and meets the needs of postpartum individuals, their families, and the healthcare system. There are several important aspects of postpartum care to examine, such as where care is provided (e.g., home, clinic), type of providers (e.g., obstetricians and gynecologists [OB/GYNs], midwives, doulas), managing postpartum care volume (e.g., optimal visit timing and frequency), and communication technology (e.g., telemedicine).

This systematic review aims to inform CPG developers, policymakers, and OB/GYNs, midwives, maternal-fetal medicine specialists, family medicine clinicians, primary care physicians, nurse practitioners, and other providers of care or support for postpartum individuals. The systematic review addresses two Key Questions (KQs) related to the comparative benefits and harms of: (1) alternative strategies for postpartum healthcare delivery and (2) extension of postpartum health insurance coverage.

## Methods

We used methods consistent with those outlined in the Agency for Healthcare Research and Quality Evidence-based Practice Center Program Methods Guidance (<https://effectivehealthcare.ahrq.gov/topics/ceer-methods-guide/overview>). Our searches targeted comparative studies from database inception to November 16, 2022. To maximize applicability to the U.S. decision-making context, for KQ 1, we included studies conducted in the United States or Canada and for KQ 2, we included only U.S.-based studies. We extracted study data into the Systematic Review Data Repository Plus (SRDR+). Where there was sufficient evidence without an unacceptable amount of heterogeneity, we conducted pairwise meta-analyses. In the Results section of this Evidence Summary, we provide results only for outcomes that we prioritized with panels of key informants and technical experts and other outcomes for which we were able to conduct meta-analyses. We assessed the risk of bias and evaluated the SoE using standard methods. The PROSPERO protocol registration number is [CRD42022309756](https://www.crd42022309756).

## Results

We found 92 primary studies comprising 3,967,261 participants in total. Eighty-three studies were conducted in the United States and 9 in Canada. The 92 studies included 50 RCTs (N = 477,954 participants) and 42 NRCSs (i.e., observational studies that compared 2 or more interventions; N = 3,489,307 participants).

**Healthcare Delivery Strategies – Where Care Is Provided:** We found 14 studies (12 RCTs and 2 NRCSs). For *general postpartum care* (6 studies), whether the visit was conducted at home/by telephone or at the clinic was associated with comparable depression and anxiety symptoms (low SoE) (Table A). There is insufficient evidence regarding attendance at postpartum visits, unplanned care utilization, and adherence to condition-specific screening or testing. For *breastfeeding care* (7 studies), whether the initial visit was conducted at home or at the pediatric clinic was associated with comparable depression symptoms (up to 6 months postpartum), anxiety symptoms (up to 2 months), hospital readmission by 3 months (summary relative risk [RR] 1.38, 95% confidence interval [CI] 0.90 to 2.13; 4 studies), or other unplanned care utilization (up to 2 months) (all low SoE). Meta-analysis was feasible only for the hospital readmission outcome. There is insufficient evidence regarding attendance at postpartum visits.

**Healthcare Delivery Strategies – How Care Is Provided:** We found seven studies (5 RCTs and 2 NRCSs). For *general postpartum care* (4 studies), integration of care (e.g., combined versus separate postpartum/well-child visits, multidisciplinary postpartum clinic versus standard care) may not have impacted depression symptoms or substance use up to 1 year (low SoE). There is insufficient evidence regarding attendance at postpartum visits and unplanned care utilization. For *contraceptive care* (1 study) and for *breastfeeding care* (2 studies), the studies did not address any of the prioritized outcomes.

**Healthcare Delivery Strategies – When Care Is Provided:** We found 12 studies (11 RCTs and 1 NRCS). For *general postpartum care* (3 studies), there is insufficient evidence regarding attendance at postpartum visits and unplanned care utilization. For *contraceptive care* (9 studies), compared with later contraception, earlier contraception was probably associated with comparable continued IUD use at 3 and 6 months but greater implant use at 6 months (summary RR 1.36, 95% CI 1.13 to 1.64; 2 RCTs) (all moderate SoE). There is insufficient evidence regarding mental health outcomes.

**Healthcare Delivery Strategies – Who Provides Care:** We found 28 studies (24 RCTs and 4 NRCSs). For *general postpartum care* (8 studies), there is insufficient evidence regarding postpartum visit attendance, hospital readmissions, and depression symptoms and diagnoses. For *contraceptive care* (1 study), the study did not address any prioritized outcome. For *breastfeeding care*, compared with no peer support, peer support was probably associated with higher rates of any breastfeeding at 1 month (summary effect size [ES] 1.13, 95% CI 1.03 to 1.24; 4 studies) and 3 to 6 months (summary ES 1.22, 95% CI 1.06 to 1.41; 4 studies) and of exclusive breastfeeding at 1 month (summary ES 1.10, 95% CI 1.02 to 1.19; 6 studies) but comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months (all moderate SoE). Compared with no lactation consultant, care by a lactation consultant was probably associated with higher rates of any breastfeeding (summary ES 1.23, 95% CI 0.90 to 1.69; 5 studies) and 6 months (summary ES 1.43, 95% CI 1.07 to 1.91; 3 studies) but not at 1 month or 3 months. Lactation consultant care was probably associated with comparable rates of exclusive breastfeeding at 1 or 3 months (all moderate SoE). For *preventive care* (2 studies), there is insufficient evidence regarding maternal mortality, depression symptoms, and major depression episodes.

**Healthcare Delivery Strategies – Coordination and Management of Care:** We found five studies (1 RCT and 4 NRCSs). For *screening/testing care* (3 studies of mail and/or telephone reminders), testing reminders were associated with greater adherence to oral glucose tolerance testing up to 1 year postpartum but not random glucose testing or HbA1c testing (moderate SoE). For *general postpartum care* (1 study of in-hospital provision of information regarding the first postpartum appointment), there is insufficient evidence regarding postpartum visit attendance.

**Healthcare Delivery Strategies – Use of Information or Communication Technology (IT):** We found eight studies (7 RCTs and 1 NRCS). For *breastfeeding care* (7 studies), IT use was probably associated with comparable rates of any breastfeeding at 3 months (summary RR 1.00, 95% CI 0.92 to 1.09; 3 RCTs) and 6 months (summary RR 1.01, 95% CI 0.89 to 1.14; 3 RCTs) and of exclusive breastfeeding at 3 months (summary RR 1.28, 95% CI 0.81 to 2.03; 4 RCTs) (all moderate SoE). There is insufficient evidence regarding postpartum visit attendance and depression symptoms. For *screening* (1 study), there is insufficient evidence regarding adherence to screening.

**Healthcare Delivery Strategies – Interventions Targeting Healthcare Providers:** We found two RCTs on electronic medical record (EMR) reminders for *breastfeeding care*. Neither study addressed any of the prioritized outcomes. We found one RCT and one NRCS on EMR reminders for *screening*. There is insufficient evidence regarding adherence to screening.

**Health Insurance –** We found 28 NRCSs. *More comprehensive insurance* was probably associated with greater attendance at postpartum visits (11 NRCSs; moderate SoE) and maybe associated with fewer preventable readmissions and ER visits (1 NRCS; low SoE). The evidence regarding symptoms or diagnoses of mental health conditions is insufficient.

## Limitations

Although we found 64 studies for KQ 1, we were limited in our ability to make conclusions. This was largely because the studies addressed a range of aspects of postpartum care (general postpartum care, contraceptive care, breastfeeding care, and preventive care), and few studies reported the same outcomes addressing the same target of intervention. No study that reported subgroup data statistically evaluated whether the effect of the intervention differed among subgroups (i.e., heterogeneity of treatment effects). The included studies were mostly at moderate or high risk of bias. Many of the prioritized outcomes were either not reported in any included study for specific comparisons or were reported in an insufficient number of studies to allow meta-analyses or merit conclusions (i.e., they provided insufficient evidence).

## Implications and Conclusions

Although we found 92 studies conducted in the United States or Canada, we were able to make few specific conclusions. Regarding *where* general postpartum care and breastfeeding care are provided, whether the initial visit is conducted at home or at the clinic may not impact mental health (depression symptoms up to 6 months postpartum or anxiety symptoms up to 2 months) or unplanned care utilization (hospital readmission by 3 months or other unplanned care utilization up to 2 months). Regarding *how* general postpartum care is provided, integration of care may not impact mental health (depression symptoms up to 1 year postpartum or substance use up to 2 years). Regarding *when* contraceptive care is provided, compared with later contraception, earlier contraception is probably associated with comparable continued IUD use at 3 and 6 months but greater implant use at 6 months. Regarding *who* provides breastfeeding care, compared with no peer support, peer support is probably associated with higher rates of any breastfeeding at 1



month and 3 to 6 months and of exclusive breastfeeding at 1 month but comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months. Compared with no lactation consultant, breastfeeding care by a lactation consultant is probably associated with higher rates of any breastfeeding at 6 months but not at 1 month or 3 months. Lactation consultant care is probably associated with comparable rates of exclusive breastfeeding at 1 or 3 months. Regarding *health insurance coverage*, more comprehensive insurance is probably associated with greater attendance at postpartum visits and may be associated with fewer preventable readmissions and emergency room visits. Because we restricted study eligibility to those conducted in the United States or Canada, the overall findings of this review may not be broadly applicable beyond these countries.

Most studies included in this systematic review enrolled predominantly healthy postpartum individuals. Researchers should therefore design studies that, either entirely or in part, enroll individuals at high risk of postpartum complications due to chronic conditions, pregnancy-related conditions, or incident or newly diagnosed conditions. Moreover, most of the studies did not report information by subgroups of participants who may be vulnerable to poorer postpartum and long-term outcomes. Researchers should report separate data for such subpopulations, so that decision makers can identify postpartum care delivery strategies that work best for these populations, which could help close the wide and important gaps in health outcomes among the races of postpartum individuals in the United States. Future research should also specifically compare delivery strategies related to interventions targeting healthcare providers. In addition, future research should evaluate the impact of more comprehensive or extended health insurance on postpartum health. For all research questions, patient-reported outcomes, such as quality of life, should also be reported. Researchers should report separate data for various population subgroups, which could help close the wide and important gaps in health outcomes among the races of postpartum individuals in the United States.

**Table A. Full summary of evidence identified in this systematic review**

Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
Healthcare utilization	Attendance at PP visits	↑↓ General PP care (2 studies): No conclusion ? BF care (1 study): No conclusion	? General PP care (1 study): No conclusion	↑↓ General PP care (3 studies): No conclusion	? General PP care (3 studies): No conclusion	? General PP care (1 study): No conclusion	? BF care (1 study): No conclusion	nd	▲▲ More comprehensive insurance (11 studies): greater attendance
	Unplanned care utilization	~ BF care (4 studies): Home vs. pediatric clinic Comparable hospital readmissions, other unplanned care ? General PP care (1 study): No conclusion	? General PP care (2 studies): No conclusion	? General PP care (1 study): No conclusion	? General PP care (2 studies): No conclusion ? BF care (1 study): No conclusion	nd	nd	nd	▲ More comprehensive insurance (1 study): Fewer preventable readmissions and ER visits
	Adherence to screening or testing	? General PP care (1 study): No conclusion	nd	nd	nd	▲▲ Screening/ Testing (3 studies): Reminders associated with greater adherence to OGTT up to 1 year PP but not random glucose or HbA1c testing	? Screening (1 study): No conclusion	↑↓ Screening care (2 studies): No conclusion	nd
	Transition to primary care provider	nd	? General PP care (1 study): No conclusion	nd	nd	nd	nd	nd	nd

Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
Clinical	Maternal mortality	nd	nd	nd	? BF care (1 study): No conclusion ? Preventive care (1 study): No conclusion	nd	nd	nd	nd
	Mental health	~ General PP care (2 studies): Home/telephone vs. clinic: Comparable depression, anxiety symptoms ~ BF care (4 studies): Home vs. pediatric clinic: Comparable depression, anxiety symptoms	~ General PP care (3 studies): Integrated vs. nonintegrated care: Comparable depression symptoms, substance use	? Contraceptive care (1 study): No conclusion	? General PP care (4 studies): No conclusion ? BF care (1 study): No conclusion ? Preventive care (1 study): No conclusion	nd	? BF care (1 study): No conclusion	nd	↑↓ More comprehensive insurance (3 studies): No conclusion
	Quality of life	nd	nd	nd	nd	nd	nd	nd	nd
	Perceived stress	nd	? General PP care (1 study): No conclusion	nd	nd	nd	nd	nd	nd
	Contraceptive use	not prioritized (omitted)	not prioritized (omitted)	▲▲ Earlier contraception (8 studies): comparable IUD use at 3 and 6 mo, but greater implant use at 6 mo	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)

Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
	<b>Breastfeeding</b>	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	▲▲ Peer support for BF care (9 studies): any BF at 1 mo and 3-6 mo and exclusive BF at 1 mo, but comparable exclusive BF at 3 mo and non-exclusive BF at 1 and 3 mo  ▲▲ LC for BF care (7 studies): any BF at 6 mo but not 1 mo or 3 mo. Comparable exclusive BF at 1 and 3 mo	not prioritized (omitted)	~~ BF care (5 studies): Comparable any BF at 3 mo and 6 mo and exclusive BF at 6 mo	not prioritized (omitted)	not prioritized (omitted)
<b>Harms</b>	<b>Health inequities</b>	nd	nd	nd	nd	nd	nd	nd	nd
	<b>Reported discrimination</b>	nd	nd	nd	nd	nd	nd	nd	nd

Abbreviations: BF = breastfeeding, HbA1c = hemoglobin A1c, IUD = intrauterine device, KQ = Key Question, LC = lactation consultant, mo = months, nd = no data, OGTT = oral glucose tolerance test, PP = postpartum.

▲ = Low SoE of better utilization or clinical outcomes, ▲▲ = Moderate SoE of better utilization or clinical outcomes, ▲▲▲ = High SoE of better utilization or clinical outcomes (no instances in this table)

~ = Low SoE of comparable outcomes, ~~ = Moderate SoE of comparable outcomes, ~~~ = High SoE of comparable outcomes (no instances in this table)

? = Insufficient strength of evidence due to sparse evidence, ↑↓ = Insufficient strength of evidence due to inconsistent or conflicting results

Note that the number of studies indicated in specific cells refers to the number of studies that reported data for the outcome and delivery strategy comparison in that cell.

Color legend: Insufficient strength of evidence (gray), Low strength of evidence (pink), Moderate strength of evidence (blue), High strength of evidence (green) (no instances in this table). The colors do not provide unique information compared with the text and symbols.

# 1. Introduction

## 1.1. Background

In recent decades, the United States has witnessed a considerable rise in maternal morbidity and mortality.<sup>1</sup> In 2020, the maternal mortality ratio was 23.8 per 100,000 live births (the highest among industrialized countries), with wide racial and ethnic gaps (e.g., non-Hispanic Black: 55.3 deaths per 100,000 live births, non-Hispanic White: 19.1, and Hispanic: 18.2).<sup>2</sup> Almost two-thirds (65%) of the deaths occurred between 1 and 365 days postpartum (22% occurred during pregnancy and 13% on the day of delivery).<sup>2,3</sup> Additionally, in the United States, there is a large burden of severe postpartum morbidities, including cardiac events, cerebrovascular events, postpartum hemorrhage, kidney failure, and postpartum depression, anxiety, and posttraumatic stress disorder.<sup>4</sup> Those who experience severe maternal morbidity, such as cardiac and cerebrovascular events, are at approximately twice the risk of dying postpartum compared with those who do not experience complications.<sup>4</sup> The postpartum period, therefore, is not only a critical time for new mothers and families to recover from delivery, transition to parenthood, and consider future family planning, but also to mitigate immediate and lifelong health risks by addressing pregnancy-related, mental health, and chronic conditions, and promoting healthy behaviors. Postpartum care is intended to serve multiple purposes, such as supporting the transition to parenthood, enabling maternal-infant care and feeding, providing family planning care consistent with the patient's goals, optimizing interpregnancy intervals, reducing mental and physical maternal morbidity, and preventing maternal mortality. Ideally, the goal of postpartum care is to ensure that birthing people not only survive pregnancy and its ramifications, but that they thrive.

More than 60 percent of pregnancy-related deaths are considered preventable.<sup>3,5</sup> Interdependent factors that have been implicated in causing deaths include systems of care factors (e.g., lack of coordination among providers), provider factors (e.g., misdiagnoses, ineffective treatment), and patient and family factors (e.g., lack of knowledge about warning signs). These factors play a particularly important role in the postpartum period, during which access to care and insurance coverage may be suboptimal. Receipt of optimal care may be limited by existing payment models, which are marked by variable coverage for key services. Global reimbursement models, in which providers receive bundled payments for postpartum care during the perinatal period (regardless of how many, or how few, postpartum visits occur),<sup>6</sup> may disincentivize healthcare centers from providing adequate postpartum care.<sup>7,8</sup> Additionally, new parents may struggle to balance the demands of caring for a newborn with managing their own health. Given this confluence of factors, up to half of postpartum individuals in the United States do not receive routine healthcare after delivery.<sup>9-12</sup> Moreover, federal Medicaid coverage for pregnant individuals currently lapses after the last day of the month in which the 60<sup>th</sup> postpartum day occurs, limiting longer-term postpartum care. With the goal of improving health outcomes and reducing disparities, the American Rescue Plan Act of 2021 allows states to request a waiver for postpartum Medicaid coverage to extend postpartum care for up to 1 year after delivery.<sup>13</sup> As of February 23, 2023, 28 states and the District of Columbia have implemented approved extensions, seven states are planning to implement extensions, three states have pending legislations to seek federal approvals through waivers, and two states have proposed limited coverage extensions.<sup>14</sup> Extended coverage for approved states began on April 1, 2022 and runs for a 5-year period.<sup>13</sup>

## 1. Introduction

In addition to barriers to receiving postpartum care, coordination of care is often suboptimal. Care can be fragmented across multiple providers, each of whom focuses on specific aspects of maternal health (e.g., breastfeeding management, contraception, pelvic floor recovery, chronic health conditions, mental health), with no single care or support provider addressing needs holistically.<sup>15</sup> In addition, there are various disparities by race, ethnicity, education level, socioeconomic position, geographic location, and immigrant status.<sup>16</sup> The design of current postpartum care delivery also may not meet current needs. Many postpartum concerns, such as difficulty with breastfeeding and postpartum mood changes, occur within 1 to 2 weeks postpartum, but postpartum visits are commonly scheduled at 4 to 6 weeks after delivery. Most postpartum visits occur in-person, though many new mothers have difficulty traveling to clinics and their concerns may easily be addressed through virtual modalities. Postpartum visits in the United States often suffer from low attendance, with a mean of 72% (range 25% to 92%).<sup>17</sup> Among Medicaid enrollees, rates are below 60%.<sup>11</sup> Low attendance may reflect a mismatch between how services are provided and the preferences of postpartum individuals. In addition, inadequate paid parental leave and/or paid time off for postpartum visits may contribute to low attendance, particularly among the most marginalized postpartum individuals.

According to the most recent estimates (2017 to 2019) in the United States, among the 65 percent of pregnancy-related deaths that occur in the postpartum period, 12 percent occur between 1 and 6 days after delivery, 23 percent between 7 and 42 days, and 30 percent between 43 days and 1 year.<sup>18</sup> A 2018 American College of Obstetricians and Gynecologists (ACOG) Committee Opinion recommends an initial interaction with the clinical care provider within 3 weeks postpartum, followed by ongoing care as needed and a comprehensive postpartum visit no later than 12 weeks (i.e., 84 days) postpartum.<sup>19</sup> However, most postpartum deaths occur before 12 weeks postpartum; thus, having the comprehensive visit at 12 weeks may be too late. ACOG also recommends that postpartum individuals with chronic medical conditions (e.g., hypertensive disorders, diabetes) be further counseled regarding the importance of timely followup for ongoing care.<sup>19</sup> However, ACOG does not provide details regarding what constitutes “timely followup” for postpartum individuals with chronic medical complications.

ACOG Committee Opinions are assessments of emerging issues in obstetrics and gynecology practice. The 2018 ACOG Committee Opinion included recommendations based on expert consensus. Updated clinical practice guidelines that are explicitly evidence-based (i.e., based on a systematic review) are needed to ensure that postpartum care is effective and meets the needs of postpartum individuals, their families, and the healthcare system. There are several important aspects of postpartum care to examine, such as where care is provided (e.g., home, clinic), managing postpartum care volume (e.g., optimal visit timing and frequency), types of providers (e.g., obstetricians and gynecologists [OB/GYNs], family physicians, pediatricians, midwives, advanced practice providers), peer support (community health workers, doulas, lactation peer counselors), and communication technology (e.g., telemedicine).

## 1.2. Purpose of the Review

This systematic review addresses healthcare for postpartum individuals within 1 year postpartum. Specifically, the review addresses the comparative benefits and harms of the following on postpartum individuals:

- Alternative strategies for postpartum healthcare delivery (Key Question 1)
- Extension of postpartum health insurance coverage or improvements in access to care (Key Question 2)

## **1. Introduction**

Outcomes reflecting offspring health were outside the scope of this review. The intended audience for this systematic review includes clinical practice guideline developers, policymakers, and OB/GYNs, midwives, maternal-fetal medicine specialists, family medicine clinicians, primary care physicians, pediatricians, nurse practitioners, and other providers of care or support for postpartum individuals. It is expected that the findings will inform clinical guidance for strategies to manage postpartum care.

## 2. Methods

### 2.1. Review Approach

For both Key Questions (KQs), the systematic review (SR) followed Evidence-based Practice Center Program methodology, as laid out in its Methods Guide, particularly as it pertains to reviews of comparative effectiveness, diagnostic tests, and complex meta-analyses.<sup>20</sup> We registered the protocol for this SR in PROSPERO (registration number [CRD42022309756](https://www.crd.york.ac.uk/PROSPERO/registration/CRD42022309756)). Detailed methods are described in Appendix A.

### 2.2. Key Questions

**KQ 1:** What **healthcare delivery strategies** affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?

- a. Do the **healthcare delivery strategies** affect postpartum healthcare utilization and improve maternal outcomes within 3 months postpartum? Does this relationship differ by timing of outcomes, specifically within 6 days postpartum, between 1 to 6 weeks postpartum, and between 6 weeks and 3 months postpartum?
- b. Do the **healthcare delivery strategies** affect postpartum healthcare utilization and improve maternal outcomes between 3 months and 1 year postpartum?

**KQ 2:** Does **extension of health insurance coverage or improvements in access to healthcare** affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?

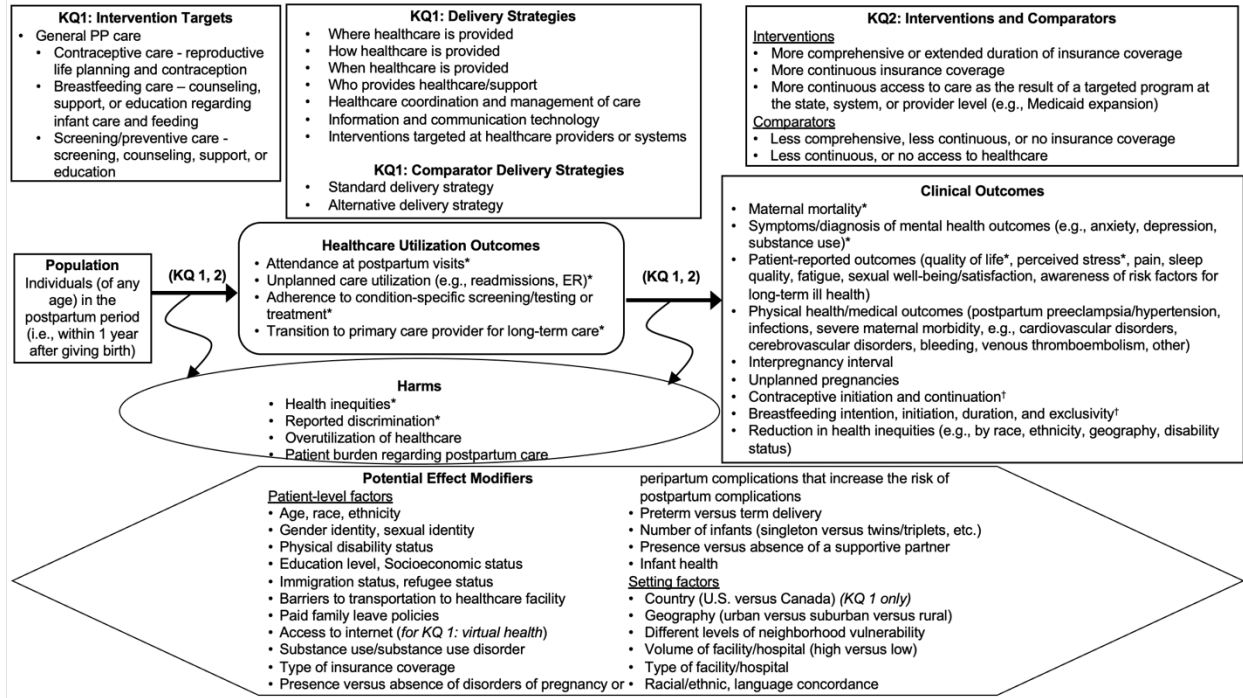
### 2.3. Analytic Framework

Based on discussions with Key Informants and Technical Expert Panel members, we developed an analytic framework for the two KQs (Figure 2-1).



## 2. Methods

**Figure 2-1. Analytic framework for both Key Questions**



\* Important outcomes that were used when developing Strength of Evidence tables based on discussions with Key Informants and Technical Experts.

† Outcomes that were prioritized for Strength of Evidence tables for certain comparisons based the feasibility of conducting meta-analyses (i.e., sufficient available evidence.)

For KQ 1a, timing of interest for outcomes is within 3 months after giving birth.

For KQ 1b, timing of interest for outcomes was 3 months to 1 year after giving birth (except interpregnancy interval, unplanned pregnancies, and chronic diseases [e.g., diabetes, hypertension], which can be later).

For KQ 2, timing of interest for outcomes was within 1 year after giving birth (except interpregnancy interval, unplanned pregnancies, and chronic diseases [e.g., diabetes, hypertension], which can be later).

Abbreviations: ER = emergency room, KQ = Key Question, PP = postpartum.

## 2.4. Study Selection

Appendix A provides full details for the search strategies, study eligibility criteria, and screening processes. Briefly, we searched for published studies for both KQs in Medline<sup>®</sup> (via PubMed<sup>®</sup>), Embase<sup>®</sup>, the Cochrane Central Register of Clinical Trials, and CINAHL<sup>®</sup> from database inception through November 16, 2022. We also searched for ongoing studies, unpublished study protocols, and unpublished study results in ClinicalTrials.gov from database inception through November 16, 2022. We included controlled vocabulary terms, along with free-text words, related to postpartum, healthcare strategies, and insurance coverage. We did not employ any date or language restrictions to the search but included filters to remove nonhuman studies, articles not describing primary studies, and studies tagged as being from low- or middle-income countries (per the World Bank classification<sup>21</sup>). All searches were independently peer reviewed.

Table 2-1 summarizes the eligibility criteria for both KQs. For both KQs, the population of interest was individuals (of any age) in the postpartum period (defined as within 1 year after giving birth). For this SR, “giving birth” is defined as a live birth, intrauterine fetal

## 2. Methods

death/stillbirth, or induced abortion that occurred at 20 or more weeks of gestation. Postpartum individuals could be healthy (general population) or at increased risk of postpartum complications due to pregnancy-related conditions or due to incident or newly diagnosed conditions postpartum.

Because KQ 1 compares *strategies* to deliver interventions, we modified the traditional structure for defining KQ eligibility criteria, i.e., Population, Interventions, Comparators, Outcomes, Timing, Design, and Settings (PICOTDS). Specifically, we restructured the Interventions and Comparators elements to be Target of Interventions Provided, Delivery Strategies, and Comparator Delivery Strategies. The Target of Interventions Provided refers to the actual interventions prescribed or given to patients by their healthcare providers (e.g., general postpartum care, contraceptive care, mental health counseling); these interventions are not the components of care (e.g., timing of healthcare) of focus in KQ 1. KQ 2 eligibility criteria, in contrast, follow the traditional PICOTDS structure.

For KQ 1, because of the complex nature of the healthcare delivery strategies, we used the Template for Intervention Description and Replication (TIDieR) framework<sup>22</sup> to conceptualize their elements. These included where care is provided, how care is provided, when care is provided, who provides care, whether there were planned modifications to the care, and whether there were unplanned modifications to the care. We categorized the intervention target as *general postpartum care* for studies that did not describe the specific aspects of postpartum care provided to participants or if the care provided included multiple aspects that are part of general postpartum care (e.g., physical health care, breastfeeding care, mental health care). For studies that provided specific aspects of postpartum care only, we categorized the intervention target accordingly (e.g., *breastfeeding care*, *contraceptive care*).

For both KQs, we examined various healthcare utilization outcomes (e.g., attendance at postpartum visits, unplanned care utilization [e.g., readmissions]), clinical outcomes (e.g., maternal mortality, symptoms/diagnosis of mental health outcomes), and harms (e.g., health inequities) listed in Table 2-1. The timepoints of interest for all outcomes were up to 1 year postpartum, except for interpregnancy interval, unplanned pregnancies, and chronic diseases, for which there was no limit. Based on discussions with panels of key informants and technical experts regarding the importance of specific outcomes as indicators of short- and long-term postpartum health, we prioritized 10 outcomes for drawing conclusions regarding each KQ. In addition, we also prioritized outcomes for which we were able to conduct meta-analyses.

For KQ 1, studies had to be both comparative and longitudinal. We included randomized controlled trials (RCTs;  $N \geq 10$  participants per group) and nonrandomized comparative studies (NRCSs; prospective or retrospective longitudinal cohort studies comparing two or more delivery strategies;  $N \geq 30$  per group) conducted in the United States or Canada. We included Canada as an eligible setting because of its geographical proximity and similarity to the United States in terms of healthcare delivery strategies. For KQ 2, eligibility criteria were similar to KQ 1, except that we: (1) did not require longitudinal followup and (2) restricted to studies conducted in the United States because of the nature of insurance coverage in the United States.

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**Table 2-1. Eligibility criteria for both Key Questions**

Element	Eligibility Criteria	KQ 1	KQ 2
Population	Individuals (of any age) who are in the PP period (defined as within 1 year after giving birth). May include healthy individuals (general population), individuals at increased risk of PP complications due to pregnancy-related conditions (e.g., gestational diabetes), or individuals at increased risk of PP complications due to incident or newly diagnosed conditions PP (e.g., PP hypertension)	X	X
Target of Interventions	General PP care (generally intended to cover all intervention targets listed below)	X	.
	Contraceptive care – Reproductive life planning and contraception	X	.
	Breastfeeding care – Counseling, support, or education regarding infant care and feeding	X	.
	Screening or preventive care – Screening, counseling, support, or education regarding prevention of pregnancy complications, common chronic health conditions, mental health conditions, common gynecologic problems, common PP problems	X	.
Delivery Strategies and Comparator Delivery Strategies	Where healthcare is provided (e.g., hospital, clinic)	X	.
	How healthcare is provided (e.g., dedicated PP visit, part of well-child visit)	X	.
	When healthcare is provided (e.g., after giving birth, at PP visit)	X	.
	Who provides healthcare/support	X	.
	- Predominantly health system-based care, e.g., OB/GYN, nurse		
	- Predominantly community-based care, e.g., doula, peer support		
	Healthcare coordination and management of care (e.g., patient navigators)	X	.
	Information and communication technology (e.g., bidirectional texting)	X	.
Interventions and Comparators	Interventions targeted at healthcare providers/systems (e.g., clinical decision support tools)	X	.
	Standard delivery strategy	X	.
	More comprehensive insurance coverage	.	X
	Extended duration of insurance coverage	.	X
	More continuous insurance coverage	.	X
	More continuous access to care as the result of a targeted program at the state, system, or provider level (e.g., Medicaid expansion)	.	X
	Less comprehensive level of or no insurance coverage	.	X
Outcomes – Healthcare Utilization	Less continuous insurance coverage	.	X
	Less continuous, or no access to healthcare	.	X
	<b>Attendance at postpartum visits*</b>	X	X
	<b>Unplanned care utilization*</b> (e.g., unplanned readmissions, ER visits)	X	X
Outcomes – Clinical	<b>Adherence to condition-specific screening/testing</b> (e.g., glucose tolerance testing) <b>or treatment*</b>	X	X
	<b>Transition to primary care provider for long-term care*</b>	X	X
	<b>Maternal mortality*</b>	X	X
	<b>Symptoms or diagnosis of mental health conditions*</b> (e.g., anxiety, depression, substance use)	X	X
	Patient-reported outcomes		
	<b>Quality of life (using validated measures)*</b>	X	X
	<b>Perceived stress*</b>	X	X
	Pain	X	X
	Sleep quality	X	X
	Fatigue	X	X
Sexual well-being and satisfaction	X	X	
Awareness of risk factors for long-term ill health	X	X	
Physical health/medical outcomes			
Postpartum onset of preeclampsia or hypertension	X	X	
Infections (e.g., mastitis, wound infections)	X	X	

## 2. Methods

Element	Eligibility Criteria	KQ 1	KQ 2
	Severe maternal morbidity	.	.
	Cardiovascular disorders (e.g., cardiomyopathy)	X	X
	Cerebrovascular disorders (e.g., stroke)	X	X
	Bleeding	X	X
	Venous thromboembolism	X	X
	Other	X	X
	Interpregnancy interval	X	X
	Unplanned pregnancies	X	X
	<b>Contraceptive initiation and continuation</b> <sup>†</sup>	X	X
	<b>Breastfeeding intention, initiation, duration, and exclusivity</b> <sup>†</sup>	X	X
	Reduction in health inequities (e.g., by race, ethnicity)	X	X
Outcomes – Harms	<b>Health inequities*</b>	X	X
	<b>Reported discrimination*</b>	X	X
	Over-utilization of healthcare	X	X
	Patient burden regarding postpartum care	X	X
Study Designs	RCTs, N≥10 patients per group	X	X
	NRCSs, N≥30 patients per group, provided adjusted analyses	X	X
Setting	United States	X	X
	Canada	X	.

\* Outcomes that were prioritized for Strength of Evidence tables (in bold font) based on discussions with Key Informants and Technical Experts.

<sup>†</sup> Outcomes that were prioritized for Strength of Evidence tables for certain comparisons (in bold font) based the feasibility of conducting meta-analyses of the available evidence.

Abbreviations: ER = emergency room, KQ = Key Question, NRCS = nonrandomized comparative study, OB/GYN = obstetrician and gynecologist, PP = postpartum, RCT = randomized controlled trial, X = relevant to KQ, . = not relevant to KQ.

### 2.5. Data Extraction and Data Management

We extracted data into the Systematic Review Data Repository Plus (SRDR+) software (<https://srdplus.ahrq.gov>). Each eligible study was extracted and assessed for risk of bias/quality by one researcher. Extracted data, including risk of bias assessment, were confirmed by a second, independent researcher. Discrepancies were resolved through discussion.

### 2.6. Assessment of Risk of Bias in Individual Studies

We evaluated each study for risk of bias and methodological quality. Because we included both randomized and nonrandomized designs, we incorporated items from two commonly used tools and tailored the set of items for each study design. The tools included the Cochrane Risk of Bias tool<sup>23</sup> and the Risk of Bias in Nonrandomized Studies (ROBINS-I) tool.<sup>24</sup>

For RCTs, we used all the items from the Cochrane Risk of Bias tool,<sup>23</sup> which addresses issues related to randomization and allocation concealment methodology; blinding of participants, study personnel/care providers, and outcome assessors; completeness of outcome data; selective outcome reporting; and other issues that could be related to bias.

For NRCSs, we used the specific sections of the ROBINS-I tool<sup>24</sup> that pertain to confounding and selection bias. ROBINS-I requires the identification of specific confounders of interest for the systematic review. To assess the presence of potential confounding in studies, we considered age and race/ethnicity as potential confounders for all KQs. Because NRCSs, like RCTs, can be impacted by the lack of blinding and by participant loss to followup, we also used the items from the Cochrane Risk of Bias tool that focus on issues related to blinding of patients, study personnel or care providers, objective outcome assessors, and subjective outcome assessors;

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incomplete outcome data; selective outcome reporting; and other issues that could be related to bias.

### 2.7. Data Synthesis

Each study included in the systematic review is described in summary and evidence tables presenting study design features, study participant characteristics, descriptions of interventions, outcome results, and risk of bias.

For both KQs, we compared results in study groups, preferentially with relative risks for dichotomous outcomes (e.g., breastfeeding initiation) and net mean differences (difference-in-differences or between-intervention comparisons of within-intervention changes) for continuous outcomes (e.g., quality of life scales) with both pre- and post-intervention data, and mean differences (between interventions) in continuous outcome data evaluated only postintervention (e.g., pain scales). Adjusted analyses were preferentially extracted over unadjusted (crude) comparisons. We used maximally adjusted analyses from observational studies (NRCSs). When necessary, appropriate, and feasible, we calculated the between-intervention effect sizes.

Where there were at least three studies reporting results from sufficiently similar analyses, we conducted meta-analyses using random-effects models. In the Key Points sections of the text and the evidence profile tables for each KQ, we provide numeric estimates of summary treatment effects *only* where meta-analyses were feasible for prioritized outcomes; these are denoted as “summary” estimates. The data did not allow for network meta-analyses.

### 2.8. Grading the Strength of Evidence for Major Comparisons and Outcomes

We graded the strength of the body of evidence (SoE) as per the Agency for Healthcare Research and Quality (AHRQ) Methods Guide on assessing SoE.<sup>20, 25</sup> We evaluated SoE for each major comparison or evaluation within each KQ for each outcome that was deemed important prior to compiling the evidence (Table 2-1). We determined the relative importance of the outcomes with input from the Technical Expert Panel. For both KQs, the prioritized outcomes included:

- Healthcare utilization outcomes: attendance at postpartum visits, unplanned care utilization, adherence to condition-specific screening/testing or treatment, and transition to primary care provider for long-term care
- Clinical outcomes: maternal mortality, symptoms or diagnosis of mental health conditions, quality of life, and perceived stress
- Harms: health inequities and reported discrimination.

In addition to the above list of a priori prioritized outcomes, we prioritized additional outcomes (breastfeeding and contraceptive use) whenever meta-analyses were feasible based on the available evidence.

For each SoE assessment, we considered the number of studies, their designs and limitations (i.e., risk of bias and overall methodological quality), the directness of the evidence to the KQs, the consistency of study results, the precision of any estimates of effect, the likelihood of reporting bias, other limitations, and the overall findings across studies. Based on these assessments, we assigned a SoE rating as being high, moderate, low, or insufficient to estimate an effect.

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Outcomes with highly imprecise estimates (with 95% confidence intervals that extend beyond both 0.50 and 2.0 for categorical outcomes), highly inconsistent findings across studies (in terms of directions of effect), or with data from only one study were deemed to have insufficient evidence to allow for a conclusion (with the exception that a particularly large, well-conducted, and generalizable single study could provide low SoE). This approach is consistent with the concept that for imprecise evidence “any estimate of effect is very uncertain,” which is the definition of Very Low-quality evidence per the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) approach.<sup>26</sup>

We summarize the data sources, study characteristics, and each SoE dimensional rating in evidence profile tables. These tables detail our reasoning for arriving at the overall SoE rating.

In accordance with AHRQ guidance for describing treatment effects,<sup>27, 28</sup> we have incorporated qualifying language regarding SoE when communicating conclusions (e.g., in Key Points sections of the text) as follows: “probably” for conclusion statements with moderate SoE and “may” for conclusion statements with low SoE. Conclusions with high SoE do not include any qualifiers.

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### 3.1. Description of Included Evidence

Detailed findings, including tables describing study designs, arms, and sample characteristics; risk of bias; and all outcomes are in the Results Appendixes. We call attention to specific appendix table numbers in the relevant subsections.

### 3.2. Literature Search Results

The electronic database search yielded 25,973 unique records. Appendix B lists the reasons why we excluded 480 of the 589 articles that we screened in full text. A total of 92 studies that were reported in 109 articles met criteria.<sup>29-137</sup> Appendix Figure C-1 summarizes the results of the search and screening processes.

The 92 included studies were published between 1990 and 2022 and enrolled a total of 3,967,261 participants. The 92 studies comprised 50 randomized controlled trials (RCTs) and 42 nonrandomized comparative studies (NRCSs). The 50 RCTs enrolled 477,954 participants and the 42 NRCSs enrolled 3,489,307 participants.

Most (70%) of the studies (64/92) addressed Key Question (KQ) 1 (postpartum care delivery strategies). These included 14 NRCSs and all the 50 RCTs. All 28 studies addressing KQ 2 (health insurance) were NRCSs.

For all 92 included studies, Appendix Tables C-1.1 to C-2.2 summarize the design, arm, and patient characteristics (separate subtables for each KQ), and Appendix Tables D-1.1 to D-2.2 summarize the risk of bias assessments (separate subtables by study design and KQ). Appendix Tables E-1.1 to E-1.14 are the detailed evidence tables for KQ 1 results, and Appendix Tables E-2.1 to E-2.7 are the detailed evidence tables for KQ 2 results. Appendix F details the report's adherence to Patient-Centered Outcomes Research Institute (PCORI) methodology standards, and Appendix G provides the references for all appendix materials.

### 3.3. KQ 1: What healthcare delivery strategies affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?

#### 3.3.1. Key Points

- **Where** care is provided – for *general postpartum care* (5 RCTs and 1 NRCS), whether the visit is conducted at home/by telephone or at the clinic may not impact depression or anxiety symptoms (low strength of evidence [SoE]). There is insufficient evidence to draw conclusions regarding attendance at postpartum visits, unplanned care utilization, and adherence to condition-specific screening or testing. For *breastfeeding care* (6 RCTs and 1 NRCS), whether the initial visit is conducted at home or at the pediatric clinic may not impact depression symptoms (up to 6 months postpartum), anxiety symptoms (up to 2 months), hospital readmission up to 3 months (summary relative risk [RR] 1.38, 95% confidence interval [CI] 0.90 to 2.13; 4 studies), or other unplanned care utilization (up to 2 months) (all low SoE). There is insufficient evidence to draw conclusions regarding attendance at postpartum visits.

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- **How** care is provided – for *general postpartum care* (4 RCTs), integration of care (care provided by multiple types of providers) may not impact depression symptoms or substance use up to 1 year (low SoE). There is insufficient evidence regarding attendance at postpartum visits and unplanned care utilization. For *contraceptive care* (1 RCT) and for *breastfeeding care* (2 NRCSs), the evidence did not address any of the prioritized outcomes.
- **When** care is provided – for *contraceptive care* (9 RCTs), compared with later contraception, earlier contraception is probably associated with comparable continued intrauterine device (IUD) use at 3 and 6 months but greater implant use at 6 months (summary RR 1.36, 95% CI 1.13 to 1.64; 2 RCTs) (all moderate SoE). There is insufficient evidence regarding mental health outcomes. For *general postpartum care* (2 RCTs and 1 NRCS), there is insufficient evidence regarding postpartum visit attendance and unplanned care utilization.
- **Who** provides care – for *breastfeeding care*, compared with no peer support, peer support (10 RCTs) is probably associated with higher rates of any breastfeeding at 1 month (summary effect size [ES] 1.13, 95% CI 1.03 to 1.24; 4 RCTs) and 3 to 6 months (summary ES 1.22, 95% CI 1.06 to 1.41; 4 RCTs) and of exclusive breastfeeding at 1 month (summary RR 1.10, 95% CI 1.02 to 1.19; 6 studies) but comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months. Compared with no lactation consultant, care by a lactation consultant (6 RCTs and 1 NRCS) is probably associated with higher rates of any breastfeeding at 6 months (summary ES 1.43, 95% CI 1.07 to 1.91; 3 studies) but not at 1 month or 3 months (all moderate SoE). Lactation consultant care is probably associated with comparable rates of exclusive breastfeeding at 1 or 3 months (all moderate SoE). For *general postpartum care* (6 RCTs and 2 NRCSs), there is insufficient evidence for specific provider types regarding postpartum visit attendance, hospital readmissions, and depression symptoms and diagnoses. For *contraceptive care* (1 RCT), the evidence did not address any of the prioritized outcomes. For *preventive care* (2 RCTs), there is insufficient evidence regarding maternal mortality, depression symptoms, and major depression episodes.
- **Coordination and management of care** – for *screening/testing* (1 RCT and 2 NRCSs on mail and/or telephone reminders), provision of testing reminders is associated with greater adherence to oral glucose tolerance testing (OGTT) up to 1 year postpartum but not random glucose or hemoglobin (Hb) A1c testing (moderate SoE). For *general postpartum care* (1 NRCS on in-hospital provision of information regarding the first postpartum appointment), there is insufficient evidence regarding postpartum visit attendance.
- **Use of information/communication technology (IT)** – for *breastfeeding care* (6 RCTs), IT use and nonuse are probably associated with comparable rates of any breastfeeding at 3 months (summary RR 1.00, 95% CI 0.92 to 1.09; 3 RCTs) and 6 months (summary RR 1.01, 95% CI 0.89 to 1.14; 3 RCTs) and of exclusive breastfeeding at 3 months (summary RR 1.28, 95% CI 0.81 to 2.03; 4 RCTs) (all moderate SoE). There is insufficient evidence regarding postpartum visit attendance and depression symptoms. For *screening* (1 NRCS), there is insufficient evidence regarding adherence to screening.
- **Interventions targeting healthcare providers** – for *breastfeeding care* (2 RCTs on electronic medical record [EMR] reminders), the evidence did not address any of the prioritized outcomes. For *screening care* (1 RCT and 1 NRCS on EMR reminders), there is insufficient evidence regarding adherence to screening.



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#### 3.3.2. Evidence Identified

We found 64 studies, reported in 80 articles,<sup>29-108</sup> that evaluated various healthcare delivery strategies. These included 50 RCTs and 14 NRCSs. Fourteen studies evaluated where care is provided, 7 evaluated how care is provided, 12 evaluated when care is provided, 28 evaluated who provides care, 5 addressed coordination/management of care, 8 addressed use of information/communication technology, and 4 addressed interventions targeting healthcare providers (Table 3-1). The target of the intervention was general postpartum care (18 studies), contraceptive care (11 studies), breastfeeding care (29 studies), and screening or preventive interventions (6 studies). Twelve studies (Bonuck 2014a, Bonuck 2014b, Clarke 2009, Dodge 2019, Edwards 2013, Gill 2007, Hans 2018, Kerver 2019, Mersky 2021, Pugh 2002, Pugh 2010, and Uscher-Pines 2020) addressed multiple delivery strategies, and two studies (Kerver 2019 and Tandon 2021) addressed multiple intervention targets.

Fifty-five studies were conducted in the United States and nine in Canada. The 64 studies, which evaluated a total of 543,480 participants, are detailed in Appendix Tables C-1.1, C-1.2, and C-1.3. Study sample sizes varied widely, ranging from 34 to 154,163 participants. Except for two studies that focused on adolescents, average ages of participants were generally similar across studies, ranging from 17 to 34 years. Only eight studies reported data on average body mass index (BMI); ranging from 27 to 41; the study with an average BMI of 41 selectively enrolled postpartum individuals with obesity. The racial diversity of participants across studies varied; between 3 and 96 percent of study participants were White (among studies that included White participants) and between 3 and 89 percent were Black (among studies that included non-Black participants). Three studies exclusively enrolled Black individuals and one exclusively enrolled Hispanic individuals.

Where reported, between 15 and 85 percent of participants were employed. No studies reported on participant gender or sexual identity status. Four studies excluded participants with opioid use disorder. Two studies reported that 2 and 9 percent of participants had substance use disorders; the remaining studies did not report on substance use disorders. Seven studies selectively included participants with vaginal deliveries and two studies selectively included participants with cesarean deliveries. Among the remaining studies that reported data, between 57 and 88 percent of deliveries were vaginal. Twelve studies excluded participants with preterm deliveries; among the remaining studies reporting data, between 3 and 14 percent of deliveries were preterm. Sixteen studies explicitly reported excluding postpartum individuals with deliveries that had resulted in stillbirths, spontaneous or induced abortions, or neonatal deaths.

Overall, among the 50 RCTs, we rated five at low risk of bias, 25 at moderate risk, and 20 at high risk. Moderate and high-risk ratings were generally related to the lack of blinding of participants, care providers, and outcome assessors, and incomplete outcome data (Appendix Table D-1.1). Overall, among the 14 NRCSs, we rated 10 at moderate risk of bias and 4 at high risk. Moderate and high ratings were related to risks of confounding and the lack of blinding of participants, care providers, and outcome assessors (Appendix Table D-1.2 and D-1.3).

The various healthcare utilization, clinical, and harms outcomes reported in the 64 studies are detailed in Table 3-2. Among healthcare utilization outcomes, the most frequently reported outcomes were postpartum visit attendance and unplanned care utilization; adherence to screening/testing and transition to primary care providers were sparsely reported. Among clinical outcomes, breastfeeding outcomes were the most frequently reported, especially among the studies that evaluated who provides care. Contraceptive use and mental health outcomes were next most frequently reported. Maternal mortality, patient-reported outcomes, physical health

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outcomes, interpregnancy interval, and unplanned pregnancies were sparsely reported. No study reported on the effect of interventions on health inequities. Harms were very rarely reported and were restricted to serious adverse events.

The study result evidence tables are in Appendix Tables E-1.1 to E-1.14.

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**Table 3-1. Key Question 1: Healthcare delivery strategies and target of care provided in 64 included studies**

Delivery Strategy Compared	18 Studies General Postpartum Care	11 Studies Contraceptive Care	29 Studies Breastfeeding Care	6 Studies Screening/Preventive Care
<b>14 studies</b> Where care is provided	<b>6 studies</b> <u>Home vs. Hospital/Clinic/Telephone</u> RCT: Norr 2003 (MOD) RCT: Dodge 2019 (MOD) <sup>†</sup> RCT: Steel O'Connor 2003 (HIGH) RCT: Mersky 2021 <sup>†</sup> (HIGH) RCT: McCarter 2019 (HIGH) NRCS: Arias 2022 (MOD)	<b>0 studies</b>	<b>8 studies</b> <u>Home vs. Hospital/Clinic/Telephone</u> RCT: Lieu 2000 (MOD) RCT: Gagnon 2002 (MOD) RCT: Pugh 2002 <sup>†</sup> (MOD) RCT: Escobar 2001 (HIGH) RCT: Paul 2012 (HIGH) RCT: Pugh 2010 <sup>†</sup> (HIGH) RCT: Edwards 2013 <sup>†</sup> (HIGH) NRCS: Gill 2007 <sup>†</sup> (HIGH)	<b>0 studies</b>
<b>7 studies</b> How care is provided	<b>4 studies</b> <u>Integrated Care vs. Non-Integrated Care</u> RCT: Laliberte 2016 (MOD) RCT: Polk 2021 (MOD) RCT: Koniak-Griffin 2003 (MOD) RCT: Hans 2018 <sup>†</sup> (HIGH)	<b>1 study</b> <u>Well-Baby Visit vs. Routine Visit</u> RCT: Haider 2020 (MOD)	<b>2 studies</b> <u>Integrated Care vs. Non-Integrated Care</u> NRCS: Rozga 2016 (MOD) NRCS: Witt 2021 (MOD)	<b>0 studies</b>
<b>12 studies</b> When care is provided	<b>3 studies</b> <u>2 visits (at 2 or 3 wk) vs. 1 visit (at 6 wk)</u> RCT: Bernard 2018 (MOD) RCT: Pluym 2021 (MOD)  <u>1 visit (at 2 to 3 wk) vs. 1 visit (at 6 wk)</u> NRCS: Chen 2019 (MOD)	<b>9 studies</b> <u>Earlier vs. Later IUD</u> RCT: Dahlke 2011 (LOW) RCT: Chen 2010 (MOD) RCT: Levi 2015 (MOD) RCT: Baldwin 2019 (MOD) RCT: Whitaker 2014 (HIGH) RCT: Jensen 2019 (HIGH)  <u>Earlier vs. Later Implant</u> RCT: Dempsey 2018 (MOD) RCT: Morse 2016 (HIGH)  <u>Earlier vs. Later DMPA</u> RCT: Chen 2018 (HIGH)	<b>0 studies</b>	<b>0 studies</b>
<b>28 studies</b> Who provides care	<b>8 studies</b> <u>Doulas vs. No Doulas</u> RCT: Hans 2018 <sup>†</sup> (HIGH) NRCS: Kozhimannil 2013 (MOD)  <u>Community Workers or Social Worker vs. No Community Worker or Social Worker</u> RCT: Hans 2018 <sup>†</sup> (HIGH) NRCS: Pan 2020 (MOD)  <u>Public Health Nurses or Human Service Professionals vs. No Public Health Nurses or Human Service Professionals</u> RCT: Edwards 1997 (LOW) RCT: Dodge 2019 (MOD) <sup>†</sup> RCT: Mersky 2021 <sup>†</sup> (HIGH)  <u>Nurse Practitioner vs. No Nurse Practitioner</u> NRCS: Buckley 1990 (HIGH)  <u>Mental Health Professionals or Community Health Workers vs. No Mental Health Professionals or Community Health Workers</u> RCT: Tandon 2021* (HIGH)	<b>1 study</b> <u>Contraceptive Counselor</u> RCT: Simmons 2013 (LOW)	<b>19 studies</b> <u>Peer Support vs. No Peer Support</u> RCT: Dennis 2002 (LOW) RCT: Reeder 2014 (LOW) RCT: Gross 1998 <sup>†</sup> (MOD) RCT: Anderson 2005 (MOD) RCT: Pugh 2002 <sup>†</sup> (MOD) RCT: Chapman 2004 (HIGH) RCT: Wambach 2011 (HIGH) RCT: Chapman 2013 (HIGH) RCT: Srinivas 2015 (HIGH) RCT: Kerver 2019 <sup>†*</sup> (HIGH)  <u>Doulas vs. No Doulas</u> RCT: Edwards 2013 <sup>†</sup> (HIGH) NRCS: Falconi 2022 (HIGH)  <u>Midwives vs. No Midwives</u> RCT: Porteous 2000 (MOD)  <u>Lactation Consultants vs. No Lactation Consultants</u> RCT: Rasmussen 2011 (MOD) RCT: Bonuck 2014a <sup>†</sup> (MOD) RCT: Bonuck 2014b <sup>†</sup> (MOD) RCT: Pugh 2010 <sup>†</sup> (HIGH) RCT: Wambach 2011 (HIGH) RCT: Uscher-Pines 2020 <sup>†</sup> (HIGH) NRCS: Gill 2007 <sup>†</sup> (HIGH)	<b>2 studies</b> <u>Peer Support vs. No Peer Support</u> RCT: Kerver 2019 <sup>†*</sup> (HIGH)  <u>Mental Health Professionals or Community Health Workers vs. No Mental Health Professionals or Community Health Workers</u> RCT: Tandon 2021* (HIGH)
<b>5 studies</b> Coordination / Management	<b>2 studies</b> <u>Maternity Care Coordination programs vs. usual care</u> NRCS: Rutledge 2016 (MOD)  <u>In-Hospital Provision of Information Regarding First Postpartum Appointment vs. No Provision</u> NRCS: Tsai 2011 (HIGH)	<b>0 studies</b>	<b>0 studies</b>	<b>3 studies</b> <u>Telephone Reminders vs. No Reminders</u> NRCS: Mendez-Figueroa 2014 (HIGH)  <u>Mail and/or Telephone Reminders vs. Mail Reminders Only vs. Telephone Reminders Only vs. No Reminders</u> RCT: Clark 2009 (MOD) <sup>†</sup> NRCS: Shea 2011 <sup>†</sup> (MOD)

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Delivery Strategy Compared	18 Studies General Postpartum Care	11 Studies Contraceptive Care	29 Studies Breastfeeding Care	6 Studies Screening/Preventive Care
8 studies Information technology/communication	0 studies	0 studies	<p><b>7 studies</b></p> <p><u>Unidirectional: Videos vs. No Videos</u>            RCT: Gross 1998<sup>†</sup> (MOD)</p> <p><u>Interactive: eHealth/Websites/Apps /Texts vs. No Interactive Technology</u>            RCT: Martinez-Brockman 2018 (MOD)            RCT: Abbass-Dick 2020 (MOD)            RCT: Bender 2022 (MOD)            RCT: Kerver 2019<sup>†*</sup> (HIGH)            RCT: Ahmed 2016 (HIGH)            RCT: Uscher-Pines 2020<sup>†</sup> (HIGH)</p>	<p><b>1 study</b></p> <p><u>Mail and/or Telephone Reminders vs. Mail Reminders Only vs. Telephone Reminders Only vs. No Reminders</u>            NRCS: Shea 2011<sup>†</sup> (MOD)</p>
4 studies Interventions targeting care providers	0 studies	0 studies	<p><b>2 studies</b></p> <p><u>EMR reminders for providers and lactation support for patients vs. standard care</u>            RCT: Bonuck 2014a<sup>†</sup> (MOD)</p> <p><u>EMR reminders for providers and lactation support for patients vs. EMR reminders only vs. lactation support only vs. standard care</u>            RCT: Bonuck 2014b<sup>†</sup> (MOD)</p>	<p><b>2 studies</b></p> <p><u>EMR reminders for providers</u>            RCT: Clark 2009 (MOD)<sup>†</sup>            RCT: Domingo 2022 (MOD)</p>

\*Study addressed multiple domains of targets of interventions.

†Study compared multiple delivery strategies.

No study evaluated interventions targeting healthcare providers. Each study is rated as LOW (in green), MODERATE (in blue), or HIGH (in red) risk of bias. Judgments are color coded for emphasis only. The colors impart the same information as provided in the parentheses.

Abbreviations: DMPA = depot medroxyprogesterone acetate, EMR = electronic medical record, HIGH = high risk of bias, IUD = intrauterine device, LOW = low risk of bias, MOD = moderate risk of bias, NRCS = nonrandomized controlled study, RCT = randomized controlled trial, wk = weeks.

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**Table 3-2. Key Question 1: All relevant outcomes reported in 64 included studies**

Delivery Strategy/Strategies Compared	Author, Year, PMID, Country	Healthcare Utilization: Postpartum Visit Attendance	Healthcare Utilization: Unplanned Care Utilization	Healthcare Utilization: Adherence to Screening/	Healthcare Utilization: Transition to PCP	Clinical: Maternal Mortality	Clinical: Mental Health	Clinical: Patient-Reported Outcomes	Clinical: Physical Health/ Medical	Clinical: Interpregnancy Interval	Clinical: Unplanned Pregnancies	Clinical: Contraceptive Use	Clinical: Breastfeeding: Any	Clinical: Breastfeeding: Exclusive	Clinical: Breastfeeding: Non-Exclusive	Clinical: Breastfeeding: Duration/ Frequency	Clinical: Breastfeeding: None	Clinical: Reduction In Health Inequities	Harms: Other (Serious Adverse Events)
Where	Lieu, 2000, 10790463, U.S.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.
Where	Gagnon, 2002, 12042545, Canada	X	X	.	.	.	X	.	.	.	.	.	.	X	.	X	.	.	.
Where	Norr, 2003, 12716399, U.S.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
Where	Escobar, 2001, 11533342, U.S.	.	X	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.
Where	Steel O'Connor, 2003, 12675164, Canada	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
Where	McCarter, 2019, 31222789, U.S.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
Where	Paul, 2012, 22064874, U.S.	.	X	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.
Where	Arias, 2022, 35331971, U.S.	X	.	X	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
Where, Who	Dodge, 2019, 31675088,	X	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
Where, Who	Pugh, 2002, 12000411	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.
Where, Who	Mersky, 2021, 33078655, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.	.
Where, Who	Pugh, 2010, 19854119, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
Where, Who	Edwards, 2013, 24187119, U.S.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.
Where, Who	Gill, 2007, 17557933, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
How, Who	Hans, 2018, 29855838, U.S.	.	X	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.
How	Polk, 2021, 34671758, U.S.	X	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.
How	Koniak-Griffin, 2003, 12657988, U.S.	.	.	.	.	.	X	X	.	X	.	.	.	.	.	.	.	.	.
How	Haider, 2020, 31964564, U.S.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
How	Laliberte, 2016, 26871448, Canada	.	X	.	.	.	X	.	.	.	.	.	.	X	X	.	X	.	.
How	Rozga, 2016, 27423234, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
How	Witt, 2021, 33956505, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
When	Bernard, 2018, 29778586, U.S.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
When	Pluym, 2021, 33785465, U.S.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
When	Chen, 2019, 30414598, U.S.	X	.	.	.	.	.	.	.	.	.	.	.	X	X	.	X	.	.
When	Dahlke, 2011, 21843688, U.S.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.
When	Chen, 2010, 20966692, U.S.	.	.	.	.	.	.	.	X	.	.	X	X	.	.	.	.	.	.
When	Levi, 2015, 26241250, U.S.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X
When	Dempsey, 2018, N/A, U.S.	.	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.	X
When	Baldwin, 2019, N/A, U.S.	.	.	.	.	.	.	.	X	.	X	X	.	.	.	.	.	.	X
When	Whitaker, 2014, 24457061, U.S.	.	.	.	.	.	.	X	.	.	.	X	.	.	.	.	.	.	X
When	Morse, 2016, N/A, U.S.	.	.	.	.	.	.	.	.	X	.	X	X	.	.	.	.	.	X
When	Chen, 2018, N/A, U.S.	.	.	.	.	X	X	.	.	.	.	X	X	X	.	.	.	.	X
When	Jensen, 2019, N/A, U.S.	.	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.	.
Who	Kozhimannil, 2013, 23837663, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.

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Delivery Strategy/Strategies Compared	Author, Year, PMID, Country	Healthcare Utilization: Postpartum Visit Attendance	Healthcare Utilization: Unplanned Care Utilization	Healthcare Utilization: Adherence to Screening/	Healthcare Utilization: Transition to PCP	Clinical: Maternal Mortality	Clinical: Mental Health	Clinical: Patient-Reported Outcomes	Clinical: Physical Health/ Medical	Clinical: Interpregnancy Interval	Clinical: Unplanned Pregnancies	Clinical: Contraceptive Use	Clinical: Breastfeeding: Any	Clinical: Breastfeeding: Exclusive	Clinical: Breastfeeding: Non-Exclusive	Clinical: Breastfeeding: Duration/ Frequency	Clinical: Breastfeeding: None	Clinical: Reduction in Health Inequities	Harms: Other (Serious Adverse Events)
Who	Pan, 2020, 32437282, U.S.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Who	Edwards, 1997, 9170692, Canada	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.	X	.	.
Who	Falconi, 2022, 35812994, U.S.	.	X	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.
Who	Buckley, 1990, 2328162, U.S.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Who	Tandon, 2021, 33655429, U.S.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
Who	Simmons, 2013, 23218851, U.S.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
Who	Dennis, 2002, 11800243, Canada	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	X	.	.
Who	Reeder, 2014, 25092936, U.S.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.
Who, IT	Gross, 1998, 12515413, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
Who	Anderson, 2005, 16143742, U.S.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	X	.	.
Who	Chapman, 2004, 15351756, U.S.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.
Who	Wambach, 2011, 20876551, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	X	.	.	.
Who	Chapman, 2013, 23209111, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	.	.	.
Who	Srinivas, 2015, 25193602, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	X	.	.	.
Who, IT	Kerver, 2019, N/A, U.S.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.
Who	Porteous, 2000, 11155608, Canada	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	.	.	.
Who	Rasmussen, 2011, 20958105, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	X	.	.	.
Who, Interventions targeting HCPs	Bonuck, 2014a, 24354834, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
Who, Interventions targeting HCPs	Bonuck, 2014b, 24354834, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
Who, IT	Uscher-Pines, 2020, 31629118, U.S.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
C/M	Rutledge, 2016, 27350389, U.S.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
C/M	Tsai, 2011, 21365543, U.S.	X	.	.	.	.	.	.	X	.	X	X	.	.	.	.	.	.	.
C/M	Mendez-Figueroa, 2014, 24481876, U.S.	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
C/M, Interventions targeting HCPs	Clark, 2009, 19268878, Canada	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
C/M, IT	Shea, 2011, 21466755, Canada	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
IT	Martinez-Brockman, 2018, 29325660, U.S.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.
IT	Abbass-Dick, 2020, 32739716, Canada	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
IT	Bender, 2022, 36201773, U.S.	X	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
IT	Ahmed, 2016, 26779838, U.S.	.	.	.	.	.	X	.	.	.	.	.	.	X	X	.	.	.	.
Interventions targeting HCPs	Domingo, 2022, 35237835, U.S.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

The first four outcome columns refer to healthcare utilization outcomes. The next 13 outcome columns refer to clinical outcomes (with blue shading to enhance visual clarity). The final column refers to a harm outcome. No studies reported on the following harms: health inequities, reported discrimination, overutilization of healthcare, and patient burden regarding postpartum care.

Abbreviations: . = outcome not reported by study, C/M = coordination/management, HCP = healthcare provider, IT = information/communication technology, PCP = primary care provider, X = outcome reported by study, U.S. = United States.

### 3. Results

#### 3.3.3. Detailed Findings for KQ 1 – Where Healthcare Is Provided

Fourteen studies, reported in 18 articles,<sup>32, 44, 52, 56, 57, 59, 60, 64, 76, 78, 80, 82, 84, 86, 87, 91, 92, 100</sup> addressed where healthcare is provided (Appendix Table C-1.2). These comprised 12 RCTs, one prospective adjusted NRCS, and one retrospective adjusted NRCS. Twelve studies were conducted in the United States and two in Canada.

In six studies (5 RCTs and 1 NRCS), the intervention target was general postpartum care. These studies compared groups of participants who received healthcare visits at home with those who attended visits at the clinic/hospital (or by telephone in one RCT). Home visitors across studies included nurses, public health nurses, community health workers, and human service professionals. Clinic visits were with obstetricians and gynecologists (OB/GYNs), pediatricians, and/or nurses.

In the remaining eight studies (7 RCTs and 1 NRCS), the target was breastfeeding care. Home visitors across studies included nurses, peers, doulas, and lactation home consultants. Clinic visits were with lactation consultants and research staff.

##### 3.3.3.1. Where: General Postpartum Care – Healthcare Utilization

###### 3.3.3.1.1. Attendance at Postpartum Visits

One RCT (Dodge 2019) and one NRCS (Arias 2022) reported inconsistent results for attendance at postpartum visits (Appendix Table E-1.3). Dodge 2019 reported that participants who received home visits from nurses and those who received usual care had comparable rates of postpartum visits ( $\beta$  coefficient 6.44, 95% CI  $-1.62$  to  $13.5$ ). However, Arias 2022 reported that virtual visits during the COVID-19 pandemic were associated with greater postpartum visit attendance than before the pandemic (adjusted odds ratio [adjOR] 1.90, 95% CI 1.47 to 2.46).

Because of the inconsistent results, we were unable to make a graded conclusion for this outcome (Table 3-3).

###### 3.3.3.1.2. Unplanned Care Utilization

One RCT (Dodge 2019) reported data (Appendix Table E-1.1). Participants who received home visits from nurses had more emergency room (ER) visits than participants who received usual care (mean difference [MD] 0.21, 95% CI 0.01 to 0.40). However, the number of hospitalizations per participant were comparable (MD  $-0.01$ , 95% CI  $-0.13$  to  $0.15$ ).

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-3).

###### 3.3.3.1.3. Adherence to Postpartum Screening/Testing

One NRCS (Arias 2022) reported data (Appendix Table E-1.5). Compared with before the COVID-19 pandemic, virtual visits during the pandemic were associated with greater rates of screening for depression (adjOR 4.61, 95% CI 3.38 to 6.28) but comparable rates of postpartum glucose tolerance testing (adjOR 0.99, 95% CI 0.79 to 4.11).

Because of the sparseness of the evidence (1 NRCS), we were unable to make a graded conclusion for this outcome (Table 3-3).

### 3. Results

#### 3.3.3.2. Where: General Postpartum Care – Clinical Outcomes

##### 3.3.3.2.1. Mental Health Outcomes

Two RCTs (Dodge 2019 and McCarter 2019) reported data (Appendix Table E-1.8). Whether the visit was at home/by telephone or the clinic was associated with comparable depression and anxiety symptoms. Dodge 2019 reported that participants who received home visits from nurses and those who received usual care had comparable rates of possible depression or anxiety ( $\beta$  coefficient  $-7.70$ , 95% CI  $-16.7$  to  $1.33$ ). Similarly, McCarter 2019 reported that, when compared with usual care, telephone-based nursing was associated with comparable numbers of participants with scores on the Edinburgh Postpartum Depression Scale (EPDS) in the 10 to 12 range (RR 0.62, 95% CI 0.24 to 1.58) and with scores above 12 (RR 2.42, 95% CI 0.78 to 7.45).

Because of the high risk of bias, we rated the SoE as low for these conclusions (Table 3-3).

##### 3.3.3.2.2. Unplanned Pregnancies

One RCT (Norr 2003) reported data (Appendix Table E-1.7). Participants who received home visits by nurse-led community worker teams (as part of the REACH-Futures Program) experienced comparable rates of **unplanned pregnancies within 12 months** as participants who attended routine postpartum and well-baby visits with their current providers. This was true among both Mexican-American (RR 0.64, 95% CI 0.22 to 1.87) and African-American study participants (RR 1.03, 95% CI 0.58 to 1.82).

##### 3.3.3.2.3. Breastfeeding

Two RCTs (Steel O'Connor 2003 and Mersky 2021) and one NRCS (Arias 2022) reported inconsistent results regarding **any breastfeeding or breastfeeding initiation** (Appendix Tables E-1.1 and E-1.10, E-1.11, E-1.13, and E-1.14). Steel O'Connor 2003 reported comparable breastfeeding rates at 2 weeks, 1 month, and 6 months whether participants received telephone or home visits by public health nurses. Arias 2022 similarly reported comparable rates of any breastfeeding between those receiving virtual visits during the COVID-19 pandemic or in-person visits before the pandemic. However, Mersky 2021 reported that compared with participants who did not receive home visits, breastfeeding rates were higher among participants with home visits, whether by human service professionals through the Healthy Families America (HFA) Program (RR 1.30, 95% CI 1.10 to 1.55) or by public health nurses through the Prenatal Care and Coordination (PNCC) Program (RR 1.28, 95% CI 1.07 to 1.53). Rates were comparable between the two programs.

One RCT (Mersky 2021) reported that, compared with participants who did not receive home visits, **breastfeeding duration** was higher among participants with home visits by human service professionals through the HFA Program (MD 4.3 weeks, 95% CI 0.1 to 8.5) but not among participants with home visits by public health nurses through the PNCC Program (MD 1.7 weeks, 95% CI  $-1.8$  to 5.2). Durations were comparable between the two programs.

##### 3.3.3.3. Where: General Postpartum Care – Harms

No study reported on harms.



### 3. Results

#### 3.3.3.4. Where: Breastfeeding Care – Healthcare Utilization

##### 3.3.3.4.1. Attendance at Postpartum Visits

One RCT (Gagnon 2002) reported data (Appendix Table E-1.3). A single home visit by a community nurse or a single hospital visit with a nurse, both for 45 to 60 minutes, 3 to 4 days after discharge, were associated with comparable **attendance at the 2-week postpartum visit** (RR 0.99, 95% CI 0.95 to 1.05).

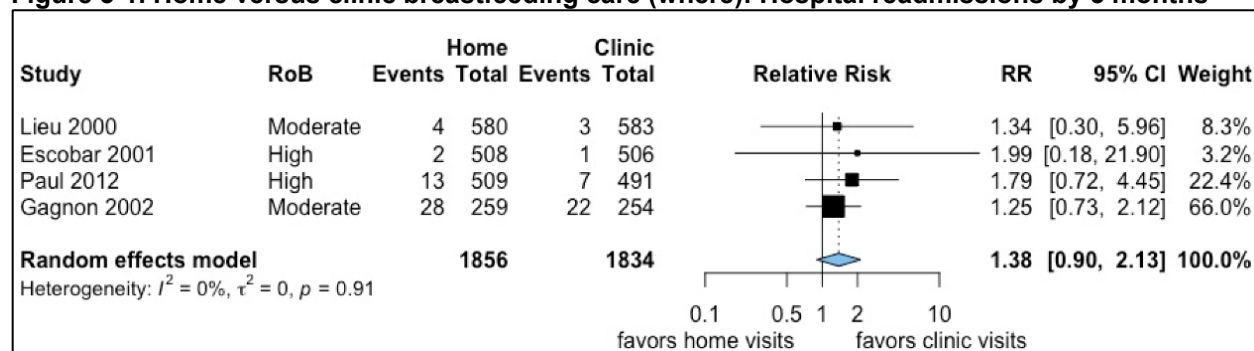
Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-4).

##### 3.3.3.4.2. Unplanned Care Utilization

Four RCTs (Lieu 2000, Gagnon 2002, Escobar 2001, and Paul 2012) reported data (Appendix Table E-1.4). Whether the initial postpartum visit was at home or the clinic was associated with comparable amounts of maternal unplanned healthcare utilization, including **hospital readmissions** (4 RCTs), **urgent care visits** (2 RCTs), **outpatient visits** (1 RCT), and **ER visits** (1 RCT). For the hospital readmission outcome, RRs ranged from 1.25 to 1.99 (Figure 3-1). The meta-analysis provided evidence that visit location was not associated with hospital readmissions by 3 months (RR 1.38, 95% CI 0.90 to 2.13;  $I^2=0\%$ ).

Because of the high risk of bias, we rated the SoE as low for these conclusions (Table 3-4).

**Figure 3-1. Home versus clinic breastfeeding care (where): Hospital readmissions by 3 months**



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), RoB = risk of bias, RR = relative risk.

#### 3.3.3.5. Where: Breastfeeding Care – Clinical Outcomes

##### 3.3.3.5.1. Mental Health Outcomes

Four RCTs (Lieu 2000, Gagnon 2002, Escobar 2001, and Paul 2012) reported data (Appendix Tables E-1.2 and E-1.8). Whether the initial postpartum visit was at home or the clinic was associated with comparable depression symptoms and comparable anxiety symptoms. Three RCTs reported that groups experienced comparable **depression symptoms**; two (Lieu 2000 and Escobar 2001) reported on the number of participants with depression symptoms at 2 weeks postpartum, and one RCT (Paul 2012) reported on EPDS scores at 2 weeks, 2 months, and 6 months postpartum. Two RCTs (Gagnon 2002 and Paul 2012) used the State-Trait Anxiety Inventory and reported that groups experienced comparable **anxiety symptoms** at 2 weeks and 2 months postpartum.

Because of the high risk of bias, we rated the SoE as low for these conclusions (Table 3-4).

### 3. Results

#### 3.3.3.5.2. Breastfeeding

All eight studies (7 RCTs and 1 NRCS) that compared locations for breastfeeding care interventions reported data for various breastfeeding outcomes (Appendix Tables E-1.1 and E-1.10, E-1.11, E-1.13, and E-1.14).

Three RCTs (Pugh 2010, Escobar 2001, and Paul 2012) and one NRCS (Gill 2007) reported inconsistent results regarding **any breastfeeding or breastfeeding initiation**. Pugh 2010 reported that home visits by a member of a breastfeeding support team was associated with higher breastfeeding rates at 1.5 months (adjOR 1.72, 95% CI 1.07 to 2.76) and 3 months (adjOR 1.58, 95% CI 1.00 to 2.49) but not at 6 months. However, Escobar 2001 and Paul 2012 reported comparable breastfeeding rates up to 6 months postpartum whether participants received home visits or attended visits in the hospital. Gill 2007 (the NRCS) reported that, when comparing telephone calls and as needed lactation consultant home visits with standard breastfeeding education in the clinic, the adjRR for breastfeeding increased over time: 1.19 at 1 month, 1.61 at 3 months, and 2.08 at 6 months (95% CIs not reported). Although these four studies did not report on the availability of maternity leave to participants, they did report on participant demographics. In the two studies that showed a positive impact of home visits (Pugh 2010 and Gill 2007), all participants were categorized as low-income. In Pugh 2010, 87% of participants were African American and in Gill 2007, all participants were Hispanic. In the other two studies (Escobar 2001), participants were not solely low-income.

One RCT (Gagnon 2002) reported that, at 2 weeks, home and hospital visits were associated with comparable **breastfeeding frequency** (MD 0.1 times/day, 95% CI -0.1 to 0.3) and number of participants **breastfeeding  $\leq$  4.5 times/day** (RR 1.10, 95% CI 0.71 to 1.68).

One RCT (Edwards 2013) reported comparable **breastfeeding durations** among participants who received or did not receive home visits by doulas. Data were reported as proportions of participants with breastfeeding durations <1.5 months (RR 1.07, 95% CI 0.75 to 1.52), 1.5 to 4 months (RR 1.64, 95% CI 0.89 to 3.04), and >4 months (RR 1.88, 95% CI 0.65 to 5.43).

Two RCTs (Gagnon 2002 and Pugh 2002) reported that home and hospital visits were associated with comparable rates of **exclusive breastfeeding**. Gagnon 2002 reported that rates were comparable between home and hospital visits at 2 weeks (RR 1.04, 95% CI 0.94 to 1.17). Pugh 2002 reported that rates were comparable between home and hospital visits at 3 months (RR 1.71, 95% CI 0.69 to 4.24) and 6 months (RR 1.91, 95% CI 0.55 to 6.60).

One RCT (Pugh 2002) reported that rates of **non-exclusive breastfeeding** were comparable between home and hospital visits at 6 months (RR 1.23, 95% CI 0.56 to 2.66).

Two RCTs (Lieu 2000 and Edwards 2013) reported on **breastfeeding non-initiation**. Lieu 2000 reported that home visits were associated with lower rates at 2 weeks (RR 0.84, 95% CI 0.66 to 1.07) and 3 months (RR 0.94, 95% CI 0.82 to 1.07). Edwards 2013 reported that doula home visits were associated with lower rates at 4 months (RR 0.74, 95% CI 0.54 to 1.02).

#### 3.3.3.6. Where: Breastfeeding Care – Harms

No study reported on harms.

### 3. Results

**Table 3-3. Key Question 1: Evidence profile for prioritized outcomes for where healthcare is provided – general postpartum care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	2 (1895)	Moderate	Inconsistent	Precise	Direct	N/A	Insufficient	None (inconsistent results)
	Unplanned care utilization	1 (316)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Adherence to condition-specific screening/ testing or treatment	1 (1579)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	2 (673)	High	Consistent	Precise	Direct	N/A	Low	Visit at home/by telephone vs. clinic: comparable symptoms of depression and anxiety
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

### 3. Results

**Table 3-4. Key Question 1: Evidence profile for prioritized outcomes for where healthcare is provided – breastfeeding care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at PP visits	1 (586)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Unplanned care utilization	4 (3,917)	High	Consistent	Precise	Direct	N/A	Low	Initial PP visit at home vs. pediatric clinic: comparable maternal hospital readmissions ( $\leq 6$ mo) and other unplanned care ( $\leq 2$ mo) (both Low SoE).
	Adherence to condition-specific screening/testing or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	4 (3,917)	High	Consistent	Precise	Direct	.	Low	Initial PP visit at home vs. pediatric clinic: comparable symptoms of depression ( $\leq 6$ mo PP) and anxiety ( $\leq 2$ mo PP)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: mo = months, N/A = not applicable, PP = postpartum, SoE = strength of evidence.

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#### 3.3.4. Detailed Findings for KQ 1 – How Healthcare Is Provided

Seven studies, reported in seven articles,<sup>63, 66, 72, 74, 89, 95, 108</sup> addressed how healthcare is provided (Appendix Table C-1.2). These comprised five RCTs, one prospective adjusted NRCS, and one retrospective adjusted NRCSs. Six studies were conducted in the United States and one in Canada.

In four studies (all RCTs), the intervention target was general postpartum care. They compared integrated care (i.e., care provided by multiple types of providers) versus nonintegrated care. Polk 2021 evaluated combined versus separate postpartum and well-child visits (at the same location); for both arms of the trial, the postpartum visit was scheduled prior to discharge from the hospital. Koniak-Griffin 2003 evaluated the Early Intervention Program (home visits and prenatal classes provided by public health nurses), Hans 2018 compared case management versus no case management, and Laliberte 2016 compared multidisciplinary postpartum clinic versus standard care.

In one RCT (Haider 2020), the intervention target was contraceptive care; the comparison was between its delivery at well-baby visits versus at routine postpartum visits.

The target of interventions in the remaining two studies (both NRCSs) was breastfeeding care. Both addressed integrated versus nonintegrated care: Rozga 2016 compared breastfeeding care by peer counselors as part of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Breastfeeding Initiative Program (individual contacts and group classes) versus standard breastfeeding care by peer counselors, and Witt 2021 conducted a before-after analysis of integrated breastfeeding care by lactation consultants and primary care providers.

##### 3.3.4.1. How: General Postpartum Care – Healthcare Utilization

###### 3.3.4.1.1. Attendance at Postpartum Visits

One RCT (Polk 2021) reported that, when scheduled before discharge from the maternity stay, combined or separate postpartum and well-child visits were associated with comparable **attendance at postpartum visits by 1 month** (RR 0.99, 95% CI 0.87 to 1.04) (Appendix Table E-1.3). Participants were low-income individuals with limited English proficiency; 77% of participants were immigrants. Attendance rates for trial participants were markedly higher than historical control rates (94.0% vs. 69.7%,  $p < 0.001$ ). For trial participants, similar results were reported for population subgroups based on ethnicity (Hispanic or non-Hispanic) and by insurance status (public, private, or no insurance). No data were reported regarding availability of maternity leave.

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-5).

###### 3.3.4.1.2. Unplanned Care Utilization

Two RCTs (Laliberte 2016 and Hans 2018) reported data (Appendix Table E-1.4). Laliberte 2016 reported that participants who attended a multidisciplinary postpartum clinic within 48 hours postpartum (with additional visits as indicated) and those who received standard postpartum care experienced comparable rates of **ER visits** (RR 1.02, 95% CI 0.61 to 1.72) and **hospital readmissions**, although the estimate for readmissions was imprecise. Hans 2018 reported an imprecise estimate for hospital readmissions by 3 weeks comparing those who did

### 3. Results

not receive case management by community case managers or social services providers versus those who did.

Because of the impreciseness and inconsistent results, we were unable to make a graded conclusion for this outcome (Table 3-5).

#### 3.3.4.1.3. Transition to Primary Care

One RCT (Polk 2021) reported that, when scheduled prior to discharge from maternity care, combined or separate postpartum and well-child visits were associated with comparable **attendance at primary care visits** at 1 year (RR 1.25, 95% CI 0.53 to 2.94) (Appendix Table E-1.3).

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-5).

#### 3.3.4.2. How: General Postpartum Care – Clinical Outcomes

##### 3.3.4.2.1. Mental Health Outcomes

Three RCTs (Koniak-Griffin 2003, Hans 2018, and Laliberte 2016) reported data (Appendix Tables E-1.2 and E-1.8). Each RCT compared integrated and nonintegrated care and reported comparable rates of **depression symptoms**. Hans 2018 reported comparable rates of **significant depression symptoms** (defined as Center for Epidemiologic Studies Depression [CES-D] score  $\geq 15$ ) comparing those who did not receive case management by community case managers or social services providers versus those who did at 3 weeks (adjOR 0.96, 95% CI 0.53 to 1.71) and at 3 months (adjOR 0.95, 95% CI 0.47 to 1.91). Koniak-Griffin 2003 reported **depression symptom** absolute scores using the CES-D. Participants in the Early Intervention Program (EIP; 17 home visits and 4 prenatal classes provided by public health nurses) and participants who received Traditional Public Health Nursing Care (TPHNC) had comparable scores at 1 year (net mean difference [NMD] 1.30, 95% CI  $-2.51$  to 5.11). Laliberte 2016 reported that integrated postpartum clinic attendees and standard postpartum care recipients had comparable depression symptom absolute scores using on the EPDS at 3 weeks postpartum (MD  $-0.2$ , 95% CI  $-0.9$  to 0.5). Among these three RCTs, only Hans 2018 reported on baseline depression symptoms, which were similar among the treatment groups.

Koniak-Griffin 2003 also reported on substance use outcomes. At 1 year postpartum, comparable numbers of participants in the EIP and TPHNC groups reported **alcohol use, marijuana use, or tobacco use** in the past month.

Because of the high risk of bias, we rated the SoE as low for these conclusions (Table 3-5).

##### 3.3.4.2.2. Patient-Reported Outcomes: Perceived Stress

One RCT (Koniak-Griffin 2003) reported comparable levels of **perceived stress** (using the Perceived Stress Scale [PSS]) at 1 year postpartum among participants in the EIP and TPHNC groups (NMD 1.20, 95% CI  $-1.41$  to 3.81) (Appendix Table E-1.2).

##### 3.3.4.2.3. Interpregnancy Interval

One RCT (Koniak-Griffin 2003) reported comparable levels of **conception within 2 years postpartum** among participants in the EIP and TPHNC groups (RR 0.69, 95% CI 0.42 to 1.13) (Appendix Table E-1.7).

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#### 3.3.4.2.4. Contraceptive Outcomes

One RCT (Polk 2021) reported that comparable numbers of participants who attended combined postpartum and well-child visits at 4 weeks and participants who had separate visits were using long-acting reversible contraception (LARC) at 6 months (RR 0.84, 95% CI 0.62 to 1.13) and 1 year (RR 0.92, 95% CI 0.68 to 1.24) (Appendix Table E-1.6).

#### 3.3.4.2.5. Breastfeeding

Two RCTs (Hans 2018 and Laliberte 2016) reported data (Appendix Tables E-1.10 and E-1.11). Hans 2018 reported comparable rates of **breastfeeding at 3 months** comparing those who did not receive case management by community case managers or social services providers versus those who did (adjOR 0.85, 95% CI 0.45 to 1.60). Similarly, Laliberte 2016 compared attendees and nonattendees of a multidisciplinary postpartum clinic and reported comparable rates of **exclusive breastfeeding in the past 2 weeks** at 2 weeks (RR 1.32, 95% CI 0.87 to 1.99), at 1 month (RR 1.25, 95% CI 0.82 to 1.91), at 3 months (RR 1.28, 95% CI 0.84 to 1.95), and at 6 months (RR 1.24, 95% CI 0.83 to 1.86).

#### 3.3.4.3. How: General Postpartum Care – Harms

No study reported on harms.

#### 3.3.4.4. How: Contraceptive Care – Healthcare Utilization

No study reported on healthcare utilization.

#### 3.3.4.5. How: Contraceptive Care – Clinical Outcomes

##### 3.3.4.5.1. Contraceptive Outcomes

One RCT (Haider 2020) reported that, at 5 months, comparable numbers of participants who had received contraceptive care at well-baby or at routine postpartum visits were using LARC (RR 0.91, 95% CI 0.63 to 1.32) or tier 2 contraceptives (i.e., pills, rings, patches, shots, or multiple methods) (RR 1.21, 95% CI 0.96 to 1.53) (Appendix Table E-1.6).

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-5).

#### 3.3.4.6. How: Contraceptive Care – Harms

No study reported on harms.

#### 3.3.4.7. How: Breastfeeding Care – Healthcare Utilization

No study reported on healthcare utilization.

#### 3.3.4.8. How: Breastfeeding Care – Clinical Outcomes

##### 3.3.4.8.1. Breastfeeding Outcomes

Both NRCSSs (Rozga 2016 and Witt 2021) reported that integrated care (Rozga 2016: WIC Breastfeeding Initiative Program and Witt 2021: integration of lactation consultants with primary care providers) was not more effective than nonintegrated care on **breastfeeding** at various time-points until 1 year postpartum (adjusted effect sizes not reported) (Appendix Tables E-1.10 to E-1.12 and E-1.14). Rozga 2016 similarly reported the lack of a statistically significant difference

### **3. Results**

in **exclusive breastfeeding** from the WIC Breastfeeding Initiative Program at 3 and 6 months (adjusted effect sizes not reported).

#### **3.3.4.9. How: Breastfeeding Care – Harms**

No study reported on harms.



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**Table 3-5. Key Question 1: Evidence profile for how healthcare is provided – general postpartum care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	1 (116)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Unplanned care utilization	2 (740)	High	Inconsistent	Imprecise	Direct	Sparse	Insufficient	None (sparse evidence)
	Adherence to screening or testing	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	1 (116)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
Clinical	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	3 (842)	High	Consistent	Precise	Direct	N/A	Low	Integrated care and non-integrated care associated with comparable levels of depression symptoms and substance use at 1 yr
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	1 (102)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence, yr = years.

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#### 3.3.5. Detailed Findings for KQ 1 – When Healthcare Is Provided

Twelve studies, reported in 19 articles,<sup>33, 35, 36, 41-43, 45, 47-50, 61, 67, 75, 77, 83, 88, 107, 138</sup> addressed when healthcare is provided (Appendix Table C-1.2). These comprised 11 RCTs and 1 retrospective adjusted NRCS. All 12 studies were conducted in the United States.

In three studies (2 RCTs and 1 NRCS), the intervention target was general postpartum care. Two of these studies (Bernard 2018 and Pluym 2021) compared groups of participants scheduled for two postpartum visits (at 2 or 3 weeks and 6 weeks) versus one (at 6 weeks). Chen 2019 compared two different timings of single postpartum visits: 2 to 3 weeks versus 6 weeks.

In the remaining nine studies (all RCTs), the target was contraceptive care. Six RCTs evaluated levonorgestrel IUDs, two evaluated etonogestrel implants, and one evaluated depot medroxyprogesterone acetate (DMPA) injections. Each study compared the use of a contraceptive given earlier (e.g., soon after delivery, before hospital discharge, at 2–3 weeks) versus use of the same contraception later (i.e., at the usual time during planned postpartum visits, typically at 6–8 weeks).

##### 3.3.5.1. When: General Postpartum Care – Healthcare Utilization

###### 3.3.5.1.1. Attendance at Postpartum Visits

Two RCTs (Bernard 2018 and Pluym 2021) and one NRCS (Chen 2019) reported inconsistent data (Appendix Table E-1.3). Bernard 2018 reported comparable **6-week postpartum visit attendance** among participants randomized to two postpartum visits (at 3 and 6 weeks) or one visit (at 6 weeks) (RR 0.82, 95% CI 0.65 to 1.04). Similarly, Pluym 2021 reported comparable 6-week visit attendance among participants randomized to two postpartum visits (at 2 and 6 weeks) or one visit (at 6 weeks) (RR 1.07, 95% CI 0.87 to 1.31). However, Chen 2019 reported that participants scheduled for a 6-week visit were less likely than participants scheduled for a 2-3-week visit to attend a postpartum visit by 3 months (adjOR 0.42, 95% CI 0.24 to 0.74). None of the three studies reported data regarding availability of maternity leave.

Because of the inconsistent results, we were unable to make a graded conclusion for this outcome (Table 3-6).

###### 3.3.5.1.2. Unplanned Care Utilization

One RCT (Pluym 2021) reported comparable rates of **ER visits** among participants randomized to two postpartum visits (at 2 and 6 weeks) or one visit (at 6 weeks) (RR 0.80, 95% CI 0.33 to 1.96) (Appendix Table E-1.4).

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-6).

##### 3.3.5.2. When: General Postpartum Care – Clinical Outcomes

###### 3.3.5.2.1. Contraceptive Use

One RCT (Bernard 2018) reported on various contraceptive use outcomes after delivery and at 1 and 2 months postpartum (Appendix Table E-1.6). Participants randomized to two postpartum visits (at 3 and 6 weeks), or one visit (at 6 weeks) generally had comparable rates of use of any contraception, LARC, reversible non-LARC, and sterilization.

### 3. Results

#### 3.3.5.2.2. Breastfeeding Outcomes

One NRCS (Chen 2019) reported on various breastfeeding outcomes comparing participants scheduled for a 2-3-week visit postpartum versus participants scheduled for a 6-week visit (Appendix Tables E-1.11, E-1.12, and E-1.14).

Rates of **exclusive breastfeeding** were comparable at the postpartum visit and at 3 and 6 months. However, at the postpartum visit, participants in the 2–3-week group had higher rates of **non-exclusive breastfeeding** ( $P=0.03$ ) and lower rates of **breastfeeding non-initiation** ( $P=0.03$ ). For both outcomes, rates were comparable at 3 and 6 months postpartum. No adjusted effect sizes were reported.

#### 3.3.5.3. When: General Postpartum Care – Harms

No study reported on harms.

#### 3.3.5.4. When: Contraceptive Care – Healthcare Utilization

No study reported on healthcare utilization.

#### 3.3.5.5. When: Contraceptive Care – Clinical Outcomes

##### 3.3.5.5.1. Mental Health Outcomes

One RCT (Chen 2018) reported that participants who received DMPA before discharge and those who received it at 4-6 weeks postpartum had comparable scores on the EPDS for **depression symptoms** at 2 months postpartum (MD  $-0.3$ , 95% CI  $-1.1$  to  $1.0$ ) (Appendix Table E-1.2).

Because of the sparseness of the evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-7).

##### 3.3.5.5.2. Physical Health/Medical Outcomes

Three RCTs that compared earlier (Chen 2010 and Whitaker 2014: immediate and Baldwin 2019: 3 weeks postpartum) versus later levonorgestrel IUD placement reported data (Appendix Table E-1.9). Chen 2010 reported that only one participant in each group of 51 participants experienced **infections**, and Baldwin 2019 reported that none of the 197 participants did. Similarly, Whitaker 2014, due to infrequent events, reported an imprecise estimate of **menorrhagia**. No data were reported regarding participant breastfeeding status.

##### 3.3.5.5.3. Unplanned Pregnancies

Two RCTs that compared earlier versus later levonorgestrel IUD (Baldwin 2019, which defined earlier as at 3 weeks postpartum) or etonogestrel implant placement (Morse 2016, which defined earlier as before hospital discharge) reported data (Appendix Table E-1.7). Morse 2016 reported that only one of the 24 participants in the later contraception group got **pregnant** again within 1 year, and Baldwin 2019 reported that none of the 197 participants got pregnant within 6 months.

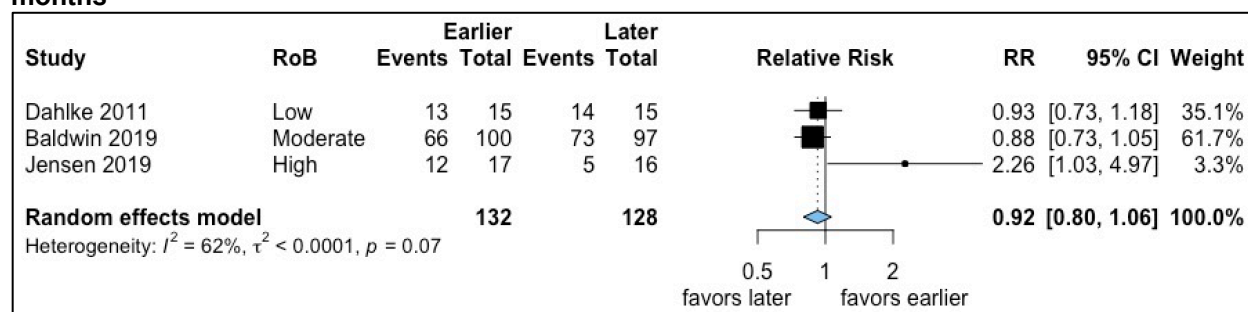
##### 3.3.5.5.4. Contraceptive Use

Eight of the nine RCTs that addressed contraceptive care (Dahlke 2011, Chen 2010, Levi 2015, Dempsey 2018, Baldwin 2019, Whitaker 2014, Morse 2016, and Jensen 2019) reported data at various postpartum time-points (3 months, 6 months, and 1 year) (Appendix Table E-1.6).

### 3. Results

Three RCTs (Dahlke 2011, Baldwin 2019, and Jensen 2019) reported data on **continued use of levonorgestrel IUD at 3 months** (Figure 3-2). Dahlke 2011 and Jensen 2019 defined earlier as immediately after delivery, and Baldwin 2019 defined earlier as at 3 weeks postpartum. RRs ranged from 0.88 to 2.26. The meta-analysis provided evidence that the initial timing of levonorgestrel IUD placement was not associated with its continued use at 3 months (RR 0.92, 95% CI 0.80 to 1.06;  $I^2=62\%$ ).

**Figure 3-2. Earlier versus later levonorgestrel IUD placement (when): Continued IUD use at 3 months**



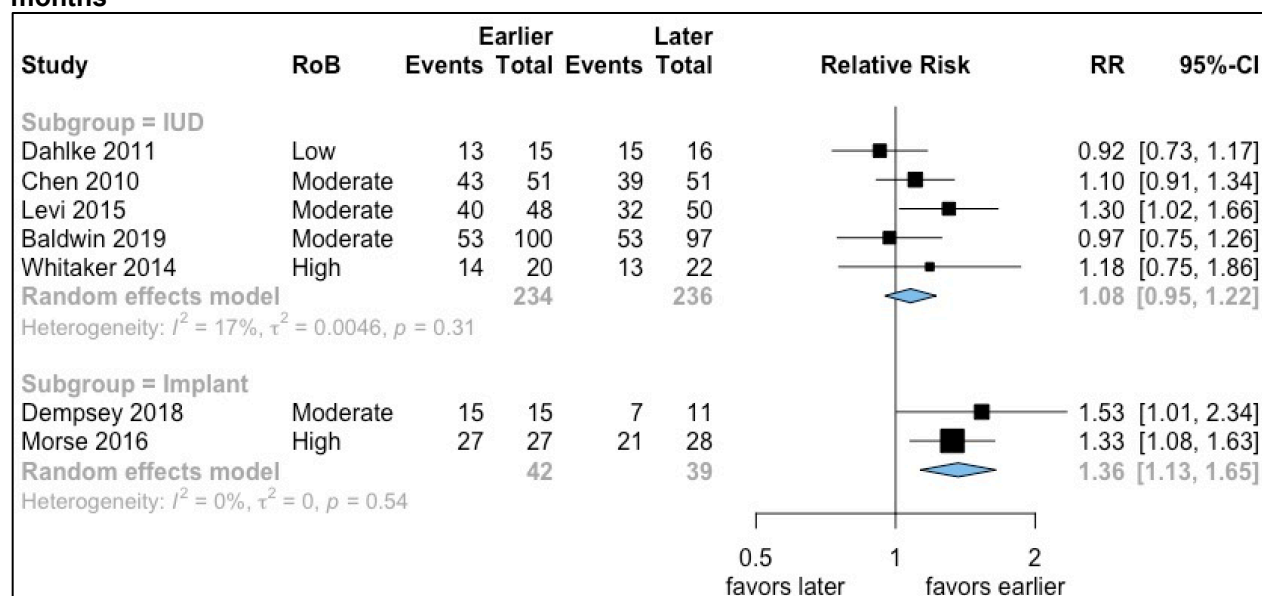
Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), IUD = intrauterine device, RoB = risk of bias, RR = relative risk.

Seven RCTs (Dahlke 2011, Chen 2010, Levi 2015, Dempsey 2018, Baldwin 2019, Whitaker 2014, and Morse 2016) reported data on **continued use at 6 months** postpartum (Figure 3-3). Dahlke 2011, Chen 2010, Levi 2015, and Whitaker 2014 defined earlier as immediately after delivery, Dempsey 2018 and Morse 2016 defined earlier as before hospital discharge, and Baldwin 2019 defined earlier as at 3 weeks postpartum. RRs ranged from 0.92 to 1.53. The meta-analysis provided evidence that earlier contraceptive placement was associated with comparable continued use of IUDs but greater continued use of implants (RR 1.36, 95% CI 1.13 to 1.65). We do not provide an overall meta-analytic estimate because IUDs and implants are different methods with different plausible explanations for (lack of) continued contraceptive use (IUDs are more likely to be expelled).

Because of the moderate risk of bias, we rated the SoE as moderate for these conclusions (Table 3-7).

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**Figure 3-3. Earlier versus later contraceptive placement (when): Continued contraceptive use at 6 months**



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), IUD = intrauterine device, RoB = risk of bias, RR = relative risk.

Two RCTs (Whitaker 2014 and Morse 2016) reported that the initial timing of contraceptive placement (Whitaker 2014: levonorgestrel IUD and Morse 2016: etonogestrel implant) was not associated with **continued use at 12 months**.

One RCT (Chen 2018) reported on comparable rates of 6-month **use of highly effective contraception** (defined as DMPA, IUD, implant, sterilization, or lactational amenorrhea) between participants who had received postpartum DMPA before hospital discharge and those that received it at 4-6 weeks postpartum (RR 0.97, 95% CI 0.73 to 1.28).

#### 3.3.5.5. Breastfeeding Outcomes

Four RCTs (Dahlke 2011, Chen 2010, Morse 2016, and Chen 2018) reported data up to 6 months postpartum (Appendix Tables E-1.10 and E-1.11). Timing of contraceptive care was generally not associated with rates of **any breastfeeding**, except for Chen 2010, which reported that, compared with later postpartum levonorgestrel IUD placement, placement immediately after delivery was associated with lower breastfeeding rates at 6 months (RR 0.25, 95% CI 0.08 to 0.84). Chen 2010 also reported that placement immediately after delivery was associated with lower rates of **exclusive breastfeeding** at 3 months (RR 0.10, 95% CI 0.01 to 0.76) and 6 months (RR 0.15, 95% CI 0.02 to 1.20).

#### 3.3.5.6. When: Contraceptive Care – Harms

##### 3.3.5.6.1. Serious Adverse Events

Seven RCTs (Levi 2015, Dempsey 2018, Baldwin 2019, Whitaker 2014, Morse 2016, Chen 2018, and Jensen 2019) reported data at various time-points until 1 year postpartum (Appendix Table E-1.9). No **serious adverse events** occurred in any study.

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**Table 3-6. Key Question 1: Evidence profile for prioritized outcomes for when healthcare is provided – general postpartum care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	3 (950)	Moderate	Inconsistent	Precise	Direct	Sparse	Insufficient	None (inconsistent results)
	Unplanned care utilization	1 (250)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

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**Table 3-7. Key Question 1: Evidence profile for prioritized outcomes for when healthcare is provided – contraceptive care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Mental health	1 (157)	High	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Contraceptive use	8 (829)	Moderate	Consistent	Precise	Direct	N/A	Moderate	Compared with later contraception, earlier contraception associated with comparable continued IUD use at 3 months (3 RCTs) and 6 months (5 RCTs) but greater implant use at 6 months (summary RR 1.36, 95% CI 1.13 to 1.64; 2 RCTs).
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: CI = confidence interval, N/A = not applicable, IUD = intrauterine device, OP = outpatient, RCT = randomized controlled trial, RR = relative risk, SoE = strength of evidence.

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#### 3.3.6. Detailed Findings for KQ 1 – Who Provides Care

Twenty-eight studies, reported in 33 articles,<sup>31, 37-40, 44, 51, 52, 55, 56, 58, 60, 62, 64-66, 68, 73, 76, 82, 85, 90-94, 98, 99, 101, 103-106</sup> addressed who provides care (Appendix Table C-1.2). These comprised 23 RCTs and 5 adjusted NRCSs. Three NRCSs were prospective, and two were retrospective. Twenty-five studies were conducted in the United States and three in Canada.

In eight studies (5 RCTs and 3 NRCSs), the intervention target was general postpartum care. Two studies evaluated doula support (Hans 2018 and Kozhimannil 2013), one evaluated community health worker and social worker support (Pan 2020), three evaluated public health nurse care (Edwards 1997, Dodge 2019, and Mersky 2021), one evaluated nurse practitioner care (Buckley 1990), and one evaluated mental health professional and community health worker care (Tandon 2021).

In one study (Simmons 2013, an RCT), the intervention target was contraceptive care. The study evaluated contraceptive counselor care.

In 19 studies (17 RCTs and 2 NRCSs), the intervention target was breastfeeding care. Ten RCTs (Dennis 2002, Reeder 2014, Gross 1998, Anderson 2005, Pugh 2002, Chapman 2004, Wambach 2011, Chapman 2013, Srinivas 2015, and Kerver 2019) evaluated peer support, one RCT (Edwards 2013) and one NRCS (Falconi 2022) evaluated doula support, one RCT (Porteous 2000) evaluated midwife care, and six RCTs (Rasmussen 2011, Bonuck 2014a, Bonuck 2014b, Pugh 2010, Wambach 2011, and Uscher-Pines 2020) and one NRCS (Gill 2007) evaluated lactation consultant care.

In Kerver 2019 and Tandon 2021 (RCTs), the intervention target was screening. Kerver 2019 evaluated peer support. Tandon 2021 evaluated mental health professionals and community health workers.

##### 3.3.6.1. Who: General Postpartum Care – Healthcare Utilization

###### 3.3.6.1.1. Postpartum Visit Attendance

One RCT (Dodge 2019) and two NRCSs (Buckley 1990 and Pan 2020) reported data (Appendix Table E-1.3). Dodge 2019 and Buckley 1990 evaluated provision of care by nurses/nurse practitioners but reported inconsistent results. Dodge 2019 reported that participants who received care from nurses and those who did not had comparable rates of postpartum visits ( $\beta$  coefficient 6.44, 95% CI -1.62 to 13.5). However, Buckley 1990 reported that contact with nurse practitioners (visits and phone calls) was associated with greater attendance at postpartum visits ( $P < 0.02$ ), but an adjusted effect size was not reported. Pan 2020 reported that community health worker home visits with referrals to social workers (as part of the Baby Love Program) were associated with higher attendance at 2-month postpartum visits (adjOR 1.46, 95% CI 0.93 to 2.31).

Because of the inconsistency of the results (for nurses) or sparseness of the results (for community health workers), we were unable to make a graded conclusion for this outcome (Table 3-8).

###### 3.3.6.1.2. Unplanned Care Utilization

Two RCTs (Dodge 2019 and Hans 2018) reported data (Appendix Tables E-1.1 and E-1.4). Dodge 2019 reported that participants who received home visits from nurses had more **ER visits by 1 year** than participants who received usual care (MD 0.21, 95% CI 0.01 to 0.40). However,



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the **number of hospitalizations by 1 year** per participant were comparable (MD  $-0.01$ , 95% CI  $-0.13$  to  $0.15$ ). Hans 2018 reported that participants who received doula home visits or participants who received case management by community case managers or social service providers had comparable rates of **hospital readmission by 3 weeks**, but the estimate was imprecise.

Because of the sparseness of the evidence for each provider type (1 study for each), we were unable to make a graded conclusion for this outcome (Table 3-8).

#### 3.3.6.2. Who: General Postpartum Care – Clinical Outcomes

##### 3.3.6.2.1. Mental Health Outcomes

Four RCTs (Hans 2018, Tandon 2021, Edwards 1997, and Dodge 2019) reported data for comparisons between various providers of care or support (Appendix Table E-1.2 and E-1.8).

Hans 2018 reported that participants who received doula home visits or participants who received case management by community case managers or social service providers had comparable rates of **significant depression symptoms (CES-D  $\geq 15$ ) at 3 weeks** (adjOR 0.96, 95% CI 0.53 to 1.71) and **at 3 months** (adjOR 0.95, 95% CI 0.47 to 1.91). Baseline depression symptoms were similar among the treatment groups.

Tandon 2021 reported comparable 6-month **depression symptom** absolute scores using the Quick Inventory of Depression Symptoms (QIDS) comparing participants with usual home visits (visitor type unspecified) versus those with home visits by mental health professionals (MD  $-0.56$ , 95% CI  $-1.59$  to  $0.46$ ) or home visits by community health workers (MD  $-0.55$ , 95% CI  $-1.58$  to  $0.49$ ). Rates of **major depression episodes** by 6 months were also comparable among groups, but the effect sizes were imprecise.

Edwards 1997 reported that visits and telephone calls from public health nurses, telephone calls from health department clerks, and postpartum education packages were all associated with comparable rates of **postpartum depression diagnoses** by 3 months.

Dodge 2019 reported that participants who received home visits from nurses and those who received usual care had comparable rates of **possible depression or anxiety** by 6 months ( $\beta$  coefficient  $-7.70$ , 95% CI  $-16.7$  to  $1.33$ ).

Because of the sparseness of the evidence for each depression outcome and provider combination, and the imprecise results, we were unable to make a graded conclusion for this outcome (Table 3-8).

##### 3.3.6.2.2. Breastfeeding Outcomes

Three RCTs and one NRCS reported data on various breastfeeding outcomes for comparisons between various providers of care or support (Appendix Tables E-1.1, E-1.10, E-1.12, and E-1.14).

One RCT (Hans 2018) and the NRCS (Kozhimannil 2013) evaluated doula support. Hans 2018 reported that participants who received doula home visits or participants who received case management by community case managers or social service providers had comparable **breastfeeding rates** at 3 months (adjOR 0.85, 95% CI 0.45 to 1.60). Kozhimannil 2013 reported that doula support was associated with greater breastfeeding rates (at an unreported time-point) overall as well as among White and African-American participants. However, adjusted effect sizes were not reported.

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One RCT (Mersky 2021) reported that, when compared with no home visits, **breastfeeding initiation rates** were higher among participants who received home visits by human service professionals (RR 1.30, 95% CI 1.10 to 1.55) or public health nurses (RR 1.28, 95% CI 1.07 to 1.53). Breastfeeding initiation rates were comparable among the two home visit groups. Compared with the no home visit group, **duration of breastfeeding** was higher in the group that received home visits by human service professionals (MD 4.3 weeks, 95% CI 0.1 to 8.5). Durations were comparable in the other two groups.

One RCT (Edwards 1997) reported that visits and telephone calls from public health nurses, telephone calls from health department clerks, and postpartum education packages were all associated with comparable rates of **bottle-feeding only**, **breastfeeding with up to 1 bottle of non-breast milk a day**, and **breastfeeding with more than 1 bottle of non-breast milk a day**.

#### 3.3.6.3. Who: General Postpartum Care – Harms

No study reported on harms.

#### 3.3.6.4. Who: Contraceptive Care – Healthcare Utilization

No study reported on healthcare utilization.

#### 3.3.6.5. Who: Contraceptive Care – Clinical Outcomes

##### 3.3.6.5.1. Contraceptive Use

One RCT (Simmons 2013) reported that participants who received phone calls from a contraceptive counselor at 2 weeks postpartum (in addition to a clinic visit at 6 weeks) or participants who only attended the clinic visit at 6 weeks had comparable rates of **LARC placement by 3 months** (RR 1.08, 95% CI 0.74 to 1.57) (Appendix Table E1.6).

##### 3.3.6.6. Who: Contraceptive Care – Harms

No study reported on harms.

##### 3.3.6.7. Who: Breastfeeding Care – Healthcare Utilization

One NRCS (Falconi 2022) reported data (Appendix Table E-1.4). Participants who did or did not receive doula support had comparable rates of **ER visits or hospitalization** by 1 month (adjOR 0.47, 95% CI 0.15 to 1.46) and hospitalization by 2 months (adjOR 0.67, 95% CI 0.33 to 1.36).

Because of the sparse evidence (1 NRCS), we were unable to make a graded conclusion for this outcome (Table 3-9).

##### 3.3.6.8. Who: Breastfeeding Care – Clinical Outcomes

###### 3.3.6.8.1. Maternal Mortality

One NRCS (Falconi 2022) reported data (Appendix Table E-1.9). Participants who did or did not receive doula support had comparable rates of **severe maternal morbidity or mortality** by 2 months (adjOR 0.45, 95% CI 0.11 to 1.83).

Because of the sparse evidence (1 NRCS), we were unable to make a graded conclusion for this outcome (Table 3-9).

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#### 3.3.6.8.2. Mental Health Outcomes

One NRCS (Falconi 2022) reported data (Appendix Table E-1.8). Participants who did or did not receive doula support had comparable rates of **postpartum anxiety or depression** by 2 months (adjOR 0.93, 95% CI 0.48 to 1.79).

Because of the sparse evidence (1 NRCS), we were unable to make a graded conclusion for this outcome (Table 3-9).

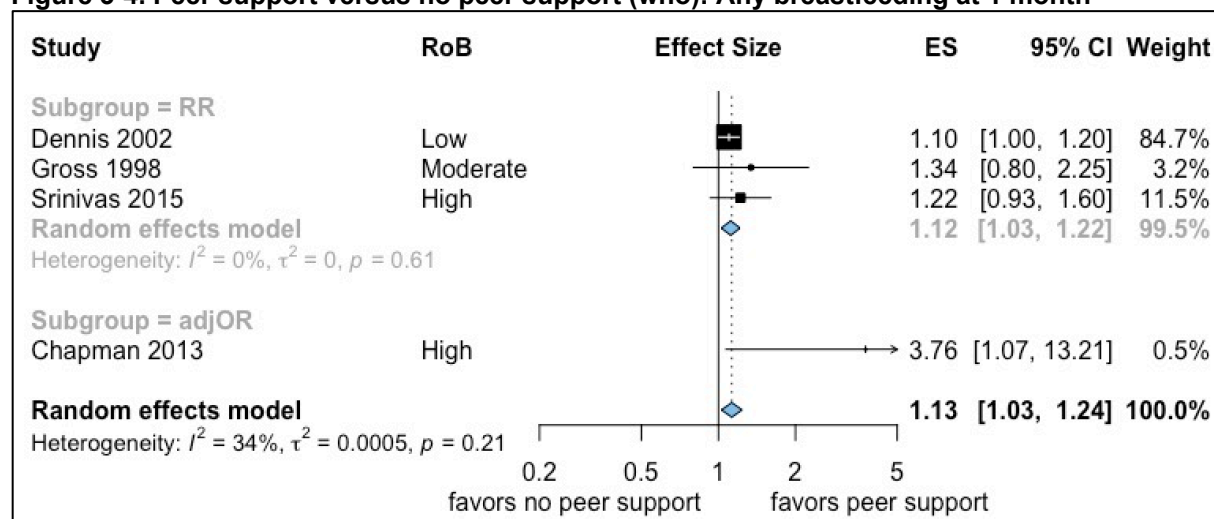
#### 3.3.6.8.3. Breastfeeding Outcomes

Eighteen RCTs reported various breastfeeding outcomes comparing care provided by various types of providers (Appendix Tables E-1.10 to E-1.14). The rest of this subsection on breastfeeding outcomes is organized by type of provider: peer support (10 RCTs), doulas (1 RCT), midwives (1 RCT), and lactation consultants (7 RCTs and 1 NRCS).

##### 3.3.6.8.3.1. Breastfeeding Support by Peers

Among the 10 RCTs addressing peer support, five (Dennis 2002, Gross 1998, Srinivas 2015, Chapman 2013, and Kerver 2019) reported data on rates of **any breastfeeding**. Meta-analyses provided evidence that peer support was associated with higher rates at 1 month (Figure 3-4: effect size 1.13, 95% CI 1.03 to 1.24;  $I^2=34%$ ; 4 RCTs) and at 3 to 6 months (Figure 3-5: RR 1.22, 95% CI 1.06 to 1.41;  $I^2=9%$ ; 4 RCTs).

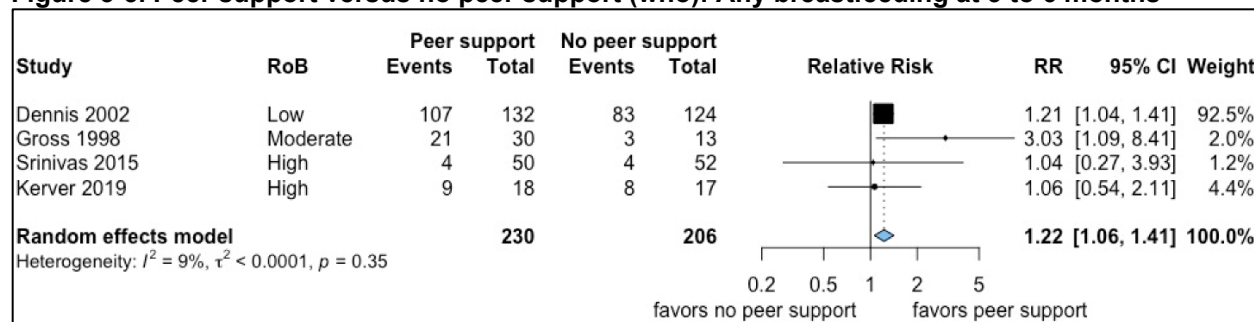
**Figure 3-4. Peer support versus no peer support (who): Any breastfeeding at 1 month**



Abbreviations: adjOR = adjusted odds ratio, CI = confidence interval, ES = effect size,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), OR = odds ratio, RR = relative risk.

### 3. Results

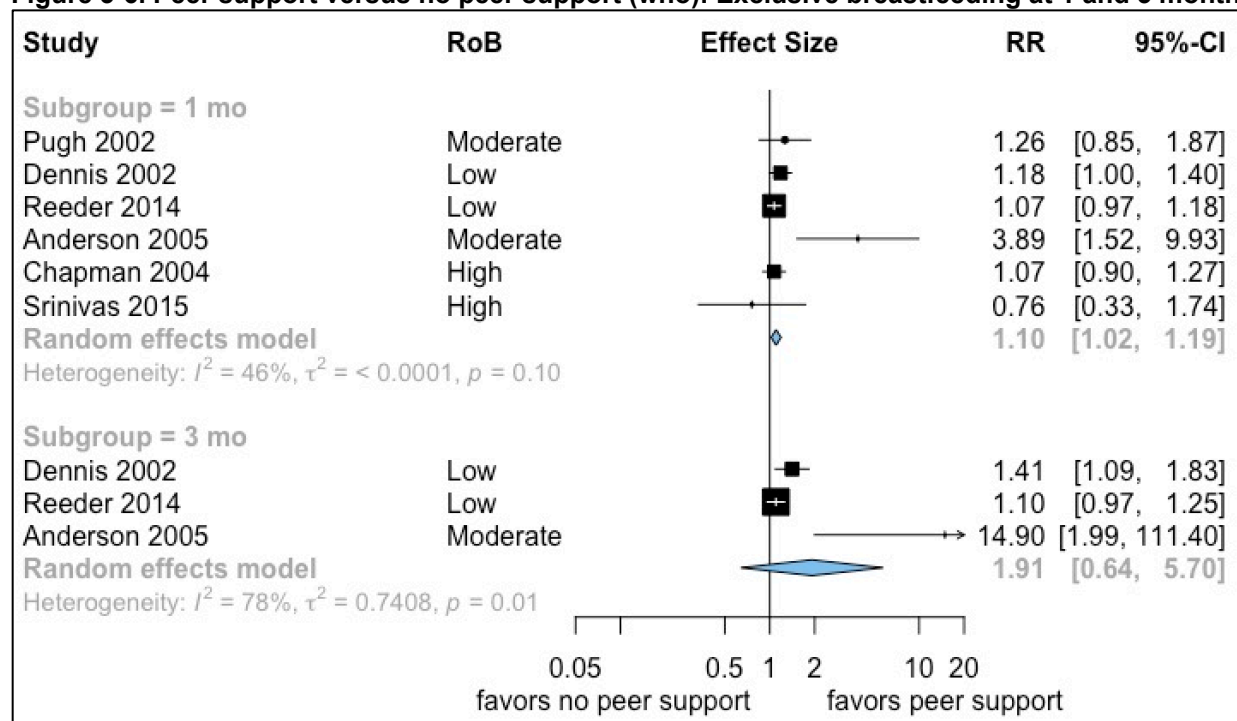
**Figure 3-5. Peer support versus no peer support (who): Any breastfeeding at 3 to 6 months**



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), RR = relative risk.

Six RCTs (Pugh 2002, Dennis 2002, Reeder 2014, Anderson 2005, Chapman 2004, and Srinivas 2015) reported data on rates of **exclusive breastfeeding** (Figure 3-6). Meta-analyses provided evidence that peer support was associated with higher rates at 1 month (RR 1.10, 95% CI 1.02 to 1.19;  $I^2=46\%$ ; 6 RCTs) but not at 3 months (3 RCTs).

**Figure 3-6. Peer support versus no peer support (who): Exclusive breastfeeding at 1 and 3 months**

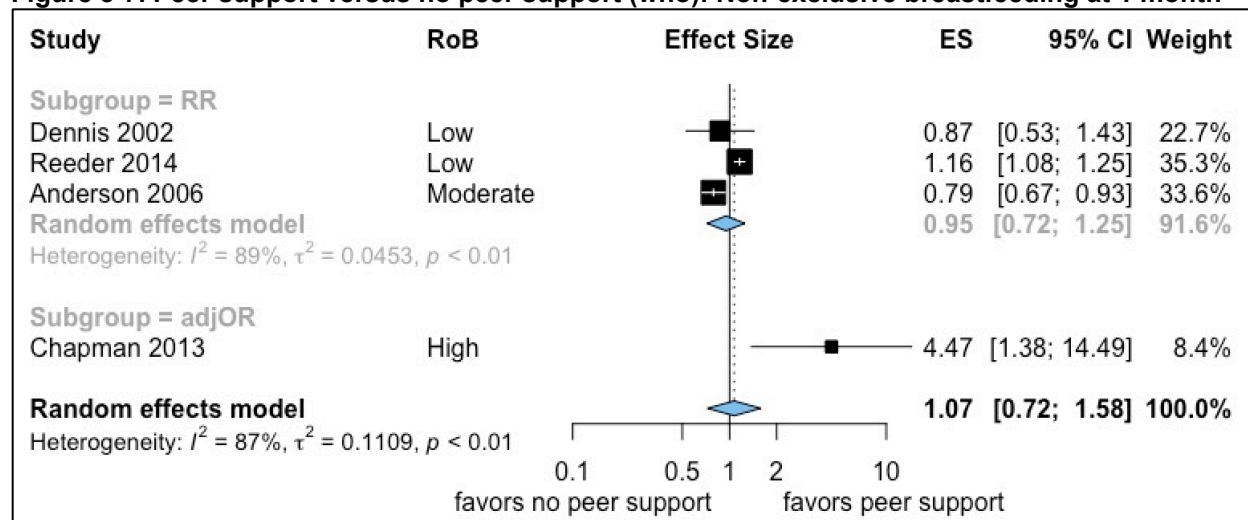


Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), RoB = risk of bias, RR = relative risk.

Four RCTs (Dennis 2002, Reeder 2014, Anderson 2005, and Chapman 2013) reported data on rates of **non-exclusive breastfeeding**. Meta-analyses provided evidence that peer support was not associated with rates of non-exclusive breastfeeding at 1 month (Figure 3-7: effect size 1.07, 95% CI 0.72 to 1.58;  $I^2=87\%$ ; 4 RCTs) or at 3 months (Figure 3-8: RR 0.96, 95% CI 0.74 to 1.23;  $I^2=87\%$ ; 3 RCTs).

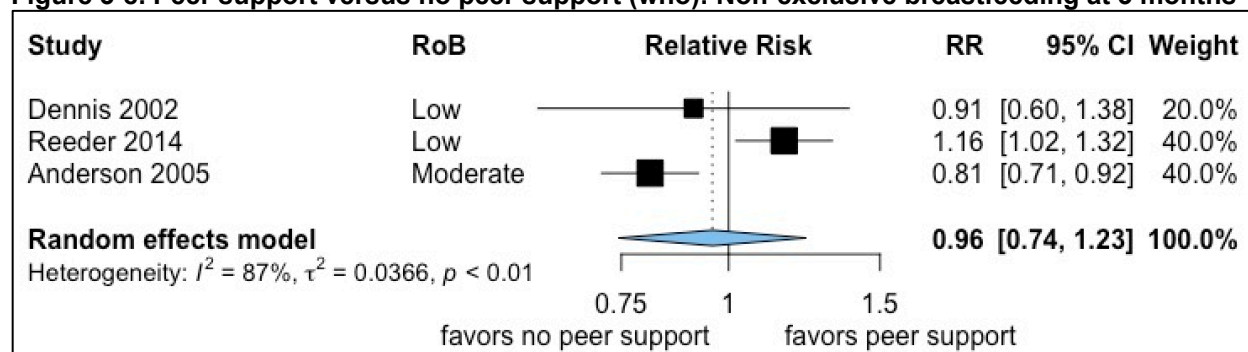
### 3. Results

**Figure 3-7. Peer support versus no peer support (who): Non-exclusive breastfeeding at 1 month**



Abbreviations: CI = confidence interval, ES = effect size,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), OR = odds ratio, RoB = risk of bias, RR = relative risk.

**Figure 3-8. Peer support versus no peer support (who): Non-exclusive breastfeeding at 3 months**



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), RoB = risk of bias, RR = relative risk.

Because of the moderate risk of bias, we rated the SoE as moderate for conclusions regarding breastfeeding outcomes for breastfeeding peer support (Table 3-9).

#### 3.3.6.8.3.2. Breastfeeding Care by Doulas

One RCT (Edwards 2013) reported that comparable proportions of participants who received home visits by doulas or those who did not receive such visits **breastfed for less than 1.5 months** (RR 1.07, 95% CI 0.75 to 1.52), **for 1.5 to 4 months** (RR 1.64, 95% CI 0.89 to 3.04), and **for more than 4 months** (RR 1.88, 95% CI 0.65 to 5.43) (Table E-1.13). However, participants who received doula visits were less likely than those who didn't receive doula visits to **not initiate breastfeeding by 4 months** (RR 0.74, 95% CI 0.54 to 1.02) (Table E-1.14).

#### 3.3.6.8.3.3. Breastfeeding Care by Midwives

One RCT (Porteous 2000) reported that, compared with participants who did not receive home visits by midwives, those who did were more likely to **breastfeed** at 1 month (RR 1.47, 95% CI 1.12 to 1.92; Appendix Table E-1.10) and **exclusively breastfeed** at 1 month (RR 2.35, 95% CI 1.36 to 4.06; Appendix Table E-1.11). However, comparable proportions of participants

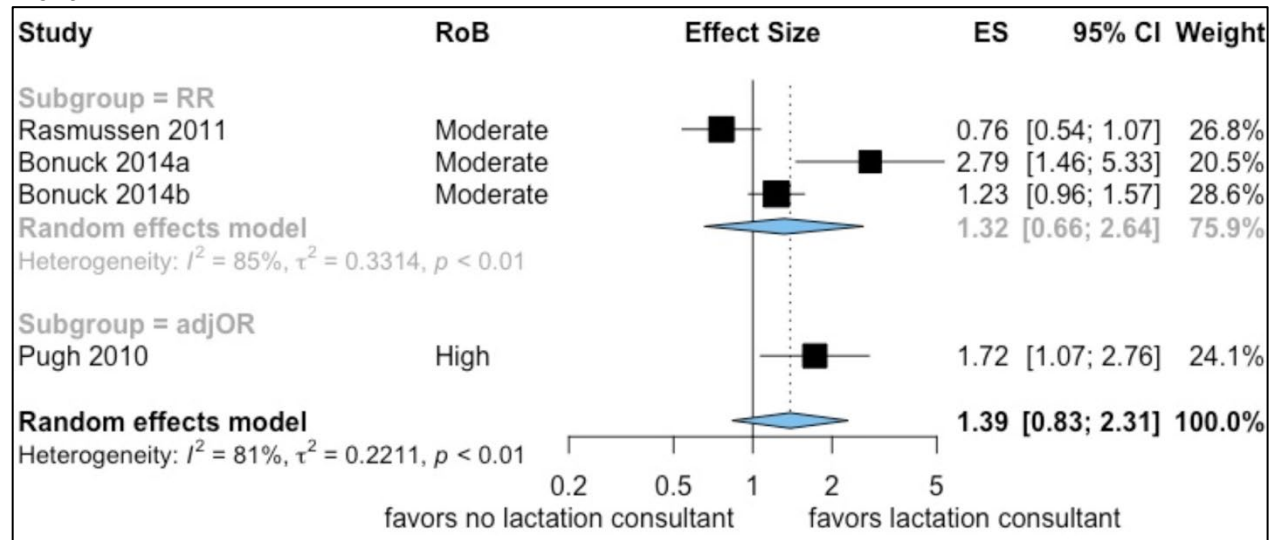
### 3. Results

who received home visits by midwives or those who did not receive such visits **breastfed non-exclusively** at 1 month (RR 0.48, 95% CI 0.17 to 1.40) (Appendix Table E-1.12).

#### 3.3.6.8.3.4. Breastfeeding Care by Lactation Consultants

Among the seven studies addressing breastfeeding care by lactation consultants, five RCTs (Rasmussen 2011, Bonuck 2014a, Bonuck 2014b, Pugh 2010, and Uscher-Pines 2020) reported data on rates of **any breastfeeding**. Meta-analyses provided evidence that lactation consultant care was associated with comparable rates at 1 month (Figure 3-9: 4 RCTs) and at 3 months (Figure 3-10: 5 RCTs) but higher rates at 6 months (Figure 3-11: effect size 1.43, 95% CI 1.07 to 1.91;  $I^2=0\%$ ; 3 RCTs).

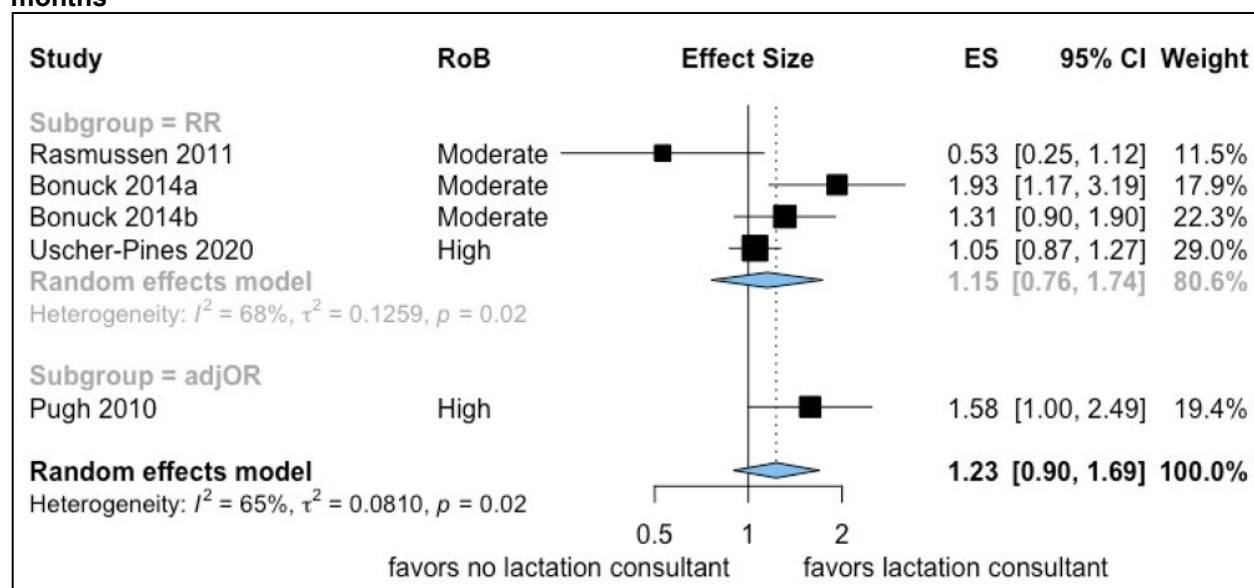
**Figure 3-9. Lactation consultant versus no lactation consultant (who): Any breastfeeding at 1 month**



Abbreviations: CI = confidence interval, ES = effect size,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), OR = odds ratio, RoB = risk of bias, RR = relative risk.

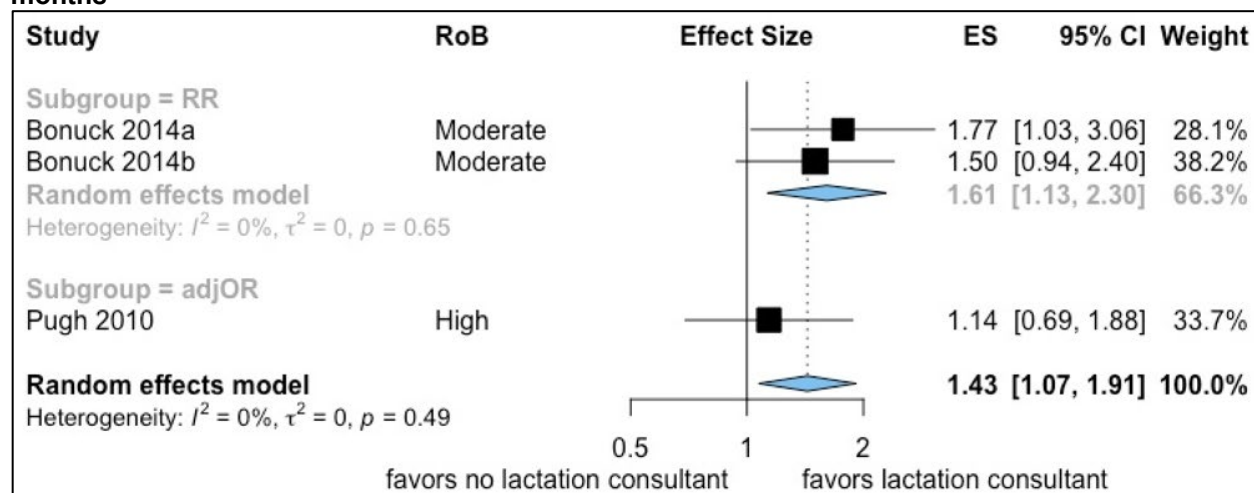
### 3. Results

**Figure 3-10. Lactation consultant versus no lactation consultant (who): Any breastfeeding at 3 months**



Abbreviations: CI = confidence interval, ES = effect size,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), OR = odds ratio, RoB = risk of bias, RR = relative risk.

**Figure 3-11. Lactation consultant versus no lactation consultant (who): Any breastfeeding at 6 months**



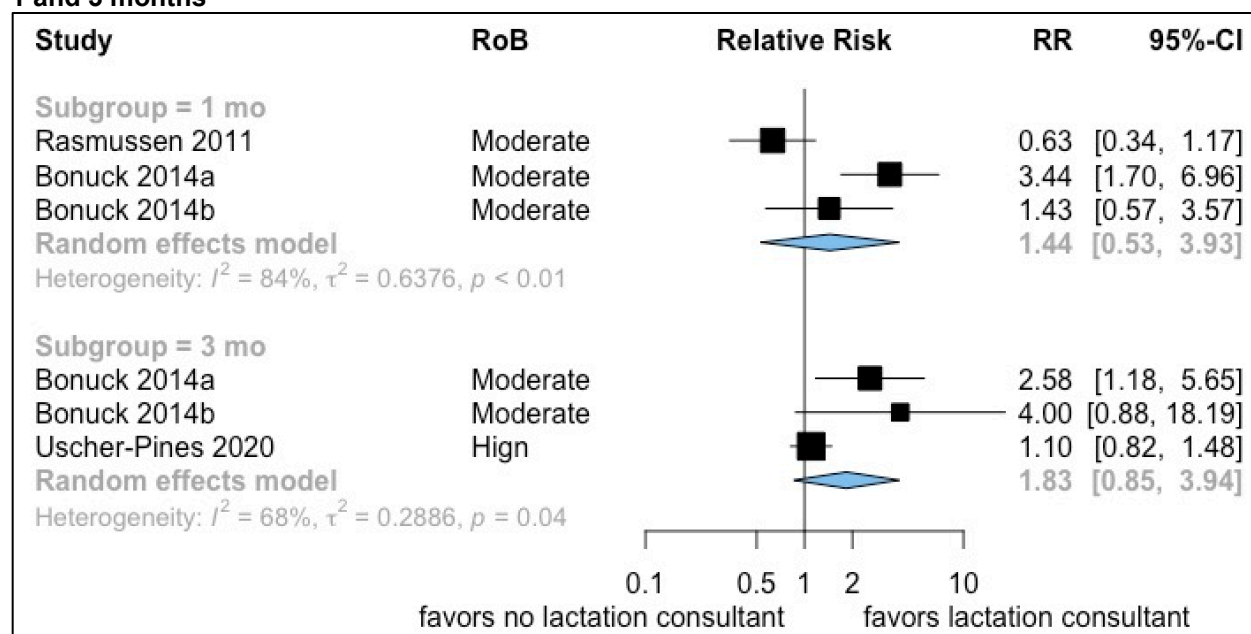
Abbreviations: adj = adjusted, CI = confidence interval, ES = effect size,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), OR = odds ratio, RoB = risk of bias, RR = relative risk.

Four RCTs (Rasmussen 2011, Bonuck 2014a, Bonuck 2014b, and Uscher-Pines 2020) reported data on rates of **exclusive breastfeeding** (Figure 3-12). Meta-analyses provided evidence that lactation consultant care was not associated with higher rates at 1 month (RR 1.44, 95% CI 0.53 to 3.93;  $I^2=84\%$ ; 3 RCTs) or at 3 months (RR 1.83, 95% CI 0.85 to 3.94;  $I^2=68\%$ ; 3 RCTs).



### 3. Results

Figure 3-12. Lactation consultant versus no lactation consultant (who): Exclusive breastfeeding at 1 and 3 months



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), RoB = risk of bias, RR = relative risk.

Because of the moderate risk of bias, we rated the SoE as moderate for conclusions regarding breastfeeding outcomes for breastfeeding care provided by lactation consultants (Table 3-9).

#### 3.3.6.9. Who: Breastfeeding Care – Harms

No study reported on harms.

#### 3.3.6.10. Who: Preventive Care – Healthcare Utilization

No study reported on healthcare utilization.

#### 3.3.6.11. Who: Preventive Care – Clinical Outcomes

##### 3.3.6.11.1. Maternal Mortality

One RCT (Kerver 2019) reported that no **maternal deaths** occurred during the study (Appendix Table E-1.9).

Because of the lack of events, we were unable to make a graded conclusion for this outcome (Table 3-10).

##### 3.3.6.11.2. Mental Health Outcomes

One RCT (Tandon 2021) reported comparable 6-month **depression symptom** absolute scores using the QIDS comparing participants with usual home visits (visitor type unspecified) versus those with home visits by mental health professionals (MD  $-0.56$ , 95% CI  $-1.59$  to  $0.46$ ) or home visits by community health workers (MD  $-0.55$ , 95% CI  $-1.58$  to  $0.49$ ). (Appendix Table E-1.6). Rates of **major depression episodes** by 6 months were also comparable among groups, but the effect sizes were imprecise (Appendix Table E-1.8).



### **3. Results**

Because of the sparse evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-10).

#### **3.3.6.11.3. Breastfeeding Outcomes**

One RCT (Kerver 2019) reported comparable 5-month **breastfeeding rates** between participants who received peer counselor support (for weight control) and those who received support from their prenatal care provider (RR 1.06, 95% CI 0.53 to 2.10) (Appendix Table E-1.10).

#### **3.3.6.12. Who: Preventive Care – Harms**

No study reported on harms.

### 3. Results

**Table 3-8. Key Question 1: Evidence profile for prioritized outcomes for who provides care – general postpartum care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	3 (830)	Moderate	Inconsistent (for nurses) N/A (for community health workers)	Precise	Direct	Sparse (for community health workers)	Insufficient	None (inconsistent and sparse evidence)
	Unplanned care utilization	2 (628)	High	N/A	Precise	Direct	Sparse (for each provider type)	Insufficient	None (sparse evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	4 (2240)	Moderate	Consistent	Imprecise	Direct	Sparse for each provider type	Insufficient	None (sparse and imprecise evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

### 3. Results

**Table 3-9. Key Question 1: Evidence profile for prioritized outcomes for who provides care – breastfeeding care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	1 (596)	High	N/A	Precise	Direct	Spare	Insufficient	None (sparse evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Maternal mortality	1 (596)	High	N/A	Precise	Direct	Spare	Insufficient	None (sparse evidence)
	Mental health	1 (596)	High	N/A	Precise	Direct	Spare	Insufficient	None (sparse evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Breastfeeding	18 (5199)	Moderate	Consistent	Precise	Direct	N/A	Moderate	<u>Peer support</u> : Higher rates of any BF at 1 mo (ES 1.13, 95% CI 1.03 to 1.24; 4 studies) and 3-6 mo (ES 1.22, 95% CI 1.06 to 1.41; 4 studies). Higher rates of exclusive BF at 1 mo (RR 1.10, 95% CI 1.02 to 1.19; 6 studies) but comparable rates at 3 mo. Comparable rates of nonexclusive BF at 1 and 3 mo <u>LC</u> : Higher rates of any BF at 6 mo (ES 1.43, 95% CI 1.07 to 1.91; 3 studies) but not at 1 mo or 3 mo. Comparable rates of exclusive BF at 1 and 3 mo.
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: BF = breastfeeding, CI = confidence interval, ES = effect size, LC = lactation consultant, mo = months, N/A = not applicable, RR = relative risk, SoE = strength of evidence.

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**Table 3-10. Key Question 1: Evidence profile for prioritized outcomes for who provides care – preventive care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	1 (53)	High	N/A	N/A	Direct	N/A	Insufficient	None (no deaths)
	Mental health	1 (824)	High	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

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#### 3.3.7. Detailed Findings for KQ 1 – Coordination and Management of Care

Five studies – one RCT and four NRCSs (1 prospective and 3 retrospective), reported in five articles,<sup>46, 81, 96, 97, 102</sup> addressed coordination and management of care (Appendix Table C-1.1). The RCT and one NRCS were conducted in Canada, and the other three NRCSs were conducted in the United States.

In two NRCSs (Rutledge 2016 and Tsai 2011), the intervention target was general postpartum care Appendix Table C-1.2). Rutledge 2016 evaluated case management and patient referrals through Maternity Care Coordination (MCC) programs. Tsai 2011 was a before-after study of an initiative to provide patients information regarding their postpartum appointment while they were still in the hospital and a photograph of the patient and baby when they attended the postpartum visit. In the RCT (Clark 2009) and the other two NRCSs (Mendez-Figueroa 2014 and Shea 2011), the target was screening/preventive education (for diabetes). They evaluated the use of mail and/or telephone reminders for screening.

##### 3.3.7.1. Coordination/Management: General Postpartum Care – Healthcare Utilization

###### 3.3.7.1.1. Attendance at Postpartum Visits

One NRCS (Tsai 2011) reported that providing patients information regarding their first postpartum appointment while still in the hospital was associated with greater likelihood of attending postpartum visit 1 (P=0.014) as well as postpartum visit 2 (P=0.025) (Appendix Table E-1.3). Adjusted effect sizes were not reported.

Because of the sparse evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-11).

##### 3.3.7.2. Coordination/Management: General Postpartum Care – Clinical Outcomes

###### 3.3.7.2.1. Interpregnancy Interval

One NRCS (Tsai 2011) reported that providing patients information regarding their first postpartum appointment while still in the hospital was associated with comparable rates of subsequent pregnancy within 6 months (adjRR 0.72, 95% CI 0.27 to 1.95), between 6 months and 1 year (adjRR 1.55, 95% CI 0.61 to 3.93), and beyond 1 year (adjRR 1.76, 95% CI 0.76 to 4.08) (Appendix Table E-1.7).

###### 3.3.7.2.2. Contraceptive Use

Two NRCSs (Tsai 2011 and Rutledge 2016) reported data (Appendix Table E-1.6). Tsai 2011 reported that providing patients information regarding their first postpartum appointment while still in the hospital was associated with higher rates of **pills, patches, rings, and DMPA use** (adjRR 1.43, 95% CI 1.04 to 1.96) but comparable rates of **sterilization or IUD use** (adjRR 1.69, 95% CI 0.88 to 3.23). Rutledge 2016 reported that case management and patient referrals through MCC programs was associated with higher rates of **contraceptive injections, IUD, or**

### 3. Results

**at-home contraceptive use** ( $P<0.001$ ), but an adjusted effect size was not reported. Neither NRCS specified time points for these results.

#### 3.3.7.2.3. Breastfeeding

One NRCS (Tsai 2011) reported that providing patients information regarding their first postpartum appointment while still in the hospital was associated higher rates of **breastfeeding** at the first postpartum visit (adjRR 1.79, 95% CI 1.06 to 3.03) and the second postpartum visit (adjRR 2.33, 95% CI 1.30 to 4.17) (Appendix Table E-1.10).

#### 3.3.7.3. Coordination/Management: General Postpartum Care – Harms

No study reported on harms.

#### 3.3.7.4. Coordination/Management: Screening – Healthcare Utilization

##### 3.3.7.4.1. Adherence to Screening

One RCT (Clark 2009) and two NRCSs (Shea 2011 and Mendez-Figueroa 2014) reported data (Appendix Table E-1.5).

All three studies reported on **adherence to OGTT testing**. Clark 2009 reported that, when compared with no reminders, providing patient mail reminders was associated with greater adherence by 1 year postpartum (odds ratio [OR] 8.7, 95% CI 2.9 to 25.6) and so was providing provider EMR and patient mail reminders (OR 5.2, 95% CI 1.4 to 19.6). Shea 2011 reported that, compared with providing no mail or telephone reminders for diabetes screening, providing mail and/or telephone reminders was associated with greater adherence by 6 months ( $P=0.01$ ), but an adjusted effect size was not reported. Similarly, Mendez-Figueroa 2014 reported that, when compared with no reminders, telephone reminders for diabetes screening was associated with comparable greater adherence by 1.5 months ( $P<0.001$ ), but an adjusted effect size was not reported.

Two studies (Clark 2009 and Shea 2011) also reported on adherence to other glucose-related testing. For **random glucose testing** and for **HbA1c testing**, neither provider EMR reminders nor the combination of provider EMR and patient mail reminders (Clark 2009) nor mail and/or telephone reminders (Shea 2011) were associated with greater adherence.

However, for the remaining two types of testing, the results from the two studies were inconsistent. For **fasting glucose testing**, Clark 2009 reported that, when compared with no reminders, providing patient mail reminders was associated with greater adherence (OR 4.6, 95% CI 1.4 to 20.0) and so was providing provider EMR and patient mail reminders (OR 5.3, 95% CI 1.9 to 11.5). But Shea 2011 reported that mail and/or telephone reminders were not associated with greater adherence. Similarly, for **any glucose testing**, Clark 2009 reported that, when compared with no reminders, providing patient mail reminders was associated with greater adherence (OR 5.4, 95% CI 2.1 to 13.5) and so was providing provider EMR and patient mail reminders (OR 5.5, 95% CI 1.4 to 21.3). But Shea 2011 reported that mail and/or telephone reminders were not associated with greater adherence.

Because of the moderate risk of bias, we rated the SoE as moderate for conclusions for this outcome (Table 3-12).

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#### **3.3.7.5. Coordination/Management: Screening – Clinical Outcomes**

##### **3.3.7.5.1. Physical Health/Medical**

One NRCS (Mendez-Figueroa 2014) reported that, when compared with no reminders, telephone reminders for diabetes screening were associated with comparable rates of diabetes at 1 year ( $P=0.77$ ), but an adjusted effect size was not reported (Appendix Table E-1.9).

##### **3.3.7.6. Coordination/Management: Screening – Harms**

No study reported on harms.

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**Table 3-11. Key Question 1: Evidence profile for prioritized outcomes for coordination and management of care – general postpartum care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	1 (221)	High	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

**Table 3-12. Key Question 1: Evidence profile for prioritized outcomes for coordination and management of care – screening/testing**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening/testing	3 (783)	Moderate	Consistent	Precise	Direct	N/A	Moderate	Testing reminders associated with greater adherence to OGTT up to 1 year PP but not random glucose or HbA1c testing
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: HbA1c = hemoglobin A1c, N/A = not applicable, OGTT = oral glucose tolerance test, PP = postpartum, SoE = strength of evidence.



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#### 3.3.8. Detailed Findings for KQ 1 – Information/Communication Technology

Eight studies, reported in twelve articles,<sup>29, 30, 34, 37, 54, 62, 68, 79, 97, 103-105</sup> addressed the use of information/communication technology (Appendix Table C-1.2). These comprised seven RCTs and one prospective adjusted NRCS. Six studies were conducted in the United States and two in Canada.

In seven studies (all RCTs), the intervention target was breastfeeding care. One RCT (Gross 1997) evaluated the use of unidirectional (i.e., noninteractive) information technology (video education). The other six RCTs evaluated the use of interactive information technologies that include smartphone (or other internet-ready device)-based applications (Kerver 2019, Uscher-Pines 2020, Martinez-Brockman 2018, Abbass-Dick 2020, and Ahmed 2016) or interactive texts (Bender 2022).

In the NRCS (Shea 2011), the target was screening (for diabetes). It evaluated the use of telephone reminders for screening.

##### 3.3.8.1. Information/Communication Technology: Breastfeeding Care – Healthcare Utilization

One RCT (Bender 2022) reported data (Appendix Table E-1.3). Text message-based breastfeeding support and usual care were associated with comparable attendance at postpartum visits (RR 1.09, 95% CI 0.96 to 1.23). Similar results were obtained for Black and non-Black participants when analyzed separately.

Because of the sparse evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-13).

##### 3.3.8.2. Information/Communication Technology: Breastfeeding Care – Clinical Outcomes

###### 3.3.8.2.1. Mental Health

One RCT (Ahmed 2016) reported that receiving an interactive Web-based monitoring for breastfeeding care was not associated with scores on the EPDS for **depression symptoms** at 1 month (MD -0.2, 95% CI -1.8 to 1.4) and 3 months postpartum (MD 0.0, 95% CI -1.5 to 1.5) (Appendix Table E-1.2).

Because of the sparse evidence (1 RCT), we were unable to make a graded conclusion for this outcome (Table 3-13).

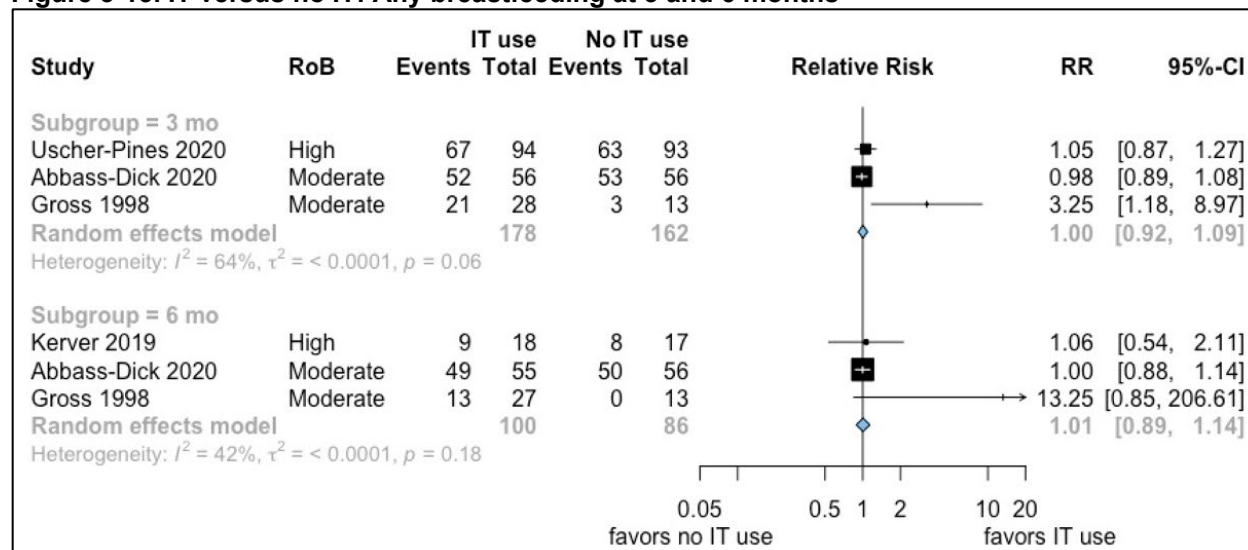
###### 3.3.8.2.2. Breastfeeding

Six RCTs reported various breastfeeding outcomes (Appendix Tables E-1.10, E-1.11, E-1.12, and E-1.14).

Five RCTs reported rates of **any breastfeeding at time-points up to 6 months** (Figure 3-13). The meta-analysis provided evidence that IT use was associated with comparable rates at 3 months (RR 1.00, 95% CI 0.92 to 1.09;  $I^2=64%$ ; 3 RCTs) and 6 months (RR 1.01, 95% CI 0.89 to 1.14;  $I^2=42%$ ; 3 RCTs).

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**Figure 3-13. IT versus no IT: Any breastfeeding at 3 and 6 months**

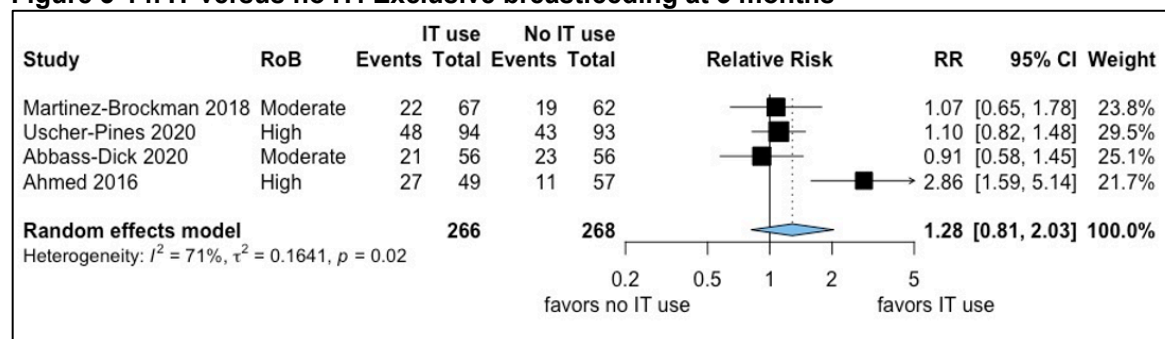


Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), IT = information/communication technology, mo = months, RoB = risk of bias, RR = relative risk.

In addition, one RCT (Bender 2022) reported that text message-based breastfeeding support and usual care were associated with comparable rates of any breastfeeding at 1.5 months (RR 1.11, 95% CI 0.94 to 1.32). Similar results were obtained for Black and non-Black participants when analyzed separately.

Four RCTs reported rates of **exclusive breastfeeding at 3 months** (Figure 3-14). The meta-analysis provided evidence that IT use was associated with comparable exclusive breastfeeding rates (RR 1.28, 95% CI 0.81 to 2.03;  $I^2=71\%$ ).

**Figure 3-14. IT versus no IT: Exclusive breastfeeding at 3 months**



Abbreviations: CI = confidence interval,  $I^2$  = measure of statistical heterogeneity (% of total variability that is due to between-study variability), IT = information/communication technology, RoB = risk of bias, RR = relative risk.

In addition, one RCT (Bender 2022) reported that text message-based breastfeeding support and usual care were associated with comparable rates of exclusive breastfeeding at 1 week (RR 0.89, 95% CI 0.67 to 1.18) and 1.5 months (RR 1.11, 95% CI 0.94 to 1.32) but text message-based breastfeeding support was associated with higher rates at 1 month (RR 1.73, 95% CI 1.25 to 2.40). At 1.5 months, text message-based breastfeeding support was associated with higher rates for Black participants (1.98, 95% CI 1.02 to 3.85) but not non-Black participants.

Overall, because of the moderate risk of bias, we rated the SoE as moderate for these conclusions related to breastfeeding (Table 3-12).

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#### 3.3.8.3. Information/Communication Technology: Breastfeeding Care – Harms

No study reported on harms.

#### 3.3.8.4. Information/Communication Technology: Screening – Healthcare Utilization

##### 3.3.8.4.1. Adherence to Screening

One NRCS (Shea 2011) reported that the group that was provided mail and/or telephone reminders, the group that was provided mail reminders only, and the group that was provided no reminders had comparable **adherence to OGTT, random or fasting glucose testing, or HbA1c testing** at 6 months (P values for all comparisons not statistically significant) (Appendix Table E-1.5). No adjusted effect sizes were reported for any comparison.

Because of the sparse evidence (1 NRCS), we were unable to make a graded conclusion for this outcome (Table 3-14).

#### 3.3.8.5. Information/Communication Technology: Screening – Clinical Outcomes

No study reported on clinical outcomes.

#### 3.3.8.6. Information/Communication Technology: Screening – Harms

No study reported on harms.

### 3. Results

**Table 3-13. Key Question 1: Evidence profile for prioritized outcomes for information/communication technology – breastfeeding care**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	1 (216)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Mental health	1 (106)	High	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Breastfeeding	6 (962)	Moderate	Consistent	Precise	Direct	N/A	Moderate	IT use and nonuse associated with comparable rates of any breastfeeding at 3 months (3 RCTs) and 6 months (3 RCTs) and of exclusive breastfeeding at 3 months (4 RCTs).
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: IT = information/communication technology, N/A = not applicable, RCT = randomized controlled trial, SoE = strength of evidence.

### 3. Results

**Table 3-14. Key Question 1: Evidence profile for prioritized outcomes for information/communication technology – screening**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening	1 (262)	Moderate	N/A	Precise	Direct	Sparse	Insufficient	None (sparse evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, SoE = strength of evidence.

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#### 3.3.9. Detailed Findings for KQ 1 – Interventions Targeting Healthcare Providers

Four RCTs (Bonuck 2014a, Bonuck 2014b, Clark 2009, and Domingo 2022), reported in three articles,<sup>37, 46, 53</sup> addressed interventions targeting healthcare providers (Appendix Table C-1.2). Three RCTs were conducted in the United States and one in Canada. The intervention target was breastfeeding care in two RCTs and screening in two RCTs. Two RCTs evaluated the use of prompts in the EMR that encouraged providers to ask patients brief open-ended questions that portrayed breastfeeding as the norm (e.g., “what are your plans for breastfeeding?”), clarified knowledge about breastfeeding, and elicited information on social network support. Bonuck 2014a compared this prompt intervention and the availability of lactation consultants versus standard breastfeeding support. Bonuck 2014b included two additional arms: the prompt only and the lactation consultants only. The other two RCTs evaluated EMR prompts that encouraged providers to remind patients about their testing for diabetes.

##### 3.3.9.1. Interventions Targeting Healthcare Providers: Breastfeeding Care – Healthcare Utilization

###### 3.3.9.1.1. Attendance at Postpartum Visits

No study reported on visit attendance.

##### 3.3.9.2. Interventions Targeting Healthcare Providers: Breastfeeding Care – Clinical Outcomes

Two RCTs (Bonuck 2014a and Bonuck 2014b) reported data (Appendix Tables E-1.1 and E-1.10 and E-1.11). Both RCTs reported that, compared with standard breastfeeding care, the combination of the EMR prompts and lactation consultants was associated with higher **breastfeeding rates** at 1 month (Bonuck 2014a: RR 2.79, 95% CI 1.46 to 5.32; Bonuck 2014b: RR 1.27, 95% CI 1.03 to 1.56), 3 months (Bonuck 2014a: RR 1.93, 95% CI 1.17 to 3.19; Bonuck 2014b: RR 1.47, 95% CI 1.07 to 2.02), and 6 months (Bonuck 2014a: RR 1.77, 95% CI 1.03 to 3.07; Bonuck 2014b: RR 1.29, 95% CI 0.95 to 1.96). However, in Bonuck 2014b, at each of the three time-points, EMR prompts (only) were not associated with higher breastfeeding rates than standard breastfeeding support.

However, the studies reported inconsistent results for the association between EMR prompts and **exclusive breastfeeding rates**. Bonuck 2014a reported rates were higher at 1 month (RR 3.44, 95% CI 1.70 to 6.96) and 3 months (RR 2.58, 95% CI 1.18 to 5.65) but not at 6 months. Bonuck 2014b reported that EMR prompts, whether used alone or in combination with lactation consultants, were not associated with higher rates of breastfeeding at 1 month, 3 months, or 6 months.

##### 3.3.9.3. Interventions Targeting Healthcare Providers: Breastfeeding Care – Harms

No study reported on harms.

### 3. Results

#### 3.3.9.4. Interventions Targeting Healthcare Providers: Screening Care – Healthcare Utilization

##### 3.3.9.4.1. Adherence to Screening/Testing

One RCT (Clark 2009) and one NRCS (Domingo 2022) reported data (Appendix Table E-1.5). Both studies reported on **adherence to OGTT testing**. Clark 2009 reported that when compared with no reminders, provider EMR reminders were associated with greater adherence (OR 8.4, 95% CI 2.4 to 28.5) and so were combined provider EMR and patient mail reminders (OR 5.2, 95% CI 1.4 to 19.6). However, Domingo 2022 reported that when compared with no reminders, physician EMR reminders were associated with comparable adherence (P=0.20); an adjusted effect size was not reported.

Clark 2009 also reported on adherence to other glucose-related testing. When compared with no reminders, provider EMR reminders were associated with greater adherence to **fasting glucose testing** (OR 4.2, 95% CI 1.4 to 12.3) and so were provider EMR and patient mail reminders (OR 5.3, 95% CI 1.9 to 11.5). Similarly, when compared with no reminders, provider EMR reminders were associated with greater adherence to **any glucose testing** (OR 4.2, 95% CI 1.4 to 12.5) and so were provider EMR and patient mail reminders (OR 5.5, 95% CI 1.4 to 21.3). However, for **random glucose testing** and for **HbA1c testing**, neither provider EMR reminders nor the combination of provider EMR and patient mail reminders were associated with greater adherence.

Because of the inconsistent results (for OGTT) and sparse evidence (for other tests), we were unable to make a graded conclusion for this outcome (Table 3-15).

#### 3.3.9.5. Interventions Targeting Healthcare Providers: Screening Care – Clinical Outcomes

No study reported on clinical outcomes.

#### 3.3.9.6. Interventions Targeting Healthcare Providers: Screening Care – Harms

No study reported on harms.

### 3. Results

**Table 3-15. Key Question 1: Evidence profile for prioritized outcomes for interventions targeting healthcare providers – screening/testing**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Unplanned care utilization	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Adherence to screening	2 (469)	Moderate	Inconsistent (for OGTT) Sparse (for other tests)	Precise	Direct	Sparse (for other tests)	Insufficient	None (sparse and/or inconsistent results)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical outcomes	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviations: N/A = not applicable, OGTT = oral glucose tolerance test, SoE = strength of evidence.



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## 3.4. KQ 2: Does extension of health insurance coverage or improvements in access to healthcare affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?

### 3.4.1. Key Points

- Twenty-eight NRCSs addressed this KQ.
- More comprehensive health insurance is probably associated with greater attendance at postpartum visits (moderate SoE) and may be associated with fewer preventable readmissions and ER visits (low SoE).
- We did not find evidence addressing adherence to condition-specific screening/testing/treatment or transition to primary care provider for long-term care.
- There is insufficient evidence whether more comprehensive insurance is associated with improved symptoms or diagnoses of mental health conditions. We did not find evidence addressing the other prioritized clinical outcomes: maternal mortality, quality of life, or perceived stress.
- We did not find evidence addressing harms, including health inequities and reported discrimination.

### 3.4.2. Evidence Identified

Twenty-eight adjusted retrospective NRCSs, reported in 29 articles,<sup>109-137</sup> evaluated the impact of changes to health insurance coverage in the United States. The studies focused on either general postpartum care (15 studies) or specifically on contraceptive care (13 studies). The studies were conducted in single states (or in the District of Columbia) (16 studies), two states (4 studies), or five or more states (8 studies).

The 28 NRCSs addressed various comparisons (Table 3-16). Four NRCSs compared outcomes associated with different types of health insurance, including two that compared private/commercial insurance with Medicaid insurance in Ohio<sup>109</sup> and North Carolina,<sup>136</sup> one that compared continuous Medicaid eligibility with pregnancy-only Medicaid eligibility,<sup>114</sup> and one that compared an insurance plan with full coverage of antepartum and postpartum care and lower copayments with a plan that included an annual deductible with out-of-pocket maximums in Massachusetts.<sup>120</sup> Thirteen NRCSs evaluated the impact of policy changes that made insurance *more* comprehensive, including nine NRCSs of Medicaid expansion in various states,<sup>115, 119, 122, 125, 130-135</sup> one NRCS that evaluated the impact of a law requiring hospitals to provide the option of LARC placement after delivery in Ohio,<sup>111</sup> one NRCS that evaluated the impact of unbundling (i.e., separate reimbursement for immediate postpartum LARC) in Wisconsin,<sup>121</sup> one NRCS that evaluated the transition from a pilot (Medicaid 1115) expansion of eligibility to individuals otherwise ineligible for Medicaid coverage to the State Plan Amendment (SPA), which provides contraceptive care for all, in various states,<sup>127</sup> and one NRCS in Texas that evaluated the impact of the Families First Coronavirus Response Act, a federal law that required states to provide continuous coverage to Medicaid enrollees during the COVID-19 pandemic.<sup>137</sup> In contrast, two NRCSs evaluated the impact of policy changes that made insurance *less* comprehensive in North Carolina<sup>113</sup> (a policy that reduced reimbursement rates for maternity care coordination by 19%) and Oregon (a policy that required undocumented immigrants and legal immigrants within 5

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years of immigration with Emergency Medicaid who wanted sterilization following vaginal delivery to pay for it).<sup>128</sup> In addition, nine NRCSs compared outcomes in various insurance expansion and non-expansion (or contraction) states.<sup>110, 112, 116-118, 123, 124, 126, 129</sup>

The 28 NRCSs (N total 3,423,781) are detailed in Appendix Tables C-2.1 and C-2.2. Each NRCS evaluated between 1,184 and 1,454,689 participants. Average ages of patients were similar across NRCSs, ranging from 25 to 33 years. Only two NRCSs reported on BMI; one reported a mean of 33 kg/m<sup>2</sup> and the other reported that 62 percent of participants were overweight or had obesity or severe obesity. Study participants were diverse racially; between 4 and 83 percent were White and between 2 and 54 percent were Black. Only one NRCS reported on employment status, in which all 2,509 participants were employed. No study reported on participant gender or sexual identity status. No study reported on substance use disorders. Where reported, between 59 and 74 percent of births were vaginal and between 8 and 22 percent of births were preterm. Six studies explicitly excluded pregnancies that resulted in stillbirths, spontaneous or induced abortions, or neonatal deaths.

We rated nine NRCSs at overall high risk of bias, related to moderate or serious risk of confounding and the lack of blinding of participants, providers, and outcome assessors (Appendix Tables D-2.1 and D-2.2). We rated the remaining 19 NRCSs at moderate risk of bias.

The study result summaries are in Appendix Tables E-2.1 to E-2.7.

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**Table 3-16. Key Question 2: Summary of comparisons in 28 included studies**

Type of Comparison (N Studies)	Study, Year, PMID	State(s)	Focus of Study	More Comprehensive Insurance	Less Comprehensive Insurance
Different types of health insurance (4 studies)	Arora 2018, 29490290	OH	Contraceptive care	Private insurance	Medicaid insurance
	DeSisto, 2020, 32335806	WI	General PP care	Continuous Medicaid eligibility	Pregnancy-only Medicaid eligibility
	Kozhimannil 2011, 21485419	MA	General PP care	Full coverage of AP and PP care, no cost sharing beyond office visit and hospitalization copayments. Out-patient visit copayments \$5-\$25 (median \$15). Hospitalization copayments \$0-\$1000 (median \$250).	Annual deductible \$500-\$2000 for individuals and \$1000-\$4000 for families. Out-of-pocket maximum \$2000-\$4000 for individuals and \$4000-\$8000 for families.
	Taylor 2020, 31397625	NC	General PP care	Commercial insurance	1) Medicaid insurance 2) No insurance
After vs. before a policy change, where the policy change made insurance <b>more</b> comprehensive (13 studies)	Brant 2021, 34619694	OH	Contraceptive care	Law that required hospitals to offer LARC placement after delivery (2017-2019)	No law that required hospitals to offer LARC placement after delivery (2015-2017)
	Dunlop 2020, 32958368	OH	Contraceptive care	After Medicaid expansion (2014-2015)	Before Medicaid expansion (2011-2013)
	Koch, 2022, 35588793	MO	Contraceptive care	After Medicaid policy change for separate LARC reimbursement	Before Medicaid policy change for separate LARC reimbursement
	Kramer 2021, 33849768	WI	Contraceptive care	After unbundling (separate or additional reimbursement for immediate PP LARC)	Before unbundling (no separate or additional reimbursement for immediate PP LARC)
	Liberty, 2020, 31846612	SC	Contraceptive care	After Medicaid policy covering immediate PP LARC (2013-2017)	Before Medicaid policy covering immediate PP LARC (2013-2017)
	Okoroh 2018, 29530670	IA, LA	Contraceptive care	After Medicaid expansion (2014-2015)	Before Medicaid expansion (2013-2014)
	Redd 2019, 30484739	MD, MN, MO, NY, OK, OR, PA, WA, WI	Contraceptive care	Transition from the Medicaid 1115 waiver, which allowed states to expand eligibility to some individuals otherwise ineligible for Medicaid coverage, to the State Plan Amendment, which provides contraceptive care to all	Maintenance of the Medicaid 1115 waiver, which allowed states to expand eligibility to some individuals otherwise ineligible for Medicaid coverage
	Schuster 2022, 34670222	MO, NE, OK, UT, WY	General PP care	After Medicaid expansion (2014-2015)	Before Medicaid expansion (2012-2013)
	Smith 2021, 34109490	GA	Contraceptive care	After Medicaid policy covering inpatient LARC (2016-2017)	Before Medicaid policy covering inpatient LARC (2015)
	Steenland 2021a, 33523747	SC	Contraceptive care	After Medicaid policy of payment for immediate PP LARC (2012-2014)	Before Medicaid policy of payment for immediate PP LARC (2011-Jan 2012)
	Steenland, 2021b, 35977301	AR	General PP care	After Medicaid expansion (2014-2015)	Before Medicaid expansion (2013)
	Syum, 2022, 35628011	FL	General PP care	After Statewide Mandatory Medicaid Managed Care (2014-2017)	Before Statewide Mandatory Medicaid Managed Care (2010-2014)
	Wang, 2022, 35592081	TX	General PP care	After Families First Coronavirus Response Act (2020)	Before Families First Coronavirus Response Act (2019)

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Type of Comparison (N Studies)	Study, Year, PMID	State(s)	Focus of Study	More Comprehensive Insurance	Less Comprehensive Insurance
After vs. before a policy change, where the policy change made insurance <b>less</b> comprehensive (2 studies)	Cilenti 2015, 25627330	NC	General PP care	Before change in Medicaid policy reducing reimbursement rates for maternity care coordination by 19%	After change in Medicaid policy reducing reimbursement rates for maternity care coordination by 19%
	Rodriguez 2008, 18692614	OR	Contraceptive care	Before policy requiring undocumented immigrants and legal immigrants within 5 years of immigration with Emergency Medicaid to pay for sterilization following vaginal delivery	After policy requiring undocumented immigrants and legal immigrants within 5 years of immigration with Emergency Medicaid to pay for sterilization following vaginal delivery
Insurance expansion vs. non-expansion or contraction states (9 studies)	Austin, 2022, 34974107	20 states	General PP care	Medicaid expansion states	Medicaid non-expansion states
	Caudillo, 2022, 35488950	16 states	Contraceptive care	Delaware (After Delaware Contraceptive Access Now (DelCAN) initiative)	15 other states (no Delaware Contraceptive Access Now (DelCAN) initiative)
	Eliason, 2021, 34870677	15 states	General PP care	Medicaid expansion states	Medicaid non-expansion states
	Eliason, 2022, 35259409	11 states	General PP care	Medicaid expansion states	Medicaid non-expansion states
	Gordon 2020, 31905073	CO, UT	General PP care	Colorado (after Medicaid expansion)	Utah (no Medicaid expansion)
	Margerison 2021, 34606358	18 states	General PP care	Medicaid expansion states	Medicaid non-expansion states
	Myerson 2020, 33136489	13 states	Contraceptive care	Medicaid expansion states	Medicaid non-expansion states
	Pace, 2022, 34908011	MA, ME	General PP care	Massachusetts (after Medicaid expansion)	Maine (after Medicaid contraction)
Rodriguez, 2021, 34910148	OR, SC	General PP care	Oregon (after Medicaid expansion)	South Carolina (no Medicaid expansion)	

Abbreviations: AP = antepartum, LARC = long-acting reversible contraception, N/A = not applicable, PMID = PubMed identifier, PP = postpartum.

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#### 3.4.3. Detailed Findings for KQ 2

##### 3.4.3.1. Healthcare Utilization Outcomes

###### 3.4.3.1.1. Attendance at Postpartum Visits

Eleven NRCSs (Cilenti 2015, DeSisto 2020, Dunlop 2020, Eliason 2021, Gordon 2020, Kozhimannil 2011, Liberty 2020, Rodriguez 202, Steenland 2021b, Taylor 2020, and Wang 2022) reported on attendance at postpartum visits (Appendix Tables E-2.1 and E-2.4). Eight of the 11 NRCSs reported that more comprehensive health insurance was associated with greater attendance. We could not conduct meta-analyses because of heterogeneity in the reported comparisons of insurance and in how the outcomes were defined.

Three NRCSs reported continuous data on **mean number of postpartum visits**. Cilenti 2015 reported a higher number of 3-month visits before versus after a Medicaid policy that reduced reimbursement rates for maternity care coordination by 19% (adjusted mean difference [adjMD] 1.6,  $P < 0.001$ ). Gordon 2020 reported that, although numbers of visits at 1 month were comparable, Colorado (a Medicaid expansion state) had more outpatient visits than Utah (a non-expansion state) at 3 months (adjusted net mean difference [adjNMD] 0.10,  $P < 0.0001$ ) and 6 months (adjNMD 0.52,  $P < 0.01$ ). At 6 months, the number of visits was also greater among the subgroup of participants with severe maternal morbidity, such as hemorrhage, acute myocardial infarction, or sepsis, defined using International Classification of Diseases (ICD)-9 and ICD-10 codes present on the date of delivery (adjNMD 1.25,  $P < 0.01$ ). Steenland 2021b reported that Medicaid expansion in Arkansas was associated with greater numbers of outpatient visits by 2 months (adjMD 0.2, 95% CI 0.1 to 0.3) and 6 months postpartum (adjMD 0.9, 95% CI 0.7 to 1.1).

Eight NRCSs reported categorical data on **attendance at postpartum visits**. DeSisto 2020 reported that participants in Wisconsin with continuous Medicaid eligibility had greater rates of the composite outcome of postpartum visit attendance, cervical cytology, IUD insertion, or a bundled service (adjusted risk difference [adjRD] 6.27, 95% CI 5.72 to 6.82) and the composite outcome of postpartum visit attendance, cervical cytology, or IUD insertion (adjRD 12.0, 95% CI 11.2 to 12.7). Similarly, Dunlop 2020 reported that among income-eligible participants (but not participants eligible based on pregnancy), Medicaid expansion in Ohio was associated with greater attendance at visits by 6 months (OR adjusted marginal effect 5.09,  $P < 0.01$ ). Rodriguez 2021 reported that Medicaid expansion was associated with greater attendance at postpartum visits (adjNPD 47.9, 95% CI 41.3 to 54.6). Taylor 2020 reported that, compared with patients with commercial insurance, attendance at the 6-week visit was lower among patients with Medicaid insurance (adjusted odds ratio [adjOR] 0.65, 95% CI 0.58 to 0.74) or no insurance (adjOR 0.42, 95% CI 0.34 to 0.51).

On the other hand, Eliason 2021 reported that Medicaid expansion was not associated with greater attendance at postpartum visits (adjNPD 0.3, 95% CI -3.1 to 3.9). Similarly, Kozhimannil 2011, which evaluated commercial insurance, reported that, participants with an annual deductible with out-of-pocket maximums had comparable attendance at visits between 21 and 56 days as participants who had coverage of antepartum and postpartum care and lower copayments after a policy change (adjOR 0.74, 95% CI 0.42 to 1.32). Liberty 2020 evaluated the impact of a Medicaid policy covering immediate postpartum LARC in South Carolina and Wang 2022 evaluated the impact of the Families First Coronavirus Response Act in Texas, but neither NRCS reported an adjusted effect size.

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Because of the moderate risk of bias, we rated the SoE as moderate for conclusions for this outcome (Table 3–17).

#### 3.4.3.1.2. Unplanned Care Utilization

One NRCS (Symum 2022) reported on **unplanned care utilization** (Appendix Table E-2.4). A statewide Mandatory Medicaid Managed Care policy in Florida was associated with fewer preventable readmissions (incidence rate ratio [IRR] 0.86, 95% CI 0.80 to 0.93) and ER visits (IRR 0.87, 95% CI 0.82 to 0.93) by 1.5 months postpartum.

Because we identified only one NRCS, which was large, we rated the SoE as low for conclusions for this outcome (Table 3-17).

#### 3.4.3.1.3. Healthcare Utilization Outcomes Not Reported

No study reported on adherence to condition-specific screening/testing/treatment or transition to primary care provider for long-term care.

#### 3.4.3.2. Clinical Outcomes

##### 3.4.3.2.1. Mental Health Symptoms

Three NRCSs (Austin 2022, Margerison 2021, and Schuster 2022) reported inconsistent results regarding mental health symptoms (Appendix Table E-2.5). All three NRCSs reported on the frequency with which participants reported **depression symptoms**, specifically “always” or “often” feeling down/depressed/hopeless or had little interest/pleasure in doing things since delivery. Austin 2022 and Margerison 2021 reported that there was no difference in the prevalence of this feeling in Medicaid expansion and non-expansion states. However, Schuster 2022 reported that Medicaid expansion was associated with a reduction in the prevalence of this feeling in five states (adjusted prevalence difference –3.5%, P=0.042).

Because of the inconsistent results, we were unable to make a graded conclusion for this outcome (Table 3-17).

##### 3.4.3.2.2. Interpregnancy Interval

One NRCS (Steenland 2021a) reported on interpregnancy interval (Appendix Table E-2.2). The Medicaid policy of payment for immediate postpartum LARC in South Carolina was associated with a reduction in the percent change per month in the **number of subsequent childbirths within 21 months** among teenagers (12 to 19 years old) (MD –0.09, 95% CI –0.14 to –0.03) but not among those aged 20 to 50 years (MD 0.03, 95% CI –0.01 to 0.07).

##### 3.4.3.2.3. Unplanned Pregnancies

Four NRCSs (Arora 2018, Brant 2021, Eliason 2022, and Redd 2019) reported inconsistent results regarding **unplanned pregnancies** (Appendix Table E-2.6). Two studies reported that more comprehensive insurance was associated with fewer unplanned pregnancies within 12 months postpartum in Ohio: Arora 2018 reported that those on Medicaid insurance were more likely than those on private insurance to have a subsequent pregnancy (adjRR 2.57, 95% CI 1.10 to 6.00), and Brant 2021 reported that the law requiring hospitals to offer participants LARC placement after delivery was associated with fewer subsequent pregnancies (adjOR 0.35, 95% CI 0.25 to 0.50). On the other hand, Eliason 2022 participants in Medicaid expansion states had comparable rates of pregnancies within 4 months postpartum (adjusted prevalence difference

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[adjPD] 0.0, 95% CI -2.4 to 2.4). These results held also when analyzed separately for Hispanic, non-Hispanic White, and non-Hispanic Black participants. Similarly, Redd 2019 reported that participants in states that transitioned to a State Plan Amendment (contraceptive care for all) had comparable risks of unplanned pregnancies as those in states that retained the Medicaid 1115 waiver (which allowed expansion of eligibility to some individuals otherwise ineligible for coverage) (adjOR 0.99, 95% CI 0.92 to 1.08).

#### 3.4.3.2.4. Contraceptive Initiation/Continuation

Sixteen NRCSS (Arora 2018, Caudillo 2022, Dunlop 2020, Eliason 2021, Eliason 2022, Koch 2022, Kramer 2021, Liberty 2020, Myerson 2020, Okoroh 2018, Pace 2022, Redd 2019, Rodriguez 2008, Rodriguez 2021, Smith 2021, and Steenland 2021a) reported on a range of contraceptive initiation and continuation outcomes (Appendix Tables E-2.3 and E-2.7). Generally, greater insurance coverage was associated with higher rates of immediate postpartum LARC placement, but the results regarding interval or outpatient LARC, sterilization (tubal ligation), short-acting contraceptive use, and “any” contraceptive use were inconsistent. Because contraceptive initiation/continuation was not a prioritized outcome for this systematic review, we have not made a graded conclusion.

Seven NRCSS (Okoroh 2018, Steenland 2021a, Koch 2022, Kramer 2021, Liberty 2020, and Smith 2021) reported that more comprehensive insurance was associated with higher rates of **immediate postpartum LARC placement**. Okoroh 2018 reported that Medicaid expansion in Louisiana was associated with a change in the number of immediate LARC placements per month (45.2 vs. 2.6,  $P=0.0002$ ), but a similar increase was not observed in Iowa. Steenland 2021a reported that the South Carolina Medicaid policy of payment for immediate postpartum LARC was associated with an increase in the monthly trend of number of immediate postpartum LARC placements of 0.09% per month ( $P<0.001$ ), overall as well as within subgroups of individuals 12-19 and 20-50 years old. Koch 2022 reported that the Medicaid policy change for separate LARC reimbursement in Missouri was associated with greater postplacental IUD placement rates across all participants (adjOR 15.4, 95% CI 9.3 to 25.8) as well as specifically among those with Medicaid (adjOR 14.9, 95% CI 8.6 to 25.9) and with commercial insurance (adjOR 13.3, 95% CI 3.2 to 55.8). Similarly, after the policy change, rates of IUD or implant placement rates by 1 week were higher across all participants (adjOR 15.6, 95% CI 10.1 to 24.2) as well as specifically among those with Medicaid (adjOR 15.8, 95% CI 9.9 to 25.4) and with commercial insurance (adjOR 9.7, 95% CI 3.0 to 31.8). Kramer 2021 reported that unbundling (i.e., separate reimbursement for immediate postpartum LARC) in Wisconsin was associated with an increase in immediate postpartum LARC placements overall (adjOR 1.55, 95% CI 1.12 to 2.13) as well as specifically in academic hospitals ( $P=0.008$ ). Liberty 2020 reported that the Medicaid policy covering immediate postpartum LARC in South Carolina was associated with greater postpartum LARC placement rates before discharge (adjOR 1.39, 95% CI 1.34 to 1.43). Smith 2021 reported a higher prevalence of immediate postpartum LARC after Medicaid expansion in Georgia than before (17.6% vs. 2.6%) but did not report an effect size.

Seven NRCSS (Caudillo 2022, Eliason 2022, Liberty 2020, Pace 2022, Rodriguez 2021, Steenland 2021a, and Smith 2021) reported inconsistent results regarding **interval or outpatient LARC placement**. Data were reported between 2 and 9 months postpartum. Five of these seven NRCSS reported that more comprehensive insurance was associated with higher rates. Caudillo 2022 reported that after the Delaware Contraceptive Access Now (DelCAN) initiative, rates of LARC use by 9 months increased to a greater extent in Delaware than in 15 other states that did

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not have that initiative (adjusted net prevalence difference [adjNPD] 7.61, 95% CI 5.26 to 2.90). Eliason 2022 reported that Medicaid expansion was associated with greater LARC use by 4 months across all participants (adjNPD 7.0, 95% CI 3.0 to 11.0), among non-Hispanic White participants (adjNPD 6.2, 95% CI 3.5 to 8.9), and non-Hispanic Black participants (adjNPD 10.4, 95% CI 1.7 to 19.1) but not among Hispanic participants. Liberty 2020 reported that the Medicaid policy covering immediate postpartum LARC in South Carolina was associated with greater postpartum LARC placement rates at 2 months (adjOR 1.10, 95% CI 1.09 to 1.11). Similarly, Rodriguez 2021 reported that Oregon (a Medicaid expansion state) had greater increases in LARC use by 2 months than South Carolina (a non-expansion state) (adjNPD 17.7, 95% 15.6 to 19.8). Additionally, Pace 2022 reported that Massachusetts experienced greater increase in LARC (IUD or implant) use after Medicaid expansion than Maine (after Medicaid contraction) ( $\beta$  1.32 [standard error (SE) 0.04] vs. 0.83 [0.03];  $P < 0.001$ ). However, two NRCSs reported that more comprehensive insurance was associated with comparable rates of interval LARC placement. Steenland 2021a reported that the South Carolina Medicaid policy of payment for immediate postpartum LARC was not associated with an increase in the number of outpatient LARC placements by 8 weeks, overall or within subgroups by age. Smith 2021 reported a comparable prevalence of interval LARC placement (i.e.,  $\geq 9$  weeks postpartum) before and after Medicaid expansion in Georgia but did not report an adjusted effect size.

Six NRCSs (Steenland 2021, Rodriguez 2021, Arora 2018, Eliason 2022, Koch 2022, and Rodriguez 2008) reported inconsistent results regarding **sterilization (tubal ligation)**. Steenland 2021a reported that the South Carolina Medicaid policy of payment for immediate postpartum LARC was associated with a reduction in the number of sterilizations by 2 months overall (MD – 0.09% per month,  $P < 0.001$ ) as was within the subgroups of individuals aged 20-50 years (MD – 0.10% per month,  $P < 0.001$ ). Similarly, Rodriguez 2021 reported that Oregon (a Medicaid expansion state) had greater increases in sterilization rates by 2 months than South Carolina (a non-expansion state) (adjNPD 4.1, 95% 2.0 to 6.3). However, Arora 2018 reported that participants in Ohio with private insurance and those with Medicaid insurance had comparable rates of sterilization fulfilment at 1.4 months (adjOR 1.35, 95% CI 0.70 to 2.62) and 3 months (adjOR 0.94, 95% CI 0.54 to 1.64) postpartum. Similarly, Eliason 2022 reported that participants in Medicaid expansion states had comparable rates of sterilization. These results held also when analyzed separately for Hispanic, non-Hispanic White, and non-Hispanic Black participants. Koch 2022 reported that the Medicaid policy change for separate LARC reimbursement in Missouri was not associated with greater tubal ligation rates across all participants or specifically among those with Medicaid or commercial insurance. Another NRCS (Rodriguez 2008) reported on the impact of an Oregon policy requiring undocumented immigrants and legal immigrants within 5 years of immigration with Emergency Medicaid to pay for sterilization following vaginal delivery on tubal ligation rates. Among participants with Emergency Medicaid, rates of bilateral tubal ligation after *vaginal delivery* decreased after the policy (9.9% vs. 0.1%,  $P < 0.05$ ), but rates of bilateral tubal ligation during *cesarean delivery* increased (18.6% vs. 23.6%,  $P < 0.05$ ). The policy was not associated with similar changes among participants with Standard Medicaid.

Two NRCSs (Eliason 2022 and Steenland 2021a) reported inconsistent results regarding **short-acting contraceptive use**. Eliason 2022 reported that Medicaid expansion was associated with less use of short-acting contraception across all participants (adjNPD –3.1, 95% CI –6.0 to –0.2) and among non-Hispanic Black participants (adjNPD –8.2, 95% CI –13.1 to –3.4) but not among Hispanic participants or non-Hispanic White participants. On the other hand, Steenland



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2021a reported that the South Carolina Medicaid policy of payment for immediate postpartum LARC not was associated with an increase in the number of short-acting contraceptive methods by 2 months, overall or within subgroups by age.

Five NRCSs (Dunlop 2020, Eliason 2021, Eliason 2022, Redd 2019, and Rodriguez 2021) reported inconsistent results regarding the outcome of **any postpartum contraceptive use**, without defining it. Dunlop 2020 reported that the Ohio Medicaid expansion was not associated with an increase in the outcome, either among income-eligible or pregnancy-eligible participants. Similarly, Eliason 2021 reported that Medicaid expansion was not associated with greater use of sterilization, IUDs, implants, injectables, oral contraceptives, transdermal patches, or vaginal rings. On the other hand, Eliason 2022 reported that Medicaid expansion was associated with greater use of any contraception by 4 months across all participants (adjNPD 3.6, 95% CI 0.3 to 6.9) and among non-Hispanic Black participants (adjNPD 6.9, 95% CI 2.5 to 11.4) but not among Hispanic participants or non-Hispanic White participants. Similarly, Redd 2019 reported that participants in states that transitioned to a State Plan Amendment (contraceptive care for all) were more likely than participants in states that retained the Medicaid 1115 waiver to use postpartum contraception (adjOR 1.14, 95% CI 1.04 to 1.24). Additionally, Rodriguez 2021 reported that Oregon (a Medicaid expansion state) had greater increases in any contraceptive use by 2 months than South Carolina (a non-expansion state) (adjNPD 28.2, 95% 25.8 to 30.6).

One NRCS (Myerson 2020) reported the prevalence of postpartum **initiation of effective contraception** was higher in Medicaid expansion states than in non-expansion states (adjPD 3.8%, 95% CI 0.3 to 11.0).

One NRCS (Rodriguez 2021) reported on **hormonal contraceptive use**. Oregon (a Medicaid expansion state) had greater increases by 2 months than South Carolina (a non-expansion state) (adjNPD 6.4, 95% 4.2 to 8.5).

One NRCS (Dunlop 2020) reported that the Ohio Medicaid expansion was not associated with an increase in the **receipt of contraceptive counseling**, either among income-eligible or pregnancy-eligible participants.

#### 3.4.3.2.5. Clinical Outcomes Not Reported

No study reported on the following clinical outcomes: maternal mortality, patient-reported outcomes (e.g., quality of life, perceived stress), physical health/medical outcomes (e.g., infections, severe maternal morbidity), breastfeeding intention/initiation/duration/exclusivity, or reduction in health inequities.

#### 3.4.3.3. Harms

No study reported on harms.

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**Table 3-17. Key Question 2: Evidence profile**

Outcome Category	Outcome	N Studies (Participants)	Risk of Bias	Consistency	Precision	Directness	Other	SoE	Conclusions (Reason if None)
Healthcare utilization	Attendance at postpartum visits	11 (580,852)	Moderate	Consistent	Precise	Direct	N/A	Moderate	More comprehensive insurance associated with greater attendance at postpartum visits
	Unplanned care utilization	1 (1,454,699)	Moderate	N/A	Precise	Direct	N/A	Low	More comprehensive insurance associated with fewer preventable readmissions and ER visits
	Adherence to screening, testing, or treatment	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Transition to primary care provider for long-term care	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Clinical	Maternal mortality	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Mental health	3 (149,165)	Moderate	Inconsistent	Precise	Direct	None	Insufficient	None (inconsistent results)
	Quality of life	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Perceived stress	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
Harms	Health inequities	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)
	Reported discrimination	0	N/A	N/A	N/A	N/A	N/A	N/A	None (no evidence)

Abbreviation: ER = emergency room, N/A = not applicable, SoE = strength of evidence.

## 4. Discussion

### 4.1. Findings in Relation to the Decisional Dilemmas

Policymakers, clinicians, other support providers, and postpartum individuals and their families want to know the best ways for postpartum care to be organized, coordinated, and delivered to reduce maternal morbidity, mortality, and health disparities. We identified 92 studies (50 randomized controlled trials [RCTs] and 42 nonrandomized studies [NRCSS]) in this systematic review (SR) (Table 4-1). Some low or moderate strength-of-evidence conclusions are feasible (discussed below).

For Key Question (KQ) 1 (healthcare delivery strategies), regarding **where healthcare is provided** (12 RCTs and 2 NRCSS), for *general postpartum care*: whether the visit is conducted at home/by telephone or at the clinic may not impact depression or anxiety symptoms. The evidence regarding attendance at postpartum visits is insufficient to draw conclusions. For *breastfeeding care*: whether the initial visit is conducted at home or at the pediatric clinic may not impact depression symptoms (up to 6 months postpartum), anxiety symptoms (up to 2 months), hospital readmission (up to 3 months), other unplanned care utilization (up to 2 months). The evidence regarding attendance at postpartum visits is insufficient to draw conclusions.

Regarding **how healthcare is provided** (5 RCTs and 1 NRCSS), we could make conclusions only regarding *general postpartum care*: integration of care (e.g., combined versus separate postpartum/well-child visits, multidisciplinary postpartum clinic versus standard care) may not impact depression symptoms or substance use up to 1 year. However, the evidence regarding postpartum visit attendance and unplanned care utilization is insufficient. We found studies addressing *contraceptive care* and *breastfeeding care*, but none reported data for the prioritized outcomes.

Regarding **when healthcare is provided** (11 RCTs and 1 NRCSS), we could make conclusions only regarding *contraceptive care*: compared with later contraception, earlier contraception is probably associated with comparable continued intrauterine device (IUD) use at 3 and 6 months but greater implant use at 6 months. For *general postpartum care*, the evidence regarding postpartum visit attendance and unplanned care utilization is insufficient.

Regarding **who provides care** (23 RCTs and 5 NRCSS), we could make conclusions only regarding *breastfeeding care*: compared with no peer support, peer support (10 studies) is probably associated with higher rates of any breastfeeding at 1 month and 3 to 6 months and of exclusive breastfeeding at 1 month but comparable rates of exclusive breastfeeding at 3 months and nonexclusive breastfeeding at 1 and 3 months. Compared with no care by a lactation consultant, care by a lactation consultant (7 studies) is probably associated with higher rates of any breastfeeding at 6 months but not at 1 month or 3 months. Lactation consultant care is probably associated with comparable rates of exclusive breastfeeding at 1 or 3 months. For *general postpartum care*, the evidence regarding postpartum visit attendance, hospital readmissions, and depression symptoms and diagnoses is insufficient. For *preventive care*, the evidence regarding maternal mortality, depression symptoms, and major depression episodes is insufficient. Although we found studies addressing *contraceptive care*, none reported data for the prioritized outcomes.

Regarding **coordination or management of care** (1 RCT and 4 NRCSS), we could make conclusions only regarding *screening/testing*: provision of testing reminders is probably associated with greater adherence to oral glucose tolerance testing up to 1 year postpartum but

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not random glucose testing or hemoglobin A1c testing. For *general postpartum care*, the evidence regarding postpartum visit attendance is insufficient.

Regarding **use of information or communication technology** (IT; 7 RCTs and 1 NRCS), we could make conclusions only regarding *breastfeeding care*: IT use and nonuse are probably associated with comparable rates of any breastfeeding at 3 months and 6 months and of exclusive breastfeeding at 3 months. The evidence regarding postpartum visit attendance and depression symptoms is insufficient. For *screening*, the evidence regarding adherence to screening is insufficient.

Regarding **interventions targeting healthcare providers** (4 RCTs), we could not make any conclusions. For *breastfeeding care*, no study reported data for the prioritized outcomes. For *screening*, the evidence regarding adherence to screening is insufficient.

For KQ 2 (health insurance and access to care) (28 NRCSs), **more comprehensive health insurance** is probably associated with greater attendance at postpartum visits and may be associated with fewer preventable readmissions and emergency room (ER) visits. The evidence regarding symptoms or diagnoses of mental health conditions is insufficient. The impact of greater attendance at postpartum visits on maternal and child outcomes is unclear.

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**Table 4-1. Full summary of evidence identified in this systematic review**

Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
Healthcare utilization	Attendance at PP visits	↑↓ General PP care (2 studies): No conclusion ? BF care (1 study): No conclusion	? General PP care (1 study): No conclusion	↑↓ General PP care (3 studies): No conclusion	? General PP care (3 studies): No conclusion	? General PP care (1 study): No conclusion	? BF care (1 study): No conclusion	nd	▲▲ More comprehensive insurance (11 studies); greater attendance
	Unplanned care utilization	~ BF care (4 studies): Home vs. pediatric clinic Comparable hospital readmissions, other unplanned care ? General PP care (1 study): No conclusion	? General PP care (2 studies): No conclusion	? General PP care (1 study): No conclusion	? General PP care (2 studies): No conclusion ? BF care (1 study): No conclusion	nd	nd	nd	▲ More comprehensive insurance (1 study); Fewer preventable readmissions and ER visits
	Adherence to screening or testing	? General PP care (1 study): No conclusion	nd	nd	nd	▲▲ Screening/ Testing (3 studies): Reminders associated with greater adherence to OGTT up to 1 year PP but not random glucose or HbA1c testing	? Screening (1 study): No conclusion	↑↓ Screening care (2 studies): No conclusion	nd
	Transition to primary care provider	nd	? General PP care (1 study): No conclusion	nd	nd	nd	nd	nd	nd

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Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
Clinical	Maternal mortality	nd	nd	nd	? BF care (1 study): No conclusion ? Preventive care (1 study): No conclusion	nd	nd	nd	nd
	Mental health	~ General PP care (2 studies): Home/telephone vs. clinic: Comparable depression, anxiety symptoms ~ BF care (4 studies): Home vs. pediatric clinic: Comparable depression, anxiety symptoms	~ General PP care (3 studies): Integrated vs. nonintegrated care: Comparable depression symptoms, substance use	? Contraceptive care (1 study): No conclusion	? General PP care (4 studies): No conclusion ? BF care (1 study): No conclusion ? Preventive care (1 study): No conclusion	nd	? BF care (1 study): No conclusion	nd	↑↓ More comprehensive insurance (3 studies): No conclusion
	Quality of life	nd	nd	nd	nd	nd	nd	nd	nd
	Perceived stress	nd	? General PP care (1 study): No conclusion	nd	nd	nd	nd	nd	nd
	Contraceptive use	not prioritized (omitted)	not prioritized (omitted)	▲▲ Earlier contraception (8 studies): comparable IUD use at 3 and 6 mo, but greater implant use at 6 mo	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)

#### 4. Discussion

Outcome Category	Outcome	KQ 1: Where Care Is Provided	KQ 1: How Care Is Provided	KQ 1: When Care Is Provided	KQ 1: Who Provides Care	KQ 1: Care Coordination/ Management	KQ 1: Information / Communication Technology	KQ 1: Interventions Targeting Providers	KQ 2: Health Insurance
	<b>Breastfeeding</b>	not prioritized (omitted)	not prioritized (omitted)	not prioritized (omitted)	<p>▲▲ Peer support for BF care (9 studies): any BF at 1 mo and 3-6 mo and exclusive BF at 1 mo, but comparable exclusive BF at 3 mo and non-exclusive BF at 1 and 3 mo</p> <p>▲▲ LC for BF care (7 studies): any BF at 6 mo but not 1 mo or 3 mo. Comparable exclusive BF at 1 and 3 mo</p>	not prioritized (omitted)	<p>~~ BF care (5 studies): Comparable any BF at 3 mo and 6 mo and exclusive BF at 6 mo</p>	not prioritized (omitted)	not prioritized (omitted)
<b>Harms</b>	<b>Health inequities</b>	nd	nd	nd	nd	nd	nd	nd	nd
	<b>Reported discrimination</b>	nd	nd	nd	nd	nd	nd	nd	nd

Abbreviations: BF = breastfeeding, HbA1c = hemoglobin A1c, IUD = intrauterine device, KQ = Key Question, LC = lactation consultant, mo = months, nd = no data, OGTT = oral glucose tolerance test, PP = postpartum.

▲ = Low SoE of better utilization or clinical outcomes, ▲▲ = Moderate SoE of better utilization or clinical outcomes, ▲▲▲ = High SoE of better utilization or clinical outcomes (no instances in this table)

~ = Low SoE of comparable outcomes, ~~ = Moderate SoE of comparable outcomes, ~~~ = High SoE of comparable outcomes (no instances in this table)

? = Insufficient strength of evidence due to sparse evidence, ↑↓ = Insufficient strength of evidence due to inconsistent or conflicting results

Note that the number of studies indicated in specific cells refers to the number of studies that reported data for the outcome and delivery strategy comparison in that cell.

Color legend: Insufficient strength of evidence (gray), Low strength of evidence (pink), Moderate strength of evidence (blue), High strength of evidence (green) (no instances in this table). The colors do not provide unique information compared with the text and symbols.

## 4.2. Strengths and Limitations

### 4.2.1. Strengths and Limitations of the Evidence Base

The main strength of the evidence base is its applicability to the decision-making context in the United States. The evidence is relevant to many decisional dilemmas underpinning the care of postpartum individuals.

Despite the relevance of the evidence, we were unable to make any high strength-of-evidence conclusions in the entire SR. For KQ 2 (health insurance), we were able to make only two conclusions, one of moderate strength-of-evidence and one of low strength-of-evidence. An important challenge with examining the evidence addressing KQ 2 was that various policy changes and comparisons were made. We described the evidence narratively but recognize that differences in how “more comprehensive” was defined across studies was variable. Regarding healthcare delivery strategies (KQ 1), although we found studies addressing each of our broad categories of delivery strategies, we were only able to make moderate strength-of-evidence conclusions about when healthcare is provided, who provides care, care coordination or management, and use of information or communication technology, and low strength-of-evidence conclusions about where healthcare is provided and how healthcare is provided. Part of the reason for the limited number of conclusions for KQ 1 is because even though we found 64 studies, the evidence needed to be considered separately for general postpartum care and for specific targets of postpartum care (i.e., contraceptive care, breastfeeding care, and screening and preventive care). Within each of these categories of intervention targets, we analyzed studies addressing specific delivery strategy comparisons. Moreover, the evidence within certain intervention target and delivery strategy combinations needed to be further parsed to allow meaningful study comparisons. For example, we analyzed studies evaluating breastfeeding care by doulas versus no doulas separately from the studies evaluating breastfeeding care by lactation consultants versus no lactation consultants, even though both sets of studies addressed the issue of who provides breastfeeding care. Table 3–1 illustrates this “thinning out” of the evidence (e.g., many comparisons were addressed by only 2 to 3 studies each).

Many of the prioritized outcomes were either not reported in any included study for specific comparisons or were reported in an insufficient number of studies to merit conclusions. Transition to care by primary care providers was a rarely reported healthcare utilization outcome. Unreported or rarely reported clinical outcomes included maternal mortality, patient-reported outcomes (e.g., quality of life), physical health/medical outcomes (e.g., diabetes), interpregnancy interval, unplanned pregnancies, and reduction in health inequities. Some of these outcomes may be challenging for researchers to ascertain in some retrospective studies because medical records may be incomplete if participants seek care at other clinical sites (e.g., other hospitals or in other states) or if their insurance coverage changes following pregnancy or childbirth. In addition, harms were inadequately described; no study provided data for worsening health inequities, reported discrimination, overutilization of healthcare, or patient burden regarding postpartum care.

Data were rarely reported within subgroups based on such factors as age, race, obesity status, or insurance status. Notably, studies did not frequently report on long-acting reversible contraceptive (LARC) use by race or insurance status, which precluded conclusions regarding differences by these factors. These differences are important to evaluate in future studies because



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postpartum LARC may be differentially promoted to populations that have historically been marginalized.<sup>139, 140</sup> Among studies that reported subgroup data, none of the studies reported statistical analyses that evaluated differences between subgroups or, preferable, evidence of heterogeneity of treatment effects (different relative effects in different subgroups of patients). Thus, we refrained from concluding that there was (or was not) heterogeneity of treatment effects.

We assessed most of the RCTs and all the NRCSs to be at overall moderate or high risk of bias, primarily because participants, care providers, and/or outcome assessors were not blinded and because of incomplete outcome data. While blinding of participants (i.e., patients) and care providers (e.g., nurses) will almost always be impossible in studies addressing the types of delivery strategies and interventions included in this SR, lack of blinding can still lead to bias. Moreover, although for subjective patient-reported outcomes, it may be impossible to blind outcome assessors (i.e., patients), it is possible to blind outcome assessors (e.g., nurses) for objective outcomes. The NRCSs were also often considered to be at serious or critical risk of confounding.

### 4.2.2. Strengths and Limitations of the Systematic Review Process

We followed contemporary standards for SRs, including (1) engagement with multiple types of stakeholders in defining and refining both KQs and (2) careful adherence to current SR standards for protocol publication and registration, literature searching, screening, data extraction, risk of bias assessment, qualitative synthesis, quantitative synthesis, and strength of evidence (SoE) assessment. To our knowledge, our modification of the Populations, Interventions, Comparators, Outcomes, Timing, Study Designs, and Settings (PICOTDS) structure to accommodate postpartum intervention targets and healthcare delivery strategies and our application of the Template for Intervention Description and Replication (TIDieR) framework<sup>22</sup> to conceptualize specific delivery strategies for postpartum care are novel. These approaches helped us conceptualize the complicated landscape of postpartum care to catalog, assess, and synthesize the identified evidence and document its gaps. Another strength of this SR is its applicability to the U.S. decision-making context. For KQ 1, we restricted to studies conducted in the United States or Canada, and for KQ 2, we restricted to U.S.-based studies. We made these decisions to maximize the applicability of the evidence to the U.S. decision-making context. Despite the geographical focus of this SR, our comprehensive search for studies yielded 92 studies.

An important limitation of this SR is that all conclusions made regarding healthcare specific delivery strategy comparisons (KQ 1; 64 studies) are based on only moderate or low strength-of-evidence. For health insurance and access to care (KQ 2; 28 studies), we were able to make only two conclusions, one on moderate and one on low strength-of-evidence. For both KQs, the evidence allowed conclusions primarily for postpartum visits, unplanned care utilization, and adherence to testing/screening, and some clinical outcomes, rather than patient-reported outcomes or harms.

## 4.3. Applicability

Given our focus on the United States and Canada, a major strength of this SR is the applicability of our finding to the U.S. decision-making context. Other than the handful of studies that selectively enrolled racial subpopulations, the racial diversity of study participants generally mirrored the postpartum population in the United States. On average, across the

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studies, patients ranged in age from their late teenage years to their mid 30s. Their average body mass indexes ranged from 27 to 41 kg/m<sup>2</sup>. As such, the conclusions in this SR apply generally to postpartum individuals in the United States. For KQ 2 (health insurance and access to care), the evidence is likely to be applicable only to the United States. The degree to which the evidence for KQ 1 is applicable to Canada depends largely on the degree to which one perceives postpartum populations in the United States and Canada to be comparable. Only 9 of the 64 studies were conducted in Canada, and they address a few specific topics. It is unclear to what extent the overall findings of this SR are broadly applicable beyond these countries.

### 4.4. Implications for Clinical Practice

The findings in this SR summarize what is known about the comparative effectiveness and harms of various delivery strategies for postpartum care in the United States and Canada (KQ 1) and of health insurance coverage and access to care in the United States (KQ 2).

For KQ 1, our analysis of some delivery strategies evaluated in this SR does not find one to be more beneficial than another. Whether care is provided at home or at the clinic may not impact maternal mental health (depression or anxiety symptoms), hospital readmissions, or other unplanned care utilization. Those making the choice between home- and pediatric clinic-based breastfeeding care should consider that the latter typically also includes dedicated time for healthcare of the infant. However, because this SR did not evaluate newborn outcomes, we are unable to comment on whether the pediatric visits impacted the health of the newborn (although it is plausible). Regarding *how* general postpartum care is provided, providing care in an integrated fashion may not impact maternal mental health (depression symptoms or substance use).

There were some strategies for which we found differences in benefits. Regarding *when* contraceptive care is provided, compared with later contraception, earlier contraception is probably associated with comparable continued IUD use at 3 and 6 months but greater implant use at 6 months. Regarding *who* provides breastfeeding care, compared with no peer support, peer support is probably associated with higher rates of any breastfeeding at 1 month and at 3 to 6 months and of exclusive breastfeeding at 1 month. Compared with no care by a lactation consultant, care by a lactation consultant is probably associated with higher rates of any breastfeeding at 6 months. Regarding coordination or management of care, provision of testing reminders is probably associated with greater adherence to oral glucose tolerance testing but not random glucose testing or hemoglobin A1c testing. It is worth noting that because the oral glucose tolerance testing is the generally preferred testing modality for postpartum individuals with a history of gestational diabetes the lack of effect of reminders on rates of random glucose or hemoglobin A1c testing is perhaps less important.

No studies for KQ 1 assessed potential heterogeneity of treatment effects across different populations: it is possible that individual care delivery strategies may have differential impact on specific populations, such as first-time parents, rural postpartum individuals, or those at high risk of poorer outcomes due to adverse social and structural determinants of health. The identified evidence does not allow a meaningful exploration of these nuances. Given the significant social and emotional challenges of the postpartum period, and the equipoise among various care delivery strategies, giving patients options for these preference-sensitive services may be important for improving autonomy, access, and outcomes.

For KQ 2, our analysis of more comprehensive versus less comprehensive insurance coverage found that greater comprehensiveness is probably associated with greater attendance at

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postpartum visits. It indicates that uninsured and underinsured postpartum individuals are less likely to attend their scheduled postpartum visits, which may make them prone to poorer outcomes in the long run. Greater comprehensiveness may also be associated with fewer preventable readmissions and ER visits. However, because this SR primarily focused on postpartum outcomes in the first year after delivery, we are unable to comment on the indirect benefit that more comprehensive postpartum health insurance might offer for the long-term health of the postpartum individual (or the child).

### 4.5. Implications for Research

Research is needed to address various questions related to postpartum care. It is striking that only 28 percent of the identified studies of delivery strategies (KQ 1) targeted general postpartum care; the rest of the studies focused on specific intervention targets (i.e., breastfeeding, contraceptive care, and screening or preventive care). Future research must address the broad domain of general postpartum care.

In terms of delivery strategies, more research is particularly needed on interventions targeting healthcare providers, a broad category of care delivery for which no conclusions were feasible based on the evidence identified in this SR. The evidence is not strong enough to make conclusions regarding who should provide general postpartum care (e.g., obstetricians, nurse practitioners). Regarding when healthcare should be delivered, conclusions are feasible only specifically for contraceptive care; the dilemma regarding timing of general postpartum care visits (e.g., at 2 to 3 weeks postpartum vs. the more traditional 6-week time-point) to maximize attendance and improve postpartum health also remains unanswered.

It is worth emphasizing that the categories of delivery strategies examined in this SR are broad and interdependent. For example, who provides care may not matter as much as their ability to express empathy, provide patient-centered care and counseling, engender patient trust, and spend sufficient time with the patient. As another example, where care is provided may not matter so much as the ease of accessing that care, which depends on a host of factors related to access to care in the United States. Understanding these various nuances is critical to exploring and identifying the most effective healthcare delivery strategies. Given the preference-sensitive nature of postpartum care, it is unlikely that a one-size-fits-all approach to provision of postpartum care may not address the varied needs of all postpartum individuals. Further, newer multidisciplinary models of care, such as cardio-obstetric clinics, are being developed and merit rigorous research.

Regarding health insurance, although the SoE is moderate for attendance at postpartum visits, research is needed to evaluate the associations between comprehensiveness of health insurance and other outcomes. The ongoing increase in the number of states that are extending postpartum care up to 1 year after delivery<sup>14</sup> presents an excellent opportunity for researchers to evaluate the impact of these policy changes on postpartum care utilization and postpartum health, both within and across states. It also offers the opportunity to evaluate whether these policy changes help reduce the racial and other disparities in postpartum outcomes in the United States.

Because most studies included in this SR enrolled predominantly healthy postpartum individuals, researchers should also design studies that, either entirely or in part, enroll individuals at high risk of postpartum complications due to chronic conditions (e.g., preexisting diabetes), pregnancy-related conditions (e.g., gestational diabetes), incident or newly diagnosed conditions (e.g., *de novo* postpartum hypertension), or those most vulnerable due to socioeconomic factors, such as the lack of paid maternity leave, paid time off for healthcare

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visits, or reliable access to technology, or due to disabilities, such as movement disorders, vision loss, and hearing loss. The impact of various delivery strategies on postpartum care attendance and health outcomes in these population subgroups may vary. When enrolled as part of a larger study, subgroup-specific data for these various subpopulations should be reported.

In terms of study design, although blinding of participants and care providers will rarely be feasible (if at all), studies should blind the assessors of outcomes that are not reported by patients. There is a need for more randomized and well-designed and well-analyzed prospective or retrospective nonrandomized studies. Future studies should also consistently evaluate and report prioritized outcomes that were not adequately reported in the identified evidence, such as adherence to condition-specific screening or testing, transition to care by primary care providers, maternal mortality, patient-reported outcomes (e.g., quality of life), physical health/medical outcomes (e.g., diabetes), mental health outcomes (e.g., depression), reduction in health inequities, worsening health inequities, and reported discrimination. Additionally, to address preference-sensitive decisions, studies should compare postpartum outcomes with prenatal intentions, such as receipt of intended contraception and attainment of desired breastfeeding duration. Given that considerable maternal morbidity and mortality in the United States occurs within the first year postpartum, physical health/medical outcomes are particularly important for investigators to measure and report in future studies.

### 4.6. Conclusions

Although we found 92 studies conducted in the United States or Canada, we were able to make few specific conclusions regarding outcomes prioritized for this SR, all of which were of low or moderate strength of evidence. Future research should compare various care delivery strategies, particularly related to interventions targeting healthcare providers. Future research should also evaluate the impact of more comprehensive or extended health insurance on postpartum health. For all research questions, patient-reported outcomes, such as quality of life and attainment of desired goals, should also be reported. Researchers should report separate data for various population subgroups, so that decision makers can understand the benefits and risks of postpartum care delivery strategies for different populations. Such evidence could inform strategies to close the wide and important gaps in health outcomes by race among postpartum individuals in the United States.

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# Appendix A. Methods

## A.1. Details of Study Selection

### A.1.1. Search Strategy (Details)

We searched for studies for all Key Questions in Medline (via PubMed), Embase, the Cochrane Central Register of Clinical Trials, and CINAHL. Duplicate citations were removed prior to screening. We did not employ any date or language restrictions to the search but included filters to remove nonhuman studies and articles that are not primary studies, and to exclude studies tagged as being from low- or middle-income countries (per the World Bank classification). We included MeSH or Emtree terms, along with free-text words, related to postpartum, healthcare strategies, and insurance coverage. The searches were independently peer reviewed. The exact search terms used for identifying studies in each database are listed below. To identify additional eligible studies, we also reviewed the reference lists of relevant existing systematic reviews (SRs).

We also ran a search of the ClinicalTrials.gov registry for ongoing studies, unpublished study protocols, and unpublished study results.

#### Medline (via PubMed):

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(((postpartum[tiab] OR post-partum[tiab] OR postnatal[tiab] OR post-natal[tiab] OR puerperal[tiab] OR puerperium[tiab] OR postdelivery[tiab] OR post-delivery[tiab] OR "post delivery"[tiab] OR "Peripartum Period"[Mesh] OR "fourth trimester"[tiab] OR "4th trimester"[tiab]) AND ("Perinatal Care"[Mesh] OR "Postnatal Care"[Mesh] OR "care coordination"[tiab] OR "care co-ordination" [tiab] OR "coordination of care"[tiab] OR "co-ordination of care"[tiab] OR "Case Management"[Mesh] OR "Coordinated care"[tiab] OR "Co-ordinated care"[tiab] OR "collaborative care"[tiab] OR "integrated care"[tiab] OR "shared care"[tiab] OR "transitional care"[tiab] OR "comanagement"[tiab] OR "co-management"[tiab] OR "case management"[tiab] OR "multidisciplinary care"[tiab] OR "interdisciplinary care"[tiab] OR "disease management"[tiab] OR "Progressive Patient Care"[MeSH] OR "Continuity of Patient Care"[MeSH] OR "Patient-Centered Care"[MeSH] OR "Patient Care Planning"[MeSH] OR "Disease Management"[MeSH] OR "Delivery of Health Care, Integrated"[MeSH] OR "Delivery of Health Care "[Mesh] OR "Standard of Care"[Mesh] OR "Health Services Accessibility"[Mesh] OR "Appointments and Schedules"[Mesh] OR ((care OR treatment) AND (timing OR integrat* OR collaborat* OR coordinat* OR transition* OR interdisciplin* OR shared OR comanagement OR cooperat* OR aftercare OR interinstitution* OR synchron* OR harmon* OR manage*)) OR "Office Visits"[Mesh] OR "office visits"[tiab] OR Doula[tiab] OR Midwife[tiab] OR "Home visit*"[tiab] OR "home-visit*"[tiab] OR "group visit"[tiab] OR "support group"[tiab] OR centering[tiab] OR holistic[tiab] OR ("Lay support" OR Outreach OR "community health") AND worker) OR "Patient navigator"[tiab] OR "Telemedicine"[Mesh] OR "Remote Consultation"[Mesh] OR ehealth[tiab] OR e-health*[tiab] OR mhealth*[tiab] OR m-health*[tiab] OR telemedicine[tiab] OR telehealth[tiab] OR telecare[tiab] OR smartphone*[tiab] OR "smart phone*"[tiab] OR "smart-phone*"[tiab] OR "cell phone*"[tiab] OR "mobile phone*"[tiab] OR ((remote* OR video OR virtual OR phone) AND (care OR consult* OR visit* OR service*)) OR "remote monitoring"[tiab] OR Telemonitoring[tiab] OR wearable[tiab] OR
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wireless[tiab] OR portable[tiab] OR "Health education"[tiab] OR Contracept\*[tiab] OR insurance expansion[tiab] OR Medicaid expansion[tiab] OR "Maternal Death/prevention and control"[MESH] OR "Maternal-Child Health Services"[Mesh])) NOT (((("Africa"[Mesh] OR "Algeria"[Mesh] OR "Angola"[Mesh] OR "Bangladesh"[Mesh] OR "Benin"[Mesh] OR "Bhutan"[Mesh] OR "Bolivia"[Mesh] OR "Cabo Verde"[Mesh] OR "Cambodia"[Mesh] OR "Cameroon"[Mesh] OR "Comoros"[Mesh] OR "Cote d'Ivoire"[Mesh] OR "Democratic Republic of the Congo"[Mesh] OR "Djibouti"[Mesh] OR "Egypt"[Mesh] OR "El Salvador"[Mesh] OR "Eswatini"[Mesh] OR "Ghana"[Mesh] OR "Honduras"[Mesh] OR "India"[Mesh] OR "Kenya"[Mesh] OR "Kyrgyzstan"[Mesh] OR "Laos"[Mesh] OR "Lesotho"[Mesh] OR "Mauritania"[Mesh] OR "Micronesia"[Mesh] OR "Moldova"[Mesh] OR "Mongolia"[Mesh] OR "Morocco"[Mesh] OR "Myanmar"[Mesh] OR "Nepal"[Mesh] OR "Nicaragua"[Mesh] OR "Nigeria"[Mesh] OR "Pakistan"[Mesh] OR "Papua New Guinea"[Mesh] OR "Philippines"[Mesh] OR "Sao Tome and Principe"[Mesh] OR "Senegal"[Mesh] OR "Sri Lanka"[Mesh] OR "Tanzania"[Mesh] OR "Timor-Leste"[Mesh] OR "Tunisia"[Mesh] OR "Ukraine"[Mesh] OR "Uzbekistan"[Mesh] OR "Vanuatu"[Mesh] OR "Vietnam"[Mesh] OR "Zambia"[Mesh] OR "Zimbabwe"[Mesh] OR "Afghanistan"[Mesh] OR "Burundi"[Mesh] OR "Burkina Faso"[Mesh] OR "Central African Republic"[Mesh] OR "Eritrea"[Mesh] OR "Ethiopia"[Mesh] OR "Guinea"[Mesh] OR "Gambia"[Mesh] OR "Guinea-Bissau"[Mesh] OR "Haiti"[Mesh] OR "Liberia"[Mesh] OR "Madagascar"[Mesh] OR "Mali"[Mesh] OR "Mozambique"[Mesh] OR "Malawi"[Mesh] OR "Niger"[Mesh] OR "Democratic People's Republic of Korea"[Mesh] OR "Rwanda"[Mesh] OR "Sudan"[Mesh] OR "Sierra Leone"[Mesh] OR "Somalia"[Mesh] OR "South Sudan"[Mesh] OR "Syria"[Mesh] OR "Chad"[Mesh] OR "Togo"[Mesh] OR "Tajikistan"[Mesh] OR "Uganda"[Mesh] OR "Yemen"[Mesh] OR Somaliland OR "Albania"[Mesh] OR "Argentina"[Mesh] OR "Armenia"[Mesh] OR "American Samoa"[Mesh] OR "Azerbaijan"[Mesh] OR "Bulgaria"[Mesh] OR "Bosnia and Herzegovina"[Mesh] OR "Republic of Belarus"[Mesh] OR "Belize"[Mesh] OR "Brazil"[Mesh] OR "Botswana"[Mesh] OR "China"[Mesh] OR "Colombia"[Mesh] OR "Costa Rica"[Mesh] OR "Cuba"[Mesh] OR "Dominica"[Mesh] OR "Dominican Republic"[Mesh] OR "Ecuador"[Mesh] OR "Fiji"[Mesh] OR "Gabon"[Mesh] OR "Georgia (Republic)"[Mesh] OR "Equatorial Guinea"[Mesh] OR "Grenada"[Mesh] OR "Guatemala"[Mesh] OR "Guyana"[Mesh] OR "Indonesia"[Mesh] OR "Iran"[Mesh] OR "Iraq"[Mesh] OR "Jamaica"[Mesh] OR "Jordan"[Mesh] OR "Kazakhstan"[Mesh] OR "Lebanon"[Mesh] OR "Libya"[Mesh] OR "Saint Lucia"[Mesh] OR "Indian Ocean Islands"[Mesh] OR "Mexico"[Mesh] OR "Micronesia"[Mesh] OR "Republic of North Macedonia"[Mesh] OR "Montenegro"[Mesh] OR "Malaysia"[Mesh] OR "Namibia"[Mesh] OR "Peru"[Mesh] OR "Paraguay"[Mesh] OR "Russia"[Mesh] OR "Serbia"[Mesh] OR "Suriname"[Mesh] OR "Thailand"[Mesh] OR "Turkmenistan"[Mesh] OR "Tonga"[Mesh] OR "Turkey"[Mesh] OR "Saint Vincent and the Grenadines"[Mesh] OR "Venezuela"[Mesh] OR "Samoa"[Mesh] OR "Kosovo"[Mesh] OR "South Africa"[Mesh]) NOT ("Aruba"[Mesh] OR "Andorra"[Mesh] OR "United Arab Emirates"[Mesh] OR "Antigua and Barbuda"[Mesh] OR "Australia"[Mesh] OR "Austria"[Mesh] OR "Belgium"[Mesh] OR "Bahrain"[Mesh] OR "Bahamas"[Mesh] OR "Bermuda"[Mesh] OR "Barbados"[Mesh] OR "Brunei"[Mesh] OR "Canada"[Mesh] OR "Switzerland"[Mesh] OR "Channel Islands"[Mesh] OR "Chile"[Mesh] OR "Curacao"[Mesh] OR "Cyprus"[Mesh] OR "Czech Republic"[Mesh] OR "Germany"[Mesh] OR "Denmark"[Mesh] OR "Spain"[Mesh] OR "Estonia"[Mesh] OR "Finland"[Mesh] OR "France"[Mesh] OR "United Kingdom"[Mesh] OR "Gibraltar"[Mesh] OR "Greece"[Mesh] OR "Greenland"[Mesh] OR "Guam"[Mesh] OR "Hong Kong"[Mesh] OR

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## Embase:

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- #5. #3 AND #4
- #4. 'cohort studies'/exp OR longitudinal OR ((comparative OR intervention) AND study) OR prepost\* OR 'before and after' OR 'interrupted time\*' OR 'time serie\*' OR intervention\* OR (('quasi experiment\*' OR quasiexperiment\* OR quasi OR experimental) AND (method OR study OR trial OR design\*)) OR 'real world' OR 'random allocation'/exp OR 'double-blind method'/exp OR 'single-blind method'/exp OR random\* OR ((clinical OR controlled) AND trial\*)
- #3. #1 AND #2
- #2. 'care coordination' OR 'care co-ordination' OR 'coordination of care' OR 'co-ordination of care' OR 'case management'/exp OR 'case management' OR 'interdisciplinary care' OR 'continuity of patient care'/exp OR 'patient-centered care'/exp OR 'patient care planning'/exp OR ((care OR treatment) AND (timing OR integrat\* OR collaborat\* OR coordinat\* OR transition\* OR interdisciplin\* OR shared OR comanagement OR cooperat\* OR aftercare OR interinstitution\* OR synchron\* OR harmon\* OR manage\*)) OR 'home visit\*' OR 'telemedicine'/exp OR 'remote consultation'/exp
- #1. 'postpartum'/exp OR postpartum OR 'fourth trimester' OR '4th trimester'

## Cochrane CENTRAL:

- #1 postpartum OR post-partum OR postnatal OR post-natal OR postdelivery OR post-delivery OR "post delivery" OR "fourth trimester" OR "4th trimester" 16558
- #2 "care coordination" OR "care co-ordination" OR "coordination of care" OR "co-ordination of care" OR [mh "Case Management"] OR "Coordinated care" OR "Co-ordinated care" OR "collaborative care" OR "integrated care" OR "shared care" OR "transitional care" OR comanagement OR co-management OR "case management" OR "interdisciplinary care" OR "disease management" OR [mh "Progressive Patient Care"] OR [mh "Continuity of Patient Care"] OR [mh "Patient-Centered Care"] OR [mh "Patient Care Planning"] OR ((care OR treatment) AND (timing OR integrat\* OR collaborat\* OR coordinat\* OR transition\* OR interdisciplin\* OR shared OR comanagement OR cooperat\* OR aftercare OR interinstitution\* OR synchron\* OR harmon\* OR manage\*)) OR "Patient navigator" OR [mh Telemedicine] OR

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Schedules"+) OR ((care OR treatment ) AND (timing OR integrat\* OR collaborat\* OR  
coordinat\* OR transition\* OR interdisciplin\* OR shared OR comanagement OR cooperat\* OR  
aftercare OR interinstitution\* OR synchron\* OR harmon\* OR manage\* )) OR (MH "Office  
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"group visit" OR "support group" OR centering OR holistic OR ("Lay support" OR Outreach  
OR "community health" ) AND worker ) OR "Patient navigator" OR (MH Telemedicine+) OR  
(MH "Remote Consultation"+) OR ehealth OR e-health\* OR mhealth\* OR m-health\* OR  
telemedicine OR telehealth) OR "insurance expansion" OR "Medicaid expansion" OR (MH  
"Maternal Death/prevention and control"+) OR (MH "Maternal-Child Health Services"+))) AND  
((MH "Cohort Studies"+) OR cohort OR PT "Clinical Trial" OR longitudinal OR PT "Evaluation  
Study" OR PT "Comparative Study" OR ((comparative OR Intervention ) AND study ) OR  
pretest\* OR posttest\* OR prepost\* OR "before and after" OR "interrupted time\*" OR "time  
serie\*" OR intervention\* OR ((quasi-experiment\* OR quasiexperiment\* OR quasi OR  
experimental ) AND (method OR study OR trial OR design\* )) OR (MH "Random Allocation"+)  
OR PT "Clinical Trial" OR (MH "Double-Blind Method"+) OR (MH "Single-Blind Method"+)  
OR random\* OR PT "Randomized Controlled Trial")

### **ClinicalTrials.gov:**

(postpartum OR post-partum OR postnatal OR post-natal OR puerperal OR puerperium OR  
postdelivery OR post-delivery OR Peripartum OR Peri-partum)  
AND  
United States OR Canada

## A.1.2. Inclusion and Exclusion Criteria (Details)

The specific eligibility criteria provided below have been refined based on discussions with a panel of Key Informants (KIs) and a Technical Expert Panel (TEP). These stakeholders included perspectives from patient advocacy, obstetrics and gynecology (OB/GYN), maternal-fetal medicine, rural family practice, social work, doula care, epidemiology, health services research, health disparities research, national policy, and public health insurance.

Note that for Key Question (KQ) 1, we have altered the traditional framework for defining KQ eligibility criteria (PICOTSD). Specifically, we have restructured the Interventions and Comparators elements to be Target of Interventions Provided, Delivery Strategies, and Comparator Delivery Strategies. We have adopted this approach because KQ 1 compares strategies to deliver interventions with comparator delivery strategies. The Target of Interventions Provided refers to the actual interventions prescribed or given to patients by their healthcare providers; these interventions are not the components of care (“interventions”) being focused on in this review.

### Key Question 1 (Strategies for Healthcare Delivery)

#### *Populations*

- Individuals (of any age) who are in the postpartum period (defined as within 1 year after giving birth).
  - For this review, “giving birth” is defined as a live birth, intrauterine fetal death (IUFD) or stillbirth, or induced abortion that occurred at 20 or more weeks of gestation.
- Eligible populations
  - Healthy individuals (general population)
  - Individuals at increased risk of postpartum complications due to pregnancy-related conditions (e.g., hypertensive disorders of pregnancy, gestational diabetes)
  - Individuals at increased risk of postpartum complications due to incident or newly diagnosed conditions postpartum (e.g., postpartum hypertension, postpartum depression, new-onset diabetes)
- Exclude:
  - *Individuals with specific health conditions not typically managed by providers of pregnancy and postpartum care, (e.g., multiple sclerosis, HIV, cancer, substance use disorders other than tobacco).*
  - *Individuals with diagnosed chronic conditions – pre-existing (non-gestational) diabetes, cardiac disease/risk factors (e.g., cardiomyopathy, pre-existing [non-gestational] hypertension), mood disorders (e.g., major depression, anxiety), stress urinary incontinence, and dyspareunia.*

*Target of Interventions Provided* (note that these are *not* the interventions being compared in the review) Categories of interventions include components of the American College of Obstetrics and Gynecology (ACOG) Postpartum Care Plan:<sup>18</sup>

- General postpartum care (generally intended to cover all intervention targets listed below)
  - Contraceptive care
    - Reproductive life planning and contraception
  - Breastfeeding care
    - Counseling, support, and education regarding infant care and feeding
    - Adverse pregnancy outcomes associated with cardiometabolic disease
    - Risks and behaviors associated with poor postpartum health
  - Screening or preventive care: screening, counseling, support, or education regarding prevention of:
    - Pregnancy complications

- Common chronic health conditions (e.g., hypertension, diabetes)
- Mental health conditions (e.g., depression, anxiety)
- Common gynecologic problems (e.g., sexually transmitted infections, cervical cancer)
- Common postpartum problems (e.g., stress urinary incontinence, dyspareunia)
- Exclude:
  - *Treatments for acute or emergency postpartum conditions (e.g., for mastitis, urinary tract infections, other infections)*
  - *Treatments or other interventions for conditions unrelated to pregnancy (e.g., HIV, schizophrenia)*
  - *Treatments or other interventions for acute conditions during pregnancy or occurring around the time of giving birth (e.g., for postpartum hemorrhage, preeclampsia with severe features)*
  - *Treatments or other interventions directed at the infant (e.g., well-child visits, otitis media, colic)*
  - *Referral-only interventions (e.g., lactation consultants for specific lactation problems)*

#### *Delivery Strategies*

- **Where healthcare is provided** – e.g., hospital, clinic, home visit, community health center, birth center, virtual care/telehealth, Women Infants and Children (WIC) program office/site
- **How healthcare is provided** – e.g., dedicated postpartum care visit, as part of well-child visit, group visit
- **When healthcare is provided** – e.g., timing before giving birth, after giving birth, or at postpartum visits
- **Who provides healthcare/support**
  - Predominantly health system-based care – e.g., OB/GYN, midwife, pediatrician, family physician, internist, physician assistant, nurse practitioner, nurse, lactation consultant (when integrated as part of the care), clinical psychologist or other mental health professional
  - Predominantly community-based care – e.g., doula support, community health worker, lay support, social worker/support, peer support, case manager
- **Healthcare coordination and management of care** – e.g., patient navigators, creation and implementation of post-birth care plans, strategies for continuity of care/care transitions, strategies to facilitate access to appointments/scheduling, postpartum specialty care clinics, multidisciplinary care models (e.g., maternal and child health centers, maternity care homes), evidence-based care protocols, incentives for care completion
- **Information and communication technology** – e.g., bidirectional telemedicine, virtual televisits, phone visits, bidirectional texting, real-time chat-bots, smartphone or computer applications designed to enhance provision of postpartum healthcare
  - Exclude: *Social media or support groups (without provider involvement), web or device applications aimed at general health maintenance*
- **Interventions targeted at healthcare providers or systems** – e.g., interventions to improve guideline-adherent care, clinical decision support tools, interventions to help reduce healthcare inequities (e.g., promoting respectful care)
- Exclude:
  - *Referral-only interventions (e.g., lactation consultants for specific lactation problems)*
  - *Treatments for specific ailments or conditions (e.g., pelvic floor physical therapy, urinary incontinence treatment, contraception, pain treatment, cognitive behavioral therapy)*
  - *Insurance extension (which is covered in KQ 2)*

### *Comparator Delivery Strategies*

- Standard delivery strategy
- Alternative delivery strategy

*Outcomes* (\* and **bold** font denotes important outcomes that were used when developing Strength of Evidence tables)

- Healthcare utilization outcomes
  - **Attendance at postpartum visits\***
  - **Unplanned care utilization (e.g., unplanned readmissions, emergency room visits)\***
  - **Adherence to condition-specific screening/testing (e.g., blood pressure monitoring, glucose tolerance testing) or treatment\***
  - **Transition to primary care provider for long-term care\***
- Clinical outcomes (as appropriate, outcomes include incidence, prevalence/continuation, severity, and resolution)
  - **Maternal mortality\***
  - **Symptoms or diagnosis of mental health conditions (e.g., anxiety, depression, substance use)\***
  - Patient-reported outcomes
    - **Quality of life (using validated measures)\***
    - **Perceived stress\***
    - Pain
    - Sleep quality
    - Fatigue
    - Sexual well-being and satisfaction
    - Awareness of risk factors for long-term ill health
  - Physical health/medical outcomes
    - Postpartum onset of preeclampsia or hypertension
    - Infections (e.g., mastitis, wound infections)
    - Severe maternal morbidity
      - Cardiovascular disorders (e.g., cardiomyopathy)
      - Cerebrovascular disorders (e.g., stroke)
      - Bleeding
      - Venous thromboembolism
      - Other
  - Interpregnancy interval
  - Unplanned pregnancies
  - Contraceptive initiation and continuation
  - Breastfeeding intention, initiation, duration, and exclusivity
  - Reduction in health inequities (e.g., by race, ethnicity, geography, disability status)
- Harms
  - **Health inequities\***
  - **Reported discrimination\***
  - Over-utilization of healthcare
  - Patient burden regarding postpartum care

### *Potential Effect Modifiers*

- Patient-level factors
  - Age
  - Race/ethnicity
  - Gender identity



- Sexual identity
- Physical disability status
- Education level
- Socioeconomic status
- Immigration status
- Refugee status
- Barriers to transportation to healthcare facility
- Paid family leave policies (e.g., presence versus absence, different durations of leave)
- Access to internet (for virtual care/telehealth questions)
- Substance use/substance use disorder
- Type of insurance coverage (insured versus uninsured, private versus public [e.g., Medicaid], insurance coverage of postpartum care, Medicaid insurance coverage extension or expansion)
- Presence versus absence of disorders of pregnancy (e.g., hypertensive, cardiovascular, gestational diabetes mellitus) or peripartum complications that increase risk of postpartum complications
- Preterm versus term delivery
- Live birth versus stillbirth/spontaneous abortion/induced abortion
- Number of infants (singleton versus twins/triplets, etc.)
- Presence versus absence of a supportive partner
- Infant health (e.g., neonatal intensive care unit [NICU] admission, congenital anomalies)
- Setting factors
  - Country (United States versus Canada)
  - Geographic location (urban versus suburban versus rural)
  - Different levels of neighborhood vulnerability (e.g., social vulnerability index)
  - Volume of facility/hospital (high versus low)
  - Type of facility/hospital (private versus public, community versus tertiary, academic versus non-academic)
  - Racial/ethnic concordance between provider and patient
  - Language concordance between provider and patient

#### *Timing*

- *Delivery strategy and comparator delivery strategy*: antenatal or postpartum (or both)
  - If the service is provided antenatally, the strategy must be aimed at postpartum health (not just that the outcome was measured during the postpartum period).
- *Outcome measurement*: For KQ 1a: within 3 months after giving birth. For KQ 1b: 3 months to 1 year after giving birth (except interpregnancy interval, unplanned pregnancies, and chronic diseases [e.g., diabetes, hypertension], which can be later)

#### *Settings*

- United States or Canada only
- Exclude: *Institutionalized settings (e.g., prisons)*

#### *Design*

- Randomized controlled trials (N ≥10 participants per group)
- Nonrandomized comparative studies, longitudinal (prospective or retrospective) (N ≥30 participants per group)
- Case-control studies (N ≥30 participants per group)
- Exclude: *Single-group (noncomparative) studies, comparative cross-sectional studies (without a discernable time-period between implementation of strategy for intervention and measurement of outcomes), qualitative studies*

## Key Question 2 (Extension of Healthcare or Insurance Coverage)

### *Populations*

- Individuals (of any age) who are in the postpartum period (defined as within 1 year after giving birth).
  - For this review, “giving birth” is defined as a live birth, intrauterine fetal death (IUFD)/stillbirth, or induced abortion that occurred at 20 or more weeks of gestation.
- Eligible populations
  - Healthy individuals (general population)
  - Individuals at increased risk of postpartum complications due to pregnancy-related conditions (e.g., hypertensive disorders of pregnancy, gestational diabetes)
  - Individuals at increased risk of postpartum complications due to incident or newly diagnosed conditions postpartum (e.g., postpartum hypertension, postpartum depression, new-onset diabetes)
- Exclude:
  - *Individuals with specific health conditions not typically managed by providers of pregnancy and postpartum care, (e.g., multiple sclerosis, HIV, cancer, substance use disorders other than tobacco).*
  - *Individuals with diagnosed chronic conditions – pre-existing (non-gestational) diabetes, cardiac disease/risk factors (e.g., cardiomyopathy, pre-existing [non-gestational] hypertension), mood disorders (e.g., major depression, anxiety), stress urinary incontinence, and dyspareunia.*

### *Interventions*

- More comprehensive insurance coverage
- Extended duration of insurance coverage
- More continuous insurance coverage
- More continuous access to care as the result of a targeted program at the state, system, or provider level (e.g., Medicaid expansion)

### *Comparators*

- Less comprehensive level of or no insurance coverage
- Less continuous insurance coverage
- Less continuous, or no access to healthcare

*Outcomes* (\* and **bold** font denotes important outcomes that were used when developing Strength of Evidence tables)

- Healthcare utilization outcomes
  - **Attendance at postpartum visits\***
  - **Unplanned care utilization (e.g., readmissions, emergency room visits)\***
  - **Adherence to condition-specific screening/testing (e.g., blood pressure monitoring, glucose tolerance testing) or treatment\***
  - **Transition to primary care provider for long-term care\***
- Clinical outcomes (as appropriate, outcomes include incidence, prevalence/continuation, severity, and resolution)
  - **Maternal mortality\***
  - **Symptoms or diagnosis of mental health conditions (e.g., anxiety, depression, substance use)\***
  - Patient-reported outcomes
    - **Quality of life (using validated measures)\***

- **Perceived stress\***
- Pain
- Sleep quality
- Fatigue
- Sexual well-being and satisfaction
- Awareness of risk factors for long-term ill health
- Physical health/medical outcomes
  - Postpartum onset of preeclampsia or hypertension
  - Infections (e.g., mastitis, wound infections)
  - Severe maternal morbidity
    - Cardiovascular disorders (e.g., cardiomyopathy)
    - Cerebrovascular disorders (e.g., stroke)
    - Bleeding
    - Venous thromboembolism
    - Other
- Interpregnancy interval
- Unplanned pregnancies
- Contraceptive initiation and continuation
- Breastfeeding intention, initiation, duration, and exclusivity
- Reduction in health inequities (e.g., by race, ethnicity, geography, disability status)
- Harms
  - **Health inequities\***
  - **Reported discrimination\***
  - Over-utilization of healthcare
  - Patient burden regarding postpartum care

*Potential Effect Modifiers*

- Patient-level factors
  - Age
  - Race/ethnicity
  - Gender identity
  - Sexual identity
  - Physical disability status
  - Education level
  - Socioeconomic status
  - Immigration status
  - Refugee status
  - Barriers to transportation to healthcare facility
  - Paid family leave policies (e.g., presence versus absence, different durations of leave)
  - Substance use/substance use disorder
  - Type of insurance coverage (insured versus uninsured, private versus public [e.g., Medicaid], insurance coverage of postpartum care, Medicaid insurance coverage extension or expansion)
  - Presence versus absence of disorders of pregnancy (e.g., hypertensive, cardiovascular, gestational diabetes mellitus) or peripartum complications that increase risk of postpartum complications
  - Preterm versus term delivery
  - Live birth versus stillbirth/spontaneous abortion/induced abortion
  - Number of infants (singleton versus twins/triplets, etc.)
  - Presence versus absence of a supportive partner
  - Infant health (e.g., neonatal intensive care unit [NICU] admission, congenital anomalies)

- Setting factors
  - Geographic location (urban versus suburban versus rural)
  - Different levels of neighborhood vulnerability (e.g., social vulnerability index)
  - Volume of facility/hospital (high versus low)
  - Type of facility/hospital (private versus public, community versus tertiary, academic versus non-academic)
  - Racial/ethnic concordance between provider and patient
  - Language concordance between provider and patient

#### *Timing*

- *Interventions and Comparators*: within 1 year after giving birth
- *Outcome measurement*: up to 1 year after giving birth (except interpregnancy interval, unplanned pregnancies, and chronic diseases [e.g., diabetes, hypertension], which can be later)

#### *Settings*

- United States only
- Exclude: *Institutionalized settings (e.g., prisons)*

#### *Design*

- Randomized controlled trials (N ≥ 10 participants per group)
- Nonrandomized comparative studies, longitudinal (prospective or retrospective) or cross-sectional (N ≥ 30 participants per group)
- Case-control studies (N ≥ 30 participants per group)
- Exclude: *Single-group (noncomparative) studies, comparative cross-sectional studies (without a discernable time-period between intervention and measurement of outcomes), qualitative studies*

### **A.1.3. Screening Process**

Records from all searches were deduplicated and then entered into Abstrackr software (<http://abstrackr.cebm.brown.edu/>) to enable title and abstract screening. The team conducted three rounds of pilot screening. During each pilot round, we all screened the same 100 abstracts and discuss conflicts, with the goal of training the team in the nuances of the eligibility criteria and refining them as needed. After the pilot rounds, we proceeded with screening in duplicate. The Abstrackr software has machine learning capabilities that predict the likelihood of relevance of each citation. Daily, the list of unscreened abstracts was sorted so that the most potentially relevant articles were presented first. This process made screening more efficient and enabled us to capture the large majority of relevant articles relatively early in the abstract screening process.

Based on empirical research on Abstrackr (that is soon to be submitted for publication), we switched to single screening of remaining abstracts once *both* of the following criteria were fulfilled: (1) all remaining unscreened abstracts had a prediction value less than 0.40 (on a scale of 0 to 1), and (2) no eligible citations were identified in a consecutive sample of 400 abstracts (this threshold for number of abstracts was chosen because it exceeds 370 abstracts, which is the threshold above which the upper 97.5% confidence interval bound for a proportion of irrelevant abstracts [i.e., 0/370] is less than 1%). The empirical research suggests that at this threshold, all remaining abstracts would have been rejected.

Potentially relevant citations were retrieved in full text. These articles were rescreened in duplicate.

## A.2. Data Extraction and Data Management (Details)

We extracted data from eligible primary studies into the Systematic Review Data Repository-Plus (<https://srdplus.ahrq.gov>). For each study, one researcher extracted and entered data, which were confirmed by a second, independent researcher. Each individual study that was reported in multiple articles was extracted as a single record. In the instance where two studies were reported within a single article, each study was extracted separately.

For each study, we extracted article-identifying information, study design features, funding source, population characteristics and sample sizes, intervention and comparator names and descriptions, and relevant outcomes and their definitions.

## A.3. Assessing Applicability

For each KQ (or specific subquestion), we assessed the applicability of the included studies primarily based on the studies' eligibility criteria and their included participants, specifically related to such factors as age, race/ethnicity, and risk factors for postpartum complications. These were qualitatively compared with typical distributions of these factors among postpartum individuals in the United States.

## A.4. Peer Review and Public Commentary

Experts in obstetrics and gynecology, maternal-fetal medicine, family medicine, social work, health services research, clinical practice guidelines, and individuals representing other stakeholder and user communities are being invited to provide external peer review of this SR. The Agency for Healthcare Research and Quality (AHRQ) and an Associate Editor from a fellow Evidence-based Practice Center also provided comments. The draft report was posted on the AHRQ Website to elicit public comment for a period of 4 weeks. We addressed all reviewer and public comments, revising the text as appropriate. A disposition of comments table of peer and public comments is posted on the Effective Health Care Website (<https://effectivehealthcare.ahrq.gov>).

## A.5 Abbreviations

ACOG	American College of Obstetrics and Gynecology
adj	adjusted
AHRQ	Agency for Healthcare Research and Quality
BMI	body mass index
CI	confidence interval
CINAHL	Cumulative Index to Nursing and Allied Health Literature
COI	conflicts of interest
CPG	clinical practice guideline
DelCAN	Delaware Contraceptive Access Now
DMPA	depot medroxyprogesterone acetate
EIP	Early Intervention Program
EMR	electronic medical record
EPC	Evidence-based Practice Center
EPDS	Edinburgh Postpartum Depression Scale
ER	emergency room

GRADE	Grading of Recommendations, Assessment, Development, and Evaluations
HbA1c	hemoglobin A1c
HFA	Healthy Families America
HR	hazard ratio
IRR	incidence rate ratio
IUD	intrauterine device
KI	Key Informant
KQ	Key Question
LARC	long-acting reversible contraception
MCC	Maternity Care Coordination
MD	mean difference
NMD	net mean difference
NPD	net prevalence difference
NPR	net prevalence ratio
NRCS	nonrandomized comparative study
OB/GYN	obstetrics/gynecology (specialty)
OGTT	oral glucose tolerance test
OR	odds ratio
PCORI	Patient-Centered Outcomes Research Institute
PICOTDS	population, interventions, comparators, outcomes, timing, study designs, settings
PMID	PubMed identifier
PNCC	Prenatal Care and Coordination
PR	prevalence ratio
QIDS	Quick Inventory of Depression Symptoms
RCT	randomized controlled trial
RD	risk difference
RoB	risk of bias
ROBINS-I	Risk of Bias in Nonrandomized Studies of Interventions
RR	relative risk
SD	standard deviation
SE	standard error
SoE	strength of evidence
SR	systematic review
SRDR+	Systematic Review Data Repository Plus
TIDieR	Template for Intervention Description and Replication
TOO	Task Order Officer
TPHNC	Traditional Public Health Nursing Care
U.S.	United States
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

## Appendix B. List of Excluded Studies

The 480 excluded articles, along with reasons for exclusion, are summarized in Table B-1. The most common reasons for exclusion were that the articles addressed Key Question 1 but were not conducted in the United States or Canada (n=87 articles), did not address any intervention of interest (n=79 articles), or described a delivery strategy or delivery strategy comparison that was not of interest (n=77 articles).

**Table B-1. Excluded articles with reasons for exclusion**

No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
1	32739716	Abbass-Dick	The comparison of access to an eHealth resource to current practice on mother and co-parent teamwork and breastfeeding rates: A randomized controlled trial	Midwifery	Duplicate article
2	35484530	Abdel-Ghany	Intrapartum versus postpartum insertion of intrauterine device in women delivering by cesarean section	BMC Pregnancy Childbirth	KQ1 - Not in the US or Canada
3	35727135	Adams	Postpartum Care in the Time of COVID-19: The Use of Telemedicine for Postpartum Care	Telemed J E Health	DS - Delivery strategy or delivery strategy comparison not of interest
4	20409103	Ahmed	Effect of pre- and postdischarge interventions on breastfeeding outcomes and weight gain among premature infants	JOGNN - journal of obstetric, gynecologic, and neonatal nursing	D - Systematic review on irrelevant topic
5	15613848	Ahn	[The effects of the systemic follow up health care program on the health promotion and the risk reduction in premature infants and their mothers]	Taehan Kanho Hakhoe Chi	DS - Delivery strategy or delivery strategy comparison not of interest
6	36071624	Akyildiz	The effect of breastfeeding support provided by video call on postpartum anxiety, breastfeeding self-efficacy, and newborn outcomes: A randomized controlled study	Jpn J Nurs Sci	KQ1 - Not in the US or Canada
7	10728237	Alexander	An assessment of the use and impact of ancillary prenatal care services to Medicaid women in managed care	Matern Child Health J	O - No outcomes of interest
8	-	Apay	The Effect of the Care Given Using Orem's Self-Care Model on the Postpartum Self-Evaluation	International Journal of Caring Sciences	S - Not high-income country
9	34058681	Arefadib	Postnatal depression and anxiety screening and management by maternal and child health nurses in community settings: A scoping review	Midwifery	D - Systematic review on irrelevant topic
10	35331971	Arias	IMPACT (IMPact on PostpArtum Care by Telehealth) Study: a retrospective cohort study	American Journal of Obstetrics & Gynecology	Duplicate article
11	10404442	Armstrong	A randomized, controlled trial of nurse home visiting to vulnerable families with newborns	J Paediatr Child Health	KQ1 - Not in the US or Canada
12	11115031	Armstrong	Promoting secure attachment, maternal mood and child health in a vulnerable population: a randomized controlled trial	J Paediatr Child Health	I - No intervention of interest
13	35226086	Armstrong	Association of the Timing of Postpartum Intrauterine Device Insertion and Breastfeeding With Risks of Intrauterine Device Expulsion	JAMA Network Open	O - No outcomes of interest
14	35226086	Armstrong	Association of the Timing of Postpartum Intrauterine Device Insertion and Breastfeeding With Risks of Intrauterine Device Expulsion	JAMA Network Open	O - No outcomes of interest
15	-	Austerberry	Evaluating social support and health visiting	Community Practitioner	KQ1 - Not in the US or Canada
16	18843682	Austin	Antenatal psychosocial assessment for reducing perinatal mental health morbidity	Cochrane Database of Systematic Reviews	D - Systematic review on irrelevant topic
17	32142826	Averbach	Expulsion of intrauterine devices after postpartum placement by timing of placement, delivery type, and intrauterine device type: a systematic review and meta-analysis	Am J Obstet Gynecol	D - Systematic review on relevant topic
18	20187965	Bao	Diet and lifestyle interventions in postpartum women in China: study design and rationale of a multicenter randomized controlled trial	BMC public health	S - Not high-income country
19	6837823	Barkauskas	Effectiveness of public health nurse home visits to primiparous mothers and their infants	American Journal of Public Health	D - KQ1, but cross-sectional study
20	29092713	Barnes	Randomized controlled trial and economic evaluation of nurse-led group support for young mothers during pregnancy and the first year postpartum versus usual care	Trials	DS - Delivery strategy or delivery strategy comparison not of interest

No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
21	16926214	Bartington	Are breastfeeding rates higher among mothers delivering in Baby Friendly accredited maternity units in the UK?	Int J Epidemiol	DS - Delivery strategy or delivery strategy comparison not of interest
22	34982621	Bellerose	The ACA Medicaid Expansion And Perinatal Insurance, Health Care Use, And Health Outcomes: A Systematic Review	Health Aff (Millwood)	D - Systematic review on relevant topic
23	29778586	Bernard	Comparison of an additional early visit to routine postpartum care on initiation of long-acting reversible contraception: A randomized trial	Contraception	Duplicate article
24	29932590	Berry	Results of the Optimizing Outcomes in Women with Gestational Diabetes Mellitus and Their Infants, a Cluster Randomized, Controlled Pilot Study: Lessons Learned	J Natl Black Nurses Assoc	DS - Delivery strategy or delivery strategy comparison not of interest
25	33919758	Bijlholt	The INTER-ACT E-Health Supported Lifestyle Intervention Improves Postpartum Food Intake and Eating Behavior, but Not Physical Activity and Sedentary Behavior-A Randomized Controlled Trial.	Nutrients	KQ1 - Not in the US or Canada
26	12581034	Biró	Satisfaction with team midwifery care for low- and high-risk women: a randomized controlled trial	Birth	O - No outcomes of interest
27	11251497	Biró	Team midwifery care in a tertiary level obstetric service: a randomized controlled trial...including commentary by Kaufman K	Birth: Issues in Perinatal Care	Duplicate article
28	28549455	Bogaerts	INTER-ACT: prevention of pregnancy complications through an e-health driven interpregnancy lifestyle intervention - study protocol of a multicentre randomised controlled trial	BMC Pregnancy Childbirth	KQ1 - Not in the US or Canada
29	16322166	Bonuck	Randomized, controlled trial of a prenatal and postnatal lactation consultant intervention on duration and intensity of breastfeeding up to 12 months	Pediatrics	DS - Delivery strategy or delivery strategy comparison not of interest
30	15636080	Bosnjak	The effect of baby friendly hospital initiative and postnatal support on breastfeeding rates--Croatian experience	Coll Antropol	I - No intervention of interest
31	15270928	Boulvain	Home-based versus hospital-based postnatal care: a randomised trial	Bjog	I - No intervention of interest
32	-	Bowes	[Commentary on] Effectiveness of breast-feeding peer counseling in a low-income, predominantly Latina population	Obstetrical & Gynecological Survey	Unable to find article
33	19913145	Brito	Safety of the etonogestrel-releasing implant during the immediate postpartum period: a pilot study	Contraception	D - NRCS, <30 per group
34	24281850	Brodribb	The Impact of Community Health Professional Contact Postpartum on Breastfeeding at 3 Months: A Cross-Sectional Retrospective Study	Maternal & Child Health Journal	KQ1 - Not in the US or Canada
35	11519238	Brooten	A randomized trial of nurse specialist home care for women with high-risk pregnancies: outcomes and costs	Am J Manag Care	P - Population too narrow/ineligible conditions
36	30731328	Brown	A systematic review of behaviour change techniques within interventions to prevent return to smoking postpartum	Addict Behav	D - Systematic review on irrelevant topic
37	CN-01740352	Brown	Evaluating a postpartum diabetes prevention program: the gestational diabetes' effects on moms (GEM) trial	Diabetes	DS - Delivery strategy or delivery strategy comparison not of interest
38	27428789	Brumley	Gestational Weight Gain and Breastfeeding Outcomes in Group Prenatal Care	J Midwifery Womens Health	I - No intervention of interest
39	33358645	Buultjens	The contribution of group prenatal care to maternal psychological health outcomes: A systematic review	Women Birth	D - Systematic review on irrelevant topic
40	CN-01006975	Cameron	Exclusive breastfeeding to six months: results from a randomised controlled trial including lactation consultant support	FASEB journal	DS - Delivery strategy or delivery strategy comparison not of interest
41	30343264	Carolan-Olah	A randomized controlled trial of a web-based education intervention for women with gestational diabetes mellitus	Midwifery	P - Population too narrow/ineligible conditions
42	29048411	Carter	Early versus 6-12 week postpartum glucose tolerance testing for women with gestational diabetes	J Perinatol	O - No outcomes of interest
43	32674202	Carter	Pilot Randomized Controlled Trial of Diabetes Group Prenatal Care	Am J Perinatol	P - Population too narrow/ineligible conditions
44	16246884	Carter	Postnatal home visits from healthcare professionals show promise for preventing postnatal depression	Evidence Based Mental Health	D - Systematic review on relevant topic
45	2285437	Carty	A randomized, controlled evaluation of early postpartum hospital discharge	Birth	I - No intervention of interest
46	34318292	Caskey	Addressing Women's Health Care Needs During Pediatric Care	Womens Health Rep (New Rochelle)	DS - Delivery strategy or delivery strategy comparison not of interest



No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
47	3063396	Ceskoslovenska gynekologie	Zdichyncova	-	I - No intervention of interest
48	27988822	Chae	Promoting improved social support and quality of life with the CenteringPregnancy group model of prenatal care	Archives of Women's Mental Health	I - No intervention of interest
49	27988822	Chae	Promoting improved social support and quality of life with the CenteringPregnancy(¬Æ) group model of prenatal care	Arch Womens Ment Health	I - No intervention of interest
50	33163384	Chen	Effectiveness of the doula program in Northern Taiwan	Tzu Chi Med J	I - No intervention of interest
51	8264251	Chen	Effects of home visits and telephone contacts on breastfeeding compliance in Taiwan	Matern Child Nurs J	KQ1 - Not in the US or Canada
52	11182431	Chen	Effects of support group intervention in postnatally distressed women. A controlled study in Taiwan	J Psychosom Res	KQ1 - Not in the US or Canada
53	30414598	Chen	Comparing Postpartum Visit Attendance with a Scheduled 2- to 3-Week or 6-Week Visit after Delivery	Am J Perinatol	Duplicate article
54	27900745	Cheng	[The Effects of a Mobile Application Social Support Program on Postpartum Perceived Stress and Depression]	Hu Li Za Zhi	Unable to find article
55	15214252	Chertok	Four-month breastfeeding duration in postcesarean women of different cultures in the Israeli Negev	J Perinat Neonatal Nurs	KQ1 - Not in the US or Canada
56	31842988	Christiansen	Lifestyle interventions to maternal weight loss after birth: a systematic review	Syst Rev	D - Systematic review on irrelevant topic
57	21129744	Christie	The effect of health visitors' postpartum home visit frequency on first-time mothers: cluster randomised trial	Int J Nurs Stud	KQ1 - Not in the US or Canada
58	CN-01578811	ClinicalTrials.gov	A Personalized Telehealth Intervention for Health and Weight Loss in Postpartum Women	<a href="https://clinicaltrials.gov/show/NCT01751230">https://clinicaltrials.gov/show/NCT01751230</a>	DS - Delivery strategy or delivery strategy comparison not of interest
59	CN-01561360	ClinicalTrials.gov	Be a Mom: effectiveness of a Web-based Preventive Intervention for Postpartum Depression	<a href="https://clinicaltrials.gov/show/NCT03024645">https://clinicaltrials.gov/show/NCT03024645</a>	I - No intervention of interest
60	-	ClinicalTrials.gov	Comprehensive Postpartum Screening Strategies for Women With Gestational Diabetes Mellitus (GDM)	<a href="https://ClinicalTrials.gov/show/NCT00849849">https://ClinicalTrials.gov/show/NCT00849849</a>	Other
61	-	ClinicalTrials.gov	Contraceptive Counseling in the Postpartum Period	<a href="https://ClinicalTrials.gov/show/NCT02380781">https://ClinicalTrials.gov/show/NCT02380781</a>	Other
62	-	ClinicalTrials.gov	Copper Intrauterine Device (IUD) Insertion at Cesarean Delivery	<a href="https://ClinicalTrials.gov/show/NCT01439802">https://ClinicalTrials.gov/show/NCT01439802</a>	Other
63	-	ClinicalTrials.gov	Doula Support for Young Mothers: A Randomized Trial	<a href="https://ClinicalTrials.gov/show/NCT01925664">https://ClinicalTrials.gov/show/NCT01925664</a>	Other
64	-	ClinicalTrials.gov	Early vs. Interval Postpartum IUD Insertion	<a href="https://ClinicalTrials.gov/show/NCT03462758">https://ClinicalTrials.gov/show/NCT03462758</a>	Other
65	CN-02014612	ClinicalTrials.gov	Effect of the 'Mother and Baby' Program on Well-Being	<a href="https://clinicaltrials.gov/show/NCT00361478">https://clinicaltrials.gov/show/NCT00361478</a>	DS - Delivery strategy or delivery strategy comparison not of interest
66	-	ClinicalTrials.gov	Effectiveness of a Web-based Nursing Intervention in the Reduction of Postpartum Depression and Parenting Stress.	<a href="https://ClinicalTrials.gov/show/NCT02843022">https://ClinicalTrials.gov/show/NCT02843022</a>	Other
67	-	ClinicalTrials.gov	Evaluation of Immediate Postpartum LARC Implementation Programs	<a href="https://ClinicalTrials.gov/show/NCT03118726">https://ClinicalTrials.gov/show/NCT03118726</a>	Other
68	-	ClinicalTrials.gov	Expulsion of Immediate Postplacental Copper Intrauterine Devices at Six Months: A Prospective Cohort Study	<a href="https://ClinicalTrials.gov/show/NCT02706340">https://ClinicalTrials.gov/show/NCT02706340</a>	Other
69	CN-01952810	ClinicalTrials.gov	Face-it: health Promotion for Women With Prior Gestational Diabetes	<a href="https://clinicaltrials.gov/show/NCT03997773">https://clinicaltrials.gov/show/NCT03997773</a>	DS - Delivery strategy or delivery strategy comparison not of interest
70	CN-02233771	ClinicalTrials.gov	Family Intervention to Improve Maternal and Child Mental Health	<a href="https://clinicaltrials.gov/show/NCT04700059">https://clinicaltrials.gov/show/NCT04700059</a>	S - Not high-income country
71	-	ClinicalTrials.gov	Feasibility of Immediate Postpartum Long-acting Reversible Contraception Implementation	<a href="https://ClinicalTrials.gov/show/NCT03774797">https://ClinicalTrials.gov/show/NCT03774797</a>	Other
72	CN-02181881	ClinicalTrials.gov	Group IPT for Mums With Postpartum Depression	<a href="https://clinicaltrials.gov/show/NCT04580901">https://clinicaltrials.gov/show/NCT04580901</a>	P - Population too narrow/ineligible conditions
73	-	ClinicalTrials.gov	Immediate Postpartum Insertion of Contraceptive Intrauterine Devices	<a href="https://ClinicalTrials.gov/show/NCT03657602">https://ClinicalTrials.gov/show/NCT03657602</a>	Other

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74	-	ClinicalTrials.gov	Impact of Earlier Postpartum Contact on Postpartum Visit Compliance and Maternal Wellbeing	<a href="https://ClinicalTrials.gov/show/NCT04226807">https://ClinicalTrials.gov/show/NCT04226807</a>	Other
75	-	ClinicalTrials.gov	Intrauterine Contraceptive Device (IUD) Placement at Time of C-Section	<a href="https://ClinicalTrials.gov/show/NCT00733278">https://ClinicalTrials.gov/show/NCT00733278</a>	D - Single-group study
76	-	ClinicalTrials.gov	Is it Possible to Screen for Type 2 Diabetes at Day 2 in Gestational Diabetes Mellitus Patients Postpartum?	<a href="https://ClinicalTrials.gov/show/NCT00921882">https://ClinicalTrials.gov/show/NCT00921882</a>	Other
77	-	ClinicalTrials.gov	Lactation Achievement With Texts at Home	<a href="https://ClinicalTrials.gov/show/NCT04108533">https://ClinicalTrials.gov/show/NCT04108533</a>	Other
78	-	ClinicalTrials.gov	Mobile Phone Based Peer Support to Prevent Postpartum Depression Among Adolescent Mothers	<a href="https://ClinicalTrials.gov/show/NCT02818075">https://ClinicalTrials.gov/show/NCT02818075</a>	Other
79	-	ClinicalTrials.gov	Mobilizing Doulas to Empower Black Women in Post-partum Diabetes Prevention	<a href="https://ClinicalTrials.gov/show/NCT04406792">https://ClinicalTrials.gov/show/NCT04406792</a>	Other
80	-	ClinicalTrials.gov	Mothers Avoiding Depression Through Empowerment Intervention Trial (MADE IT)	<a href="https://clinicaltrials.gov/ct2/show/NCT01312883">https://clinicaltrials.gov/ct2/show/NCT01312883</a>	DS - Delivery strategy or delivery strategy comparison not of interest
81	-	ClinicalTrials.gov	Multidisciplinary Model of Nurse Midwife	<a href="https://ClinicalTrials.gov/show/NCT01935375">https://ClinicalTrials.gov/show/NCT01935375</a>	Other
82	CN-01931487	<a href="https://ClinicalTrials.gov">ClinicalTrials.gov</a>	Navigating New Motherhood 2	<a href="https://clinicaltrials.gov/show/NCT03922334">https://clinicaltrials.gov/show/NCT03922334</a>	Other
83	-	ClinicalTrials.gov	Postpartum Care Timing: A Randomized Trial	<a href="https://ClinicalTrials.gov/show/NCT03733405">https://ClinicalTrials.gov/show/NCT03733405</a>	Other
84	-	ClinicalTrials.gov	Preventing Postpartum Depression in African American Home Visiting Clients	<a href="https://ClinicalTrials.gov/show/NCT01175603">https://ClinicalTrials.gov/show/NCT01175603</a>	Other
85	CN-01701996	ClinicalTrials.gov	Proactive, Personalized Postpartum Mental Healthcare	<a href="https://clinicaltrials.gov/show/NCT03803189">https://clinicaltrials.gov/show/NCT03803189</a>	DS - Delivery strategy or delivery strategy comparison not of interest
86	CN-01552201	ClinicalTrials.gov	Reducing Obesity in Underserved Postpartum African American Women	<a href="https://clinicaltrials.gov/show/NCT02448563">https://clinicaltrials.gov/show/NCT02448563</a>	DS - Delivery strategy or delivery strategy comparison not of interest
87	CN-02205826	ClinicalTrials.gov	Remote Peer Support in Prevention of Postpartum Depression	<a href="https://clinicaltrials.gov/show/NCT04639752">https://clinicaltrials.gov/show/NCT04639752</a>	KQ1 - Not in the US or Canada
88	CN-02289852	ClinicalTrials.gov	Repro Health, Implementation Patient-centered, Reproductive Planning Decision Support Tool (MyPath)	<a href="https://clinicaltrials.gov/show/NCT04939012">https://clinicaltrials.gov/show/NCT04939012</a>	P - Population too narrow/ineligible conditions
89	-	ClinicalTrials.gov	Safety and Expulsion of Delayed Versus Immediate Postpartum Intrauterine Device Placement	<a href="https://ClinicalTrials.gov/show/NCT01598662">https://ClinicalTrials.gov/show/NCT01598662</a>	O - No outcomes of interest
90	-	ClinicalTrials.gov	Study of a Postpartum Diabetes Prevention Program for Hispanic Women	<a href="https://ClinicalTrials.gov/show/NCT01679210">https://ClinicalTrials.gov/show/NCT01679210</a>	Other
91	-	ClinicalTrials.gov	Text-message Reminders to Increase Rates of Postpartum Diabetes Screening in Women With Gestational Diabetes	<a href="https://ClinicalTrials.gov/show/NCT02013557">https://ClinicalTrials.gov/show/NCT02013557</a>	Other
92	CN-02033741	<a href="https://ClinicalTrials.gov">ClinicalTrials.gov</a>	The Effect of Early Versus Traditional Follow-Up on Breastfeeding Rates at 6 Months	<a href="https://clinicaltrials.gov/show/NCT02221895">https://clinicaltrials.gov/show/NCT02221895</a>	Other
93	CN-02254709	ClinicalTrials.gov	The Effect of Tele-Health Education Provided in the Postpartum Period in the Covid 19 Pandemic	<a href="https://clinicaltrials.gov/show/NCT04847362">https://clinicaltrials.gov/show/NCT04847362</a>	S - Not high-income country
94	-	ClinicalTrials.gov	The Healthy Moms Study: Comparison of a Post-Partum Weight Loss Intervention Delivered Via Facebook or In-Person Groups	<a href="https://ClinicalTrials.gov/show/NCT03700736">https://ClinicalTrials.gov/show/NCT03700736</a>	Other
95	34269681	ClinicalTrials.gov	The Value of Mobile Health in Improving Breastfeeding Outcomes Among Perinatal or Postpartum Women: Systematic Review and Meta-analysis of Randomized Controlled Trials.	JMIR mHealth and uHealth	D - Systematic review on relevant topic
96	-	ClinicalTrials.gov	To Evaluate the Effectiveness of a Virtual and Telephone Intervention for the Prevention of Postpartum Depression in Women at Risk	<a href="https://ClinicalTrials.gov/show/NCT05110456">https://ClinicalTrials.gov/show/NCT05110456</a>	Other
97	-	ClinicalTrials.gov	Using a Preparation and Education Intervention to Reduce Postpartum Depression Among New Mothers (The MADE IT 2 Study)	<a href="https://clinicaltrials.gov/ct2/show/NCT00951717">https://clinicaltrials.gov/ct2/show/NCT00951717</a>	DS - Delivery strategy or delivery strategy comparison not of interest
98	-	ClinicalTrials.gov	Video Counseling for Effective Postpartum Contraception	<a href="https://ClinicalTrials.gov/show/NCT02438800">https://ClinicalTrials.gov/show/NCT02438800</a>	Other

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99	25381790	Cooper	Attempting to prevent postnatal depression by targeting the mother-infant relationship: a randomised controlled trial	Prim Health Care Res Dev	P - Population too narrow/ineligible conditions
100	29800406	Cordasco	Care coordination for pregnant veterans: VA's Maternity Care Coordinator Telephone Care Program.	Translational behavioral medicine	D - Single-group study
101	33082990	Coughlin	Feasibility and acceptability of a remotely-delivered behavioural health coaching intervention to limit gestational weight gain	Obes Sci Pract	DS - Delivery strategy or delivery strategy comparison not of interest
102	-	Cox	Developing effective interactions to improve breastfeeding outcomes. Part 2: Antenatal empowerment of mothers for postnatal success in breastfeeding	Breastfeeding Review	KQ1 - Not in the US or Canada
103	18982408	Crockett	A depression preventive intervention for rural low-income African-American pregnant women at risk for postpartum depression	Arch Womens Ment Health	DS - Delivery strategy or delivery strategy comparison not of interest
104	31121019	D'Haenens	The effects of continuity of care on the health of mother and child in the postnatal period: a systematic review	Eur J Public Health	D - Systematic review on relevant topic
105	33670797	Dagla	Association between Breastfeeding Duration and Long-Term Midwifery-Led Support and Psychosocial Support: Outcomes from a Greek Non-Randomized Controlled Perinatal Health Intervention	Int J Environ Res Public Health	D - Single-group study
106	34197632	Das	Use of postpartum contraception during coronavirus disease 2019 (COVID-19): A retrospective cohort study.	International journal of gynaecology and obstetric	I - No intervention of interest
107	34197632	Das	Use of postpartum contraception during coronavirus disease 2019 (COVID-19): A retrospective cohort study	Int J Gynaecol Obstet	Duplicate article
108	29999281	DeCesare	Postpartum Contraception Use Rates of Patients Participating in the Centering Pregnancy Model of Care Versus Traditional Obstetrical Care	J Reprod Med	I - No intervention of interest
109	18507601	Dennis	A systematic review of telephone support for women during pregnancy and the early postpartum period	J Obstet Gynecol Neonatal Nurs	D - Systematic review on relevant topic
110	19147637	Dennis	Effect of peer support on prevention of postnatal depression among high risk women: multisite randomised controlled trial	Bmj	P - Population too narrow/ineligible conditions
111	32086657	Diebold	Comparing Fidelity Outcomes of Paraprofessional and Professional Delivery of a Perinatal Depression Preventive Intervention	Adm Policy Ment Health	I - No intervention of interest
112	24354833	Dodge	Implementation and randomized controlled trial evaluation of universal postnatal nurse home visiting.	American journal of public health	DS - Delivery strategy or delivery strategy comparison not of interest
113	32058628	Doi	Preventing postpartum depressive symptoms using an educational video on infant crying: A cluster randomized controlled trial	Depress Anxiety	I - No intervention of interest
114	33764309	Dol	Effectiveness of a Postpartum Text Message Program (Essential Coaching for Every Mother) on Maternal Psychosocial Outcomes: Protocol for a Randomized Controlled Trial	JMIR Res Protoc	Other
115	CN-01619948	Dufour	The use of mobile health technology to support post-partum pelvic health: a randomized mixed methods pilot study	Neurourology and urodynamics	P - Population too narrow/ineligible conditions
116	23977257	Dugravier	Impact of a manualized multifocal perinatal home-visiting program using psychologists on postnatal depression: the CAPEDP randomized controlled trial	PLoS One	KQ1 - Not in the US or Canada
117	32958368	Dunlop	Postpartum Medicaid Coverage and Contraceptive Use Before and After Ohio's Medicaid Expansion Under the Affordable Care Act	Womens Health Issues	Duplicate article
118	30179554	Early	Publicly Funded Family Planning: Lessons From California, Before And After The ACA's Medicaid Expansion	Health Affairs	I - No intervention of interest
119	26941454	Efrat	The effect of lactation educators implementing a telephone-based intervention among low-income Hispanics: A randomised trial	Health Education Journal	DS - Delivery strategy or delivery strategy comparison not of interest
120	16882775	Ekström	A mother's feelings for her infant are strengthened by excellent breastfeeding counseling and continuity of care	Pediatrics	KQ1 - Not in the US or Canada
121	22168946	Ekström	A process-oriented breastfeeding training program for healthcare professionals to promote breastfeeding: an intervention study	Breastfeed Med	KQ1 - Not in the US or Canada
122	16732777	Ekström	Does continuity of care by well-trained breastfeeding counselors improve a mother's perception of support?	Birth	KQ1 - Not in the US or Canada
123	12777548	El-Mohandes	The effect of a parenting education program on the use of preventive pediatric health care services among low-income, minority mothers: a randomized, controlled study	Pediatrics	O - No outcomes of interest
124	25630361	Evans	Dose-response effects of the text4baby mobile health program: randomized controlled trial	JMIR Mhealth Uhealth	I - No intervention of interest

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125	11111103	Fairbank	A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding	Health Technol Assess	D - Systematic review on relevant topic
126	24695771	Falciglia	Nutrition education for postpartum women: a pilot study.	Journal of primary care & community health	I - No intervention of interest
127	16336370	Fallon	An evaluation of a telephone-based postnatal support intervention for infant feeding in a regional Australian city	Birth	KQ1 - Not in the US or Canada
128	19632912	Fenwick	Western Australian women's perceptions of the style and quality of midwifery postnatal care in hospital and at home.	Women and birth : journal of the Australian College of Midwives	I - No intervention of interest
129	30455965	Fisher	Gender-informed psycho-educational programme to promote respectful relationships and reduce postpartum common mental disorders among primiparous women: long-term follow-up of participants in a community-based cluster randomised controlled trial	Glob Ment Health (Camb)	DS - Delivery strategy or delivery strategy comparison not of interest
130	28711398	Floris	Comprehensive maternity support and shared care in Switzerland: Comparison of levels of satisfaction.	Women and birth : journal of the Australian College of Midwives	I - No intervention of interest
131	26841782	Forster	Continuity of care by a primary midwife (caseload midwifery) increases women's satisfaction with antenatal, intrapartum and postpartum care: results from the COSMOS randomised controlled trial	BMC Pregnancy Childbirth	KQ1 - Not in the US or Canada
132	31193656	Forster	Proactive Peer (Mother-to-Mother) Breastfeeding Support by Telephone (Ringing up About Breastfeeding Early [RUBY]): A Multicentre, Unblinded, Randomised Controlled Trial	EClinicalMedicine	KQ1 - Not in the US or Canada
133	24886264	Forster	Ringing Up about Breastfeeding: a randomised controlled trial exploring early telephone peer support for breastfeeding (RUBY) - trial protocol.	BMC pregnancy and childbirth	KQ1 - Not in the US or Canada
134	17558823	French	Staying smoke free: an intervention to prevent postpartum relapse	Nicotine Tob Res	DS - Delivery strategy or delivery strategy comparison not of interest
135	26297347	Friesen	Using Videoconferencing Technology to Provide Breastfeeding Support to Low-Income Women: Connecting Hospital-Based Lactation Consultants with Clients Receiving Care at a Community Health Center	J Hum Lact	D - Single-group study
136	24861802	Fu	Professional breastfeeding support for first-time mothers: a multicentre cluster randomised controlled trial	Bjog	KQ1 - Not in the US or Canada
137	28230542	Furman	Breast for Success: A Community-Academic Collaboration to Increase Breastfeeding Among High-Risk Mothers in Cleveland	Prog Community Health Partnersh	I - No intervention of interest
138	9024115	Gagnon	A randomized trial of a program of early postpartum discharge with nurse visitation.	American journal of obstetrics and gynecology	I - No intervention of interest
139	19139451	Gjerdingen	Postpartum depression screening at well-child visits: validity of a 2-question screen and the PHQ-9	Ann Fam Med	D - Single-group study
140	17478661	Gjerdingen	Postpartum depression screening: Importance, methods, barriers, and recommendations for practice	Journal of the American Board of Family Medicine	D - Systematic review on irrelevant topic
141	20726926	Glavin	Redesigned community postpartum care to prevent and treat postpartum depression in women - a one-year follow-up study	Journal of Clinical Nursing	KQ1 - Not in the US or Canada
142	34982627	Gordon	Extended Postpartum Medicaid Eligibility Is Associated With Improved Continuity Of Coverage In The Postpartum Year	Health Affairs	O - No outcomes of interest
143	31905073	Gordon	Effects Of Medicaid Expansion On Postpartum Coverage And Outpatient Utilization	Health Aff (Millwood)	Duplicate article
144	27735928	Goyal	Home visiting for first-time mothers and subsequent pregnancy spacing	J Perinatol	DS - Delivery strategy or delivery strategy comparison not of interest
145	14703543	Graffy	Randomised controlled trial of support from volunteer counsellors for mothers considering breast feeding	Bmj	DS - Delivery strategy or delivery strategy comparison not of interest
146	33826418	Griffin	Effect of Novel Breastfeeding Smartphone Applications on Breastfeeding Rates	Breastfeed Med	I - No intervention of interest
147	34162243	Griffin	Lactation Consultation by an International Board Certified Lactation Consultant Improves Breastfeeding Rates for Mothers With Gestational Diabetes Mellitus	Journal of human lactation : official journal of International Lactation Consultant Association	I - No intervention of interest

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148	20464722	Grimes	Immediate post-partum insertion of intrauterine devices	Cochrane Database Syst Rev	D - Systematic review on relevant topic
149	29417365	Gross	Integrating Obstetrical Care and WIC Nutritional Services to Address Maternal Obesity and Postpartum Weight Retention	Matern Child Health J	O - No outcomes of interest
150	33409663	Grotell	Postpartum Note Template Implementation Demonstrates Adherence to Recommended Counseling Guidelines.	Journal of medical systems	O - No outcomes of interest
151	-	Guille	A Non-Randomized Trial of In-Person Versus Text/Telephone Screening, Brief Intervention and Referral to Treatment for Pregnant and Postpartum Women	Psychiatric Research and Clinical Practice	I - No intervention of interest
152	9763051	Gunn	Does an early postnatal check-up improve maternal health: results from a randomised trial in Australian general practice	Br J Obstet Gynaecol	KQ1 - Not in the US or Canada
153	12876107	Gunn	Guidelines for assessing postnatal problems: introducing evidence-based guidelines in Australian general practice.	Family practice	O - No outcomes of interest
154	26700931	Guo	Postpartum Lifestyle Interventions to Prevent Type 2 Diabetes Among Women with History of Gestational Diabetes: A Systematic Review of Randomized Clinical Trials	J Womens Health (Larchmt)	D - Systematic review on irrelevant topic
155	24018309	Hale	The impact of Centering Pregnancy Group Prenatal Care on postpartum family planning	Am J Obstet Gynecol	I - No intervention of interest
156	24631431	Han	Preventing repeat pregnancy in adolescents: is immediate postpartum insertion of the contraceptive implant cost effective?	Am J Obstet Gynecol	DS - Delivery strategy or delivery strategy comparison not of interest
157	18804331	Hannover	Smoking cessation and relapse prevention for postpartum women: results from a randomized controlled trial at 6, 12, 18 and 24 months	Addict Behav	KQ1 - Not in the US or Canada
158	18416790	Hannula	A systematic review of professional support interventions for breastfeeding	J Clin Nurs	D - Systematic review on relevant topic
159	29855838	Hans	Randomized Controlled Trial of Doula-Home-Visiting Services: Impact on Maternal and Infant Health	Matern Child Health J	Duplicate article
160	30292773	Harris-Luna	Pragmatic Trial to Evaluate the Effect of a Promotora Telephone Intervention on the Duration of Breastfeeding	J Obstet Gynecol Neonatal Nurs	DS - Delivery strategy or delivery strategy comparison not of interest
161	7471323	Hart	Community influences on breast feeding	Child Care Health Dev	DS - Delivery strategy or delivery strategy comparison not of interest
162	-	Hayward	Nurse home visits reduced child abuse and neglect over a 15 year period [commentary on Olds DL, Eckenrode J, Henderson CR, et al. Long-term effects of home visitation on maternal life course and child abuse and neglect. Fifteen-year follow-up of a randomized trial. JAMA 1997 Aug 27;278:637-43]	Evidence Based Nursing	I - No intervention of interest
163	23587090	Heatley	The DIAMIND study: postpartum SMS reminders to women who have had gestational diabetes mellitus to test for type 2 diabetes: a randomised controlled trial - study protocol.	BMC pregnancy and childbirth	KQ1 - Not in the US or Canada
164	12641809	Heh	Effectiveness of informational support in reducing the severity of postnatal depression in Taiwan	J Adv Nurs	P - Population too narrow/ineligible conditions
165	35964661	Henkel	Lactogenesis and breastfeeding after immediate vs delayed birth-hospitalization insertion of etonogestrel contraceptive implant: a noninferiority trial	Am J Obstet Gynecol	DS - Delivery strategy or delivery strategy comparison not of interest
166	32679537	Henry	Blood pressure postpartum (BP(2)) RCT protocol: Follow-up and lifestyle behaviour change strategies in the first 12-†months after hypertensive pregnancy	Pregnancy Hypertens	KQ1 - Not in the US or Canada
167	32679537	Henry	Blood pressure postpartum (BP2) RCT protocol: Follow-up and lifestyle behaviour change strategies in the first 12 months after hypertensive pregnancy	Pregnancy Hypertension	I - Treatment only
168	CN-02215399	Henry	The BP2 (blood pressure postpartum)study: protocol for a randomised trial of follow-up and lifestyle behaviour change strategies after hypertensive pregnancy	Obstetric medicine	I - Treatment only
169	33184667	Herring	Feasibility of using a peer coach to deliver a behavioral intervention for promoting postpartum weight loss in Black and Latina mothers	Translational Behavioral Medicine	I - No intervention of interest
170	19438499	Hewitt	Is it clinically and cost effective to screen for postnatal depression: a systematic review of controlled clinical trials and economic evidence	Bjog	D - Systematic review on irrelevant topic
171	31363887	Hill	Immediate Postpartum Long-Acting Reversible Contraception Programs in Texas Hospitals Following Changes to Medicaid Reimbursement Policy	Matern Child Health J	I - No intervention of interest
172	28726272	Hillemeier	Does Maternity Care Coordination Influence Perinatal Health Care Utilization? Evidence from North Carolina	Health Serv Res	I - No intervention of interest
173	29017990	Himes	Healthy Beyond Pregnancy, a Web-Based Intervention to Improve Adherence to Postpartum Care: Randomized Controlled Feasibility Trial.	JMIR human factors	I - No intervention of interest

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174	29017990	Himes	Healthy Beyond Pregnancy, a Web-Based Intervention to Improve Adherence to Postpartum Care: Randomized Controlled Feasibility Trial	JMIR Hum Factors	Duplicate article
175	29703800	Hirshberg	Comparing standard office-based follow-up with text-based remote monitoring in the management of postpartum hypertension: a randomised clinical trial.	BMJ quality & safety	P - Population too narrow/ineligible conditions
176	16499529	Hoddinott	Effectiveness of a breastfeeding peer coaching intervention in rural Scotland	Birth	KQ1 - Not in the US or Canada
177	22535790	Hoddinott	The FEeding Support Team (FEST) randomised, controlled feasibility trial of proactive and reactive telephone support for breastfeeding women living in disadvantaged areas	BMJ Open	KQ1 - Not in the US or Canada
178	28963284	Høifødt	Protocol for the Northern babies longitudinal study: predicting postpartum depression and improving parent-infant interaction with The Newborn Behavioral Observation	BMJ Open	No results
179	31437413	Hongo	The Influence of Breastfeeding Peer Support on Breastfeeding Satisfaction Among Japanese Mothers: A Randomized Controlled Trial	J Hum Lact	KQ1 - Not in the US or Canada
180	7251351	Houston	Do breast feeding mothers get the home support they need?	Health Bull (Edinb)	KQ1 - Not in the US or Canada
181	24262719	Howell	An intervention to extend breastfeeding among black and Latina mothers after delivery	Am J Obstet Gynecol	DS - Delivery strategy or delivery strategy comparison not of interest
182	24019052	Howell	An intervention to reduce postpartum depressive symptoms: a randomized controlled trial	Arch Womens Ment Health	DS - Delivery strategy or delivery strategy comparison not of interest
183	CN-01005936	Howell	Mothers avoiding depression through empowerment intervention trial (made it)	Journal of general internal medicine	DS - Delivery strategy or delivery strategy comparison not of interest
184	22488220	Howell	Reducing postpartum depressive symptoms among black and Latina mothers: a randomized controlled trial	Obstet Gynecol	DS - Delivery strategy or delivery strategy comparison not of interest
185	32663077	Howell	Timely Postpartum Visits for Low-Income Women: A Health System and Medicaid Payer Partnership	Am J Public Health	I - No intervention of interest
186	CN-01562368	<a href="https://clinicaltrials.gov/show/NCT03069690">https://clinicaltrials.gov/show/NCT03069690</a>	ClinicalTrials.gov	N/A	DS - Delivery strategy or delivery strategy comparison not of interest
187	CN-01483511	<a href="https://clinicaltrials.gov/show/NCT03448289">https://clinicaltrials.gov/show/NCT03448289</a>	ClinicalTrials.gov	N/A	DS - Delivery strategy or delivery strategy comparison not of interest
188	CN-01927176	<a href="https://clinicaltrials.gov/show/NCT03944642">https://clinicaltrials.gov/show/NCT03944642</a>	ClinicalTrials.gov	N/A	KQ1 - Not in the US or Canada
189	CN-01810710	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12607000073404">https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12607000073404</a>	ClinicalTrials.gov	N/A	KQ1 - Not in the US or Canada
190	-	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12619000684123">https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12619000684123</a>	ICTRN	N/A	DS - Delivery strategy or delivery strategy comparison not of interest
191	CN-02064927	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12619001528145">https://trialsearch.who.int/Trial2.aspx?TrialID=ACTRN12619001528145</a>	ICTRN	N/A	I - No intervention of interest
192	CN-01876500	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=ISRCTN27207603">https://trialsearch.who.int/Trial2.aspx?TrialID=ISRCTN27207603</a>	ICTRN	N/A	KQ1 - Not in the US or Canada
193	-	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=NL8014">https://trialsearch.who.int/Trial2.aspx?TrialID=NL8014</a>	ICTRN	N/A	DS - Delivery strategy or delivery strategy comparison not of interest



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194	CN-01823526	<a href="https://trialssearch.who.int/Trial2.aspx?TrialID=PACTR201703002093382">https://trialssearch.who.int/Trial2.aspx?TrialID=PACTR201703002093382</a>	ICTRN	N/A	S - Not high-income country
195	19775782	Huang	A diet and physical activity intervention for preventing weight retention among Taiwanese childbearing women: a randomised controlled trial.	Midwifery	KQ1 - Not in the US or Canada
196	31764775	Huang	Individualized intervention to improve rates of exclusive breastfeeding: A randomised controlled trial	Medicine (Baltimore)	S - Not high-income country
197	32281939	Hussain-Shamsy	Mobile Health for Perinatal Depression and Anxiety: Scoping Review	J Med Internet Res	D - Narrative Review/Commentary
198	-	Iglesias	Revisión sistemática sobre la efectividad de la visita posparto en el domicilio frente a otros tipos de seguimiento posparto	Matronas Profesion	D - Systematic review on irrelevant topic
199	16489964	Ingadóttir	Evaluation of a web-based course for community nurses on postpartum emotional distress	Scand J Caring Sci	D - NRCS, <30 per group
200	33407939	Ingalls	Precision Family Spirit: a pilot randomized implementation trial of a precision home visiting approach with families in Michigan-trial rationale and study protocol	Pilot Feasibility Stud	Other
201	CN-01866699	ISRCTN	Postnatal intervention for women with a history of gestational diabetes mellitus	<a href="https://trialssearch.who.int/Trial2.aspx?TrialID=ISRCTN55443431">https://trialssearch.who.int/Trial2.aspx?TrialID=ISRCTN55443431</a>	DS - Delivery strategy or delivery strategy comparison not of interest
202	CN-02165357	ISRCTN	SMART MUMS WITH SMART PHONES 2 (SMs2) Text messaging support for women after gestational diabetes	<a href="https://trialssearch.who.int/Trial2.aspx?TrialID=ACTRN12620000615987">https://trialssearch.who.int/Trial2.aspx?TrialID=ACTRN12620000615987</a>	DS - Delivery strategy or delivery strategy comparison not of interest
203	32346648	Jacobson	Electronic Monitoring Of Mom's Schedule (eMOMS, NCT): Protocol for a feasibility randomized controlled trial to improve postpartum weight, blood sugars, and breastfeeding among high BMI women	Contemporary Clinical Trials Communications	Other
204	18323730	Jang	[Effect of postpartum breast-feeding support by nurse on the breast-feeding prevalence].	Taehan Kanho Hakhoe chi	I - No intervention of interest
205	9892889	Janson	Early postpartum discharge and subsequent breastfeeding	Birth	I - No intervention of interest
206	26306499	Jeppesen	The forgotten risk? A systematic review of the effect of reminder systems for postpartum screening for type 2 diabetes in women with previous gestational diabetes	BMC Res Notes	D - Systematic review on irrelevant topic
207	31442783	Jiao	Web-based versus home-based postnatal psychoeducational interventions for first-time mothers: A randomised controlled trial.	International journal of nursing studies	KQ1 - Not in the US or Canada
208	15110063	Johnston	Expanding developmental and behavioral services for newborns in primary care; Effects on parental well-being, practice, and satisfaction	Am J Prev Med	DS - Delivery strategy or delivery strategy comparison not of interest
209	21944571	Jolly	Effect of a peer support service on breast-feeding continuation in the UK: a randomised controlled trial	Midwifery	KQ1 - Not in the US or Canada
210	22277543	Jolly	Systematic review of peer support for breastfeeding continuation: metaregression analysis of the effect of setting, intensity, and timing	Bmj	D - Systematic review on relevant topic
211	3519825	Jones	Effect of a lactation nurse on the success of breast-feeding: a randomised controlled trial.	Journal of epidemiology and community health	KQ1 - Not in the US or Canada
212	24621390	Jonsdottir	Initiation of complementary feeding and duration of total breastfeeding: unlimited access to lactation consultants versus routine care at the well-baby clinics	Breastfeed Med	KQ1 - Not in the US or Canada
213	29908054	Joshi	A Randomized Controlled Feasibility Trial in Behavioral Weight Management for Underserved Postpartum African American Women: The RENEW Study	Prev Chronic Dis	O - No outcomes of interest
214	11169026	Journal of Advanced Nursing (Wiley-Blackwell)	Davies		P - Population too narrow/ineligible conditions
215	19751855	Kapp	Intrauterine device insertion during the postpartum period: a systematic review	Contraception	D - Systematic review on irrelevant topic
216	31770049	Keddem	Disparities in Breastfeeding Among Military Veterans	Journal of human lactation : official journal of International Lactation Consultant Association	D - KQ1, but cross-sectional study
217	30351169	Kellams	A Randomized Trial of Prenatal Video Education to Improve Breastfeeding Among Low-Income Women	Breastfeed Med	I - No intervention of interest

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218	23194385	Kemp	Benefits of psychosocial intervention and continuity of care by child and family health nurses in the pre- and postnatal period: process evaluation	J Adv Nurs	DS - Delivery strategy or delivery strategy comparison not of interest
219	26936901	Kenyon	Lay support for pregnant women with social risk: a randomised controlled trial	BMJ Open	KQ1 - Not in the US or Canada
220	28931169	Khodabandeh	Effect of educational package on lifestyle of primiparous mothers during postpartum period: a randomized controlled clinical trial	Health Educ Res	S - Not high-income country
221	35121193	Khosla	Elimination of racial disparities in postpartum hypertension follow-up after incorporation of telehealth into a quality bundle	Am J Obstet Gynecol MFM	P - Population with ineligible conditions
222	19411799	Kim	[Effects of a breast-feeding empowerment program on exclusive breast-feeding]	J Korean Acad Nurs	KQ1 - Not in the US or Canada
223	27753249	Kim	Re: Professional breastfeeding support for first-time mothers: a multi-centre cluster randomised controlled trial	Bjog	D - Narrative Review/Commentary
224	24597683	Kingston	Study protocol for a randomized, controlled, superiority trial comparing the clinical and cost-effectiveness of integrated online mental health assessment-referral-care in pregnancy to usual prenatal care on prenatal and postnatal mental health and infant health and development: the Integrated Maternal Psychosocial Assessment to Care Trial (IMPACT)	Trials	I - No intervention of interest
225	33319443	Kinser	Study protocol for a multisite randomized controlled trial of an internet and mobile-based intervention for preventing and reducing perinatal depressive symptoms	Res Nurs Health	Other
226	33319443	Kinser	Study protocol for a multisite randomized controlled trial of an internet and mobile-based intervention for preventing and reducing perinatal depressive symptoms	Research in Nursing & Health	Duplicate article
227	22261988	Kozinszky	Can a brief antepartum preventive group intervention help reduce postpartum depressive symptomatology?	Psychother Psychosom	I - No intervention of interest
228	33849768	Kramer	Provision of Immediate Postpartum Long-Acting Reversible Contraceptives Before and After Wisconsin Medicaid's Payment Change	Womens Health Issues	Duplicate article
229	17524018	Kronborg	Effect of early postnatal breastfeeding support: a cluster-randomized community based trial	Acta Paediatr	KQ1 - Not in the US or Canada
230	17355443	Kruske	The 'Earlybird' gets the breastmilk: findings from an evaluation of combined professional and peer support groups to improve breastfeeding duration in the first eight weeks after birth	Matern Child Nutr	KQ1 - Not in the US or Canada
231	-	Kumaraswami	Acceptability of Postpartum Contraception Counseling at the Well Baby Visit	Maternal and child health journal	D - KQ1, but cross-sectional study
232	35240046	Kuster	Quality Improvement Project to Increase Postpartum Clinic Visits for Publicly Insured Women	J Obstet Gynecol Neonatal Nurs	D - NRCS, <30 per group
233	-	Kvist	Review: support interventions reduce cessation of breast feeding before 2 months [commentary on Sikorski J, Renfrew MJ. Support for breastfeeding mothers. (Cochrane Review, latest version 30 Jun 1998) In: Cochrane Library. Oxford: Update Software]	Evidence Based Nursing	D - Narrative Review/Commentary
234	15687421	Labarere	Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs	Pediatrics	KQ1 - Not in the US or Canada
235	CN-01916834	Lagendijk	Systematic risk assessment and tailored care to enhance maternal empowerment postpartum: a cluster randomized controlled trial	Reproductive sciences (Thousand Oaks, Calif.)	KQ1 - Not in the US or Canada
236	26871448	Laliberte	A Randomized Controlled Trial of Innovative Postpartum Care Model for Mother-Baby Dyads	PLoS One	Duplicate article
237	23881662	Lavender	Telephone support for women during pregnancy and the first six weeks postpartum	Cochrane Database Syst Rev	D - Systematic review on relevant topic
238	17919161	Lee	Randomized controlled evaluation of a theory-based postpartum sexual health education programme	J Adv Nurs	O - No outcomes of interest
239	3225682	Leff	Comparison of the effectiveness of videotape versus live group infant care classes	J Obstet Gynecol Neonatal Nurs	O - No outcomes of interest
240	15330883	Levitt	Systematic review of the literature on postpartum care: selected contraception methods, postpartum Papanicolaou test, and rubella immunization	Birth	D - Systematic review on irrelevant topic
241	22890220	Lewis	Examination of a telephone-based exercise intervention for the prevention of postpartum depression: Design, methodology, and baseline data from The Healthy Mom study	Contemporary Clinical Trials	P - Population too narrow/ineligible conditions



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242	33085510	Lewkowitz	Effect of a Novel Smartphone Application on Breastfeeding Rates Among Low-Income, First-Time Mothers Intending to Exclusively Breastfeed: Secondary Analysis of a Randomized Controlled Trial.	Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine	DS - Delivery strategy or delivery strategy comparison not of interest
243	33345878	Lewkowitz	Impact of a novel smartphone application on low-income, first-time mothers' breastfeeding rates: a randomized controlled trial.	American journal of obstetrics & gynecology MFM	DS - Delivery strategy or delivery strategy comparison not of interest
244	33085510	Lewkowitz	Effect of a Novel Smartphone Application on Breastfeeding Rates Among Low-Income, First-Time Mothers Intending to Exclusively Breastfeed: Secondary Analysis of a Randomized Controlled Trial	Breastfeed Med	Duplicate article
245	33345878	Lewkowitz	Impact of a novel smartphone application on low-income, first-time mothers' breastfeeding rates: a randomized controlled trial	Am J Obstet Gynecol MFM	Duplicate article
246	35141886	Lichtenstein	Effectiveness, safety and overall satisfaction of early postpartum placement of hormonal IUD compared with standard procedure: An open-label, randomized, multicenter study	Acta Obstet Gynecol Scand	KQ1 - Not in the US or Canada
247	10790463	Lieu	A randomized comparison of home and clinic follow-up visits after early postpartum hospital discharge	Pediatrics	Duplicate article
248	34098451	Liu	Effectiveness of the CenteringPregnancy program on maternal and birth outcomes: A systematic review and meta-analysis	Int J Nurs Stud	D - Systematic review on irrelevant topic
249	33849582	Lok	Feasibility, acceptability, and potential efficacy of an innovative postnatal home-based breastfeeding peer support programme in Hong Kong: a feasibility and pilot randomised controlled trial	Int Breastfeed J	D - RCT, <10 per group
250	9518966	Long	The effects of Florida's Medicaid eligibility expansion for pregnant women	American Journal of Public Health	I - No intervention of interest
251	20091524	Lopez	Education for contraceptive use by women after childbirth	Cochrane Database Syst Rev	D - Systematic review on irrelevant topic
252	26222129	Lopez	Education for contraceptive use by women after childbirth	Cochrane Database Syst Rev	D - Systematic review on relevant topic
253	26115018	Lopez	Immediate postpartum insertion of intrauterine device for contraception	Cochrane Database Syst Rev	D - Systematic review on irrelevant topic
254	20591202	Lopez	Postpartum education for contraception: a systematic review	Obstet Gynecol Surv	D - Systematic review on relevant topic
255	33058232	Lucchini-Raies	The CRIAA Program complex intervention in primary care to support women and their families in breastfeeding: Study protocol for a pilot trial	J Adv Nurs	KQ1 - Not in the US or Canada
256	28711398	Lucis	Comprehensive maternity support and shared care in Switzerland: comparison of levels of satisfaction	Women and birth	I - No intervention of interest
257	15209173	Lumley	Intervening to reduce depression after birth: a systematic review of the randomized trials	Int J Technol Assess Health Care	D - Systematic review on irrelevant topic
258	16483383	Lumley	PRISM (Program of Resources, Information and Support for Mothers): a community-randomised trial to reduce depression and improve women's physical health six months after birth	BMC public health	Duplicate article
259	16483383	Lumley	PRISM (Program of Resources, Information and Support for Mothers): a community-randomised trial to reduce depression and improve women's physical health six months after birth [ISRCTN03464021]	BMC Public Health	KQ1 - Not in the US or Canada
260	29855840	Lutenbacher	The Efficacy of Using Peer Mentors to Improve Maternal and Infant Health Outcomes in Hispanic Families: Findings from a Randomized Clinical Trial	Matern Child Health J	DS - Delivery strategy or delivery strategy comparison not of interest
261	35702003	Lutenbacher	Using Community Health Workers to Improve Health Outcomes in a Sample of Hispanic Women and Their Infants: Findings from a Randomized Controlled Trial	Hisp Health Care Int	DS - Delivery strategy or delivery strategy comparison not of interest
262	33534831	Maastrup	Improved exclusive breastfeeding rates in preterm infants after a neonatal nurse training program focusing on six breastfeeding-supportive clinical practices	PLoS One	KQ1 - Not in the US or Canada
263	11844507	MacArthur	Effects of redesigned community postnatal care on womens' health 4 months after birth: a cluster randomised controlled trial	Lancet	KQ1 - Not in the US or Canada
264	14622490	MacArthur	Redesigning postnatal care: a randomised controlled trial of protocol-based midwifery-led care focused on individual women's physical and psychological health needs	Health Technol Assess	KQ1 - Not in the US or Canada

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265	8494832	MacVicar	Simulated home delivery in hospital: a randomised controlled trial	Br J Obstet Gynaecol	I - No intervention of interest
266	18596714	Mannan	Can early postpartum home visits by trained community health workers improve breastfeeding of newborns?	Journal of perinatology : official journal of the California Perinatal Association	S - Not high-income country
267	18596714	Mannan	Can early postpartum home visits by trained community health workers improve breastfeeding of newborns?	J Perinatol	Duplicate article
268	12735413	Marks	Can we prevent postnatal depression? A randomized controlled trial to assess the effect of continuity of midwifery care on rates of postnatal depression in high-risk women	J Matern Fetal Neonatal Med	P - Population too narrow/ineligible conditions
269	34535488	Marschner	Effectiveness of a customised mobile phone text messaging intervention supported by data from activity monitors for improving lifestyle factors related to the risk of type 2 diabetes among women after gestational diabetes: protocol for a multicentre randomised controlled trial (SMART MUMS with smart phones 2)	BMJ Open	I - No intervention of interest
270	12192958	Martens	Increasing breastfeeding initiation and duration at a community level: an evaluation of Sagkeeng First Nation's community health nurse and peer counselor programs	J Hum Lact	DS - Delivery strategy or delivery strategy comparison not of interest
271	CN-01606150	Martin	A pilot randomized controlled trial of a remotely-delivered behavioral health coaching program to limit weight gain in pregnancy and reduce postpartum weight retention	Journal of general internal medicine	DS - Delivery strategy or delivery strategy comparison not of interest
272	30499698	Martinez-Borba	The Use of Information and Communication Technologies in Perinatal Depression Screening: A Systematic Review	Cyberpsychol Behav Soc Netw	D - Systematic review on relevant topic
273	CN-01730398	Martinez-Brockman	Impact of the lactation advice through texting can help (LATCH) randomized controlled trial	FASEB journal	Duplicate article
274	31004814	Masho	Effectiveness of shortened time interval to postpartum visit in improving postpartum attendance: Design and rationale for a randomized controlled trial.	Contemporary clinical trials	Other
275	31004814	Masho	Effectiveness of shortened time interval to postpartum visit in improving postpartum attendance: Design and rationale for a randomized controlled trial	Contemp Clin Trials	Duplicate article
276	15023486	Matthey	Prevention of postnatal distress or depression: an evaluation of an intervention at preparation for parenthood classes	J Affect Disord	DS - Delivery strategy or delivery strategy comparison not of interest
277	19633250	Matthey	Telephone based peer support can reduce postnatal depression in women at high risk	Evidence Based Mental Health	P - Population too narrow/ineligible conditions
278	31098973	Mattocks	Understanding Maternity Care Coordination for Women Veterans Using an Integrated Care Model Approach	J Gen Intern Med	P - Population too narrow/ineligible conditions
279	33276816	McConnell	Protocol for a randomized controlled trial evaluating the impact of the Nurse-Family Partnership's home visiting program in South Carolina on maternal and child health outcomes	Trials	Other
280	35788794	McConnell	Effect of an Intensive Nurse Home Visiting Program on Adverse Birth Outcomes in a Medicaid-Eligible Population: A Randomized Clinical Trial	Jama	O - No outcomes of interest
281	18486287	McDonald	Effect of an extended midwifery postnatal support programme on the duration of breast feeding: a randomised controlled trial	Midwifery	KQ1 - Not in the US or Canada
282	28244064	McFadden	Support for healthy breastfeeding mothers with healthy term babies	Cochrane Database Syst Rev	D - Systematic review on relevant topic
283	18680606	McLachlan	COSMOS: COmparing Standard Maternity care with one-to-one midwifery support: a randomised controlled trial	BMC Pregnancy Childbirth	I - No intervention of interest
284	22830446	McLachlan	Effects of continuity of care by a primary midwife (caseload midwifery) on caesarean section rates in women of low obstetric risk: the COSMOS randomised controlled trial	Bjog	I - No intervention of interest
285	26832427	McLachlan	Supporting breastfeeding In Local Communities (SILC) in Victoria, Australia: a cluster randomised controlled trial	BMJ Open	KQ1 - Not in the US or Canada
286	25281300	McLachlan	Supporting breastfeeding In Local Communities (SILC): protocol for a cluster randomised controlled trial	BMC Pregnancy Childbirth	KQ1 - Not in the US or Canada
287	26498455	McLachlan	The effect of primary midwife-led care on women's experience of childbirth: results from the COSMOS randomised controlled trial	Bjog	O - No outcomes of interest
288	22372918	Meghea	Infant health effects of a nurse-community health worker home visitation programme: a randomized controlled trial	Child Care Health Dev	O - No outcomes of interest

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289	24041564	Mejdoubi	Effects of nurse home visitation on cigarette smoking, pregnancy outcomes and breastfeeding: a randomized controlled trial	Midwifery	KQ1 - Not in the US or Canada
290	8245809	Melnikow	Adequacy of prenatal care among inner-city women	J Fam Pract	Other
291	33078655	Mersky	Home Visiting Effects on Breastfeeding and Bedsharing in a Low-Income Sample	Health Educ Behav	Duplicate article
292	24638998	Middleton	Reminder systems for women with previous gestational diabetes mellitus to increase uptake of testing for type 2 diabetes or impaired glucose tolerance	Cochrane Database Syst Rev	D - Systematic review on relevant topic
293	34215288	Mildon	Effect on breastfeeding practices of providing in-home lactation support to vulnerable women through the Canada Prenatal Nutrition Program: protocol for a pre/post intervention study	Int Breastfeed J	Other
294	34015950	Miller	Increased Depression Screening and Treatment Recommendations After Implementation of a Perinatal Collaborative Care Program	Psychiatr Serv	P - Population too narrow/ineligible conditions
295	34871782	Miremberg	Smartphone-based counseling and support platform and the effect on postpartum lactation: a randomized controlled trial	Am J Obstet Gynecol MFM	KQ1 - Not in the US or Canada
296	11165725	Monincx	Maternal health, antenatal and at 8 weeks after delivery, in home versus in-hospital fetal monitoring in high-risk pregnancies	European Journal of Obstetrics and Gynecology and Reproductive Biology	I - No intervention of interest
297	29553986	Moore Simas	A Systematic Review of Integrated Care Interventions Addressing Perinatal Depression Care in Ambulatory Obstetric Care Settings	Clin Obstet Gynecol	D - Systematic review on irrelevant topic
298	27184772	Morrell	A systematic review, evidence synthesis and meta-analysis of quantitative and qualitative studies evaluating the clinical effectiveness, the cost-effectiveness, safety and acceptability of interventions to prevent postnatal depression	Health Technol Assess	D - Systematic review on irrelevant topic
299	10858637	Morrell	Costs and benefits of community postnatal support workers: a randomised controlled trial	Health Technol Assess	DS - Delivery strategy or delivery strategy comparison not of interest
300	10977833	Morrell	Costs and effectiveness of community postnatal support workers: randomised controlled trial	Bmj	KQ1 - Not in the US or Canada
301	34726650	Morris	A Nurse-Navigated, Postpartum Support Text Messaging Intervention: Satisfaction Among Primiparous Women	J Perinat Neonatal Nurs	DS - Delivery strategy or delivery strategy comparison not of interest
302	29288405	Mundorf	Reducing the Risk of Postpartum Depression in a Low-Income Community Through a Community Health Worker Intervention.	Maternal and child health journal	DS - Delivery strategy or delivery strategy comparison not of interest
303	29288405	Mundorf	Reducing the Risk of Postpartum Depression in a Low-Income Community Through a Community Health Worker Intervention	Matern Child Health J	Duplicate article
304	21426582	Nagle	Continuity of midwifery care and gestational weight gain in obese women: a randomised controlled trial	BMC Public Health	I - No intervention of interest
305	30343660	Nair	The effectiveness of telemedicine interventions to address maternal depression: A systematic review and meta-analysis	J Telemed Telecare	D - Systematic review on irrelevant topic
306	33672229	Napolitano	Feasibility of a Digital Intervention to Promote Healthy Weight Management among Postpartum African American/Black Women	Int J Environ Res Public Health	DS - Delivery strategy or delivery strategy comparison not of interest
307	12930465	Nguyen	A comparison pilot study of public health field nursing home visitation program interventions for pregnant Hispanic adolescents	Public Health Nurs	O - No outcomes of interest
308	CN-01728242	Nicklas	Beta-testing a mobile health program designed to increase postpartum weight loss in women at elevated risk for cardiometabolic disease	Journal of alternative and complementary medicine (New York, N.Y.)	D - Single-group study
309	28194877	Nilsson	Focused breastfeeding counselling improves short- and long-term success in an early-discharge setting: A cluster-randomized study	Matern Child Nutr	I - No intervention of interest
310	16958717	Noel-Weiss	Randomized controlled trial to determine effects of prenatal breastfeeding workshop on maternal breastfeeding self-efficacy and breastfeeding duration	J Obstet Gynecol Neonatal Nurs	I - No intervention of interest
311	26813212	O'Connor	Primary Care Screening for and Treatment of Depression in Pregnant and Postpartum Women: Evidence Report and Systematic Review for the US Preventive Services Task Force	Jama	D - Systematic review on relevant topic
312	18086500	O'Higgins	Postnatal depression and mother and infant outcomes after infant massage	J Affect Disord	P - Population too narrow/ineligible conditions

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313	23602514	O'Mahen	Internet-based behavioral activation--treatment for postnatal depression (Netmums): a randomized controlled trial	J Affect Disord	I - Treatment only
314	1408861	O'Sullivan	A randomized trial of a health care program for first-time adolescent mothers and their infants	Nurs Res	Unable to find article
315	19154191	Ogbuanu	A program evaluation of postpartum/newborn home visitation services in Aiken County, South Carolina: Populations at risk across the lifespan: Program evaluations	Public Health Nursing	DS - Delivery strategy or delivery strategy comparison not of interest
316	3510017	Olds	Improving the delivery of prenatal care and outcomes of pregnancy: a randomized trial of nurse home visitation	Pediatrics	DS - Delivery strategy or delivery strategy comparison not of interest
317	3052116	Olds	Improving the life-course development of socially disadvantaged mothers: a randomized trial of nurse home visitation	Am J Public Health	DS - Delivery strategy or delivery strategy comparison not of interest
318	106985342. Language:	Olds	Review: home visiting programmes that include > or = to 1 postnatal home visit are associated with improved quality of home environment and parenting	Evidence Based Mental Health	D - Narrative Review/Commentary
319	32744924	Ozcan	Using Levine's conservation model in postpartum care: a randomized controlled trial	Health Care Women Int	S - Not high-income country
320	CN-02159714	Ozcan	Using Levine's conservation model in postpartum care: a randomized controlled trial	Health care for women international	Duplicate article
321	CN-01910540	PACTR	Post delivery mobile health family planning	<a href="https://trialsearch.who.int/Trial2.aspx?TrialID=PACTR201410000889209">https://trialsearch.who.int/Trial2.aspx?TrialID=PACTR201410000889209</a>	S - Not high-income country
322	3403232	Palti	Evaluation of the effectiveness of a structured breast-feeding promotion program integrated into a Maternal and Child Health service in Jerusalem	Isr J Med Sci	KQ1 - Not in the US or Canada
323	21143644	Pannu	The effectiveness of health promotion materials and activities on breastfeeding outcomes	Acta Paediatr	DS - Delivery strategy or delivery strategy comparison not of interest
324	33052781	Patberg	Postpartum Contraceptive Use and Other Reproductive Health Outcomes Among CenteringPregnancy Group Prenatal Care Participants	J Womens Health (Larchmt)	I - No intervention of interest
325	26644419	Patel	The Effectiveness of Lactation Consultants and Lactation Counselors on Breastfeeding Outcomes	J Hum Lact	D - Systematic review on relevant topic
326	27854403	Patnode	U.S. Preventive Services Task Force Evidence Syntheses, Formerly Systematic Evidence Reviews	Primary Care Interventions to Support Breastfeeding: Updated Systematic Review for the U.S. Preventive Services Task Force	D - Systematic review on relevant topic
327	30703523	Patten	The Healthy Pregnancies Project: Study protocol and baseline characteristics for a cluster-randomized controlled trial of a community intervention to reduce tobacco use among Alaska Native pregnant women	Contemp Clin Trials	Other
328	30182474	Patterson	The effect of maternity practices on exclusive breastfeeding rates in U.S. hospitals	Matern Child Nutr	I - No intervention of interest
329	30908175	Patton	The impact of Medicaid expansion on postpartum health care utilization among pregnant women with opioid use disorder.	Substance abuse	P - Population too narrow/ineligible conditions
330	28697099	Peccei	Intensive Prenatal Nutrition Counseling in a Community Health Setting: A Randomized Controlled Trial	Obstet Gynecol	DS - Delivery strategy or delivery strategy comparison not of interest
331	31051412	Perez-Martinez	Postpartum complications in women attended by midwives instead of obstetricians.	Midwifery	I - No intervention of interest
332	26130160	Perry	Community-based interventions for improving maternal health and for reducing maternal health inequalities in high-income countries: a systematic map of research	Global Health	D - Systematic review on irrelevant topic
333	19239405	Petrova	Effectiveness of exclusive breastfeeding promotion in low-income mothers: a randomized controlled study	Breastfeed Med	I - No intervention of interest
334	28632867	Phelan	Effect of an Internet-Based Program on Weight Loss for Low-Income Postpartum Women: A Randomized Clinical Trial.	JAMA	DS - Delivery strategy or delivery strategy comparison not of interest
335	30225981	Phelan	'Ripple' effect on infant zBMI trajectory of an internet-based weight loss program for low-income postpartum women.	Pediatric obesity	O - No outcomes of interest

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336	21836549	Phillips	Prevention of postpartum smoking relapse in mothers of infants in the neonatal intensive care unit.	Journal of perinatology : official journal of the California Perinatal Association	DS - Delivery strategy or delivery strategy comparison not of interest
337	-	Pluym	1105 Edinburgh postnatal depression scores and postpartum healthcare utilization	American journal of obstetrics and gynecology	Duplicate article
338	33785465	Pluym	Randomized control trial of postpartum visits at 2 and 6 weeks	Am J Obstet Gynecol MFM	Duplicate article
339	34671758	Polk	Bridging the Postpartum Gap: A Randomized Controlled Trial to Improve Postpartum Visit Attendance Among Low-Income Women with Limited English Proficiency	Womens Health Rep (New Rochelle)	Duplicate article
340	27091830	Pollak	Efficacy of a Nurse-Delivered Intervention to Prevent and Delay Postpartum Return to Smoking: The Quit for Two Trial	Nicotine Tob Res	I - No intervention of interest
341	28846688	Popo	Effects of lay support for pregnant women with social risk factors on infant development and maternal psychological health at 12 months postpartum	PLoS One	I - No intervention of interest
342	CN-01084773	Posmontier	Primary care social worker administered psychotherapy for postpartum depression	Archives of women's mental health	Unable to find article
343	26970401	Posmontier	Telephone-Administered Interpersonal Psychotherapy by Nurse-Midwives for Postpartum Depression.	Journal of midwifery & women's health	D - NRCS, <30 per group
344	31742447	Power	Engagement and Weight Loss in a Web and Mobile Program for Low-Income Postpartum Women: Fit Moms/Mamas Activas.	Health education & behavior : the official publication of the Society for Public Health Education	DS - Delivery strategy or delivery strategy comparison not of interest
345	12765500	Priest	Stress debriefing after childbirth: a randomised controlled trial	Med J Aust	I - No intervention of interest
346	31943761	Puhari�a	The effect of a combined intervention on exclusive breastfeeding in primiparas: A randomised controlled trial	Matern Child Nutr	DS - Delivery strategy or delivery strategy comparison not of interest
347	12648967	Quinlivan	Postnatal home visits in teenage mothers: a randomised controlled trial	Lancet	DS - Delivery strategy or delivery strategy comparison not of interest
348	34301450	Raffo	Clinical-Community Linkages: The Impact of Standard Care Processes that Engage Medicaid-Eligible Pregnant Women in Home Visiting	Womens Health Issues	I - No intervention of interest
349	33622047	Rajendran	Negative Correlation Between Health Care Coverage and Postpartum Depression Among Hispanic Women.	Hispanic health care international : the official journal of the National Association of Hispanic Nurses	D - Single-group study
350	32656692	Ravindran	Pilot Randomized Controlled Trial of an Interconception Intervention Provided by Public Health Nurses	Matern Child Health J	DS - Delivery strategy or delivery strategy comparison not of interest
351	29284713	Rayce	Effects of parenting interventions for at-risk parents with infants: a systematic review and meta-analyses	BMJ Open	D - Systematic review on irrelevant topic
352	7869147	Regan	Effectiveness of postpartum education received by certified nurse-midwives' clients at a university hospital	J Nurse Midwifery	DS - Delivery strategy or delivery strategy comparison not of interest
353	12387471	Reid	A two-centred pragmatic randomised controlled trial of two interventions of postnatal support	Bjog	KQ1 - Not in the US or Canada
354	-	Reid	Two interventions for postnatal support	British Journal of Midwifery	DS - Delivery strategy or delivery strategy comparison not of interest
355	-	Reid	Women's health after birth. A randomized controlled trial of two interventions to provide social support	British Journal of Midwifery	KQ1 - Not in the US or Canada
356	9233202	Reifsnider	Prenatal breastfeeding education: its effect on breastfeeding among WIC participants	J Hum Lact	D - NRCS, <30 per group
357	2188303	Reis	Medicaid maternal and child health care: prepaid plans vs. private fee-for-service	Res Nurs Health	D - KQ1, but cross-sectional study
358	29228160	Relton	Effect of Financial Incentives on Breastfeeding: A Cluster Randomized Clinical Trial	JAMA Pediatrics	KQ1 - Not in the US or Canada
359	31292414	Ricchi	The midwifery-led care model: a continuity of care model in the birth path	Acta Biomed	D - Systematic review on irrelevant topic
360	9415835	Rice	An analysis of group versus individual child health supervision	Clin Pediatr (Phila)	I - No intervention of interest

No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
361	33928489	Robbins	Postpartum Care Utilization Among Women with Medicaid-Funded Live Births in Oregon.	Maternal and child health journal	D - Single-group study
362	33928489	Robbins	Postpartum Care Utilization Among Women with Medicaid-Funded Live Births in Oregon	Matern Child Health J	Duplicate article
363	26474809	Robling	Effectiveness of a nurse-led intensive home-visitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial	Lancet	Duplicate article
364	26474809	Robling	Effectiveness of a nurse-led intensive homevisitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial	MIDIRS Midwifery Digest	DS - Delivery strategy or delivery strategy comparison not of interest
365	32682408	Rodríguez-Gallego	Evaluation of the impact of breastfeeding support groups in primary health CENTRES in Andalusia, Spain: a study protocol for a cluster randomized controlled trial (GALMA project)	BMC Public Health	KQ1 - Not in the US or Canada
366	34224694	Rodriguez	Association of rural location and long acting reversible contraceptive use among Oregon Medicaid recipients	Contraception	DS - Delivery strategy or delivery strategy comparison not of interest
367	35378084	Rodriguez	Timing of postpartum long acting, reversible contraception was not associated with 12-month removal rates in a large Medicaid sample	Contraception	I - No intervention of interest
368	33806469	Rodríguez-Gallego	Impact and Effectiveness of Group Strategies for Supporting Breastfeeding after Birth: A Systematic Review	Int J Environ Res Public Health	D - Systematic review on relevant topic
369	31997461	Rogers	Responding to the health needs of women from migrant and refugee backgrounds-Models of maternity and postpartum care in high-income countries: A systematic scoping review	Health Soc Care Community	D - Systematic review on irrelevant topic
370	19551471	Roman	Alleviating perinatal depressive symptoms and stress: a nurse-community health worker randomized trial	Arch Womens Ment Health	P - Population too narrow/ineligible conditions
371	18758336	Rosen	Prenatal breastfeeding education and breastfeeding outcomes	MCN Am J Matern Child Nurs	I - No intervention of interest
372	-	Rosen-Carole	Prenatal Provider Breastfeeding Toolkit: Results of a Pilot to Increase Women's Prenatal Breastfeeding Support, Intentions, and Outcomes	Journal of human lactation : official journal of International Lactation Consultant Association	I - No intervention of interest
373	36069565	Rowland	Implementing effective care by improving attendance to the comprehensive postpartum visit in an urban hospital practice	Nurs Forum	D - Single-group study
374	34714882	Saad	Mobile interventions targeting common mental disorders among pregnant and postpartum women: An equity-focused systematic review	PLoS One	D - Systematic review on irrelevant topic
375	34517144	Sakowicz	Timing of perinatal mental health needs: data to inform policy	Am J Obstet Gynecol MFM	I - Treatment only
376	27128642	Samankasikorn	Effect of Home Visiting with Pregnant Teens on Maternal Health	MCN Am J Matern Child Nurs	DS - Delivery strategy or delivery strategy comparison not of interest
377	CN-01607679	Sandall	Pilot study of midwifery Practice in Preterm birth including women's Experiences (POPPIE): development and implemetation of a pilot randomised controlled trial of midwifery continuity of care and preterm birth clinic for women at higher risk of preterm birth in Lewisham	BJOG	I - No intervention of interest
378	21853694	Sanders	Evaluating the family nurse partnership in England: the Building Blocks trial	Pract Midwife	No results
379	29567534	Sandner	Evaluating the effects of a targeted home visiting program on maternal and child health outcomes	J Health Econ	KQ1 - Not in the US or Canada
380	34196048	Sangsawang	Effectiveness of psychosocial support provided by midwives and family on preventing postpartum depression among first-time adolescent mothers at 3-month follow-up: A randomised controlled trial	J Clin Nurs	DS - Delivery strategy or delivery strategy comparison not of interest
381	32017251	Sari	Effects of providing nursing care with web-based program on maternal self-efficacy and infant health	Public Health Nurs	S - Not high-income country
382	24886238	Sawyer	An equivalence evaluation of a nurse-moderated group-based internet support program for new mothers versus standard care: a pragmatic preference randomised controlled trial	BMC Pediatr	KQ1 - Not in the US or Canada
383	28739559	Sawyer	Nurse-Moderated Internet-Based Support for New Mothers: Non-Inferiority, Randomized Controlled Trial	J Med Internet Res	KQ1 - Not in the US or Canada
384	9668744	Schafer	Volunteer peer counselors increase breastfeeding duration among rural low-income women	Birth	Other
385	27423239	Schellinger	Improved Outcomes for Hispanic Women with Gestational Diabetes Using the Centering Pregnancy Group Prenatal Care Model	Maternal & Child Health Journal	I - No intervention of interest



No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
386	27423239	Schellinger	Improved Outcomes for Hispanic Women with Gestational Diabetes Using the Centering Pregnancy(™) Group Prenatal Care Model	Matern Child Health J	I - No intervention of interest
387	28394657	Schreck	Both Prenatal and Postnatal Interventions Are Needed to Improve Breastfeeding Outcomes in a Low-Income Population.	Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine	I - No intervention of interest
388	34670222	Schuster	The Effect of the Affordable Care Act on Women's Postpartum Insurance and Depression in 5 States That Did Not Expand Medicaid, 2012-2015	Med Care	Duplicate article
389	34670222	Schuster	The Effect of the Affordable Care Act on Women's Postpartum Insurance and Depression in 5 States That Did Not Expand Medicaid, 2012-2015	Med Care	Duplicate article
390	24016553	Seguranyes	Efficacy of a videoconferencing intervention compared with standard postnatal care at primary care health centres in Catalonia.	Midwifery	KQ1 - Not in the US or Canada
391	1881721	Serwint	Do postpartum nursery visits by the primary care provider make a difference?	Pediatrics	I - No intervention of interest
392	1881721	Serwint	Do postpartum nursery visits by the primary care provider make a difference?	Pediatrics	Duplicate article
393	32436800	Shaaban	Effect of a mobile phone-assisted postpartum family planning service on the use of long-acting reversible contraception: a randomised controlled trial.	The European journal of contraception & reproductive health care : the official journal of the European Society of Contraception	S - Not high-income country
394	32436800	Shaaban	Effect of a mobile phone-assisted postpartum family planning service on the use of long-acting reversible contraception: a randomised controlled trial	Eur J Contracept Reprod Health Care	Duplicate article
395	-	Shapiro	Review: Psychosocial and psychological interventions reduce postpartum depression	ACP Journal Club	D - Systematic review on irrelevant topic
396	-	Shields	Impact of midwife-managed care in the postnatal period: an exploration of psychosocial outcomes	Journal of reproductive and infant psychology	KQ1 - Not in the US or Canada
397	10382476	Shields	Satisfaction with midwife-managed care in different time periods: a randomised controlled trial of 1299 women	Midwifery	O - No outcomes of interest
398	24135085	Shih	Mothers After Gestational Diabetes in Australia Diabetes Prevention Program (MAGDA-DPP) post-natal intervention: study protocol for a randomized controlled trial	Trials	KQ1 - Not in the US or Canada
399	28276086	Shorey	A randomized-controlled trial to examine the effectiveness of the 'Home-but not Alone' mobile-health application educational programme on parental outcomes.	Journal of advanced nursing	DS - Delivery strategy or delivery strategy comparison not of interest
400	30758289	Shorey	Effectiveness of a Technology-Based Supportive Educational Parenting Program on Parental Outcomes (Part 1): Randomized Controlled Trial	J Med Internet Res	KQ1 - Not in the US or Canada
401	27650320	Shorey	Effectiveness of the 'Home-but not Alone' mobile health application educational programme on parental outcomes: a randomized controlled trial, study protocol.	Journal of advanced nursing	DS - Delivery strategy or delivery strategy comparison not of interest
402	31469084	Shorey	Evaluation of a Technology-Based Peer-Support Intervention Program for Preventing Postnatal Depression (Part 1): Randomized Controlled Trial	J Med Internet Res	KQ1 - Not in the US or Canada
403	29540338	Shorey	Evaluation of Technology-Based Peer Support Intervention Program for Preventing Postnatal Depression: Protocol for a Randomized Controlled Trial	JMIR Res Protoc	KQ1 - Not in the US or Canada
404	34529951	Sinkey	The effects of offering immediate postpartum placement of IUDs and implants to pregnant patients with heart disease	Contraception	P - Population too narrow/ineligible conditions
405	24568270	Skouteris	Interventions designed to promote exclusive breastfeeding in high-income countries: a systematic review	Breastfeed Med	D - Systematic review on relevant topic
406	28885859	Skouteris	Interventions Designed to Promote Exclusive Breastfeeding in High-Income Countries: A Systematic Review Update	Breastfeed Med	D - Systematic review on relevant topic
407	29921632	Smith	Centering contraception: postpartum contraceptive choices of women enrolled in Centering group prenatal care versus traditional prenatal care	BMJ Sex Reprod Health	I - No intervention of interest
408	34109490	Smith	Analysis of Postpartum Uptake of Long-Acting Reversible Contraceptives Before and After Implementation of Medicaid Reimbursement Policy	Matern Child Health J	Duplicate article
409	33878773	Soffer	Improving Postpartum Attendance among Women with Gestational Diabetes Using the Medical Home Model of Care.	American journal of perinatology	I - No intervention of interest

No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
410	27936990	Soffer	Improving postpartum glucose monitoring in	J Matern Fetal Neonatal Med	I - No intervention of interest
411	33878773	Soffer	Improving Postpartum Attendance among Women with Gestational Diabetes Using the Medical Home Model of Care	Am J Perinatol	Duplicate article
412	27936990	Soffer	Improving postpartum glucose monitoring in women with gestational diabetes	J Matern Fetal Neonatal Med	Duplicate article
413	25397890	Sonalkar	Intrauterine device insertion in the postpartum period: a systematic review	Eur J Contracept Reprod Health Care	D - Systematic review on irrelevant topic
414	24434229	Sonalkar	Outreach and integration programs to promote family planning in the extended postpartum period	Int J Gynaecol Obstet	D - Systematic review on irrelevant topic
415	20820117	Song	[The changing pattern of physical and psychological health, and maternal adjustment between primiparas who used and those who did not use Sanhujori facilities].	Journal of Korean Academy of Nursing	I - No intervention of interest
416	30608623	Staley	Prenatal Contraceptive Counseling by Video	South Med J	DS - Delivery strategy or delivery strategy comparison not of interest
417	7575861	Stamp	Evaluation of antenatal and postnatal support to overcome postnatal depression: a randomized, controlled trial	Birth	KQ1 - Not in the US or Canada
418	23153901	Stechna	The Quick Start Contraception Initiation Method during the 6-week postpartum visit: an efficacious way to improve contraception in Federally Qualified Health Centers	Contraception	I - No intervention of interest
419	31158852	Steenland	Association Between South Carolina Medicaid's Change in Payment for Immediate Postpartum Long-Acting Reversible Contraception and Birth Intervals	Jama	Duplicate article
420	8973028	Stevens	Access to care: a home visitation program that links public health nurses, physicians, mothers, and babies	J Community Health Nurs	D - Single-group study
421	-	Stockdale	Feasibility study to test DESIGNER BREASTFEEDING: a randomised controlled trial	Evidence Based Midwifery	KQ1 - Not in the US or Canada
422	17670909	Su	Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: randomised controlled trial	Bmj	KQ1 - Not in the US or Canada
423	33212032	Sumarsono	Medicaid expansion and provision of prescription contraception to Medicaid beneficiaries	Contraception	I - No intervention of interest
424	33431389	Swartz	Pregnancy Medicaid Improvements in a Nonexpansion State After the Affordable Care Act	Ann Fam Med	O - No outcomes of interest
425	30727996	Tachibana	Integrated mental health care in a multidisciplinary maternal and child health service in the community: the findings from the Suzaka trial.	BMC pregnancy and childbirth	I - No intervention of interest
426	24117000	Tandon	Improved adequacy of prenatal care and healthcare utilization among low-income Latinas receiving group prenatal care	J Womens Health (Larchmt)	I - No intervention of interest
427	35878827	Tandon	Results from an effectiveness-implementation evaluation of a postpartum depression prevention intervention delivered in home visiting programs	J Affect Disord	DS - Delivery strategy or delivery strategy comparison not of interest
428	33655429	Tandon	Comparing the effectiveness of home visiting paraprofessionals and mental health professionals delivering a postpartum depression preventive intervention: a cluster-randomized non-inferiority clinical trial	Arch Womens Ment Health	Duplicate article
429	31573903	Tang	Information and Communication Systems to Tackle Barriers to Breastfeeding: Systematic Search and Review	J Med Internet Res	D - Systematic review on relevant topic
430	12837875	Taveras	Clinician support and psychosocial risk factors associated with breastfeeding discontinuation	Pediatrics	DS - Delivery strategy or delivery strategy comparison not of interest
431	9455592	Tessaro	State health department and university evaluation of North Carolina's Maternal Outreach Worker Program	Am J Prev Med	I - No intervention of interest
432	28836274	Tieu	Interconception care for women with a history of gestational diabetes for improving maternal and infant outcomes	Cochrane Database of Systematic Reviews	D - Systematic review on irrelevant topic
433	22172743	Toohill	A non-randomised trial investigating the cost-effectiveness of Midwifery Group Practice compared with standard maternity care arrangements in one Australian hospital	Midwifery	KQ1 - Not in the US or Canada
434	27256941	Top	Effectiveness of Structured Education in Reduction of Postpartum Depression Scores: A Quasi-Experimental Study	Archives of Psychiatric Nursing	S - Not high-income country
435	-	Torres	Focused contraceptive counseling and case management versus usual care in women postpartum from a preterm birth: a randomized controlled trial	Contraception	P - Population too narrow/ineligible conditions



No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
436	30227936	Torres	Increasing IUD and Implant Use Among Those at Risk of a Subsequent Preterm Birth: A Randomized Controlled Trial of Postpartum Contraceptive Counseling.	Women's health issues : official publication of the Jacobs Institute of Women's Health	I - No intervention of interest
437	30227936	Torres	Increasing IUD and Implant Use Among Those at Risk of a Subsequent Preterm Birth: A Randomized Controlled Trial of Postpartum Contraceptive Counseling	Womens Health Issues	Duplicate article
438	34509031	Trillingsgaard	Group-based parent support during the transition to parenthood: Primary outcomes from a randomised controlled trial	Soc Sci Med	KQ1 - Not in the US or Canada
439	26233287	Trotman	The Effect of Centering Pregnancy versus Traditional Prenatal Care Models on Improved Adolescent Health Behaviors in the Perinatal Period	J Pediatr Adolesc Gynecol	I - No intervention of interest
440	21365543	Tsai	Postpartum follow-up rates before and after the postpartum follow-up initiative at Queen Emma Clinic	Hawaii Med J	Duplicate article
441	32200477	Tucker	Preterm Birth and Receipt of Postpartum Contraception Among Women with Medicaid in North Carolina	Matern Child Health J	I - No intervention of interest
442	33022010	Turienzo	Midwifery continuity of care versus standard maternity care for women at increased risk of preterm birth: a hybrid implementation, effectiveness, randomised controlled pilot trial in the UK	PLoS medicine	KQ1 - Not in the US or Canada
443	29214042	Tussing-Humphreys	Maternal weight in the postpartum: results from the Delta healthy sprouts trial	Matern Health Neonatol Perinatol	I - No intervention of interest
444	8412836	Twaddle	An evaluation of postnatal care individualised to the needs of the woman	Midwifery	KQ1 - Not in the US or Canada
445	31629118	Uscher-Pines	Feasibility and Effectiveness of Telelactation Among Rural Breastfeeding Women	Acad Pediatr	Duplicate article
446	31629118	Uscher-Pines	Feasibility and Effectiveness of Telelactation among Rural Breastfeeding Women	Academic pediatrics	Duplicate article
447	34980212	Uscher-Pines	Impact of telelactation services on breastfeeding outcomes among Black and Latinx parents: protocol for the Tele-MILC randomized controlled trial	Trials	DS - Delivery strategy or delivery strategy comparison not of interest
448	25816702	Van Ryswyk	Postpartum SMS reminders to women who have experienced gestational diabetes to test for Type 2 diabetes: the DIAMIND randomized trial.	Diabetic medicine : a journal of the British Diabetic Association	KQ1 - Not in the US or Canada
449	25816702	Van Ryswyk	Postpartum SMS reminders to women who have experienced gestational diabetes to test for Type 2 diabetes: the DIAMIND randomized trial	Diabet Med	Duplicate article
450	33682146	Vargas, A&Porrás	Efficacy of a multimodal nursing intervention strategy in the process of becoming a mother: A randomized controlled trial	Research in Nursing & Health	S - Not high-income country
451	30112771	Verpe	Early postpartum discharge: maternal depression, breastfeeding habits and different follow-up strategies	Scand J Caring Sci	I - No intervention of interest
452	135496870.	Verpe	Early postpartum discharge: maternal depression, breastfeeding habits and different follow-up strategies	Scandinavian Journal of Caring Sciences	KQ1 - Not in the US or Canada
453	31145885	Vieira	Timing of postpartum etonogestrel-releasing implant insertion and bleeding patterns, weight change, 12-month continuation and satisfaction rates: a randomized controlled trial	Contraception	S - Not high-income country
454	28869180	Vigoureux	[Observational study of a social device for women in precarious situations during pregnancy and post-partum].	Gynecologie, obstetrique, fertilité & senologie	DS - Delivery strategy or delivery strategy comparison not of interest
455	30870329	Vincze	Interventions including a nutrition component aimed at managing gestational weight gain or postpartum weight retention: a systematic review and meta-analysis	JB I Database System Rev Implement Rep	D - Systematic review on irrelevant topic
456	28102653	Vural	The effect of prenatal and postnatal education on exclusive breastfeeding rates	Minerva Pediatr	Unable to find article
457	9271963	Waldenström	A randomized controlled study of birth center care versus standard maternity care: effects on women's health	Birth	KQ1 - Not in the US or Canada
458	11251496	Waldenström	Does team midwife care increase satisfaction with antenatal, intrapartum, and postpartum care? A randomized controlled trial	Birth	O - No outcomes of interest
459	11251496	Waldenström	Does team midwife care increase satisfaction with antenatal, intrapartum, and postpartum care? A randomized controlled trial...including commentary by Kaufman K	Birth: Issues in Perinatal Care	Duplicate article
460	19454915	Walkup	Randomized controlled trial of a paraprofessional-delivered in-home intervention for young reservation-based American Indian mothers	J Am Acad Child Adolesc Psychiatry	DS - Delivery strategy or delivery strategy comparison not of interest

No.	PMID or Other Identifier	First Author Last Name (or Registry)	Title	Journal	Reason for Exclusion
461	16380197	Wallace	A randomised-controlled trial in England of a postnatal midwifery intervention on breast-feeding duration	Midwifery	I - No intervention of interest
462	34262638	Wambach	momHealth: A Feasibility Study of a Multibehavioral Health Intervention for Pregnant and Parenting Adolescent Mothers	Kans J Med	D - Single-group study
463	31778116	Waring	Delivering a Post-Partum Weight Loss Intervention via Facebook or In-Person Groups: Protocol for a Randomized Feasibility Pilot Trial	JMIR Res Protoc	Other
464	32554737	Washio	Individual breastfeeding support with contingent incentives for low-income mothers in the USA: the 'BOOST (Breastfeeding Onset & Onward with Support Tools)' randomised controlled trial protocol	BMJ Open	Other
465	28088203	Wen	A 3-Arm randomised controlled trial of Communicating Healthy Beginnings Advice by Telephone (CHAT) to mothers with infants to prevent childhood obesity	BMC Public Health	Other
466	32470456	Werner	Two-day postpartum compared with 4- to 12-week postpartum glucose tolerance testing for women with gestational diabetes	Am J Obstet Gynecol	D - Single-group study
467	27120481	Werner	Early Postpartum Glucose Testing in Women with Gestational Diabetes Mellitus	Am J Perinatol	O - No outcomes of interest
468	15767382	Wiggins	Postnatal support for mothers living in disadvantaged inner city areas: a randomised controlled trial	J Epidemiol Community Health	KQ1 - Not in the US or Canada
469	15298823	Wiggins	The Social Support and Family Health Study: a randomised controlled trial and economic evaluation of two alternative forms of postnatal support for mothers living in disadvantaged inner-city areas	Health Technol Assess	KQ1 - Not in the US or Canada
470	17883851	Wong	Evaluation of a peer counselling programme to sustain breastfeeding practice in Hong Kong	Int Breastfeed J	KQ1 - Not in the US or Canada
471	26668300	Wouk	Clinical interventions to promote breastfeeding by latinas: A meta-analysis	Pediatrics	D - Systematic review on relevant topic
472	31199291	Yang	Optional Web-Based Videoconferencing Added to Office-Based Care for Women Receiving Psychotherapy During the Postpartum Period: Pilot Randomized Controlled Trial.	Journal of medical Internet research	I - Treatment only
473	-	Yang	Research and analysis of collaborative nursing model on prevention of postpartum depression and improvement of self-efficacy in primiparae	International Journal of Clinical and Experimental Medicine	Unable to find article
474	28383374	Yee	Using a Patient Navigator to Improve Postpartum Care in an Urban Women's Health Clinic.	Obstetrics and gynecology	DS - Delivery strategy or delivery strategy comparison not of interest
475	28383374	Yee	Using a Patient Navigator to Improve Postpartum Care in an Urban Women's Health Clinic	Obstet Gynecol	Duplicate article
476	17997204	Yelland	Enhancing early postnatal care: findings from a major reform of maternity care in three Australian hospitals	Midwifery	KQ1 - Not in the US or Canada
477	28770973	Yonemoto	Schedules for home visits in the early postpartum period	Cochrane Database Syst Rev	D - Systematic review on relevant topic
478	26990672	Zakarija-Grkovića	Breastfeeding booklet and proactive phone calls for increasing exclusive breastfeeding rates: RCT protocol	Matern Child Nutr	KQ1 - Not in the US or Canada
479	29042849	Zemp	Does Coordinated Postpartum Care Influence Costs?	Int J Integr Care	KQ1 - Not in the US or Canada
480	34617909	Zhao	Effectiveness of Telehealth Interventions for Women With Postpartum Depression: Systematic Review and Meta-analysis	JMIR Mhealth Uhealth	D - Systematic review on irrelevant topic

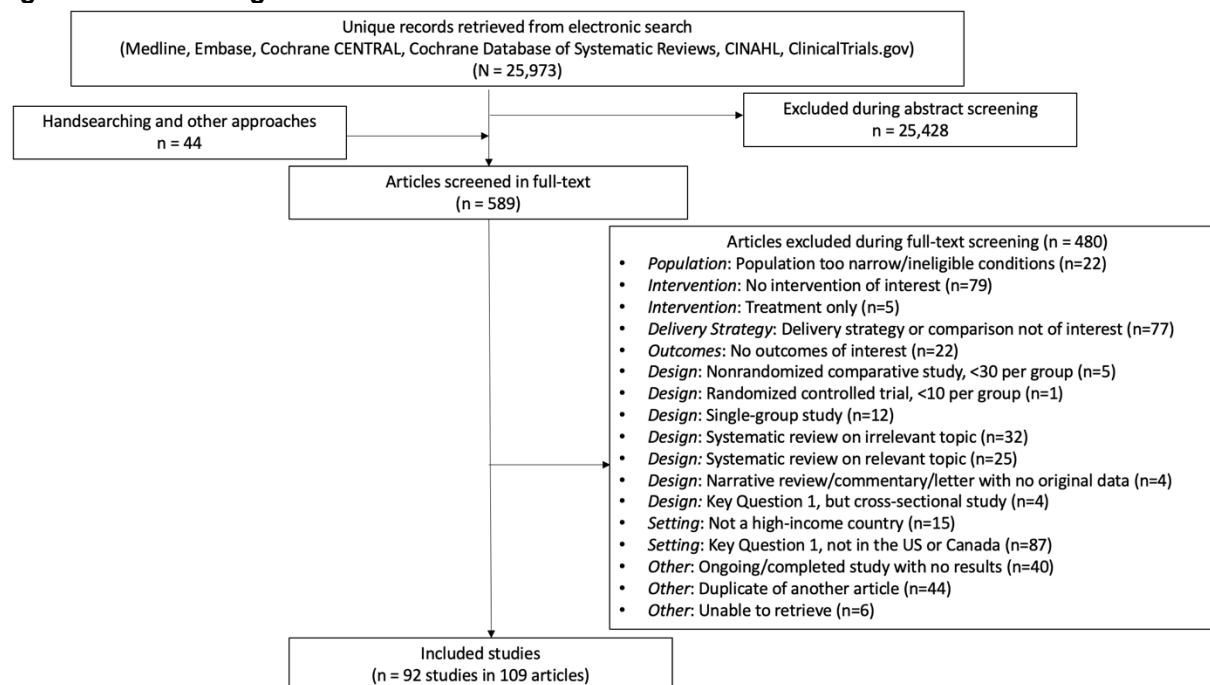
Abbreviations: D = study design, DS = delivery strategies, I = interventions, KQ = Key Question, N/A = not applicable O = outcomes, S = setting

# Appendix C. Results: Design, Arm, and Sample Details

## C.1. Results of Literature Searches

As illustrated by Figure C-1, our electronic search retrieved a combined 25,973 unique citations. Of these, 589 were deemed potentially relevant and retrieved in full text. After full-text screening, we identified 92 eligible studies that were reported in 109 articles.

Figure C-1. Flow diagram for studies



Abbreviations: CINAHL = Cumulative Index of the Nursing and Allied Health Literature, NRCS = nonrandomized comparative study

## C.2. Description of Included Studies

### C.2.1. Overall Summary of Study Characteristics

The 92 included studies (reported in 109 articles<sup>1-84</sup>) were published between 1990 and 2022.

The studies enrolled a total of 3,967,261 participants. The 92 studies comprised 50 randomized controlled trials (RCTs) and 25 nonrandomized comparative studies (NRCSs; observational cohort studies). The 50 RCTs enrolled 477,954 participants, and the 42 NRCSs enrolled 3,489,307 participants.

Tables C-1 to C-2.2 summarize the design, arm, and baseline details of all 92 studies. Tables C-1.1 to C-1.3 address KQ 1 and Tables C-2.1 and C-2.2 address KQ 2. Eighty-three (90%) were conducted in the United States and 9 (10%) were conducted in Canada. All 9 Canadian studies addressed KQ 1 (we restricted KQ 2 to U.S.-based studies).

### **C.2.2. Summary of Patient Characteristics**

When reported, average patient ages ranged from 17 to 34 years. When reported, average BMIs ranged from 27 to 41 kg/m<sup>2</sup>. Study participants were diverse racially; between 3 and 96 percent were White and between 2 and 89 percent were Black. Three studies selectively enrolled Black individuals and one selectively enrolled Hispanic (or Latinx) individuals.

In one study, all participants were employed; among the other studies that reported data, between 15 and 85 percent of participants were employed. No study reported on participant gender or sexual identity status. Only two studies reported on substance use disorders; 2% and 9% of participants had substance use disorders. Where reported, between 57 and 88 percent of deliveries were vaginal and between 8 and 22 percent of deliveries were preterm. Twenty-three studies explicitly reported excluding postpartum individuals with deliveries that had resulted in stillbirths, spontaneous or induced abortions, or neonatal deaths.

### **C.3. Risk of Bias Assessments**

Tables D-1.1 to D-2.2 summarize the risk of bias assessment of all 92 studies. Tables D-1.1 to D-1.3 address KQ 1 and Tables D-2.1 and D-2.2 address KQ 2. Tables D-1 to D-4 summarize the 92 studies. Among the 50 RCTs, we rated five at low risk of bias, 25 at moderate risk, and 20 at high risk. Moderate and high-risk ratings were generally related to the lack of blinding of participants, care providers, and outcome assessors, and incomplete outcome data. Among the 42 NRCSs, we rated 28 at moderate risk of bias and 14 at high risk. Moderate ratings were related to moderate or serious risk of confounding and the lack of blinding of participants, care providers, and outcome assessors.

**Table C-1.1. Key Question 1: Healthcare delivery strategies – summary of design details**

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
Where	Breastfeeding care	Lieu, 2000, 10790463, US	RCT, (Non-industry) (1996-1997)	NR	Moderate	Overall pregnant population Low medical risk	NR	1163
Where	Breastfeeding care	Gagnon, 2002, 12042545, Canada	RCT, (NR) (NR)	NR	Moderate	Gestational age $\geq 37$ wk Overall pregnant population Breastfed at least once in hospital	Caesarean delivery, parity $\geq 5$ , multiple gestation, birth weight $< 2500$ g	586
Where	General PP care	Norr, 2003, 12716399, US	RCT, (Non-industry) (NR)	NR	Moderate	Low-income African American or Mexican American Medicaid or state supplemental health insurance, neighborhood with high infant mortality, medically low risk, no current drug use	Current drug use	477
Where	Breastfeeding care	Escobar, 2001, 11533342, US	RCT, (Non-industry) (1998-1999)	NR	High	Gestational age 36-42 wk Overall pregnant population Low medical and social risk	Infant weight 2500-4600g/NICU admission Newborn hematocrit $< 40$ or neutrophil $< 7000$ Anticipated stay $> 48$ hours Age $\leq 14$ Age 15 to 17 without parent or a guardian Positive toxicology screen for drugs of abuse after admission to labor	1014
Where	General PP care	Steel O'Connor, 2003, 12675164, Canada	RCT, (Non-industry) (1997-1999)	NR	High	Primiparas, singleton infant, vaginal delivery	NR	733
Where	General PP care	McCarter, 2019, 31222789, US	RCT, (NR) (2017-2019)	NR	High	Age $\geq 18$ English-speaking	NR	357
Where	Breastfeeding care	Paul, 2012, 22064874, US	RCT, (Non-industry) (2006-2010)	NCT00360204	High	singleton or twins born $\geq 34$ wk gestation	$\geq 2$ night stay post vaginal delivery, $\geq 4$ night stay post Caesarean, atypical complications in hospital, newborn hyperbilirubinemia, major morbidities, and/or preexisting conditions	1154

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
Where	General PP care	Arias, 2022, 35331971, US	NRCS, Retrospective, (Non-industry) (2019-2019)	NR	Moderate	PP visit scheduled at institution March-June 2019	NR	1579
Where, Who	General PP care	Dodge, 2019, 31675088, US	RCT, (Non-industry) (2014-2014)	NCT01843036	Moderate	Overall postpartum population	Residence outside of Durham County Previously enrolled patient	316
Where, Who	Breastfeeding care	Pugh, 2002, 12000411, US	RCT, (Non-industry) (1999-2000)	NR	Moderate	Low-income women receiving financial medical assistance support	NR	41
Where, Who	General PP care	Mersky, 2021, 33078655, US	RCT, (Not funded) (NR)	NR	High	Low-income	NR	237
Where, Who	Breastfeeding care	Pugh, 2010, 19854119, US	RCT, (Non-industry) (NR)	NR	High	Gestational age >37 wk Eligible for WIC Caesarean	Infant craniofacial abnormality, NICU admission, positive drug screen for mother/infant	328
Where, Who	Breastfeeding care	Edwards, 2013, 24187119, US	RCT, (Non-industry) (2001-2004)	NCT01925664	High	Age ≤21 Gestational age ≤34 wk Low-income	NR	248
Where, Who	Breastfeeding care	Gill, 2007, 17557933, US	NRCS, Prospective, (Non-industry) (NR)	NR	High	Gestational age 2 <sup>nd</sup> trimester Low-income Hispanic	Premature birth, low-birth weight, major congenital anomalies, NICU admission	158
How	General PP care	Polk, 2021, 34671758, US	RCT, (Non-industry) (2015-2016)	NR	Moderate	Age >18 Low-income	NICU admission	116
How	General PP care	Koniak-Griffin, 2003, 12657988, US	RCT, (Non-industry) (NR)	NR	Moderate	Age 14–19 Gestational age ≤26 wk Single, poor, underrepresented ethnicity	Dependent on narcotic or IV drugs, serious OB/medical condition	101
How, Who	General PP care	Hans, 2018, 29855838, US	RCT, (Non-industry) (2011-2015)	NCT01947244	High	Age 14-24 Gestational age 12-34 wk Living in high-poverty communities	NR	312
How	Contraceptive care	Haider, 2020, 31964564, US	RCT, NR, (2015-2017)	NR	Moderate	Infant ≤4.5 months, no previous LARC/sterilization, not currently pregnant	NR	446
How	General PP care	Laliberte, 2016, 26871448, Canada	RCT, (Non-industry) (NR)	NCT02043119	Moderate	Age ≥18 Gestational age ≥36 wk Singleton infant, no medical problems, breastfeeding	Multiple births, preterm infant	428

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
How	Breastfeeding care	Rozga, 2016, 27423234, US	NRCS, Prospective, (Industry) (2012-2014)	NR	Moderate	≤185% of federal poverty level	NR	698
How	Breastfeeding care	Witt, 2021, 33956505, US	NRCS, Retrospective, (Non-industry) (2016-2019)	NR	Moderate	NR	NR	442
When	General PP care	Bernard, 2018, 29778586, US	RCT, (Industry and non-industry) (2016-2017)	NCT02769676	Moderate	Age 14-45 Gestational age ≥36 wk Overall pregnant population Live birth	Incarcerated, received immediate PP LARC or sterilization	188
When	General PP care	Pluym, 2021, 33785465, US	RCT, (Not funded) (2018-2020)	NCT03733405	Moderate	Age 18-50 Gestational age >35 wk	NR	250
When	General PP care	Chen, 2019, 30414598, US	NRCS, Retrospective, (Non-industry) (2015-2019)	NR	Moderate	Gestational age ≥28 wk Overall pregnant population	NR	512
When	Contraceptive care	Dahlke, 2011, 21843688, US	RCT, (Not funded) (2009-2010)	NCT01088178	Low	Age 16-45 Overall pregnant population	Uterine or cervical neoplasia	46
When	Contraceptive care	Chen, 2010, 20966692, US	RCT, (Non-industry) (2007-2008)	NCT00476021	Moderate	Age ≥18 Gestational age ≥24 wk Overall pregnant population Planned vaginal delivery	Gonorrhea, chlamydia, or trichomoniasis during pregnancy	102
When	Contraceptive care	Levi, 2015, 26241250, US	RCT, (Non-industry) (2012-2014)	NCT01539759	Moderate	Age 18-45 Gestational age ≥24 wk Overall pregnant population Live birth, Caesarean delivery	Gonorrhea or chlamydia, cervical, uterine, or breast neoplasia, chorioamnionitis	112
When	Contraceptive care	Dempsey, 2018, N/A, US	RCT, (Industry and non-industry) (2010-2013)	NCT035855504	Moderate	Age 15-21 Overall pregnant population <5 days PP	Breastfeeding	81
When	Contraceptive care	Baldwin, 2019, N/A, US	RCT, (Non-industry) (2012-2014)	NCT01594476	Moderate	Age 18-50 Gestational age ≥32 wk	Preterm delivery, recent pregnancy with multiple gestation	197
When	Contraceptive care	Whitaker, 2014, 24457061, US	RCT, (Non-industry) (2007-2011)	NCT00635362	High	Age ≥18 Scheduled Caesarean delivery	Current cervical cancer or CIS	42
When	Contraceptive care	Morse, 2016, N/A, US	RCT, (Non-industry) (2013-2015)	NCT01767285	High	Age 12-40	NR	59

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
When	Contraceptive care	Chen, 2018, N/A, US	RCT, (Non-industry) (2011-2017)	NCT01463202	High	Age ≥18 Gestational age > 24 wk Overall pregnant population Planning to breastfeed, use DMPA for postpartum contraception	Intolerance of irregular vaginal bleeding, coagulation disorder, liver disease, contraindications to breastfeeding, history of breast cancer, reduction or augmentation surgery, history of severe clinical depression, multiple gestation	157
When	Contraceptive care	Jensen, 2019, N/A, US	RCT, (Non-industry) (2014-2017)	NCT02169869	High	Age 18-55 Gestational age ≥32 wk Overall pregnant population Singleton pregnancy	NR	33
Who	General PP care	Kozhimannil, 2013, 23837663, US	NRCS, Retrospective, (Non-industry) (NR)	NR	Moderate	Medicaid coverage for childbirth Singleton, live birth	NR	52790
Who	General PP care	Pan, 2020, 32437282, US	NRCS, Prospective, (NR) (2015-2017)	NR	Moderate	Social and economic risk factors	NR	455
Who	General PP care	Edwards, 1997, 9170692, Canada	RCT, (Non-industry) (NR)	NR	Low	Gestational age ≥35 wk Overall pregnant population Primiparous, singleton birth, no congenital anomalies	NR	788
Who	Breastfeeding care	Falconi, 2022, 35812994, US	NRCS, Retrospective, (Not funded) (2014-2020)	NR	High	Age 12-51 High risk for adverse maternal health outcomes At least one ICD-9 or ICD-10 claim Medicaid eligibility	NR	596
Who	General PP care	Buckley, 1990, 2328162, US	NRCS, Prospective, (NR) (NR)	NR	High	NR	NR	59
Who	General PP care, screening/preventive education	Tandon, 2021, 33655429, US	RCT, (Non-industry) (2017-2019)	NCT02979444	High	Age ≥16 Gestational age ≤33 wk	NR	824
Who	Contraceptive care	Simmons, 2013, 23218851, US	RCT, (Non-industry) (2011-2012)	NR	Low	Age 18-38 Medicaid insurance, English or Spanish speaking, intention to use LARC	Incarcerated at time of delivery	49



Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
Who	Breastfeeding care	Dennis, 2002, 11800243, Canada	RCT, (Non-industry) (1997-1998)	NR	Low	Age ≥16 Gestational age ≥37 wk Primiparous, breastfeeding	Serious illness, infant congenital abnormality, NICU admission	256
Who	Breastfeeding care	Reeder, 2014, 25092936, US	RCT, (Non-industry) (2005-2007)	NCT02120248	Low	Low-income women/WIC participants	NR	1885
Who, IT	Breastfeeding care	Gross, 1998, 12515413, US	RCT, (Non-industry) (1992-1994)	NR	Moderate	Gestational age <24 wk WIC eligible Singleton pregnancy	Breastfeeding contraindicated	115
Who	Breastfeeding care	Anderson, 2005, 16143742, US	RCT, (Non-industry) (2003-2004)	NR	Moderate	Age ≥18 Gestational age ≤32 wk Low-income Term delivery	Diabetes, hypertension, HIV/AIDS, using illegal drugs	135
Who	Breastfeeding care	Chapman, 2004, 15351756, US	RCT, (Non-industry) (2000-2003)	NR	High	Age ≥18 Gestational age ≤26 wk Low-income Healthy, full-term singleton infants	HIV, infant congenital anomalies	165
Who	Breastfeeding care	Wambach, 2011, 20876551, US	RCT, (Non-industry) (2003-2007)	NR	High	Age 15-18 Gestational age 2nd trimester Pregnant with first child, planning to keep newborn, English-speaking, phone access	Multiple-gestation, preterm labor, infant cleft lip/palate, heart defect, Down's syndrome, neural tube defects, NICU admission	390
Who	Breastfeeding care	Chapman, 2013, 23209111, US	RCT, (Non-industry) (2006-2009)	NCT01338727	High	Age ≥18 Gestational age ≤36 wk Income ≤185% federal poverty level Pre-pregnancy BMI ≥27.0 Breastfeeding, singleton pregnancy, no conditions interfering with breastfeeding	NR	154
Who	Breastfeeding care	Srinivas, 2015, 25193602, US	RCT, (Non-industry) (2011-2012)	NR	High	Age ≥18 Gestational age ≥28 wk	Non-English, contraindication to breastfeeding	103
Who, IT	Breastfeeding care, screening/preventive education	Kerver, 2019, N/A, US	RCT, (Non-industry) (2017-2018)	NCT03480048	High	Age 18-55 With obesity African American	High-risk pregnancy	53
Who	Breastfeeding care	Porteous, 2000, 11155608, Canada	RCT, (Non-industry) (NR)	NR	Moderate	Overall pregnant population Singleton pregnancy, vaginal delivery	NR	51

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
Who	Breastfeeding care	Rasmussen, 2011, 20958105, US	RCT, (Non-industry) (2006-2007)	NR	Moderate	Age ≥19 Gestational age ≤35 wk With obesity Singleton pregnancy	NR	40
Who, Provider Interventions	Breastfeeding care	Bonuck, 2014a, 24354834, US	RCT, (Non-industry) (2008-2013)	NCT00619632	Moderate	Age ≥18 Gestational age 1st or 2nd trimester Overall pregnant population	High risk of prematurity/NICU, use of illicit drugs	628
Who, Provider Interventions	Breastfeeding care	Bonuck, 2014b, 24354834, US	RCT, (Non-industry) (2008-2013)	NCT00643253	Moderate	Age ≥18 Gestational age 12-30 wk Overall pregnant population	Multiple gestation	262
Who, IT	Breastfeeding care	Uscher-Pines, 2020, 31629118, US	RCT, (Non-industry) (2016-2018)	NCT02870413	High	Age 18-46 Gestational age ≥35 wk Singleton birth, initiated breastfeeding	Infant cardiac defect, infant ventilator dependence, NICU admission, HIV+	187
Coordination/management	General PP care	Rutledge, 2016, 27350389, US	NRCS, Retrospective, (NR) (2008-2010)	NR	Moderate	Medicaid eligibility	Not eligible for Medicaid	7120
Coordination/management	General PP care	Tsai, 2011, 21365543, US	NRCS, Retrospective, (NR) (2006-2008)	NR	High	Overall pregnant population	NR	221
Coordination/management	Screening	Mendez-Figueroa, 2014, 24481876, US	NRCS, Retrospective, (Non-industry) (2011-2012)	NR	High	Gestational diabetes	NR	388
Coordination/management, Provider Interventions	Screening	Clark, 2009, 19268878, Canada	RCT, (Non-industry) (2002-2005)	NCT00212914	Moderate	Gestational diabetes Attended High-Risk Obstetrical Unit	No family physician Family physician had other patient(s) enrolled Previously enrolled patient Delivered outside of Ottawa Hospital Stillbirth	223
Coordination/management, IT	Screening	Shea, 2011, 21466755, Canada	NRCS, Prospective, (Non-industry) (2007-2008)	NR	Moderate	Gestational diabetes	NR	262

Delivery Strategy Compared	Target of Intervention	Study, Publication Year, PMID, Country	Design, Direction if NRCS, (Funding) (Study Years)	Registration Number	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N
IT	Breastfeeding care	Martinez-Brockman, 2018, 29325660, US	RCT, (Non-industry) (2014-2016)	NCT02214849	Moderate	Age ≥18 Gestational age ≤28 wk Low-income women in WIC BFPC program Singleton, intention to breastfeed	Withdrawal from BFPC program, multiple gestation, premature birth, history of miscarriage, medication given to mother or baby prior to BF, >3d NICU infant weight <5 lb	174
IT	Breastfeeding care	Abbass-Dick, 2020, 32739716, Canada	RCT, (Non-industry) (2018-2020)	NCT03492411	Moderate	Age ≥18 Gestational age >25 wk Overall pregnant population Primiparous, not previously breastfed, singleton birth	NR	217
IT	Breastfeeding care	Bender, 2022, 36201773, US	RCT, (NR), (2020-2021)	NCT04108533	Moderate	Age ≥18 Gestational age 34-36 wk English-speaking Singleton gestation	Contraindication to breastfeeding Preterm delivery or NICU admission	216
IT	Breastfeeding care	Ahmed, 2016, 26779838, US	RCT, (Non-industry) (NR)	NR	High	Age ≥18 Gestational age ≥37 wk	HIV	106
Provider Interventions	Screening	Domingo, 2022, 35237835, US	NRCS, Retrospective, (NR), (2016-2020)	NR	Moderate	Gestational diabetes	History of pregestational diabetes	246

**Table C-1.2. Key Question 1: Healthcare delivery strategies – summary of arm details**

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Where	Lieu, 2000, 10790463	BF care	NR	NR	580	Home visit by nurse on day 3 or 4 PP	Where: Home How: Home visit Who: Nurse	After discharge: 1 time; 1-1.5 hr; day 3 or 4
	.	.	.	.	583	Pediatric clinic visit on day 3 or 4 PP	Where: Clinic, How: As part of well-child visit, Who: Pediatrician, nurse practitioner	After discharge: 1 time; 20 min; day 3 or 4
Where	Gagnon, 2002, 12042545	BF care	Urban	NR	292	Home visit by community nurse	Where: Home How: Dedicated PP visit Who: Nurse	In hosp: 1 time; 2 d After discharge: 1 time; 1 hr; 3-4 d after discharge
	.	.	.	.	294	Hospital visit with nurse	Where: Hospital How: Dedicated PP visit Who: Nurse	In hosp: 1 time; 2 d After discharge: 1 time; 1 hr; 3-4 d after discharge
Where	Norr, 2003, 12716399	General PP care	Urban	Academic, community	258	Home visits by nurse-led community worker team	Where: Clinic, Home How: Dedicated PP visit, as part of well-child visit, home visit Who: Nurse, community health worker	After discharge: 12 times; monthly
	.	.	.	.	219	Routine PP and well-baby visits with current provider	Where: Clinic How: Dedicated PP visit, as part of well-child visit, Who: Pediatrician, provider of mother's choice	After discharge: 1 time; PP visit
Where	Escobar, 2001, 11533342	BF care	Urban	NR	506	Home visit by nurse on day 3 or 4 PP	Where: Home How: Dedicated newborn and BF visit Who: Nurse	After discharge: 1 time; 1-1.5 hr; day 3 or 4 PP
	.	.	.	.	508	Hospital visit on day 3 or 4 PP	Where: Hospital, How: Dedicated newborn and BF visit Who: Nurse	After discharge: 1 time; 1.5-2 hr; day 3 or 4 PP
Where	Steel O'Connor, 2003, 12675164	General PP care	Urban	Tertiary	380	Telephone visit by public health nurse	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: Nurse IT: Phone visits	After discharge: 1 time; 1st working d post-discharge
	.	.	.	.	353	Home visit by public health nurse	Where: Home How: Home visit Who: Nurse	After discharge: 2 times; 1st working d post-discharge & ≤10 d post-discharge

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Where	McCarter, 2019, 31222789	General PP care	Urban	Community/Primary	190	Telephone-based nursing care	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: Nurse IT: Phone visits, Smartphone or computer applications	AP: N/A In Hospital: N/A, After Discharge: Total 104 times, 4x/wk for 26 wks.
	.	.	.	.	167	Usual care	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: Nurse IT: Phone visits	AP: In Hospital: After Discharge: One time within PP 2 wks
Where	Paul, 2012, 22064874	BF care	NR	NR	576	First PP visit at home	Where: Home How: Home newborn and BF visit Who: Nurse	After discharge: 1 time; 3-5 d after delivery
	.	.	.	.	578	First PP visit in clinic	Where: Clinic How: Dedicated newborn and BF visit Who: OB/GYN	After discharge: 1 time; 3-5 d after delivery
Where	Arias, 2022, 35331971	General PP care	Urban	Academic	799	Virtual visits	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: Obstetrics provider through telehealth. IT: Bidirectional telemedicine/virtual tele-visits	AP: N/A In Hospital: N/A After Discharge: N/A
	.	.	.	.	780	In-person visits	Where; Hospital How: Dedicated PP visit Who: obstetrics provider IT: Primarily in-person	AP: N/A, In Hospital: N/A, After Discharge: N/A
Where, Who	Dodge, 2019, 31675088	General PP care	Urban	Academic	158	Nurse home visitation through Family Connects (FC) Program	Where: Home How: Home visit Who: Nurse, Community Agency-Administered Nurse. Coordination: Child preventive service and family support IT: Primarily in-person	AP: N/A In Hospital: In-hospital support After Discharge: 1-3 home visits
	.	.	.	.	158	Usual care	Where: NR How: NR Who: NR Coordination: NR IT: NR	AP: NR In Hospital: NR After Discharge: NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Where, Who	Pugh, 2002, 12000411	Breastfeeding care	NR	High large, Academic	21	Home visits by peer counselors	Where: Hospital, Home, Telehealth/e-Health, How: Home visit, Telehealth/virtual visit Who: Nurse, peer counselor IT: Phone visits	AP: N/A In Hospital: N/A After Discharge: at least 3 times for 6 months, week 1, 2, 4, and at teams discretion.
	.	.	.	.	20	Usual care	Where: Hospital How: N/A Who: Nurse IT: N/A	AP: NR In Hospital: 1 time After Discharge: NR
Where, Who	Mersky, 2021, 33078655	General PP care	Urban	N/A	72	Home visits by human service professions through the Healthy Families American Program	Where: Home How: Home visit Who: Human service professionals	After discharge: 24 times; 1 hr; 6 mo; wkly
	.	.	.	.	65	Home visits by public health nurses through the Prenatal Care and Coordination Program	Where: Home How: Home visit Who: Nurse	After discharge: 4 times; 1 hr; 2 mo; bi-wkly
	.	.	.	.	100	No home visits	N/A	N/A
Where, Who	Pugh, 2010, 19854119	BF care	Urban	Public	168	BF support team inpatient and home visits and pager access	Where: Hospital, home, telehealth/e-health How: Dedicated PP visit, home visit, telehealth/virtual visit Who: Nurse, peer IT: Primarily in-person, phone visits	In hosp: unlimited After discharge: 3 home (45-60 min each; 2 within 1 wk and third at 4 wk), 12 phone (20 min each; biwkly)
	.	.	.	.	160	Inpatient visits by lactation consultant and home telephone access	Where: Hospital, Telehealth/e-Health, How: Dedicated PP visit, Telehealth/virtual visit, Who: Lactation consultant IT: Primarily in-person, phone visits	In hosp: unlimited After discharge: unlimited
Where, Who	Edwards, 2013, 24187119	BF care	Urban	Community/	124	Home visits by doulas	Where: Clinic, home How: Home visit Who: Doula	AP: 10 times; 3 <sup>rd</sup> trimester; wkly In hosp: 1 time After discharge: 12 times; 3 mo; wkly
	.	.	.	.	124	Standard care without home visits by doulas	Where: Clinic How: Dedicated PP visit	NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Where, Who	Gill, 2007, 17557933	BF care	Urban	Low-volume, academic	79	Telephone calls from research team and as needed lactation consultant home visits	Where: Clinic, Home, Telephone How: Dedicated PP visit, Telephone Who: Lactation consultant, research staff IT: Primarily in-person, Telephone	AP: 2 times In hosp: NR After discharge: 9 calls; 4 d, 2 wk, 3 wk, 4 wk, 6 wk, 3 mo, 4 mo, 5 mo, 6 mo
	.	.	.	.	79	Standard BF education in clinic and/or WIC site	Where: Clinic, WIC Program office/site, How: Dedicated PP visit, WIC site, Who: Research staff	NR
How	Polk, 2021, 34671758	General PP care	Urban	Tertiary	58	Combined PP/well-child visit at 4 wk	Where: Clinic How: As part of well-child visit Who: OB/GYN, pediatrician	After discharge: 1 time; 4 wk
	.	.	.	.	58	Separate PP and well-child visits	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time
How	Koniak-Griffin, 2003, 12657988	General PP care	NR	Academic, tertiary	56	Early Intervention Program	Where: Home, telephone How: Home visit Who: Public health nurse	AP: 2 times; 1.5-2 hr In hosp: NR After discharge: 15 times; 1.5-2 hr; wk 1, 4, 6 & mo 2-12
	.	.	.	.	45	Traditional Public Health Nursing Care	Where: Home, telephone How: Home visit Who: Public health nurse	AP: 2 times In hosp: NR After discharge: 1 time
How, Who	Hans, 2018, 29855838	General PP care	Urban	NR	156	Home visits by doulas and hospital support for childbirth preparation and childbirth	Where: Hospital, home How: Home visit, hospital Who: Doula, lay support worker	AP: weekly In hosp: NR After discharge: weekly
	.	.	.	.	156	Case management by community case managers or social service providers	Where: Community site/center How: Community center Who: Case manager	AP: 2 times In hosp: NR After discharge: 2 times
How	Haider, 2020, 31964564	Contraceptive care	Urban	NR	231	Contraceptive counseling at well-baby visit	Where: Clinic How: As part of well-child visit Who: OB/GYN, nurse midwife IT: Primarily in-person	After discharge: 1 time
	.	.	.	.	215	Contraceptive counseling at routine PP visit	Where: Clinic How: Dedicated PP visit Who: OB/GYN IT: Primarily in-person	After discharge: 1 time

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
How	Laliberte, 2016, 26871448	General PP care	NR	Public, community	294	Multidisciplinary clinic within 48 hr PP with additional visits as indicated	Where: Clinic How: Dedicated PP visit Who: Family physician, nurse, lactation consultant	After discharge: 1 time
	.	.	.	.	134	Standard Care	Where: Clinic How: Dedicated PP visit, Who: Family physician	NR
How	Rozga, 2016, 27423234	BF care	NR	Public, academic, tertiary	472	Home visits, phone calls, and WIC clinical support from peer counselors as part of the BF Initiative Program	Where: Hospital, Home, Telehealth/e-Health, WIC Program office/site How: Group visit, Home visit, Telehealth/virtual visit, Who: Peer IT: Phone visits	AP: monthly phone calls until delivery After discharge: wky phonecalls in first mo, monthly thereafter
	.	.	.	.	226	Standard home visit, phone calls, and hospital contact with peer counselors	Where: Hospital, Home, Telehealth/e-Health, How: Home visit, Telehealth/virtual visit Who: Peer IT: Phone visits	AP: one home visit, monthly phone calls until delivery After discharge: wky phonecalls in first mo, monthly thereafter
How	Witt, 2021, 33956505	BF care	Urban	NR	197	Before integration of lactation consultant and primary care provider care	Where: Clinic How: Dedicated PP visit Who: Family physician	N/A
	.	.	.	.	245	After integration of lactation consultant and primary care provider care	Where: Clinic How: Dedicated PP visit Who: Family physician, lactation consultant	After discharge: ≥1 time; 40 min
When	Bernard, 2018, 29778586	General PP care	Urban, Rural	Public	93	Two PP visits (3 & 6 wk)	Where: Clinic How: Dedicated PP visit Who: Resident, nurse practitioner	After discharge: 2 times; 3 & 6 wk
	.	.	.	.	95	One PP visit (6 wk)	Where: Clinic How: Dedicated PP visit Who: Resident, nurse practitioner	After discharge: 1 time; 6 wk
When	Pluym, 2021, 33785465	General PP care	NR	Academic, tertiary	NR	Two PP visits (2 & 6 wk)	Where: Clinic, How: Dedicated PP visit Who: OB/GYN	After discharge: 2 times; 2 wk & 6 wk
	.	.	.	.	NR	One PP visit (6 wk)	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 6 wk



Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
When	Chen, 2019, 30414598	General PP care	Urban	High-volume, public, non-academic	256	One PP visit (2-3 wk)	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 2-3 wk
	.	.	Urban	.	256	One PP visit (6 wk)	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 6 wk
When	Dahlke, 2011, 21843688	Contraceptive care	Urban	High-volume	15	Immediate PP levonorgestrel IUD within 10 min after delivery	Where: Birth center How: After delivery Who: OB/GYN	In hosp: 1 time; ≤10 min after delivery
	.	.	.	.	15	PP levonorgestrel IUD 10 min-48 hr after delivery	Where: Birth center How: After delivery Who: OB/GYN	In hosp: 1 time; 10 min-48 hr after delivery
	.	.	.	.	16	PP levonorgestrel IUD at 6 wk PP	Where: Clinic, How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 6 wk
When	Chen, 2010, 20966692	Contraceptive care	Urban	NR	51	Immediate PP levonorgestrel IUD placement after delivery	Where: Hospital How: Hospital Who: NR	In hosp: 1 time; before discharge
	.	.	.	.	51	Levonorgestrel IUD placement at 6-8 wk PP visit	Where: Clinic How: Dedicated PP visit Who: NR	After discharge: 1 time; 6-8 wk
When	Levi, 2015, 26241250	Contraceptive care	NR	NR	56	Immediate PP levonorgestrel or copper IUD after delivery	Where: Hospital How: After delivery Who: OB/GYN	In hosp: 1 time; after delivery
	.	.	.	.	56	Levonorgestrel or copper IUD at ≥6 wk PP	Where: Clinic, How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; ≥6 wk
When	Dempsey, 2018, N/A	Contraceptive care	Urban	Non-academic	41	Etonogestrel insertion before discharge	Where: Hospital How: Hospital Who: OB/GYN	In hosp: 1 time; before discharge
	.	.	.	.	40	Etonogestrel insertion at 6 wk PP visit	Where: Clinic How: Dedicated PP visit	After discharge: 1 time; 6 wk
When	Baldwin, 2019, N/A	Contraceptive care	Urban	Academic, tertiary	100	Levonorgestrel IUD placement at 3 wk PP	Where: Clinic How: Dedicated PP visit	After discharge: 1 time; 3 wk
	.	.	.	.	97	Levonorgestrel IUD placement at 6 wk PP	Where: Clinic How: Dedicated PP visit	After discharge: 1 time; 6 wk

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
When	Whitaker, 2014, 24457061	Contraceptive care	NR	NR	20	Immediate levonorgestrel IUD placement after delivery	Where: Hospital How: After delivery Who: OB/GYN	In hosp: 1 time; after delivery
	.	.	.	.	22	Levonorgestrel IUD placement at 4-8 wk PP visit	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 4-8 wk
When	Morse, 2016, N/A	Contraceptive care	Urban	NR	29	Etonogestrel implant before discharge	Where: Hospital	In hosp: 1 time; before discharge
	.	.	.	.	30	Etonogestrel implant at 6 wk PP	Where: Clinic How: Dedicated PP visit	After discharge: 1 time; 6 wk
When	Chen, 2018, N/A	Contraceptive care	Urban	High-volume, public, non-academic	79	PP DMPA administration before discharge	Where: Hospital How: Hospital Who: OB/GYN	In hosp: 1 time; after delivery
	.	.	.	.	78	PP DMPA administration 4-6 wk PP	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 4-6 wk
When	Jensen, 2019, N/A	Contraceptive care	Urban	Academic	17	Immediate PP levonorgestrel IUD placement	Where: Hospital How: Hospital	In hosp: 1 time; ≤1 hr after delivery
	.	.	.	.	16	Levonorgestrel IUD placement at 6 wk PP visit	Where: Clinic How: Dedicated PP visit Who: OB/GYN	After discharge: 1 time; 6 wk
Who	Kozhimannil, 2013, 23837663	General PP care	Suburban	High-volume, public, non-academic, community	1069	Doula support through the Everyday Miracles Program	How: Dedicated PP visit, Who: Doula	NR
	.	.	.	.	51721	No doula supported care	N/A	N/A
Who	Pan, 2020, 32437282	General PP care	NR	Academic, tertiary	353	Home visits by community health worker and referral to social worker through the Baby Love Program	Where: Home visit How: Home visit Who: Community health worker, social worker	NR
	.	.	.	.	102	Standard care without the Baby Love Program	NR	NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Who	Edwards, 1997, 9170692	General PP care	Urban	Public	279	Public Health Nurse Telephone Visit	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: Nurse IT: Phone visits	After discharge: 1 time; 1-2 wk after discharge
	.	.	.	.	218	Health Department Clerk Call	Where: Telehealth/e-Health How: Telehealth/virtual visit, Who: Public health department clerk IT: Phone visits	After discharge: 1 time; 5 wk after discharge
	.	.	.	.	291	Postpartum education package	Where: Mail How: Mail	NR
Who	Falconi, 2022, 35812994	General PP care	NR	NR	298	Doula support	Where: Hospital, How: Dedicated PP visit, Prenatal visit and in-hospital labor. Who: OB/GYN, Midwife, Doula. Coordination: integrating doula into maternity care networks.	AP: at least 4 Prenatal visits In Hospital: supporting during labor and birth. After Discharge: 4 PP visits
	.	.	.	.	298	No doula support	Where: Hospital How: NR Who: NR Coordination: NR	AP: NR In Hospital: NR After Discharge: NR
Who	Buckley, 1990, 2328162	General PP care	Urban	Academic	34	PP visit and phone call by nurse practitioner	Where: Clinic, Telehealth/e-Health How: Dedicated PP visit, telehealth/virtual visit Who: Nurse practitioner IT: Primarily in-person, Phone visits	In hosp: 1 time; 15 min After discharge: 1 time; 15 min; 1 wk
	.	.	Urban	.	25	No PP visit and phone call by NP	Where: Clinic	N/A
Who	Tandon, 2021, 33655429	General PP care	Urban	NR	293	Home visits by mental health professionals through the Mothers and Babies (MB) Program	Where: Home, How: Home visit Who: Mental health professional	After discharge: 6 times; 1.5 hr; wkly
	.	.	.	.	382	Home visits by community health workers through the Mothers and Babies (MB) Program	Where: Home, How: Home visit Who: Community health worker	After discharge: 6 times; 1.5 hr; wkly
	.	.	.	.	149	Usual home visits (visitor type unspecified)	Where: Home, How: Home visit	NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Who	Simmons, 2013, 23218851	Contraceptive care	Urban	Academic	25	Contraceptive Counselor phone calls at 2 wk and clinic visit at 6 wk	Where: Clinic, Telehealth/e-Health How: Telehealth/virtual visit Who: Contraceptive counselor IT: Phone visits	After discharge: 2 times; 2 wk & 6 wk
	.	.	.	.	24	Clinic visit at 6 wk	Where: Clinic How: Dedicated PP visit How: Nurse midwife	After discharge: 1 time; 6 wk
Who	Dennis, 2002, 11800243	BF care	Urban	N/A	132	BF peer support and standard care	Where: Hospital, clinic, community site/center, telephone support How: Telephone, hospital Who: OB/GYN, pediatrician, nurse, lactation consultant, peer IT: Primarily in-person, telephone	NR
	.	.	.	.	124	BF standard care only	Where: Hospital, clinic, telephone support How: Dedicated PP visit Who: OB/GYN, pediatrician, nurse, lactation consultant IT: Primarily in-person, telephone	NR
Who	Reeder, 2014, 25092936	BF care	Urban and rural	NR	1250	Peer counseling with 4-8 telephone calls and WIC Program	Where: Telehealth/e-Health How: WIC Program office/site, telehealth/virtual visit Who: Peer	AP: 2 times; initial assessment and 2 wk before due date After discharge: 2-6 times; 1 wk, 2 wk, 1 mo, 2 mo, 3 mo, & 4 mo
	.	.	.	.	635	WIC Program but no peer counseling	Where: WIC office/site How: WIC Program Who: WIC staff	NR
Who, IT	Gross, 1998, 12515413	BF care	NR	NR	35	Video and peer counselor BF education	Where: Telehealth/e-Health, WIC Program office/site Who: Peer IT: Videos	AP: 9 times; 8 videos, 1 peer visit In hosp: 1 time; 2-5 min video, 1 hr visit After discharge: 1 time; 1hr
	.	.	.	.	32	Peer counselor BF education	Where: WIC Program office/site Who: Peer	In hosp: 1 time; 1 hr After discharge: wkly up to 16 wk PP
	.	.	.	.	33	Video BF education	Where: Telehealth/e-Health How: Telehealth/virtual visit IT: Videos	AP: 8 times; 2-5 min videos
	.	.	.	.	15	Standard WIC BF education	Where: WIC Program office/site Who: WIC staff	NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Who	Anderson, 2005, 16143742	BF care	Urban	Academic	63	Peer counselor BF support and conventional support from clinic staff	Where: Hospital, Clinic, Home, How: Home visit Who: Nurse, lactation consultant, peer IT: Primarily in-person, phone visits	AP: 3 times In hosp: ≥1 time/day After discharge: 9 times; 3 in 1 <sup>st</sup> wk, 2 in 2 <sup>nd</sup> wk, & 1 per wk in wk 3-6
	.	.	.	.	72	Conventional BF support from clinic staff only	Where: Clinic, dedicated PP visit How: Part of prenatal, perinatal and after discharge care, dedicated PP visit Who: Nurse, lactation consultant IT: Primarily in-person, phone visits	AP: 1 time In hosp: ≥1 time/day After discharge: As needed
Who	Chapman, 2004, 15351756	BF care	Urban	Academic, tertiary	90	Heritage and Pride peer counseling program	Where: Hospital, home How: Dedicated PP visit, home visit Who: Nurse, peer	AP: 1 time In hosp: ≥1 time daily After discharge: 3 times
	.	.	.	.	75	Routine BF education	Where: Hospital How: Dedicated PP visit Who: Nurse	NR
Who	Wambach, 2011, 20876551	BF care	Urban	Academic	128	Lactation consultant-peer counselor team support	Where: Clinic, How: Dedicated PP visit, Telehealth/virtual visit, Who: Lactation consultant, peer IT: Primarily in-person, phone visits	AP: 2 times; 1.5-2 hr In hosp: NR After discharge: 5 times; 4, 7, 11, 18, 28 d
	.	.	.	.	128	Advanced-practice nurse and peer counselor attention control	Where: Clinic How: Dedicated PP visit, telehealth/virtual visit Who: Nurse, peer IT: Primarily in-person, phone visits	AP: 2 times; 1.5-2 hr In hosp: NR After discharge: 5 times; 4, 7, 11, 18, 28 d
	.	.	.	.	134	Usual care at clinic	Where: Clinic How: Dedicated PP visit	NR
Who	Chapman, 2013, 23209111	BF care	Urban	N/A	76	Specialized BF peer counseling	Where: Hospital, home How: Dedicated PP visit, home visit Who: Nurse, peer	AP: 2 times; 1 hr In hosp: 3 times; 1.5 hr After discharge: 5 times
	.	.	.	.	78	Standard BF care by BF: Heritage and Pride peer counselors	Where: Hospital, home How: Dedicated PP visit, home visit Who: Nurse, peer	In hosp: 2 times; 0.5 hr After discharge: NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Who	Srinivas, 2015, 25193602	BF care	Urban	NR	50	BF counseling by peer and non-peer counselors	Where: Clinic, How: Dedicated PP visit, Telehealth/virtual visit, Who: Pediatrician, lactation consultant, peer, WIC nutritionist IT: Primarily in-person, Phone visits	AP: 28 wk gestation-1 wk pre-delivery In hosp: NR After discharge: 9 times; at 3-5d, wkly for 1 mo, biwkly up to 3 mo, once at 4 mo
	.	.	.	.	53	BF counseling by non-peer counselors only	Where: Clinic How: Dedicated PP visit Who: Pediatrician, lactation consultant, WIC nutritionist	NR
Who, IT	Kerver, 2019, N/A	BF care, General PP/risk counseling	Urban	High-volume, academic, community	28	In-person, phone, and online support by peer counselors and smart phone-based weight control program	Where: Clinic, Home Telehealth/e-Health How: Home visit, Telehealth/virtual visit Who: Peer IT: Smartphone/computer applications	NR
	.	.	.	.	25	Support by prenatal care provider	Where: Clinic How: Dedicated PP visit Who: OB/GYN IT: Primarily in-person	NR
Who	Porteous, 2000, 11155608	BF care	Urban	Academic	26	Hospital visits by midwife and telephone access through 1 mo PP	Where: Hospital, telehealth/e-Health How: Dedicated PP visit Telehealth/virtual visit Who: Midwife IT: Primarily in-person, Phone visits	In hosp: Daily After discharge: 4 times; 4 wk; 10-15 min; wkly
	.	.	.	.	25	Conventional nursing care group	Where: Hospital How: Dedicated PP visit Who: Nurse	NR
Who	Rasmussen, 2011, 20958105	BF care	Rural	Academic	20	Additional BF support by a lactation consultant	Where: Clinic, Telehealth/e-Health How: Dedicated PP visit, telehealth/virtual visit Who: Nurse, lactation consultant IT: Primarily in-person, phone visits	AP: 1 time In hosp: Multiple times; 8 hrly After discharge: 2 times; 1-3 d
	.	.	.	.	20	Standard BF support without a lactation consultant	Where: Clinic, How: Dedicated PP visit, Telehealth/virtual visit, Who: Nurse	AP: 1 time In hosp: Multiple times; ~8-hourly After discharge: NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Who, Provider Interventions	Bonuck, 2014a, 24354834	BF care	Urban	Community	129	Electronic prompts for provider and lactation consultant for patients	Where: Clinic, telehealth/e-Health How: Dedicated PP visit, Telehealth/virtual visit Who: OB/GYN, lactation consultant IT: Primarily in-person, phone visits	AP: 7 times; 1 hr each In hosp: 1 time; 45 min After discharge: >1 hr; 3 mo or until BF cessation
	.	.	.	.	133	Standard BF support	N/A	N/A
Who, Provider Interventions	Bonuck, 2014b, 24354834	BF care	Urban	Academic	238	Electronic prompts for provider and lactation consultant for patients	Where: Clinic, Telehealth/e-Health How: Dedicated PP visit, Telehealth/virtual visit Who: OB/GYN, lactation consultant	AP: 7 times; 1 hr each In hosp: 1 time; 45 min After discharge: >1 hr; 3 mo or until BF cessation
	.	.	.	.	77	Only lactation consultant for patients	Where: Clinic How: Dedicated PP visit Who: Lactation consultant	AP: 2 times; 1 hr each In hosp: 1 time; 45 min After discharge: >1 hr; 3 mo or until BF cessation
	.	.	.	.	236	Only electronic prompts for provider	Where: Telehealth/e-Health How: Telehealth/virtual visit Who: OB/GYN	AP: 5 times; 1 hr each
	.	.	.	.	77	Standard BF support	N/A	N/A
Who, IT	Uscher-Pines, 2020, 31629118	BF care	Rural	Academic	94	Unlimited on-demand video BF support by lactation consultant through Telelactation app and standard in-hospital BF support	Where: Hospital, Telehealth/e-Health, How: Dedicated PP visit, Telehealth/virtual visit, Who: OB/GYN, Pediatrician, nurse, lactation consultant IT: Bidirectional telemedicine/virtual televisits, smartphone/computer applications	After discharge: Unlimited; 3 mo; 24 hr/d
	.	.	.	.	93	Standard in-hospital BF support only	Where: Hospital, How: Dedicated PP visit, Who: OB/GYN, pediatrician, nurse	NR
Coordination/management	Rutledge, 2016, 27350389	General PP care	NR	NR	1709	Case management and referral through Maternity Care Coordination (MCC) programs	Where: Clinic, Home How: Home visit, Who: Nurse, Social worker Combination of people at different time-points: NR Coordination: case management and referral services	AP: NR In Hospital: NR After Discharge: NR
	.	.	.	.	4848	Usual care	Where: NR How: NR Who: NR Coordination: NR	AP: NR In Hospital: NR After Discharge: NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Coordination/management	Tsai, 2011, 21365543	General PP care	Urban	Public, academic	106	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	Where: Clinic How: Dedicated PP visit Who: Clinic staff	N/A
	.	.	.	.	115	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	Where: Clinic How: Dedicated PP visit Who: Clinic staff	In hosp: 1 time; pre-discharge After discharge: 1 time; PP visit
Coordination/management	Mendez-Figueroa, 2014, 24481876	Screening	Urban	Public, Academic, Tertiary	207	Telephone reminders for diabetes screening	Where: Clinic How: Dedicated PP visit. Scheduled appointment for OGTT. Who: Nurse. Combination of people at different time-points: Bilingual outreach worker worked with patient and community-based provider. Coordination: Other: Scheduling an appointment for PP OGTT, issuing reminders, phone call 1 week prior to the OGTT. IT: Primarily in-person. Issuing reminders, phone call 1 week prior to the scheduled OGTT.	AP: NR In Hospital: PP in-hospital stay visit follow-up and scheduling an appointment for PP OGTT After Discharge: Scheduled OGTT at 4-6 weeks PP, reminder 1 week before the appointment by phone call, 3 testing appointments were made for patients failing to attend.
	.	.	.	.	181	No telephone reminders for diabetes screening	Where: Clinic. How: NR Who: NR IT: N/A (Primarily in-person)	AP: NR, In Hospital: NR After Discharge: NR



Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
Coordination/management, Provider Interventions	Clark, 2009, 19268878	Screening care	Urban	High (Provides services to 750000, perform 8000 deliveries per yr), Public, Academic, Tertiary	81	Provider and patient mail reminders for diabetes screening	Where: Postal How: Postal reminders Coordination: Reminder for the screening of GMD for both. When reminders were sent to both the patient and the physician, the physician reminder was modified to inform the physician that the patient had received a requisition for the recommended screening test. IT: Postal reminders	AP: N/A In Hospital: N/A After Discharge: Once for 3 months
	.	.	.	.	31	Provider reminder for diabetes screening	Where: Postal How: Postal reminders IT: Postal reminders.	AP: N/A In Hospital: N/A After Discharge: Once for 3 months
	.	.	.	.	76	Patient mail reminder for diabetes screening	Where: Postal How: Postal reminders IT: Postal reminders	AP: N/A In Hospital: N/A After Discharge: Once for 3 months.
	.	.	.	.	35	No reminders for diabetes screening	Where: N/A How: N/A IT: N/A	AP: N/A In Hospital: N/A After Discharge: N/A
Coordination/management, IT	Shea, 2011, 21466755	Screening	NR	Public, academic, tertiary	55	Mail and/or phone reminder for diabetes screening	Where: Telehealth/e-Health, How: Mail, Telehealth/virtual visit, mail, Coordination: Strategy to facilitate access to appointments/scheduling, IT: Phone visits	After discharge: 1 time; 3 mo
	.	.	.	.	90	Mail reminder only for diabetes screening	How: Mail, Coordination: Strategy to facilitate access to appointments/scheduling	After discharge: 1 time; 3 mo
	.	.	.	.	117	No mail/phone reminder for diabetes screening	N/A	N/A
IT	Martinez-Brockman, 2018, 29325660	BF care	Urban	N/A	94	Text messaging of the benefits of BF and BF peer counselors	Where: Telehealth/e-Health, WIC office/site How: Telehealth/virtual visit, WIC program Who: Lactation consultant, peer, WIC staff IT: Bidirectional texting	After discharge: ≤3 mo
	.	.	.	.	80	BF peer counselors only	Where: WIC Program office/site How: WIC program Who: Lactation consultant, peer, WIC staff	NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
IT	Abbass-Dick, 2020, 32739716	BF care	Urban	Tertiary	106	eHealth BF co-parenting website	Where: Telehealth/e-Health How: Telehealth/virtual visit IT: Smartphone/computer applications	After discharge: NR
	.	.	.	.	111	Available community resources only	Where: Community site/center	After discharge: NR
IT	Bender, 2022, 36201773	Breastfeeding care	Urban	Academic, Tertiary	106	Text message-based BF support	Where: Text-based support. In the rare instance that issues could not be remedied by text message, referrals for telehealth or in-person visits with lactation specialists or other health care professionals were made How: Text-based breastfeeding support. In the rare instance that issues could not be remedied by text message, referrals for telehealth or in-person visits with lactation specialists or other health care professionals were made Who: OB/GYN, Other: In the rare instance that issues could not be remedied by text message, referrals for telehealth or in-person visits with lactation specialists or other health care professionals were made Coordination: In the rare instance that issues could not be remedied by text message, referrals for telehealth or in-person visits with lactation specialists or other health care professionals were made IT: Bidirectional texting, Other: Text-based support via the Way to Health platform	AP: N/A In Hospital: N/A After Discharge: Follow-up: 2/wk for first 4 wk PP, and once/wk thereafter for the remaining 2wks PP (The first 6 wks there are the supportive texts)
	.	.	.	.	110	Usual care	Where; NR How: Women in this group will be directed to their physician with any questions or concerns during the study period Who: Women in this group will be directed to their physician with any questions or concerns during the study period Coordination: Women in this group will be directed to their physician with any questions or concerns during the study period. IT: NR	AP: NR In Hospital: NR After Discharge: NR

Delivery Strategy Compared	Study, Publication Year, PMID	Target	Location	Facility Volume, Type, Academic Status, Level (Only if Reported)	Arm N	Arm Name	Delivery Strategy: Where, How, Who, Coordination, IT (as Relevant)	Delivery Strategy: When: AP, In Hosp, After Discharge (as Relevant)
IT	Ahmed, 2016, 26779838	BF care	Urban	Academic	49	Interactive web-based BF monitoring and usual care	Where: Hospital How: Telehealth/e-Health, phone visit, telehealth/virtual visit Who: Lactation consultant IT: Smartphone/computer applications	AP: NR In hosp: 1 time After discharge: Daily, 1 mo
	.	.	.	.	57	Usual BF support	Where: Hospital How: Phone visit Who: Lactation consultant IT: Phone visits	AP: NR In hosp: 1 time After discharge: 1 time, ≤1 wk
Provider Interventions	Domingo, 2022, 35237835	Screening	Suburban	NR	133	EMR reminder for providers for OGTT testing	Where: Clinic, How: Dedicated PP visit Who: Electronic medical record	AP: N/A, In Hospital: N/A After Discharge: N/A
	.	.	.	.	113	No EMR reminder for providers for OGTT testing	Where: Clinic How: Dedicated PP visit Who: Electronic medical record.	AP: N/A In Hospital: N/A After Discharge: N/A

Abbreviations: AP = antepartum, BF = breastfeeding, d = day, DMPA = depot-medroxyprogesterone acetate, EMR = electronic medical record, hosp = hospital, hr = hour, GDM = gestational diabetes mellitus, IT = information technology, IUD = intrauterine device, LARC = long-acting reversible contraceptive, min = minute, mo = month, N/A = not applicable, NR = not reported, OB/GYN = obstetrics and gynecology, PMID = PubMed ID, PP = postpartum, wk = week

Studies did not report on titrations or unplanned modifications to delivery strategies.

**Table C-1.3. Key Question 1: Healthcare delivery strategies – summary of sample details**

Study, Publication Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous	SUDs	Chronic Conditions	Delivery Type	Offspring Characteristics
Lieu, 2000, 10790463	27.9 (6.1)	NR	W: 708 (60.9) B: 83 (7.1) H: 145 (12.5) O1: 227 (19.5)	Less than HS degree: 85 (7.3) HS degree or more: 1078 (92.7)	NR	At or below federal poverty level: 80 (6.9) 101%–200% of federal poverty level: 234 (20.1) >200% of federal poverty level: 802 (69)	NR	NR	NR	V: 1163 (100)	Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0
Gagnon, 2002, 12042545	30 (4.8)	NR	NR	Up to graduate education: 522 (89.1) Attended postgraduate studies: 64 (10.9)	NR	NR	Born outside of Canada: 312 (53.2)	NR	NR	V: 586 (100)	NR
Norr, 2003, 12716399	<20: 190 (39.8) ≥20: 287 (60.2)	NR	B: 323 (67.7) H: 154 (32.3)	Some HS or less: 235 (49.3) HS graduate: 242 (50.7)	NR	NR	Medicaid: 477 (100)	OD: 0	NR	NR	Stillbirth: 0 Spontaneous or induced abortion: 0
Escobar, 2001, 11533342	29.1 (5.6) Median 29	NR	W: 480 (47.3) B: 27 (2.7) H: 207 (20.4) O1: 300 (29.6)	HS graduate or less: 263 (25.9) Some college/technical school: 325 (32.1) College graduate or more: 426 (42)	NR	≤\$20000: 76 (7.5) \$20001–\$40000: 176 (17.4) \$40001–\$60000: 193 (19) \$60000: 477 (47)	NR	OD: 0 Other: 0	NR	V: 1014 (100)	Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0 Neonatal death: 0 Congenital anomalies: 0

Study, Publication Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous	SUDs	Chronic Conditions	Delivery Type	Offspring Characteristics
Steel O'Connor, 2003, 12675164	27.4 (5.3)	NR	NR	Less than HS: 97 (13.8) Completed HS: 64 (9.1) Some post-secondary: 83 (11.9) Completed post-secondary: 458 (65.2)	NR	NR	NR	NR	NR	V: 702 (100)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0
McCarter, 2019, 31222789	29.6 (NR)	NR	W: 306 (85.7) B: 51 (14.3) H: 29 (8.1)	High school or less 80 (22.4) Some college 117 (32.8) College degree or higher 162 (45.4)	NR	NR	WIC: 131 (36.7)	NR	NR	V: 283 (79.3) C: 74 (20.7)	NR
Paul, 2012, 22064874	29 (5.5) <20: 49 (4.2) ≥20: 1105 (95.8)	NR	W: 971 (84.4) B: 63 (5.5) A: 50 (4.3) H: 57 (5) O1: 10 (0.9)	Some HS: 31 (2.7) HS graduate: 171 (14.9) Some college and/or technical school: 287 (25) College graduate: 427 (37.1) Postgraduate training: 234 (20.3)	NR	Annual income <\$5,000: 98 (8.5) Annual income \$5,000-\$49,999: 210 (18.2) Annual income \$50,000-\$74,999: 251 (21.8) Annual income \$75,000-\$99,999: 222 (19.2) Annual income ≥\$100,000: 244 (21.1) Missing data/refused/unknown: 129 (11.2)	Medicaid insurance: 153 (13.4) WIC participation: 197 (17.1)	NR	PE: 49 (4.3) HTN: 101 (8.8) DM: 62 (5.4)	V: 794 (68.9) C: 361 (31.1)	Multiple births: 15 (1.3) Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0 Neonatal death: 0 Congenital anomalies: 0

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Arias, 2022, 35331971	Median 30.2 IQR (25.47-34.29)	NR	W: 399 (25.3) B: 966 (61.2) A: 132 (8.4) O1: 66 (4.2)	Less than high school 159 (10) High School Diploma/ GED degree 743 (47.1) Advanced degree 648 (41) Unknown 28 (1.8)	NR	NR	NR	NR	HDP: 483 (30.6) HTN: (Chronic) 129 (8.2) GD: 104 (6.6) DM: Pregestational DM 42 (2.7) CVD: Cardiomyopathy 5 (0.3)	V: 1078 (68.3) C: 501 (31.7)	Multiple births 42 (2.7) NICU: 217 (13.7) Neonatal death: 24 (1.5)
Dodge, 2019, 31675088	29.4 (6.2)  Adolescent mother: 21 (6.6)	NR	W: 178 (56.3) B: 120 (40) H: 90 (28.5) O1: 18 (5.7)	NR	NR	NR	Medicaid: Medicaid or no insurance: 197 (62.3)	NR	NR	V: 230 (72.8) C: 86 (27.2)	Multiple births 15 (7.4)
Pugh, 2002, 12000411	21.6 (4.38)	NR	W: 7.3 B: 92.7	>12yr/high school 35 (84.9)	NR	Low income 41 (100)	NR	NR	NR	NR	NR
Mersky, 2021, 33078655	26.8 (6.1)	NR	B: 112 (47.3) H: 96 (40.5) O1: 29 (12.2)	Up to secondary education: 182 (76.8) Postsecondary education: 55 (23.2)	NR	Low-income: 237 (100)	NR	NR	NR	NR	NR

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Pugh, 2010, 19854119	23.1 (5.3) 13-17: 33 (10.1) 18-19: 56 (17.1) 20-24: 137 (41.8) 25-34: 91 (27.7) 35-43: 11 (3.4)	NR	W: 15 (4.6) B: 286 (87.2) H: 13 (4) O1: 14 (4.3)	Below HS: 87 (26.5) HS/GED: 121 (36.9) Some College: 83 (25.3) College Grad/Grad Degree: 37 (11.3)	Employed, in school: 72 (22) Employed, not in school: 139 (42.4) Unemployed, in school: 60 (18.3) Unemployed, not in school: 57 (17.4)	Low income: 328 (100)	WIC: 328 (100)	NR	NR	V: 241 (73.5) C: 87 (26.5)	NR
Edwards, 2013, 24187119	18.1 (1.7)	NR	B: 248 (100)	10.8 (1.5) Not in school: 113 (45.6)  In school: 135 (54.4)	Unemployed: 211 (85.1) Employed: 37 (14.9)	NR	Medicaid: 233 (93.8)	NR	NR	NR	Neonatal death: 2 (0.8)
Gill, 2007, 17557933	NR	NR	H: 158 (100)	NR	NR	NR	WIC: 158 (100)	NR	NR	NR	Preterm birth: 0 NICU: 0 Neonatal death: 0 Congenital anomalies: 0
Polk, 2021, 34671758	27.7 (6)	NR	W: 8 (6.9) B: 11 (9.5) H: 94 (81) O1: 3 (2.6)	≤6th Grade: 32 (27.6) 7th to 12th Grade: 38 (31.9) HS or GED: 32 (27.6) Some college: 5 (4.3) College: 8 (6.9)	NR	NR	Medicaid: 23 (19.8)	NR	PE: 1 (0.9) GD: 10 (8.6)	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 4 (3.4) NICU: 0 Neonatal death: 0

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Koniak-Griffin, 2003, 12657988	16.8 (1.1)	NR	W: 19 (19) B: 11 (11) H: 65 (64) O1: 7 (6)	Enrolled, attending HS: 50 (49.5) Enrolled, not attending: 13 (12.9) Dropped out: 27 (26.7) Graduated HS/ GED: 8 (7.9) Other: 3 (3)	Employed: 15 (15)  Unemployed: 87 (85)	NR	Medicaid: 86 (84)	OUD: 0	NR	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 NICU: 25 (25)
Hans, 2018, 29855838	18.4 (1.8)	NR	W: 26 (8.3) B: 140 (44.9) H: 117 (37.5) O1: 29 (9.3)	10.9 (1.5)  Not in school: 148 (47.4) In school: 164 (52.6)	NR	NR	Medicaid: 278 (91.1) WIC: 268 (85.9)	NR	NR	V: 248 (79.5) C: 64 (20.5)	Preterm birth: 22 (7.1) NICU: 44 (14.1)
Haider, 2020, 31964564	<20: 42 (9.4) 20-24: 128 (28.7) 25-29: 125 (28) 30-34: 97 (21.8) ≥35: 54 (12.1)	NR	W: 52 (11.7) B: 256 (57.4) A: 19 (4.3) H: 102 (22.9) O1: 16 (3.6)	<HS/ in HS: 32 (7.2) HS, graduate: 126 (28.3) Some college/ 2yr degree: 180 (40.4) Bachelor's degree or higher: 108 (24.2)	Full-time: 54 (12.1) Part-time: 23 (5.2) Maternity leave: 185 (41.5) Unemployed: 182 (40.8)	NR	NR	NR	NR	V: 324 (72.6) C: 116 (26)	NR



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Laliberte, 2016, 26871448	15-19: 2 (0.4) 20-24: 22 (5.1) 25-29: 95 (22.2) 30-34: 165 (38.5) 35-39: 108 (25.3) ≥40: 26 (6) Missing: 10 (2.3)	NR	NR	Up to some HS: 1 (0.25) Completed HS: 33 (7.7) Vocational/ technical training after HS: 67 (15.7) Completed university: 316 (73.8) Missing: 11 (2.6)	NR	NR	NR	NR	NR	V: 339 (71.8) C: 133 (28.2)	Multiple births: 0
Rozga, 2016, 27423234	<20: 91 (13.1) 20-29: 483 (69.2) ≥30: 124 (17.7)	NR	W: 512 (74.3) B: 87 (12.5) H: 80 (11.4) O1: 13 (1.9)	<HS Diploma: 143 (20.5) HS Diploma or equivalent: 555 (79.5)	NR	NR	WIC: 667 (95.6)	NR	NR	NR	Preterm birth: 50 (7.2)
Witt, 2021, 33956505	27 (16-43)	NR	W: 297 (67.2) B: 104 (23.6) H: 145 (32.7)	NR	NR	NR	NR	NR	NR	V: 349 (79) C: 93 (21)	Preterm birth: 119 (27) NICU: 18 (4.1)

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Bernard, 2018, 29778586	25.7 (5)	NR	W: 15 (8) B: 168 (89.4) O1: 5 (2.7)	Less than HS: 28 (14.9) HS/GED: 82 (43.6) Some college/ associate's degree: 63 (33.5) Vocational/ technical school: 9 (4.8) College degree: 6 (3.2)	Working full-time: 61 (32.4) Working part-time: 31 (16.5) Unemployed: 62 (33) Disabled/ sick leave/ other: 23 (12.2) Full-time student: 11 (5.9)	NR	NR	NR	NR	V: 125 (66.5) C: 63 (33.5)	Stillbirth: 0 Spontaneous or induced abortion: 0 NICU: 0
Pluym, 2021, 33785465	30.4 (5.95)	With obesity at consent (PP): 133 (53.2)	W: 28 (11.2) B: 24 (9.6) A: 24 (9.6) H: 140 (56) O1: 34 (13.6)	<9 yr: 4 (1.6) 9–11 yr: 16 (6.4) 12–16 yr: 1 (0.4) >16 yr: 39 (15.6)	NR	NR	NR	NR	HTN: 41 (16.4) DM: 74 (29.6) CVD: 6 (2.4)	V: 176 (70.4) C: 74 (29.6)	Multiple births: 6 (2.4) NICU: 26 (10.4)
Chen, 2019, 30414598	29.5 (5.4) <30: 247 (48.2) ≥30: 265 (51.8)	NR	W: 340 (66.4) B: 51 (10) A: 66 (12.9) H: 145 (28.3) O1: 21 (4.4) O2: 34 (6.6)	HS or less: 111 (21.7) Some college: 155 (30.3) College graduate: 136 (26.6) Graduate school: 110 (21.5)	Employed full-time: 251 (49) Employed part-time: 69 (13.5) Unemployed: 71 (13.9)  Homemaker: 91 (17.8)  Full-time student: 30 (5.9)	NR	NR	NR	NR	V: 360 (70.3)	Preterm birth: 40 (7.8)

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Dahlke, 2011, 21843688	25.6	NR	W: 30 (65.2) B: 11 (23.9) H: 5 (10.9)	NR	NR	NR	NR	NR	NR	V: 46 (100)	NR
Chen, 2010, 20966692	25.1 (5.3) ≤18: 0 18-65: 102 (100) ≥65: 0	NR	W: 51 (50) B: 45 (44.1) H: 5 (4.9) O1: 6 (5.9)	NR	NR	NR	Government insurance: 75 (73.5)	NR	NR	V: 102 (100)	NR
Levi, 2015, 26241250	28.5 (5.4)	NR	W: 48 (42.9) B: 28 (25) A: 2 (1.8) H: 31 (27.7) O1: 3 (2.7)	HS or less: 53 (47.3) Some college: 46 (41.1) Graduate education: 13 (11.6)	NR	Income ≤\$250/mo: 6 (5.4) Income \$251-\$500/mo: 7 (6.3) Income \$501-\$1000/mo: 10 (8.9) Income \$1001-\$2000/mo: 33 (29.5) Income \$2001-\$3000/mo: 12 (10.7) Income ≥3000/mo: 33 (29.5) Refuse to answer: 11 (9.8)	Language Discordance : 0	NR	NR	C: 112 (100)	Stillbirth: 0 Spontaneous or induced abortion: 0
Dempsey, 2018, N/A	Median 19.2 SD (1.4)	NR	W: 15 (18.5) B: 61 (75.3) A: 1 (1.2)  O1: 4 (4.9)	NR	NR	NR	NR	NR	NR	NR	NR

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Baldwin, 2019, N/A	28.4 (6.3)	NR	H: 27 (13.7)	Up to HS/GED: 54 (27.4) More than HS: 143 (72.6)	NR	NR	Public Insurance: 95 (48.2)	NR	NR	V: 146 (74.1) C: 51 (25.9)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0
Whitaker, 2014, 24457061	27.8 (5.8)	NR	W: 8 (19.1) B: 29 (69.1) H: 3 (7.1) O1: 2 (4.8)	NR	NR	Income <\$10,000/yr: 13 (31) Income \$10,000–\$30,000/yr: 13 (31) Income >\$30,000/yr: 16 (38)	Medicaid: 30 (71.4)	NR	NR	C: 42 (100)	NR
Morse, 2016, N/A	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chen, 2018, NCT01463202	24.1 (4.8)	NR	W: 20 (12.7) B: 122 (77.7) H: 9 (5.7) O1: 15 (9.6)	NR	NR	NR	Language Discordance : 0	NR	NR	NR	Multiple births: 0
Jensen, 2019, N/A	NR	NR	NR	NR	NR	NR	Language Discordance : 0	NR	NR	NR	Multiple births: 0
Kozhimannil, 2013, 23837663	NR	NR	W: (56.8) B: (9.3) A: (0.6) H: (14.9) O1: (9.5) O2: (14.2) O3: (5.7)	NR	NR	NR	Medicaid: 52790 (100)	NR	NR	NR	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0

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Pan, 2020, 32437282	NR	NR	NR	NR	NR	NR	Medicaid: 410 (90.1)	NR	NR	NR	Preterm birth: 62 (13.6) NICU: 76 (16.7)
Edwards, 1997, 9170692	≤25: 126 (16) >25: 662 (84)	NR	NR	Less than HS: 197 (25)  At least HS: 591 (75)	NR	Household income <\$20,000: 79 (10) Household income ≥\$20,000: 709 (90)	NR	NR	NR	NR	Multiple births: 0
Falconi, 2022, 35812994	28.4 (5.4)	NR	W: 221 (37.1) B: 204 (34.2) A: 26 (4.4) H: 98 (16.4) O1: 47 (7.9)	NR	NR	Q1 (worst) 240 (40.3) Q2 144 (24.2) Q3 134 (22.5) Q4 (best) 42 (7) Missing/unknown 36 (6)	NR	Substance use disorder: 13 (2.2)	HDP: Gestational HTN 30 (5) HTN: 21 (3.5) GD: 31 (5.2)	V: 512 (85.9) C: 84 (14.1)	Preterm birth 42 (7)
Buckley, 1990, 2328162	18 (16-36)	NR	W: 47 (79.7) B: 5 (8.5) H: 7 (11.9)	NR	NR	NR	Medicaid: 44 (74.6)	NR	NR	V: 52.0 (88.1) C: 7 (11.9)	NR

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Tandon, 2021, 33655429	26.3 (5.83)	NR	W: 245 (29.7) O1: 579 (70.3)	HS graduate or less: 493 (59.8) Some college: 331 (40.2)	Unknown: 14 (1.7) Unemployed: 520 (63.1)  Employed part-time: 167 (20.3) Employed full-time: 123 (14.9)	Income ≤\$25,000/yr: 584 (70.9) Income \$25,000–\$49,999/yr: 151 (18.3) Income \$50,000–\$74,999/yr: 32 (3.9) Income \$75,000–\$99,999/yr: 13 (1.6) Income ≥\$100,000/yr: 12 (1.5) Unknown: 32 (3.9)	Born outside US: 97 (11.8)	NR	NR	NR	NR
Simmons, 2013, 23218851	25.3 (4.8) (18-38) <25: 26 (53.1) ≥25: 23 (46.9)	NR	W: 34 (69.4) O1: 15 (30.6)	HS or less: 24 (49) Some college or higher: 25 (51)	NR	Low-income: 49 (100)	Oregon Medicaid: 49 (100)	NR	NR	V: 33 (67.4) C: 16 (32.6)	NR
Dennis, 2002, 11800243	16–24: 35 (13.7) 25–34: 191 (74.6) ≥35: 30 (11.7)	NR	NR	Some HS: 65 (25.4) Some college: 165 (64.5)  Some postgraduate: 26 (10.2)	NR	Income ≤\$39999/yr: 41 (16) Income \$40000–\$79999/yr: 101 (39.5) Income ≥\$80000/yr: 98 (38.3)	Not born in North America: 35 (13.7)	NR	NR	V: 197 (77) C: 59 (23)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0 Neonatal death: 0 Congenital anomalies: 0
Reeder, 2014, 25092936	27.2	NR	W: (54.7) H: (93.7) O1: (6.3)	No or some HS: (41.7) At least HS graduate: (58.3)	NR	NR	WIC eligible: 1885 (100)	NR	NR	V: 1338 (71) C: 547 (29)	NR

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Gross, 1998, 12515413	22.1 (5.7)	NR	B: 115 (100)	Less than HS diploma: 84 (73) HS diploma: 18 (15.7) More than HS diploma: 13 (11.3)	Employed before pregnancy: 26 (22.6)	NR	WIC eligible: 115 (100)	NR	NR	NR	Multiple births: 0
Anderson, 2005, 16143742	<20: 18 (13.3) 20-30: 91 (67.4) ≥30: 26 (19.3)	NR	W: 10 (7.4) B: 24 (17.8) H: 97 (71.9) O1: 4 (3)	Less than or some HS: 47 (34.8) HS graduate: 45 (33.3) More than HS: 43 (31.9)	Unemployed: 85 (63) Employed part-time: 36 (26.7)  Employed full-time: 14 (10.4)	NR	WIC participation : 122 (90.4)	OUD: 0	HDP: 0 HTN: 0 GD: 0 DM: 0 CVD: 0	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0
Chapman, 2004, 15351756	24.8 (5.8)	NR	W: (3.6) B: (8.5) H: (80) O1: (7.9)	11.6 (2.7)	Full-time: (15.9) Part-time: (22) Unemployed: (62.2)	NR	WIC participation : (72.1)	NR	NR	V: (75.6) C: (24.4)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0 Neonatal death: 0 Congenital anomalies: 0
Wambach, 2011, 20876551	17 (0.9) (15-18)	NR	B: (61)	In school: (71)  Not in school: (29)	Unemployed: (81.8) Employed part-time: (13.2)  Employed full-time: (5)	Family income <\$25,000/yr: (75) Family income ≥\$25,000/yr: (25)	NR	NR	NR	NR	Multiple births: 0 Spontaneous or induced abortion: 0  NICU: 0

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Chapman, 2013, 23209111	Median 24 (21- 31)	Median 31.8 (28.5-37.0)	W: 8 (5.2) B: 16 (10.4) H: 126 (81.8) O1: 4 (2.6)	Median 12 (10-12)	Employed prenatally: 50 (32.5)  Not employed prenatally: 104 (67.5)	NR	Not born in the US/ Puerto Rico: 67 (43.5) Receiving SNAP: 68 (44.2) Receiving WIC: 134 (87)	NR	NR	V: 94 (61) C: 60 (39)	Multiple births: 0 Stillbirth: 0  Preterm birth: 0
Srinivas, 2015, 25193602	NR	NR	W: 44 (42.7) B: 28 (27.2) H: 27 (26.2) O1: 7 (6.8)	Did not complete HS or GED: 61 (59.2)  Completed HS or GED: 42 (40.8)	Unemployed: 64 (38.1)  Employed: 39 (61.9)	NR	Public insurance: 87 (84.5)	NR	NR	NR	NR
Kerver, 2019, N/A	NR	NR	B: 53 (100)	NR	NR	NR	WIC: 53 (100)	NR	NR	NR	NR
Porteous, 2000, 11155608	NR	NR	W: 49 (96.1) O1: 2 (3.9)	HS or less: 19 (37.3)  Beyond HS: 32 (62.7)	NR	NR	NR	NR	NR	V: 51 (100)	NR
Rasmussen, 2011, 20958105	27 (8.9)	40.7 (6.8) Peripartum	NR	NR	NR	NR	WIC and/ or PCAP participation : 21 (53)	NR	NR	V: 26 (65) C: 14 (35)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0



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Bonuck, 2014a, 24354834	28.1 (5.7)	<25: 104 (39.7) 25-29.9: 77 (29.4) ≥30: 81 (30.9)	W: 13 (5) B: 75 (28.6) A: 7 (2.7) H: 146 (55.7) O1: 21 (8)	No or some HS: 32 (12.2)  HS graduate: 230 (87.8)	NR	NR	Non-US born: 106 (40.5) WIC: 103 (39.3)	NR	NR	V: 174 (66.4) C: 88 (33.6)	Multiple births: 0 NICU: 0
Bonuck, 2014b, 24354834	27.7 (6)	<25: 199 (31.7) 25-29.9: 164 (26.1) ≥30: 241 (38.3)	W: 28 (4.5) B: 179 (28.5) A: 12 (1.9) H: 357 (56.8) O1: 52 (8.3)	No or some HS: 145 (23.1)  HS graduate: 483 (76.9)	NR	NR	Non-US born: 188 (29.9) WIC: 376 (59.9)	NR	NR	V: 387 (61.6) C: 241 (38.4)	Multiple births: 0 NICU: 0
Uscher-Pines, 2020, 31629118	26.5 (5.1)	<30: 177 (94.7) ≥30: 10 (5.3)	W: 180 (96.3) H: 3 (1.6)	No or some HS: 84 (44.9)  HS graduate: 103 (55.1)	NR	Income ≤\$14,999/yr: 30 (16.4) Income \$15,000–\$24,999/yr: 21 (11.2) Income \$25,000–\$39,999/yr: 24 (12.8) Income \$40,000–\$54,999/yr: 28 (15) Income \$55,000–\$79,999/yr: 35 (18.7) Income ≥\$80,000/yr: 28 (15)	Public insurance: 92 (49.2)	NR	HTN: 10 (5.3) DM: 2 (1.1)	V: 106 (56.7) C: 81 (43.3)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 26 (13.9) NICU: 0

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Rutledge, 2016, 27350389	<18: 800 (12.2) 18-35: 5331 (81.3) >35: 426 (6.5)	NR	W: 3862 (58.9) B: 2406 (36.7) A: 118 (1.8) H: 898 (13.7)	High school or less: 29 (44.9) Missing data: 2400 (36.6)	NR	NR	NR	Substance use disorder: 564 (8.6)	NR	NR	Multiple births 0 (0) Stillbirth 0 (0)
Tsai, 2011, 21365543	26.3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mendez-Figueroa, 2014, 24481876	29.8 (6.2)	29.9 (7.7)	W: 101 (26) B: 55 (14.2) A: 37 (9.5) H: 156 (40.2) O1: 36 (9.3)	NR	NR	NR	Language discordance with provider: (Different primary languages): 134 (34.5) Medicaid: Public funding 288 (74.2)	NR	GD: GDM 388 (100)	NR	Multiple births: 6 (1.5)
Clark, 2009, 19268878	≥ 30 y: 173 (77.6)	≥ 30 (kg/m <sup>2</sup> ): 73 (32.7)	W: 137 (61.4)	Postsecondary 182 (81.6)	NR	NR	NR	NR	GD: 223 (100)	V: 61.4 C: 38.6	Stillbirth 0 (0) Preterm birth 27 (12.1)

Study, Publication Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous	SUDs	Chronic Conditions	Delivery Type	Offspring Characteristics
Shea, 2011, 21466755	33.7 (5)	27.1 (6.3) Antepartum Unknown: 28 (10.7) Normal: 104 (39.7) Overweight: 64 (24.4) With obesity: 66 (25.2)	NR	NR	NR	Missing: 3 (1.1) SES1 (lowest): 67 (25.6) SES 2: 44 (16.8) SES 3: 57 (21.8) SES 4: 51 (19.5) SES 5 (highest): 40 (15.3)	NR	NR	HDP: 20 (7.6) GD: 262 (100) PE: 13 (5)	V: 165 (63) C: 97 (37)	Multiple births: 8 (3.1)
Martinez-Brockman, 2018, 29325660	26.8 (5.6)	28 (7.4) Antepartum	H: 127 (74.7) O1: 43 (25.3)	Less than or some HS: 22 (15.3) HS graduate: 62 (43.1) More than HS: 60 (41.7)	NR	Income ≤\$1,000/mo: 41 (24.1) Income ≥\$1,000/mo: 35 (20.6) Don't know /refused: 94 (55.3)	SNAP: 81 (47.9) WIC: 174 (100)	NR	NR	NR	Multiple births: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0
Abbass-Dick, 2020, 32739716	18-30: 82 (37.8) ≥31: 135 (62.2)	NR	NR	Did not attend university: 55 (25) Attended university: 162 (75)	NR	Household income (CAD/yr): CAD ≤60,000: (14.2) CAD >60,000: (85.8)	Not born in Canada: 54 (24.9)	NR	NR	V: 79 (69.9) C: 34 (30.1)	Multiple births: 0

Study, Publication Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous	SUDs	Chronic Conditions	Delivery Type	Offspring Characteristics
Bender, 2022, 36201773	31.6 (5.8)	Median 32.2 (26.3-38.0)	W: 66 (30.6) B: 114 (52.8) A: 17 (7.9) H: 15 (6.9) O1: 6 (2.8)	NR	NR	NR	Language discordance with provider (unable to communicate using English-language text messages) 0 (0) Irregular access to the internet: (unable to access a personal cellular telephone with unlimited text messaging) 0 (0) Medicaid: Public or uninsured 98 (45.4)	NR	HDP (Severe PE) 10 (4.6) HTN: (Chronic) 8 (3.7) DM: 33 (15.2)	V: 147 (68.1) C: 69 (31.9)	Multiple births: 0 (0) Stillbirth: 0 (0) Spontaneous or induced abortion: 0 (0) Preterm birth: 0 (0) NICU: 0 (0) Congenital anomalies: 0 (0)

Study, Publication Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous	SUDs	Chronic Conditions	Delivery Type	Offspring Characteristics
Ahmed, 2016, 26779838	29.6 (6.4) <20: 8 (7.5) 20–29: 42 (39.6) ≥30: 56 (52.8)	NR	W: 72 (67.9) B: 24 (22.6) A: 3 (2.8) H: 4 (3.8) O1: 3 (2.8)	Less than or HS graduate: 34 (32.1) Associate's degree: 12 (11.3)  Bachelor's degree: 35 (33) Graduate degree: 25 (23.6)	NR	Income (\$/yr): <10,000: 15 (14.2) 10,000-\$24,999: 15 (14.2) \$25,000-\$49,999: 14 (13.2) ≥\$50,000: 62 (58.5)	NR	NR	NR	V: 78 (73.6) C: 28 (26.4)	Multiple births: 0 Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 0 NICU: 0
Domingo, 2022, 35237835	32.6 (5.84)	34.7 (5.81)	W: 8 (3.3) B: 37 (15) A: 29 (11.8) H: 172 (69.9)	NR	Employed: 67 (27.2) Unemployed: 179 (72.8)	NR	Medicaid: Enrolled 228 (92.7) WIC: Enrolled 183 (74.4)	NR	GD: Diagnosed 246 (100)	V: 159 (64.6) C: 87 (35.3)	NR

Abbreviations: A = Asian, B = Black, BMI = body mass index, C = Cesarean delivery, CVD = cardiovascular disorders, DM = diabetes mellitus, GD = gestational diabetes, H = Hispanic, HS = high school, HDP = hypertensive disorders of pregnancy, HTN = hypertension, NICU = Neonatal intensive care unit, O = Other, OUD = opioid use disorder, PCAP = Prenatal Care Assistance Program, PE = Preeclampsia, PMID = PubMed ID, PP = Postpartum, SD = standard deviation, SES = socioeconomic status, SNAP = Supplemental Nutrition Assistance Program, SUD = substance use disorder, V = vaginal delivery, W = White, WIC= women, Infants, and Children

No studies reported on sexual/gender identity status of participants.

**Table C-2.1. Key Question 2: Extension of healthcare or insurance coverage – summary of design and arm details**

Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
Arora, 2018, 29490290	OH	Non-industry (2012-2014)	High	Sterilization as the documented contraceptive plan	Sterilized before study or died	1184	Contraceptive care	More comprehensive insurance	154	Private insurance
	.	.	.	.	.	.	.	Less comprehensive insurance	1030	Medicaid insurance
Austin, 2022, 34974107	20 states	Non-industry (2009-2018)	Moderate	Age ≥18 yr Income <138% FPL	NR	82728	General PP care	More comprehensive insurance coverage	51200	Medicaid expansion states
	.	.	.	.	.	.	.	Less comprehensive insurance coverage	31528	Medicaid non-expansion states
Brant, 2021, 34619694	OH	Non-industry (2015-2019)	Moderate	Gestational age ≥20 wk	Birth outcome not a liveborn neonate	8516	Contraceptive care	More comprehensive access to care	2129	Law that required hospitals to offer LARC placement after delivery (2017-2019)
	.	.	.	.	.	.	.	Less comprehensive access to care	6387	No law that required hospitals to offer after delivery (2015-2017)
Caudillo, 2022, 35488950	16 states	Non-industry (2012-2017)	Moderate	NR	NR	47109	Contraceptive care	More comprehensive insurance	2504	Delaware (After Delaware Contraceptive Access Now (DeICAN) initiative)
	.	.	.	.	.	.	.	Less comprehensive insurance	44605	15 other states (no Delaware Contraceptive Access Now (DeICAN) initiative)
Cilenti, 2015, 25627330	NC	Non-industry (2009-2010)	Moderate	Delivery covered by NC Medicaid	NR	1969	General PP care	More comprehensive insurance	1007	Before change in Medicaid policy reducing reimbursement rates for maternity care coordination by 19%
	.	.	.	.	.	.	.	Less comprehensive insurance	962	After change in Medicaid policy reducing reimbursement rates for maternity care coordination by 19%
DeSisto, 2020, 32335806	WI	Non-industry (2011-2015)	Moderate	Live births. Medicaid.	NR	105718	General PP care	More comprehensive insurance	79172	Continuous Medicaid eligibility

Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
	.	.	.	.	.		.	Less comprehensive insurance	26546	Pregnancy-only Medicaid eligibility
Dunlop, 2020, 32958368	OH	Non-industry (2011-2015)	Moderate	Age 20-44 yr Medicaid	Medicaid eligibility based on disability	138426	Contraceptive care	More comprehensive insurance	54477	After Medicaid expansion (2014-2015)
	.	.	.	.	.	.	.	Less comprehensive insurance	83949	Before Medicaid expansion (2011-2013)
Eliason, 2021, 34870677	15 states	Non-industry (2011-2018)	Moderate	Age >18 yr Income 100%-138% of FPL	NR	5034	General PP care	More comprehensive insurance	3389	Medicaid expansion states
	.	.	.	.	.	.	.	Less comprehensive insurance	1645	Medicaid non-expansion states
Eliason, 2022, 35259409	11 states	Non-industry (2012-2019)	Moderate	Age ≥18 yr Income ≤138% FPL	NR	34598	General PP care	More comprehensive insurance	25781	Medicaid expansion states
	.	.	.	.	.	.	.	Less comprehensive insurance	8817	Medicaid non-expansion states
Gordon, 2020, 31905073	CO, UT	Non-industry (2013-2015)	Moderate	Age ≥19 yr Live birth	NR	66672	General PP care	More comprehensive insurance	42144	CO (after Medicaid expansion)
	.	.	.	.	.	.	.	Less comprehensive insurance	24528	UT (no Medicaid expansion)
Koch, 2022, 35588793	MO	NR (2017-2019)		Gestational age >24 wk	NR	6233	Contraceptive care	More comprehensive insurance	3128	After policy change for separate LARC reimbursement
	.	.	.	.	.	.	.	Less comprehensive insurance	3105	Before policy change for separate LARC reimbursement

Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
Kozhimannil 2011, 21485419	MA	Non-industry (2001-2007)	Moderate	NR	NR	2509	General/ Overall PP care	More comprehensive insurance	2280	Full coverage of AP and PP care, no cost sharing beyond office visit and hospitalization copayments. Out-patient visit copayments \$5-\$25 (median \$15). Hospitalization copayments \$0-\$1000 (median \$250).
	.	.	.	.	.	.	.	Less comprehensive insurance	229	Annual deductible \$500-\$2000 for individuals and \$1000-\$4000 for families. Out-of-pocket maximum \$2000-\$4000 for individuals and \$4000-\$8000 for families.
Kramer, 2021, 33849768	WI	Non-industry (2016-2017)	Moderate	Overall/general PP/ pregnant population Medicaid	NR	45200	Contraceptive care	More comprehensive insurance	22405	After unbundling (separate or additional reimbursement for immediate PP LARC)
	.	.	.	.	.	.	.	Less comprehensive insurance	22795	Before unbundling (no separate or additional reimbursement for immediate PP LARC)
Liberty, 2020, 31846612	SC	Non-industry (2010-2017)	Moderate	Gestational age $\geq$ 23 wk Singleton pregnancy	Births covered by Emergency Medicaid	164004	Contraceptive care	More comprehensive insurance	108430	After policy covering immediate PP LARC (2013-2017)
	.	.	.	.	.	.	.	Less comprehensive insurance	55574	Before policy covering immediate PP LARC (2010-2012)
Margerison, 2021, 34606358	18 states	Non-industry (2012-2018)	Moderate	Age $\geq$ 18 yr Household income $\leq$ 137% of FPL	NR	56965	General/ Overall PP care	More comprehensive insurance	NR	Medicaid expansion states
	.	.	.	.	.	.	.	Less comprehensive insurance	NR	Medicaid non-expansion states
Myerson, 2020, 33136489	13 states	NR (2011-2017)	Moderate	Household income $\leq$ 138% of FPL Live birth	NR	15059	Contraceptive care	More comprehensive insurance	9135	Medicaid expansion states



Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
	.	.	.	.	.	.	.	Less comprehensive insurance	5924	Medicaid non-expansion states
Okoroh, 2018, 29530670	IA, LA	NR (2013-2015)	Moderate	Medicaid	NR	57894	Contraceptive care	More comprehensive insurance	NR	After Medicaid expansion (2014-2015)
	.	.	.	.	.	.	.	Less comprehensive insurance	NR	Before Medicaid expansion (2013-2014)
Pace, 2022, 34908011	MA, ME	Non-industry (2009-2015)	High	Age 13-45 yr Medicaid insurance	NR	776853	General PP care	More comprehensive insurance	691867	Massachusetts (after Medicaid expansion)
	.	.	.	.	.	.	.	Less comprehensive insurance	84986	Maine (after Medicaid contraction)
Redd, 2019, 30484739	OK, WI, MD, MN, MO, NY, OR, PA, WA	Non-industry (2007-2013)	Moderate	Live birth	NR	75082	Contraceptive care	More comprehensive insurance	19882	Transition from the Medicaid 1115 waiver, which allowed states to expand eligibility to some individuals otherwise ineligible Medicaid coverage, to the State Plan Amendment, which provides contraceptive care to all
	.	.	.	.	.	.	.	Less comprehensive insurance	55200	Maintenance of the Medicaid 1115 waiver, which allowed states to expand eligibility to some individuals otherwise ineligible Medicaid coverage
Rodriguez, 2008, 18692614	OR	NR (2000-2006)	Moderate	Convenience sample based on available billing data	NR	11526	Contraceptive care	More comprehensive insurance	7832	Before policy requiring undocumented immigrants and legal immigrants within 5 years of immigration with Emergency Medicaid to pay for sterilization following vaginal delivery

Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
	.	.	.	.	.	.	.	Less comprehensive insurance	3694	After policy requiring undocumented immigrants and legal immigrants within 5 years of immigration with Emergency Medicaid to pay for sterilization following vaginal delivery
Rodriguez, 2021, 34910148	OR, SC	Non-industry (2014-2019)	Moderate	Age 15-44 yr Low-income, noncitizen, Emergency Medicaid.	LARC	27667	General PP care	More comprehensive insurance	15465	Oregon (after Medicaid expansion)
	.	.	.	.	.	.	General PP care	Less comprehensive insurance	12202	South Carolina (no Medicaid expansion)
Schuster, 2022, 34670222	MO, NE, OK, UT, WY	Non-industry (2012-2015)	Moderate	Family income <100% or >400% of FPL	Uninsured for pregnancy	9472	General/ Overall PP care	More comprehensive insurance	4797	After Medicaid expansion (2014-2015)
	.	.	.	.	.	.	.	Less comprehensive insurance	4675	Before Medicaid expansion (2012-2013)
Smith, 2021, 34109490	GA	NR (2015-2017)	Moderate	Age ≤44 yr	NR	5648	Contraceptive care	More comprehensive insurance	3683	After Medicaid policy covering inpatient LARC (2016-2017)
	.	.	.	.	.	.	.	Less comprehensive insurance	1965	Before Medicaid policy covering inpatient LARC (2015)
Steenland, 2021a, 33523747	SC	Non-industry (2010-2014)	Moderate	Age 12-50 yr Births covered by South Carolina Medicaid	NR	154163	Contraceptive care	More comprehensive insurance	NR	After Medicaid policy of payment for immediate PP LARC (Feb 2012-2014)
	.	.	.	.	.	.	.	Less comprehensive insurance	NR	Before Medicaid policy of payment for immediate PP LARC (2011-Jan 2012)
Steenland, 2021b, 35977301	AR	Industry (2013-2015)	High	Age ≥19 yr	NR	50364	General PP care	More comprehensive insurance	40785	After Medicaid expansion (2014-2015)
	.	.	.	.	.	.	.	Less comprehensive insurance	9579	Before Medicaid expansion (2013)

Author, Year, PMID	State(s)	Funding (Study Years)	Overall RoB	Inclusion Criteria	Exclusion Criteria	Study N	Focus of Study	Arm	Arm N	Arm Description
Symum, 2022, 35628011	FL	Not funded (2010-2017)	Moderate	Hospital delivery	NR	1454699	General PP care	More comprehensive insurance	662981	After Statewide Mandatory Medicaid Managed Care (2014-2017)
	.	.	.	.	.	.	.	Less comprehensive insurance	791718	Before Statewide Mandatory Medicaid Managed Care (2010-2014)
Taylor, 2020, 31397625	NC	Non-industry (2014-2015)	Moderate	Age ≥18 yr Gestational age ≤42 wk Live birth	Insurance not commercial, Medicaid, or uninsured	9613	General/ Overall PP care	Commercial insurance	4441	NR
	.	.	.	.	.	.	.	Medicaid insurance	4990	NR
	.	.	.	.	.	.	.	No insurance	182	NR
Wang, 2022, 35592081	TX	NR (2019-2020)	High	Age 14-48 yr Singleton pregnancy	NR	8876	General PP care	More comprehensive insurance	5411	After Families First Coronavirus Response Act (2020)
	.	.	.	.	.	.	.	Less comprehensive insurance	3465	Before Families First Coronavirus Response Act (2019)

Abbreviations: AP = antepartum, FPL = federal poverty limit, LARC = long-acting reversible contraception, NR = not reported, PMID = PubMed ID, PP = postpartum, RoB = risk of bias

All studies were retrospective nonrandomized comparative studies (NRCSs).

**Table C-2.2. Key Question 2: Extension of healthcare or insurance coverage – summary of sample details**

Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
Arora, 2018, 29490290	30 (5.4)	NR	W: 363 (30.7) B: 592 (50.0) A: 10 (0.9) H: 186 (15.7) O: 33 (2.8)	No college: 785 (66.3) Some college: 399 (33.7)	NR	NR	Medicaid: 1030 (87)	NR	V: 698 (59.0) C: 486 (41.0)	Preterm birth: 234 (19.8)
Austin, 2022, 34974107	18-24: (44.8) 25-29: (28.3) 30-34: (16.9) >35: (9.9)	NR	W: (43.2) B: (20.5) H: (28.9) O1: (7.5)	Less than HS (26.5) HS diploma or GED (38.9) Some college (28.1) College degree or more (6.5)	NR	NR	Medicaid: (74.2)	NR	NR	NR
Brant, 2021, 34619694	30.3 (5.5)	32.6 (6.8)	W: 5526 (64.5) B: 1592 (18.7) H: 459 (5.4) O: 939 (11.4)	NR	NR	NR	Medicaid: 2840 (33.3)	HTN: 768 (9)	V: 5902 (69.3) C: 2614 (30.7)	Stillbirth: 0 Spontaneous or induced abortion: 0 Preterm birth: 695 (8.2) Neonatal death: 0
Caudillo, 2022, 35488950	<20: (5.9) 20-24: (20.7) 25-29: (30.5) 30-34: (28.3) ≥35: (14.4)	NR	W: (61.9) B: (13.2) A: (4.6) H: (16.3) O1: (4.0)	<HS (13.3) HS (23.6) Some college (28.8) Bachelors or more (34.3)	NR	NR	Medicaid: (42.8)	NR	V: (67.9) C: (32.1)	NR
Cilenti, 2015, 25627330	NR	NR	NR	NR	NR	NR	Medicaid: 1969 (100)	NR	NR	NR

Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
DeSisto, 2020, 32335806	<20: (11) 20-24: (31.7) 25-29: (29.6) 30-34: (18.5) >35: (9.3)	NR	W: (55.6) B: (17.4) A: (13.4) H: (13.7)	<High school/GED (19.8) High school diploma/GED (38.9) >High school/GED (40.8) Unknown (0.6)	NR	NR	Medicaid: (100)	HDP: Gestational HTN (5.3) HTN: Pre-pregnancy HNT (2.3) GD: (6.6) DM: Pre-pregnancy diabetes (1.2)	V: (74.4) C: (25.6)	Multiple births (1.2) Stillbirth (0) Spontaneous or induced abortion (0) Preterm birth (9.3)
Dunlop, 2020, 32958368	20-24: 61270 (44.3) 25-34: 67255 (48.6) 35-44: 9901 (7.1)	NR	W: 87855 (63.5) B: 41313 (29.8) H: 6121 (4.4) O: 3151 (2.3)	Unknown: 1252 (0.9) College graduate: 6663 (4.8) Some college: 54028 (39) HS graduate: 52157 (37.5) Less than HS graduate: 24326 (17.8)	NR	NR	Medicaid: Ohio Medicaid: NR (100)	NR	NR	NR
Eliason, 2021, 34870677	18-24: 1862 (37) 25-30: 1483 (29.5) 30-34: 1066 (21.2) 35-39: 479 (9.5) ≥40: 143 (2.8)	NR	W: 2413 (47.9) B: 730 (14.5) A: 144 (2.8) H: 973 (19.3) O1: 315 (6.3)	HS or less 2472 (49.1) More than HS 2494 (49.5) Missing 68 (1.4)	NR	NR	NR	NR	NR	NR
Eliason, 2022, 35259409	18-24: (49.6) 25-29: (28.9) 30-34: (14.3) 35-39: (5.6) ≥40: (1.6)	NR	W: (65.5) B: (14.7) A: (1.5) H: (12.8) O1: (4.6)	HS or less (56.1) More than HS (42.8) NR (1.1)	NR	NR	NR	NR	NR	NR

Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
Gordon, 2020, 31905073	19-24: 27395 (41.1) 25-39: 38125 (57.2) 40-53: 1152 (1.7)	NR	NR	NR	NR	NR	Medicaid: 66672 (100)	NR	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 Neonatal death: 0
Koch, 2022, 35588793	27.6 (5.9)	BMI ≤30: 2910 (46.7) BMI >30: 3323 (53.3)	W: 2014 (32.3) B: 3351 (53.8) A: 233 (3.7) H: 265 (4.3)	NR	NR	NR	Medicaid: 3902 (62.6)	NR	V: 3858 (61.9) C: 2354 (37.8)	NR
Kozhimannil, 2011, 21485419	33.0 (95% CI 32.8, 33.2)	NR	NR	NR	Employed: 2509 (100)	Low*: 417 (16.6) Not low*: 2092 (83.4)	Medicaid: 0 (0)	GD: 99 (4)	V: 1658 (66.1) C: 851 (33.9)	Preterm birth: 233 (9.3)
Kramer, 2021, 33849768	<20: 3803 (8.4) 20-24: 12876 (28.5) 25-29: 14639 (32.4) 30-34: 9201 (20.4) ≥35: 4681 (10.4)	NR	W: 22562 (49.9) B: 10517 (23.3) H: 7696 (17) O: 4425 (9.8)	NR	NR	NR	Medicaid: 45200 (100)	NR	NR	NR
Liberty, 2020, 31846612	25.0 (5.4)	NR	W: 83788 (44.7) B: 86869 (46.3) H: 6780 (3.6) O1: 1769 (0.9)	NR	NR	NR	Medicaid: 164004 (100)	HDP: 12354 (6.6) HTN: Chronic HTN 5586 (3) GD: 10072 (5.4) DM: Pre-pregnancy diabetes 1958 (1)	V: 124451 (66.4) C: 63064 (33.6)	Multiple births: (0) Preterm birth 20447 (10.9)

Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
Margerison, 2021, 34606358	NR	NR	W: 27970 (49.1) B: 9969 (17.5) A: 1196 (2.1) H: 13890 (24.4) O1: 1709 (3) O2: 2507 (4.4)	NR	NR	NR	Medicaid: 31957 (56.1)	NR	NR	NR
Myerson, 2020, 33136489	20-24: 5680 (37.7) 25-29: 4888 (32.5) 30-34: 2900 (19.3) 35-39: 1226 (8.1) 40+: 326 (2.2)	NR	W: 7524 (50) B: 2608 (17.3) A: 1469 (9.8) H: 3459 (23)	<12 years: 3392 (22.5) 12 years: 5605 (37.2) 13-15 years: 4799 (31.9) ≥16 years: 1480 (9.8)	NR	NR	NR	NR	NR	Stillbirth: 0 Neonatal death: 0 Congenital anomalies: 0
Okoroh, 2018, 29530670	NR	NR	NR	NR	NR	NR	Medicaid: 57894 (100)	NR	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 Neonatal death: 0
Pace, 2022, 34908011	NR	NR	NR	NR	NR	NR	Medicaid: (100)	NR	NR	NR
Redd, 2019, 30484739	≤20: 6365 (9) 20-24: 16390 (22) 25-34: 39223 (52) ≥35: 13097 (17)	NR	W: 44084 (59) B: 12631 (17) A: 5357 (7) O1: 12329 (17) O2: NR	Some HS: 12274 (16) HS graduate: 18465 (25) Some college: 20787 (28) College graduate: 23108 (31)	NR	NR	Medicaid: 13862 (18) WIC during pregnancy: 35942 (48)	NR	NR	NR
Rodriguez, 2008, 18692614	26 (NR)	NR	NR	NR	NR	NR	Immigrants on Emergency Medicaid: 6286 (54.5)	NR	V: 8520 (73.9) C: 3006 (26.1)	NR

Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
Rodriguez, 2021, 34910148	29.4 (6) <20: 1172 (4.2) 20-34: 20449 (73.9) ≥35: 6046 (21.9)	NR	W: 1005 (3.6) B: 473 (1.7) A: 1367 (4.9) H: 18408 (66.5) O1: 5759 (20.8) O2: 70 (0.3) O3: 585 (2.1)	NR	NR	NR	Immigrant: non-citizens 27667 (100) Medicaid: Emergency Medicaid Coverage 27667 (100)	NR	V: 20043 (72.4) C: 7624 (27.6)	Preterm birth 2165 (7.8)
Schuster, 2022, 34670222	<25: 2341 (24.5) 25-34: 6 (65.2) ≥35: 1086 (10.3)	NR	W: 20382 (82.7) B: 536 (5.2) O: 1741 (12)	<HS: 614 (5.1) HS: 1997 (18.8) Some college: 3691 (41.1) At least Bachelor's degree: 3060 (35)	NR	Household income 100-250% of federal poverty: 6984 (73) Household income 251-400% of federal poverty: 2488 (27)	Medicaid: 2082 (20.6)	HTN: 449 (3.6) DM: 243 (2)	NR	NICU: 2207 (11.8)
Smith, 2021, 34109490	NR	NR	NR	NR	NR	NR	Medicaid: 4417 (78.2)	NR	NR	NR
Steenland, 2021a, 33523747	24.9 (5.5) 12-19: 23778 (15.4) 20-50: 13 (84.6)	NR	W: 65770 (42.8) B: 65958 (42.9) H: 15584 (10.1) O: 6335 (4.1)	NR	NR	NR	Medicaid: 154163 (100)	NR	NR	NR
Steenland, 2021b, 35977301	27.1 19-24: (44.5) 25-30: (35.5) 31-35: (12.3) 36-50: (8.7)	NR	W: (62.3) B: (24.3) H: (8.6) O1: (4.8)	Less than college (88.2) College or higher (11.8)	NR	NR	NR	NR	V: (66.7) C: (33.3)	NR



Author, Year, PMID	Age in Years, Mean (SD) or as Specified	BMI, Mean (SD) or as Specified	Race, N (%)	Educational Attainment in Years, Mean (SD) or as Specified	Employment Status	SES	Miscellaneous N (%)	Chronic Conditions	Delivery Type	Offspring Characteristics
Symum, 2022, 35628011	Median (28) <18: 27026 (1.8) 18-30: 858875 (57.2) 30-40: 566371 (37.8) >40: 47722 (3.2)	NR	W: 724174 (48.3) B: 347720 (23.2) H: 329438 (22.9) O1: 79979 (5.3)	NR	NR	NR	Medicaid beneficiaries (54.6)	NR	V: 915390 (61.1) C: 584604 (38.9)	Preterm birth 122566 (8.1)
Taylor, 2020, 31397625	18-24: 2088 (21.7) 25-34: 5698 (59.3) ≥35: 1827 (19)	Under-weight: 94 (1.0) Normal: 3586 (37.3) Overweight: 2897 (30.1) With obesity: 2400 (25.0) With severe obesity: 636 (6.6)	W: 2709 (28.2) B: 2593 (27.0) H: 2881 (30.0) O: 1430 (14.9)	NR	NR	NR	Medicaid: 4990 (51.9)	HTN: 269 (2.8) DM: 120 (1.2)	NR	Stillbirth: 0 Spontaneous or induced abortion: 0 Neonatal death: 0
Wang, 2022, 35592081	26.9 (5.5) 14-24: 3107 (35) 25-34: 4704 (53) 35-48: 1065 (12)	NR	NR	NR	NR	NR	NR	HTN: 440 (5) DM: 204 (2.3) Asthma 661 (7.4)	NR	Multiple births: (0) Preterm birth 1934 (21.8)

Abbreviations: A = Asian, B = Black, BMI = body mass index, C = Cesarean delivery, CV = cardiovascular, DM = diabetes mellitus, GD = gestational diabetes, H = Hispanic, HS = high school, HTN = hypertension, O = Other, PMID = PubMed ID, SD = standard deviation, SES = socioeconomic status, V = vaginal delivery, W = White, WIC= women, Infants, and Children

\*Defined as living in a census tract with either >25% of adults having less than a HS education or >10% of households living below the poverty level.

No studies reported on sexual/gender identities or substance use disorders.

## Appendix D. Results: Risk of Bias

Tables D-1.1 to D-2.2 summarize the risk of bias assessment of all 92 studies. Tables D-1.1 to D-1.3 address Key Question 1 and Tables D-2.1 and D-2.2 address Key Question 2. Tables D-1 to D-4 summarize the 92 studies.

**Table D-1.1. Key Question 1: Risk of bias assessment – randomized controlled trials**

Study, Year, PMID	Random Sequence Generation	Allocation Concealment	Blinding of Participants/ Care Providers	Blinding of Outcome Assessors	Incomplete Outcome Data	Selective Outcome Reporting	Other Bias	Overall Risk of Bias
Abbas-Dick, 2020, 32739716	Low	Low	High	High	Low	Low	Low	MODERATE
Ahmed, 2016, 26779838	Low	Unclear	High	High	High	Low	Low	HIGH
Anderson, 2005, 16143742	Low	Unclear	High	High	Low	Low	Low	MODERATE
Baldwin, 2019, N/A	Low	Unclear	High	Unclear	Low	Low	Low	MODERATE
Bender, 2022, 36201773	Low	Low	High	High	Low	Low	Low	MODERATE
Bernard, 2018, 29778586	Low	Unclear	High	High	Low	Low	Low	MODERATE
Bonuck, 2014a, 24354834	Low	Low	High	High	Low	Low	Low	MODERATE
Bonuck, 2014b, 24354834	Low	Unclear	High	High	Low	Low	Low	MODERATE
Chapman, 2013, 23209111	Unclear	Unclear	High	High	Low	Low	Low	HIGH
Chapman, 2004, 15351756	High	Unclear	High	Low	Low	Low	Low	HIGH
Chen, 2010, 20966692	Low	Unclear	High	High	Low	Low	Low	MODERATE
Chen, 2018, N/A	Unclear	Unclear	High	High	High	Low	Low	HIGH
Clark, 2009, 19268878	Low	Unclear	High	Low	Low	Low	Low	MODERATE
Dahlke, 2011, 21843688	Low	Low	Low	High	Low	Low	Low	LOW
Dempsey, 2018, N/A	Low	Low	High	High	Low	Low	Low	MODERATE
Dennis, 2002, 11800243	Low	Low	High	Low	Low	Low	Low	LOW
Dodge, 2019, 31675088	Low	Unclear	High	Low	Low	Low	Low	MODERATE
Edwards, 1997, 9170692	Low	Low	High	Low	Low	Low	Low	LOW
Edwards, 2013, 24187119	Unclear	Unclear	High	Low	High	Low	Low	HIGH
Escobar, 2001, 11533342	Low	Unclear	High	High	Unclear	Low	Low	HIGH
Gagnon, 2002, 12042545	Low	Low	High	High	Low	Low	Low	MODERATE
Gross, 1998, 12515413	Low	Low	High	High	Low	Low	Low	MODERATE
Haider, 2020, 31964564	Low	Unclear	High	High	Low	Low	Low	MODERATE
Hans, 2018, 29855838	Low	Unclear	High	High	High	Low	Low	HIGH
Jensen, 2019, N/A	Unclear	Unclear	High	High	Low	Low	Low	HIGH
Kerver, 2019, N/A	Low	Unclear	High	High	High	Low	Low	HIGH
Koniak-Griffin, 2003, 12657988	Low	Low	High	High	Low	Low	Low	MODERATE
Laliberte, 2016, 26871448	Low	Low	High	High	Low	Low	Low	MODERATE
Levi, 2015, 26241250	Low	Low	High	High	Low	Low	Low	MODERATE
Lieu, 2000, 10790463	Low	Low	High	High	Low	Low	Low	MODERATE
Martinez-Brockman, 2018, 29325660	Low	Low	High	High	Low	Low	Low	MODERATE
McCarter, 2019, 31222789	Low	Unclear	High	Unclear	High	Unclear	Low	HIGH

Study, Year, PMID	Random Sequence Generation	Allocation Concealment	Blinding of Participants/ Care Providers	Blinding of Outcome Assessors	Incomplete Outcome Data	Selective Outcome Reporting	Other Bias	Overall Risk of Bias
Mersky, 2021, 33078655	Low	Low	High	High	High	Low	Low	<b>HIGH</b>
Morse, 2016, N/A	Unclear	Unclear	High	High	Low	Low	Low	<b>HIGH</b>
Norr, 2003, 12716399	Low	Low	High	High	Low	Low	Low	<b>MODERATE</b>
Paul, 2012, 22064874	Low	Low	High	High	High	Low	Low	<b>HIGH</b>
Pluym, 2021, 33785465	Low	Low	High	High	Low	Low	Low	<b>MODERATE</b>
Polk, 2021, 34671758	Low	Low	High	High	Low	Low	Low	<b>MODERATE</b>
Porteous, 2000, 11155608	Low	Low	High	High	Low	Low	Low	<b>MODERATE</b>
Pugh, 2002, 12000411	Unclear	Unclear	High	Low	Low	Low	Low	<b>MODERATE</b>
Pugh, 2010, 19854119	Low	Low	High	High	High	Low	Low	<b>HIGH</b>
Rasmussen, 2011, 20958105	Low	Low	High	High	Low	Low	Low	<b>MODERATE</b>
Reeder, 2014, 25092936	Low	Low	High	Low	Low	Low	Low	<b>LOW</b>
Simmons, 2013, 23218851	Low	Low	High	Low	Low	Low	Low	<b>LOW</b>
Srinivas, 2015, 25193602	Low	Unclear	High	High	High	Low	Low	<b>HIGH</b>
Steel O'Connor, 2003, 12675164	Unclear	Unclear	High	High	High	Low	Low	<b>HIGH</b>
Tandon, 2021, 33655429	Unclear	Unclear	High	High	High	Low	Low	<b>HIGH</b>
Uscher-Pines, 2020, 31629118	Unclear	Unclear	High	High	Low	Low	Low	<b>HIGH</b>
Wambach, 2011, 20876551	Unclear	Unclear	High	High	Low	Low	Low	<b>HIGH</b>
Whitaker, 2014, 24457061	Unclear	Unclear	High	High	Low	Low	Low	<b>HIGH</b>

Abbreviations: PMID = PubMed identifier. Ratings are color coded for emphasis only. The colors do not impart unique information.

From the Cochrane Risk of Bias Tool (each item rated as **Low**, **High**, or **Unclear**)

- Random sequence generation (selection bias): Selection bias (biased allocation to interventions) due to inadequate generation of a randomized sequence.
- Allocation concealment (selection bias): Selection bias (biased allocation to interventions) due to inadequate concealment of allocations prior to assignment.
- Blinding of participants (performance bias): Performance bias due to knowledge of the allocated interventions by participants during the study.
- Blinding of personnel/care providers (performance bias): Performance bias due to knowledge of the allocated interventions by personnel/care providers during the study.
- Blinding of outcome assessor (detection bias): Detection bias due to knowledge of the allocated interventions by outcome assessors during the study.
- Incomplete outcome data (attrition bias): Attrition bias due to amount, nature, or handling of incomplete outcome data.
- Selective outcome reporting (outcome reporting bias): Bias arising from outcomes being selectively reported based on the direction and/or strength of the results.
- Other Bias: Bias due to problems not covered elsewhere in the table.

Overall judgments are in **bold font**. Each study is rated as **HIGH**, **MODERATE**, or **LOW**. Overall risk of bias is low if either participants or outcome assessors are blinded and all other domains are at low risk of bias, moderate if neither participants nor outcome assessors are blinded and all other domains are at low risk of bias, and high risk of bias otherwise.

**Table D-1.2. Key Question 1: Risk of bias assessment – nonrandomized comparative studies, confounding and selection bias**

Author, Year, PMID	1.1 Potential for Any Confounding?	1.2 Potential for Time-Varying Confounding?	1.3 Intervention Switches Related to Prognostic Factors?	1.4 Appropriate Analysis Method for Confounding?	1.5 Appropriate Confounding Variables Used?	1.6 Inappropriate Control of Post-Intervention Variables?	Judgment – Risk of Bias Related to Confounding	2.1 Participant Selection Based on Post-Intervention Variables?	2.2 Post-Intervention Variables Associated with Intervention?	2.3 Post-Intervention Variables Associated with Outcome?	2.4 Start and Follow-Up (Duration) Coincide	2.5 Appropriate Adjustment for Selection Bias	Judgment – Risk of Bias Related to Selection Bias
Arias, 2022, 35331971	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Buckley, 1990, 2328162	Y	N	N/A	N	N/A	PN	<b>Serious</b>	N	N/A	N/A	PY	N/A	<b>Low</b>
Chen, 2019, 30414598	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Domingo, 2022, 35237835	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Falconi, 2022, 35812994	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	N	N	<b>Serious</b>
Gill, 2007, 17557933	Y	N	N/A	PY	N	PY	<b>Moderate</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Kozhimannil, 2013, 23837663	Y	N	N/A	Y	PY	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Mendez-Figueroa, 2014, 24481876	Y	N	N/A	PN	N/A	PN	<b>Serious</b>	N	N/A	N/A	N	N	<b>Serious</b>
Pan, 2020, 32437282	Y	N	N/A	Y	Y	PN	<b>Low</b>	N	N/A	N/A	PY	N/A	<b>Low</b>
Rozga, 2016, 27423234	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Rutledge, 2016, 27350389	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Shea, 2011, 21466755	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>
Tsai, 2011, 21365543	Y	N	N/A	Y	N	PN	<b>Moderate</b>	N	N/A	N/A	PY	N/A	<b>Low</b>
Witt, 2021, 33956505	Y	N	N/A	Y	Y	N	<b>Low</b>	N	N/A	N/A	Y	N/A	<b>Low</b>

Abbreviations: N/A = Not applicable, NI = no information, PMID = PubMed identifier, PN = probably no, PY = probably yes, Y = yes.

Judgments are color coded for emphasis only. The colors do not impart unique information. Signaling questions are not color coded for simplicity and because they are only used to inform the judgments.

Responses to Risk of Bias in Nonrandomized Studies of Interventions (ROBINS-I) signaling questions 1.1 to 1.6 and 2.1 to 2.5 are in regular font. Each item is rated as Yes, PY, NI, PN, No, or N/A.

Overall judgments about confounding and selection bias are in **bold font**. Each judgment is rated as **Low**, **Moderate**, **Serious**, **Critical** (not shown in table), or **NI** (not shown in table).

**Table D-1.3. Key Question 1: Risk of bias assessment – nonrandomized comparative studies, assessment of remaining biases, quality, and overall risk of bias**

Study, Year, PMID	Blinding of Participants/ Care Providers	Blinding of Outcome Assessors	Incomplete Outcome Data	Selective Outcome Reporting	Other Bias	Overall Risk of Bias
Arias, 2022, 35331971	High	High	Low	Low	Low	<b>MODERATE</b>
Buckley, 1990, 2328162	High	High	Low	Low	Low	<b>HIGH</b>
Chen, 2019, 30414598	High	High	Low	Low	Low	<b>MODERATE</b>
Domingo, 2022, 35237835	High	High	Low	Low	Low	<b>MODERATE</b>
Falconi, 2022, 35812994	High	High	Low	Low	Low	<b>HIGH</b>
Gill, 2007, 17557933	High	High	Low	Low	Low	<b>HIGH</b>
Kozhimannil, 2013, 23837663	High	High	Low	Low	Low	<b>MODERATE</b>
Mendez-Figueroa, 2014, 24481876	High	High	Low	Low	Low	<b>HIGH</b>
Pan, 2020, 32437282	High	High	Low	Low	Low	<b>MODERATE</b>
Rozga, 2016, 27423234	High	High	Low	Low	Low	<b>MODERATE</b>
Rutledge, 2016, 27350389	High	High	Low	Low	Low	<b>MODERATE</b>
Shea, 2011, 21466755	High	High	Low	Low	Low	<b>MODERATE</b>
Tsai, 2011, 21365543	High	High	Low	Low	Low	<b>HIGH</b>
Witt, 2021, 33956505	High	High	Low	Low	Low	<b>MODERATE</b>

Abbreviations: PMID = PubMed identifier.

Judgments are color coded for emphasis only. The colors do not impart unique information.

Overall judgements are in **bold font**. Each study is rated as **LOW** (not shown in table), **MODERATE**, or **HIGH**. Overall risk of bias is low if either participants or outcome assessors are blinded and all other domains are at low risk of bias (no instances in this table), moderate if neither participants nor outcome assessors are blinded and all other domains are at low risk of bias, and high risk of bias otherwise.

**Table D-2.1. Key Question 2: Risk of bias assessment – nonrandomized comparative studies, confounding and selection bias**

Author, Year, PMID	1.1 Potential for Any Confounding?	1.2 Potential for Time-Varying Confounding?	1.3 Intervention Switches Related to Prognostic Factors?	1.4 Appropriate Analysis Method for Confounding?	1.5 Appropriate Confounding Variables Used?	1.6 Inappropriate Control of Post-Intervention Variables?	Judgment – Risk of Bias Related to Confounding	2.1 Participant Selection Based on Post-intervention Variables?	2.2 Post-intervention Variables Associated with Intervention?	2.3 Post-intervention Variables Associated With Outcome?	2.4 Start and Follow-Up (Duration) Coincide	2.5 Appropriate Adjustment for Selection Bias	Judgment – Risk of Bias Related to Selection Bias
Arora, 2018, 29490290	Y	N	N/A	N	N/A	N	Serious	PN	N/A	N/A	Y	N/A	Low
Austin, 2022, 34974107	Y	N	N/A	Y	Y	N	Low	PN	N/A	N/A	PY	N/A	Low
Brant, 2021, 34619694	Y	N	N/A	Y	PY	N	Low	N	N/A	N/A	Y	N/A	Low
Caudillo, 2022, 35488950	Y	N	N/A	PY	PY	PN	Low	N	N/A	N/A	PY	N/A	Low
Cilenti, 2015, 25627330	Y	N	N/A	Y	PY	PN	Low	N	N/A	N/A	Y	N/A	Low
DeSisto, 2020, 32335806	Y	N	N/A	PY	PY	PN	Low	PN	N/A	N/A	Y	N/A	Low
Dunlop, 2020, 32958368	Y	N	N/A	Y	Y	PN	Low	PN	N/A	N/A	Y	N/A	Low
Eliason, 2021, 34870677	Y	N	N/A	Y	Y	N	Low	PN	N/A	N/A	Y	N/A	Low
Eliason, 2022, 35259409	Y	N	N/A	Y	Y	PN	Low	N	N/A	N/A	Y	N/A	Low
Gordon, 2020, 31905073	Y	N	N/A	Y	Y	N	Low	N	N/A	N/A	Y	N/A	Low
Koch, 2022, 35588793	Y	N	N/A	PY	Y	N	Low	PN	N/A	N/A	Y	N/A	Low
Kozhimannil, 2011, 21485419	Y	N	N/A	Y	Y	N	Low	PN	N/A	N/A	Y	PY	Low
Kramer, 2021, 33849768	Y	N	N/A	Y	Y	N	Low	PN	N/A	N/A	Y	N/A	Low
Liberty, 2020, 31846612	Y	N	N/A	Y	PY	PN	Low	PN	N/A	N/A	PY	N/A	Low
Margerison, 2021, 34606358	Y	N	N/A	Y	Y	N	Low	PN	N/A	N/A	Y	N/A	Low
Myerson, 2020, 33136489	Y	N	N/A	Y	PY	N	Low	PN	N/A	N/A	Y	N/A	Low
Okoroh, 2018, 29530670	Y	N	N/A	PN	N/A	PN	Moderate	PN	N/A	N/A	Y	N/A	Low
Pace, 2022, 34908011	Y	N	N/A	PN	N/A	PN	Moderate	PN	N/A	N/A	PY	N/A	Low
Redd, 2019, 30484739	Y	N	N/A	Y	Y	PN	Low	PN	N/A	N/A	Y	N/A	Low
Rodriguez, 2008, 18692614	Y	N	N/A	PN	N/A	PN	Moderate	PN	N/A	N/A	Y	N/A	Low
Rodriguez, 2021, 34910148	Y	N	N/A	PY	Y	N	Low	N	N/A	N/A	PY	N/A	Low
Schuster, 2022, 34670222	Y	N	N/A	N	N/A	PN	Serious	N	N/A	N/A	Y	N/A	Low
Smith, 2021, 34109490	Y	N	N/A	N	N/A	PN	Serious	PN	N/A	N/A	Y	N/A	Low
Steenland, 2021a, 33523747	Y	N	N/A	PN	N/A	N	Moderate	PN	N/A	N/A	Y	N/A	Low
Steenland, 2021b, 35977301	Y	N	N/A	PN	N/A	N	Moderate	PN	N/A	N/A	Y	N/A	Low
Symum, 2022, 35628011	Y	N	N/A	PY	Y	N	Low	N	N/A	N/A	Y	N/A	Low
Taylor, 2020, 31397625	Y	N	N/A	Y	PY	N	Low	PN	N/A	N/A	Y	N/A	Low
Wang, 2022, 35592081	Y	N	N/A	N	N/A	PN	Serious	PN	N/A	N/A	PY	N/A	Low

Abbreviations: N/A = Not applicable, NI = no information, PMID = PubMed identifier, PN = probably no, PY = probably yes, Y = yes.

Judgments are color coded for emphasis only. The colors do not impart unique information. Signaling questions are not color coded for simplicity and because they are only used to inform the judgments.

Responses to Risk of Bias in Nonrandomized Studies of Interventions (ROBINS-I) signaling questions 1.1 to 1.6 and 2.1 to 2.5 are in regular font. Each item is rated as Yes, PY, NI, PN, No, or N/A.

Overall judgments about confounding and selection bias are in **bold font**. Each judgement is rated as **Low**, **Moderate**, **Serious**, **Critical** (not shown in table), or **NI** (not shown in table).

**Table D-2.2. Key Question 2: Risk of bias assessment – nonrandomized comparative studies, assessment of remaining biases, quality, and overall risk of bias**

Study, Year, PMID	Blinding of Participants/ Care Providers	Blinding of Outcome Assessors	Incomplete Outcome Data	Selective Outcome Reporting	Other Bias	Overall Risk of Bias
Arora, 2018, 29490290	High	High	Low	Low	Low	<b>HIGH</b>
Austin, 2022, 34974107	High	High	Low	Low	Low	<b>MODERATE</b>
Brant, 2021, 34619694	High	High	Low	Low	Low	<b>MODERATE</b>
Caudillo, 2022, 35488950	High	High	Low	Low	Low	<b>MODERATE</b>
Cilenti, 2015, 25627330	High	High	Low	Low	Low	<b>MODERATE</b>
DeSisto, 2020, 32335806	High	High	Low	Low	Low	<b>MODERATE</b>
Dunlop, 2020, 32958368	High	High	Low	Low	Low	<b>MODERATE</b>
Eliason, 2021, 34870677	High	High	Low	Low	Low	<b>MODERATE</b>
Eliason, 2022, 35259409	High	High	Low	Low	Low	<b>MODERATE</b>
Gordon, 2020, 31905073	High	High	Low	Low	Low	<b>MODERATE</b>
Koch, 2022, 35588793	High	High	Low	Low	Low	<b>MODERATE</b>
Kozhimannil, 2011, 21485419	High	High	Low	Low	Low	<b>MODERATE</b>
Kramer, 2021, 33849768	High	High	Low	Low	Low	<b>MODERATE</b>
Liberty, 2020, 31846612	High	High	Low	Low	Low	<b>MODERATE</b>
Margerison, 2021, 34606358	High	High	Low	Low	Low	<b>MODERATE</b>
Myerson, 2020, 33136489	High	High	Low	Low	Low	<b>MODERATE</b>
Okoroh, 2018, 29530670	High	High	Low	Low	Low	<b>HIGH</b>
Pace, 2022, 34908011	High	High	Low	Low	Low	<b>HIGH</b>
Redd, 2019, 30484739	High	High	Low	Low	Low	<b>MODERATE</b>
Rodriguez, 2008, 18692614	High	High	Low	Low	Low	<b>HIGH</b>
Rodriguez, 2021, 34910148	High	High	Low	Low	Low	<b>MODERATE</b>
Schuster, 2022, 34670222	High	High	Low	Low	Low	<b>HIGH</b>
Smith, 2021, 34109490	High	High	Low	Low	Low	<b>HIGH</b>
Steenland, 2021a, 33523747	High	High	Low	Low	Low	<b>HIGH</b>
Steenland, 2021b, 35977301	High	High	Low	Low	Low	<b>HIGH</b>
Symum, 2022, 35628011	High	High	Low	Low	Low	<b>MODERATE</b>
Taylor, 2020, 31397625	High	High	Low	Low	Low	<b>MODERATE</b>
Wang, 2022, 35592081	High	High	Low	Low	Low	<b>HIGH</b>

Abbreviations: PMID = PubMed identifier.

Judgments are color coded for emphasis only. The colors do not impart unique information.

Overall judgments are in **bold font**. Each study is rated as **LOW** (not shown in table), **MODERATE**, **HIGH**, or **NI** (not shown in table). Overall risk of bias is low if either participants or outcome assessors are blinded and all other domains are at low risk of bias (no instances in this table), moderate if neither participants nor outcome assessors are blinded and all other domains are at low risk of bias, and high risk of bias otherwise.



## Appendix E. Results: Evidence Tables

**Table E-1.1. Evidence Table – Key Question 1: Continuous outcomes: Unplanned care utilization and breastfeeding frequency/duration**

Study Year PMID	Design	Overall RoB	Outcome Measure (Unit)	Arm	N	Time Point	Mean (SD)	Effect Measure	Effect Size (95% CI)	Reported P Value
Dodge, 2019, 31675088	RCT	Moderate	ED visits	Community Agency Family Connects (FC) program	158	1 yr	0.40 (1.14)	MD	0.21 (0.01, 0.40)	0.04
	.	.	.	Usual care	158	.	0.20 (0.64)	.	Ref	Ref
	.	.	Hospitalizations	Community Agency Family Connects (FC) program	158	1 yr	0.13 (0.61)	MD	-0.01 (-0.13, 0.15)	0.90
	.	.	.	Usual care	158	.	0.12 (0.67)	.	Ref	Ref
Gagnon 2002 12042545	RCT	Moderate	BF frequency (times/d)	Home visit by community nurse	259	2 wk	6.9 (2.4)	MD	0.1 (-0.1, 0.3)	.
	.	.	.	Hospital visit with nurse	254	.	6.8 (2.4)	.	Ref	.
Mersky 2021 33078655	RCT	High	BF duration (wk)	Home visits by human service professionals through the Healthy Families America (HFA) Program	72	PP	13.4 (16.9)	MD	<u>vs. No visits</u> 4.3 (0.1, 8.5)* <u>vs. PNCC</u> 2.6 (-2.4, 7.6)*	.
	.	.	.	Home visits by public health nurses through the Prenatal Care and Coordination (PNCC) Program	65	.	10.8 (11.6)	.	<u>vs. No visits</u> 1.7 (-1.8, 5.2)*	.
	.	.	.	No home visits	100	.	9.1 (10.7)	.	Ref	.
Wambach 2011 20876551	RCT	High	BF duration (d)	Lactation consultant-peer counselor team support	77	7 mo	127.0 (SE 10.6); Median 177 (Range 1, 213)	MD	<u>vs. Usual care</u> 52.8 (26.0, 80.0)* <u>vs. Advanced</u> 59.4 (30.8, 88.0)*	.
	.	.	.	Advanced-practice nurse and peer counselor attention control	60	.	67.6 (SE 9.1); Median 42 (Range 2, 181)	.	<u>vs. Usual care</u> -6.6 (-30.0, 16.8)*	.
	.	.	.	Usual care at clinic	64	.	74.2 (SE 7.6); Median 61 (Range 1, 195)	.	Ref	.
Srinivas 2015 25193602	RCT	High	BF duration (wk)	BF counseling by peer and non-peer counselors	NR	NR	7 (NR)	.	.	.
	.	.	.	BF counseling by non-peer counselors only	NR	.	6 (NR)	.	.	.

Study Year PMID	Design	Overall RoB	Outcome Measure (Unit)	Arm	N	Time Point	Mean (SD)	Effect Measure	Effect Size (95% CI)	Reported P Value
Rasmussen 2011 20958105	RCT	Moderate	Any BF duration (wk)	Additional BF support by a lactation consultant	19	PP	Median 8.6 (IQR 3.9, 13.0)	MD	-3.3 (-19.1, 12.5)*	.
	.	.	.	Standard BF support without a lactation consultant	20	.	Median 12.9 (IQR 9.1, 13.5)	.	Ref	.
	.	.	Exclusive BF duration (wk)	Additional BF support by a lactation consultant	19	PP	Median 3.4 (IQR 0.7, 8.4)	MD	-3.6 (-24.6, 17.4)*	.
	.	.	.	Standard BF support without a lactation consultant	18	.	Median 8.1 (IQR 2.1, 13.1)	.	Ref	.

Abbreviations: BF = breastfeeding, CI = confidence interval, d = days, PMID = PubMed ID, RoB = risk of bias, SD = standard deviation

**Table E-1.2. Evidence Table – Key Question 1: Continuous outcomes: Mental health symptoms, perceived stress**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Total (N Analyzed)	Time Point 1	Mean (SD)	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 2	Effect Measure: Effect Size (95% CI), Reported P Value	Time Point 3	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 4	Effect Measure: Effect Size (95% CI) Reported P Value
Gagnon 2002 12042545	RCT	Moderate	STAI	Home visit by community nurse	291	BL	30.9 (7.4)	MD: -0.1 (-0.6, 0.4)	2 wk	NMD: -1.30 (-2.38, 0.22)*	.	.	.	.
.	.	.	.	Hospital visit with nurse	293	BL	29.7 (7.7)	.	.	.	.	.	.	.
Paul 2012 22064874	RCT	High	STAI	First PP visit at home	576	BL	31 (8.7)	.	2 wk	MD: -0.29 (-1.10, 0.51), 0.47	2 mo	MD: -0.26 (-1.23, 0.72), 0.61	.	.
.	.	.	.	First PP visit in clinic	578	BL	31.1 (8.5)	.	.	.	.	.	.	.
.	.	.	EPDS	First PP visit at home	576	BL	4.9 (3.7)	.	2 wk	MD: 0.06 (-0.32, 0.44), 0.75	2 mo	MD: -0.07 (-0.44, 0.29), 0.70	6 mo	MD: -0.24 (-0.62, 0.14), 0.21
.	.	.	.	First PP visit in clinic	578	BL	4.9 (3.7)	.	.	.	.	.	.	.

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Total (N Analyzed)	Time Point 1	Mean (SD)	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 2	Effect Measure: Effect Size (95% CI), Reported P Value	Time Point 3	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 4	Effect Measure: Effect Size (95% CI) Reported P Value
Koniak-Griffin 2003 12657988	RCT	Moderate	CES-D	Early Intervention Program (EIP)	55	BL	18.2 (8.5)	.	1 yr	NMD: 1.30 (-2.51, 5.11)*	.	.	.	.
.	.	.	.	Traditional Public Health Nursing Care (TPHNC)	47	BL	20.3 (11.8)	.	.	.	.	.	.	.
.	.	.	PSS	Early Intervention Program (EIP)	55	BL	25.8 (6.5)	.	1 yr	NMD: 1.20 (-1.41, 3.81)*	.	.	.	.
.	.	.	.	Traditional Public Health Nursing Care (TPHNC)	47	BL	26.2 (7.0)	.	.	.	.	.	.	.
Laliberte 2016 26871448	RCT	Moderate	EPDS	BF clinic within 48 hours PP with additional visits as indicated	295	3 wk	4.5 (3.5)	MD: -0.2 (-0.9, 0.5)*	.	.	.	.	.	.
.	.	.	.	Standard Care	134	.	4.7 (2.7)	.	.	.	.	.	.	.
Chen 2018 N/A	RCT	High	EPDS	PP DMPA administration before discharge	73	2 mo	Median 1 (IQR 0, 4)	MD: -0.3 (-1.1, 1.0)*	.	.	.	.	.	.
.	.	.	.	PP DMPA administration 4-6 weeks PP	69	.	Median 0 (IQR 0, 6)	Ref	.	.	.	.	.	.
Tandon 2021 33655429	RCT	High	QIDS	Home visits by mental health professionals through the Mothers and Babies (MB) Program	281	6 mo	MD: -0.56 (-1.59, 0.46)	.	.	.	.	.	.	.
.	.	.	.	Home visits by community health workers through the Mothers and Babies (MB) Program	374	.	MD: -0.55 (-1.58, 0.49)	.	.	.	.	.	.	.

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Total (N Analyzed)	Time Point 1	Mean (SD)	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 2	Effect Measure: Effect Size (95% CI), Reported P Value	Time Point 3	Effect Measure: Effect Size (95% CI) Reported P Value	Time Point 4	Effect Measure: Effect Size (95% CI) Reported P Value
.	.	.	.	Usual home visits (visitor type unspecified)	148	.	Ref	.	.	.	.	.	.	.
Ahmed 2016 26779838	RCT	High	EPDS	Interactive web- based BF monitoring and usual care	49	1 mo	4.7 (4.5)	MD: -0.2 (-1.8, 1.4)*	3 mo	MD: 0.0 (-1.5, 1.5)*	.	.	.	.
.	.	.	.	Usual BF support	57	.	4.9 (3.9)	Ref	.	Ref	.	.	.	.

Abbreviations: BL = baseline, CES-D = Center for Epidemiologic Studies Depression Scale, DMPA = depot medroxyprogesterone acetate, CI = confidence interval, EPDS = Edinburgh Postnatal Depression Survey, MD = mean difference, NMD = net mean difference, PMID = PubMed ID, PSS = Perceived Stress Scale, QIDS = Quick Inventory of Depressive Symptoms, RoB = risk of bias, SD = standard deviation, STAI: State-Trait Anxiety Inventory

**Table E-1.3. Evidence Table – Key Question 1: Categorical outcomes: Healthcare utilization: PP visit attendance and transition to primary care**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Subgroup	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P value
Gagnon 2002 12042545	RCT	Moderate	PP visit	Home visit by community nurse	All	2 wk	239/259 (92.3)	RR	0.99 (0.95, 1.05)	.
	.	.	.	Hospital visit with nurse	.	.	235/254 (92.5)	.	Ref	.
Dodge, 2019, 31675088	RCT	Moderate	PP visit	Nurse home visitation through Family Connects (FC) Program	All	1.5 mo	143/158 (90.5)	β	6.44 (-1.62, 13.5)	0.07
	.	.	.	Usual care	.	.	132/158 (83.5)	.	Ref	Ref
Polk 2021 34671758	RCT	Moderate	PP visit	Combined PP/well-child visit at 4 wk	All	1 mo	53/58 (91.4)	RR	0.95 (0.87, 1.04)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	56/58 (96.6)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	Hispanic	1 mo	45/48 (93.8)	RR	0.98 (0.89, 1.08)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	44/46 (95.7)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	Non-Hispanic	1 mo	8/10 (80)	RR	0.80 (0.59, 1.09)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	12/12 (100)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	No insurance	1 mo	39/42 (92.9)	RR	0.95 (0.86, 1.05)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	41/42 (97.6)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	Public insurance	1 mo	10/12 (83.3)	RR	0.92 (0.67, 1.26)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	10/11 (90.9)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	Private insurance	1 mo	1/1 (100)	RR	1 (1, 1)*	>0.05
	.	.	.	Separate PP and well-child visits	.	.	3/3 (100)	.	Ref	.
Bernard 2018 29778586	RCT	Moderate	PP visit	Two PP visits (3 & 6 wk)	All	1.5 mo	50/93 (53.7)	RR	0.82 (0.65, 1.04)*	0.11
	.	.	.	One PP visit (6 wk)	.	.	62/95 (65.3)	.	Ref	.
Pluym 2021 33785465	RCT	Moderate	PP visit	Two PP visits (2 & 6 wk)	All	1.5 mo	78/125 (62.4)	RR	1.07 (0.87, 1.31)	.
	.	.	.	One PP visit (6 wk)	.	.	73/125 (58.4)	.	Ref	.

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Subgroup	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P value
Bender, 2022, 36201773	RCT	Moderate	PP visit	Text message-based BF support	All	1.5 mo	91/106 (85.9)	RR	1.09 (0.96, 1.23)*	0.19
	.	.	.	Usual care	.	.	87/110 (79.1)	.	Ref	Ref
	.	.	.	Text message-based BF support	Black	.	43/53 (81.1)	RR	1.05 (0.87, 1.27)*	0.59
	.	.	.	Usual care	.	.	47/61 (77.1)	.	Ref	Ref
	.	.	.	Text message-based BF support	Non-Black	.	48/53 (90.6)	RR	1.11 (0.95, 1.30)*	0.19
	.	.	.	Usual care	.	.	40/49 (81.6)	.	Ref	Ref
Arias, 2022, 35331971	NRCS	Moderate	PP visit	Virtual visits	All	PP	662/799 (82.9)	adjOR	1.90 (1.47, 2.46)	<0.001
	.	.	.	In-person visits	.	.	565/780 (72.4)	.	Ref	Ref
Chen 2019 30414598	NRCS	Moderate	PP visit	One PP visit (2-3 wk)	All	3 mo	231/256 (90.2)	adj OR	Ref	.
	.	.	.	One PP visit (6 wk)	.	.	209/256 (81.6)	.	0.42 (0.24, 0.74)	<0.01
Pan 2020 32437282	NRCS	Moderate	PP visit	Home visits by community health worker and referral to social worker through the Baby Love Program	All	2 mo	171/353 (48.4)	adj OR	1.46 (0.93, 2.31)	.
	.	.	.	Standard care without the Baby Love Program	.	.	39/102 (38.2)	.	Ref	.
Buckley 1990 2328162	NRCS	High	PP visit	PP visit and phone call by nurse practitioner	All	NR	29/34 (85.3)	.	NR	<0.02
	.	.	.	No PP visit or phone call by NP	.	.	13/25 (52.0)	.	Ref	Ref
Tsai 2011 21365543	NRCS	High	One PP visit	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	PP	34/106 (32.1)	NR	NR	0.12
	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	34/115 (29.6)	NR	NR	Ref
	.	.	Two PP visits	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	PP	42/106 (39.6)	NR	NR	0.012
	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	65/115 (56.5)	NR	NR	Ref

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Subgroup	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P value
.	.	.	PP visit 1	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	≤3 wk	50/106 (47.2)	NR	NR	0.014
.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	74/115 (64.3)	NR	NR	Ref
.	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	>3 wk	26/106 (24.5)	NR	NR	0.014
.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	25/115 (21.7)	NR	NR	Ref
.	.	.	PP visit 2	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	≤1.75 mo	36/106 (34)	NR	NR	0.025
.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	48/115 (41.7)	NR	NR	Ref
.	.	.	PP visit 2	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	All	>1.75 mo	6/106 (5.7)	NR	NR	0.025
.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	.	16/115 (13.9)	NR	NR	Ref

\*Calculated

Abbreviations: CI = confidence interval, mo = months, NR = not reported, PMID = PubMed ID, PP = postpartum, Ref = reference group, RoB = risk of bias, wk = weeks

**Table E-1.4. Evidence Table – Key Question 1: Categorical outcomes: Healthcare utilization: Unplanned care utilization**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Lieu 2000 10790463	RCT	Moderate	Urgent care visit	Home visit by nurse on day 3 or 4 PP	2 wk	78/580 (13)	RR	1.07 (0.80, 1.45)	0.68
	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	73/583 (12)	.	Ref	Ref
	.	.	.	Home visit by nurse on day 3 or 4 PP	1.5 mo	163/580 (28)	RR	0.90 (0.75, 1.07)	0.29
	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	182/583 (31)	.	Ref	Ref
	.	.	Hospital readmission	Home visit by nurse on day 3 or 4 PP	2 wk	4/580 (1)	RR	1.34 (0.30, 5.93)	0.70
	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	3/583 (1)	.	Ref	Ref
Gagnon 2002 12042545	RCT	Moderate	Hospital readmission	Home visit by community nurse	2 mo	28/259 (10.8)	RR	1.25 (0.73, 2.12)	.
	.	.	.	Hospital visit with nurse	.	22/254 (8.7)	.	Ref	Ref
Escobar 2001 11533342	RCT	High	Urgent care visit	Home visit by nurse on day 3 or 4 PP	2 wk	64/508 (12.6)	RR	0.87 (0.64, 1.19)*	0.39
	.	.	.	Hospital visit on day 3 or 4 PP	.	73/506 (14.4)	.	Ref	Ref
	.	.	.	Home visit by nurse on day 3 or 4 PP	1.5 mo	131/508 (25.8)	RR	0.94 (0.77, 1.15)*	0.54
	.	.	.	Hospital visit on day 3 or 4 PP	.	139/506 (27.5)	.	Ref	Ref
	.	.	Hospital readmission	Home visit by nurse on day 3 or 4 PP	2 wk	2/508 (0.4)	RR	1.99 (0.18, 21.9)*	0.57
	.	.	.	Hospital visit on day 3 or 4 PP	.	1/506 (0.2)	.	Ref	Ref
Paul 2012 22064874	RCT	High	Any - hospital, ED, or outpatient	First PP visit at home	2 wk	76/538 (14.1)	RR	1.15 (0.85, 1.57)	0.36
	.	.	.	First PP visit in clinic	.	64/527 (12.1)	.	Ref	Ref
	.	.	.	First PP visit at home	2 mo	142/509 (27.9)	RR	1.21 (0.98, 1.49)	0.08
	.	.	.	First PP visit in clinic	.	113/491 (23)	.	Ref	Ref
	.	.	Outpatient	First PP visit at home	2 wk	54/538 (10)	RR	1.05 (0.73, 1.51)	0.79
	.	.	.	First PP visit in clinic	.	50/527 (9.5)	.	Ref	Ref
	.	.	.	First PP visit at home	2 mo	118/509 (23.2)	RR	1.17 (0.92, 1.48)	0.20
	.	.	.	First PP visit in clinic	.	97/491 (19.8)	.	Ref	Ref
	.	.	ER visit	First PP visit at home	2 wk	28/538 (5.2)	RR	1.35 (0.77, 2.37)	0.29
	.	.	.	First PP visit in clinic	.	20/535 (3.8)	.	Ref	Ref
	.	.	.	First PP visit at home	2 mo	41/509 (8.1)	RR	1.31 (0.83, 2.05)	0.25



Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	First PP visit in clinic	.	30/491 (6.1)	.	Ref	Ref
	.	.	Hospital readmission	First PP visit at home	2 wk	7/538 (1.3)	RR	1.71 (0.50, 5.85)	0.38
	.	.	.	First PP visit in clinic	.	4/527 (0.8)	.	Ref	Ref
	.	.	.	First PP visit at home	2 mo	13/509 (2.6)	RR	1.79 (0.72, 4.46)	0.20
	.	.	.	First PP visit in clinic	.	7/491 (1.4)	.	Ref	Ref
Hans 2018 29855838	RCT	High	Hospital readmission	Home visits by doulas and hospital support for childbirth preparation and childbirth	3 wk	4/143 (2.8)	RR	1.34 (0.31, 5.89)*	.
	.	.	.	Case management by community case managers or social service providers	.	3/143 (2.1)	.	Ref	.
Laliberte 2016 26871448	RCT	Moderate	ER visit (including for infants)	BF clinic within 48 hours PP with additional visits as indicated	NR	63/307 (20.5)	OR	1.02 (0.61, 1.72)	.
	.	.	.	Standard Care	.	26/145 (17.9)	.	Ref	Ref
	.	.	Hospital readmission	BF clinic within 48 hours PP with additional visits as indicated	NR	13/307 (4.2)	OR	1.15 (0.40, 3.29)	.
	.	.	.	Standard Care	.	5/145 (3.5)	.	Ref	Ref
Pluym 2021 33785465	RCT	Moderate	ER visit	Two PP visits (2 & 6 wk)	1 mo	8/125 (6.4)	RR	0.80 (0.33, 1.96)*	0.64
	.	.	.	One PP visit (6 wk)	.	10/125 (8)	.	Ref	Ref
Falconi, 2022, 35812994	NRCS	High	ER visit or hospitalization	Doula support	1 mo	11/298 (3.7)	adjOR	0.47 (0.15, 1.46)	NR
	.	.	.	No doula support	.	15/298 (5.0)	.	Ref	Ref
	.	.	Hospitalization	Doula support	2 mo	22/298 (7.4)	adjOR	0.67 (0.33, 1.36)	NR
	.	.	.	No doula support	.	27/298 (9.1)	.	Ref	Ref

Abbreviations: BF = breastfeeding, CI = confidence interval, ER = emergency room, mo = months, NR = not reported, NRCS = nonrandomized comparative study, OR = odds ratio, RR = relative risk, PMID = PubMed ID, RCT = randomized controlled trial, Ref = reference group, RoB = risk of bias, wk = weeks

**Table E-1.5. Evidence Table – Key Question 1: Categorical outcomes: Healthcare utilization: Adherence to testing**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Clark, 2009, 19268878	RCT	Moderate	OGTT	Provider and patient mail reminders for diabetes screening	1 yr	49/81 (60.5)	OR	5.2 (1.4, 19.6)	Ref
	.	.	.	Provider reminder for diabetes screening	.	16/31 (51.6)	.	8.4 (2.4, 28.5)	NR
	.	.	.	Patient mail reminder for diabetes screening	.	42/76 (55.3)	.	8.7 (2.9, 25.6)	NR
	.	.	.	No reminders for diabetes screening	.	5/35 (14.3)	.	Ref	Ref
	.	.	Fasting glucose	Provider and patient mail reminders for diabetes screening	1 yr	51/81 (63.0)	OR	5.3 (1.9, 11.5)	NR
	.	.	.	Provider reminder for diabetes screening	.	21/31 (67.7)	.	4.2 (1.4, 12.3)	NR
	.	.	.	Patient mail reminder for diabetes screening	.	54/76 (71.0)	.	4.6 (1.4, 20.0)	NR
	.	.	.	No reminders for diabetes screening	.	14/35 (40.0)	.	Ref	Ref
	.	.	Random glucose	Provider and patient mail reminders for diabetes screening	1 yr	4/81 (4.9)	OR	1.8 (0.2, 16.4)*	NR
	.	.	.	Provider reminder for diabetes screening	.	0/31 (0)	.	Not calculable	NR
	.	.	.	Patient mail reminder for diabetes screening	.	9/76 (11.8)	.	4.6 (0.6, 37.6)*	NR
	.	.	.	No reminders for diabetes screening	.	1/35 (2.8)	.	Ref	Ref
	.	.	HbA1c	Provider and patient mail reminders for diabetes screening	1 yr	7/81 (8.6)	OR	0.5 (0.1, 1.5)*	NR
	.	.	.	Provider reminder for diabetes screening	.	7/31 (22.6)	.	1.4 (0.4, 4.8)*	NR
	.	.	.	Patient mail reminder for diabetes screening	.	9/76 (11.8)	.	0.7 (0.2, 2.0)*	NR
	.	.	.	No reminders for diabetes screening	.	6/35 (17.1)	.	Ref	Ref
	.	.	Any glucose test	Provider and patient mail reminders for diabetes screening	1 yr	61/81 (75.3)	OR	5.5 (1.4, 21.3)	NR
	.	.	.	Provider reminder for diabetes screening	.	22/31 (71.0)	.	4.2 (1.4, 12.5)	NR
.	.	.	Patient mail reminder for diabetes screening	.	60/76 (78.9)	.	5.4 (2.1, 13.5)	NR	
.	.	.	No reminders for diabetes screening	.	16/35 (45.7)	.	Ref	Ref	
Arias, 2022, 35331971	NRCS	Moderate	PP depression screening	Virtual visits	PP	571/662 (86.3)	adjOR	4.61 (3.38, 6.28)	<0.001
	.	.	.	In-person visits	.	368/565 (65.1)	.	Ref	Ref
	.	.	PP glucose tolerance test	Virtual visits	PP	15/59 (25.4)	adjOR	0.99 (0.79, 4.11)	0.32
	.	.	.	In-person visits	.	12/45 (26.7)	.	Ref	Ref

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Mendez- Figueroa, 2014, 24481876	NRCS	High	OGTT testing	Telephone reminders for diabetes screening	1.5 mo	123/207 (56.7)	NR	NR	<0.001
.	.	.	.	No telephone reminders for diabetes screening	.	78/181 (43.1)	.	Ref	Ref
Shea 2011 21466755	NRCS	Moderate	Any glucose test	Mail and/or phone reminder for diabetes screening	6 mo	27/55 (49.1)	.	NR	NS
	.	.	.	Mail reminder only for diabetes screening	.	38/90 (42.2)	.	NR	NS
	.	.	.	No mail/phone reminder for diabetes screening	.	44/117 (37.6)	.	Ref	Ref
	.	.	OGTT	Mail and/or phone reminder for diabetes screening	6 mo	20/55 (36.4)	.	NR	0.01
	.	.	.	Mail reminder only for diabetes screening	.	21/90 (23.3)	.	NR	NS
	.	.	.	No mail/phone reminder for diabetes screening	.	16/117 (13.7)	.	Ref	Ref
	.	.	Random or fasting glucose	Mail and/or phone reminder for diabetes screening	6 mo	12/55 (21.8)	.	NR	NS
	.	.	.	Mail reminder only for diabetes screening	.	23/90 (25.6)	.	NR	NS
	.	.	.	No mail/phone reminder for diabetes screening	.	31/117 (26.5)	.	Ref	Ref
	.	.	HbA1c	Mail and/or phone reminder for diabetes screening	6 mo	9/55 (16.4)	.	NR	NS
	.	.	.	Mail reminder only for diabetes screening	.	12/90 (13.3)	.	NR	NS
.	.	.	No mail/phone reminder for diabetes screening	.	16/117 (13.7)	.	Ref	Ref	
Domingo, 2022, 35237835	NRCS	Moderate	OGTT	EMR reminder for providers for OGTT testing	PP	48/78 (61.5)	NR	NR	0.20
	.	.	.	No EMR reminder for providers for OGTT testing	.	39/54 (72.2)	.	Ref	Ref

\*Calculated

Abbreviations: CI = confidence interval, mo = months, NR = not reported, NRCS = nonrandomized comparative study, NS = not statistically significant, OGTT = Oral Glucose Tolerance Test, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias

**Table E-1.6. Evidence Table – Key Question 1: Categorical outcomes: Clinical: Contraceptive initiation/continuation**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Polk 2021 34671758	RCT	Moderate	LARC use	Combined PP/well-child visit at 4 wk	6 mo	32/58 (55.2)	RR	0.84 (0.62, 1.13)*	>0.05
	.	.	.	Separate PP and well-child visits	.	38/58 (65.5)	.	Ref	.
	.	.	.	Combined PP/well-child visit at 4 wk	1 yr	33/58 (56.9)	RR	0.92 (0.68, 1.24)*	>0.05
	.	.	.	Separate PP and well-child visits	.	36/58 (62.1)	.	Ref	.
Haider 2020 31964564	RCT	Moderate	LARC use	Contraceptive counseling at well-baby visit	5 mo	44/230 (19.1)	RR	0.91 (0.63, 1.32)*	0.63
	.	.	.	Contraceptive counseling at routine PP visit	.	44/210 (20.9)	.	Ref	.
	.	.	Tier 2 contraceptive (pill, ring, patch, shot, and multiple methods) use	Contraceptive counseling at well-baby visit	5 mo	99/230 (43)	RR	1.21 (0.96, 1.53)*	0.12
	.	.	.	Contraceptive counseling at routine PP visit	.	75/210 (35.7)	.	Ref	.
Bernard 2018 29778586	RCT	Moderate	Any method	Two PP visits (3 & 6 wk)	After delivery	49/93 (52.7)	RR	0.91 (0.70, 1.18)*	.
	.	.	.	One PP visit (6 wk)	.	55/95 (57.9)	.	Ref	.
	.	.	.	Two PP visits (3 & 6 wk)	1 mo	64/93 (68.9)	RR	1.09 (0.89, 1.34)*	.
	.	.	.	One PP visit (6 wk)	.	60/95 (63.2)	.	Ref	.
	.	.	.	Two PP visits (3 & 6 wk)	2 mo	77/93 (82.8)	RR	0.98 (0.86, 1.11)*	.
	.	.	.	One PP visit (6 wk)	.	80/95 (84.2)	.	Ref	.
	.	.	LARC use	Two PP visits (3 & 6 wk)	After delivery	23/93 (24.7)	RR	0.90 (0.56, 1.46)*	.
	.	.	.	One PP visit (6 wk)	.	26/95 (27.4)	.	Ref	.
	.	.	.	Two PP visits (3 & 6 wk)	1 mo	4/93 (4.3)	RR	1.36 (0.31, 5.91)*	.
	.	.	.	One PP visit (6 wk)	.	3/95 (3.2)	.	Ref	.
	.	.	.	Two PP visits (3 & 6 wk)	2 mo	32/93 (34.4)	RR	0.84 (0.58, 1.22)*	.
	.	.	.	One PP visit (6 wk)	.	39/95 (41.1)	.	Ref	.
.	.	Reversible non-LARC use	Two PP visits (3 & 6 wk)	After delivery	22/93 (23.7)	RR	0.94 (0.57, 1.55)*	.	
.	.	.	One PP visit (6 wk)	.	24/95 (25.3)	.	Ref	.	

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	Two PP visits (3 & 6 wk)	1 mo	11/93 (11.8)	RR	5.62 (1.28, 24.7)*	.
	.	.	.	One PP visit (6 wk)	.	2/95 (2.1)	.	Ref	.
	.	.	Sterilization	Two PP visits (3 & 6 wk)	After delivery	4/93 (4.3)	RR	0.82 (0.23, 2.96)*	.
	.	.	.	One PP visit (6 wk)	.	5/95 (5.3)	.	Ref	.
	.	.	.	Two PP visits (3 & 6 wk)	1 mo	0/93 (0)	RR	1.02 (0.02, 50.9)*	.
	.	.	.	One PP visit (6 wk)	.	0/95 (0)	.	Ref	.
Dahlke 2011 21843688	RCT	Low	Continued IUD use	Immediate PP levonorgestrel IUD within 10 min after delivery	3 mo	13/15 (86.7)	RR	vs. 6 wk 0.93 (0.73, 1.17)* vs. 10-min-48 hr 0.93 (0.73, 1.18)*	-
	.	.	.	PP levonorgestrel IUD 10 min-48 hr after delivery	.	14/15 (93.3)	.	vs. 6 wk 1.00 (0.83, 1.20)*	.
	.	.	.	PP levonorgestrel IUD at 6 wk PP	.	15/16 (93.8)	.	Ref	.
	.	.	.	Immediate PP levonorgestrel IUD within 10 min after delivery	6 mo	13/15 (86.7)	RR	vs. 6 wk 0.93 (0.73, 1.17)* vs. 10-min-48 hr 0.93 (0.73, 1.18)*	-
	.	.	.	PP levonorgestrel IUD 10 min-48 hr after delivery	.	14/15 (93.3)	.	vs. 6 wk 1.00 (0.83, 1.20)*	.
	.	.	.	PP levonorgestrel IUD at 6 wk PP	.	15/16 (93.8)	.	Ref	.
Chen 2010 20966692	RCT	Moderate	Continued IUD use	Immediate PP levonorgestrel IUD placement after delivery	6 mo	43/51 (84.3)	adjOR	1.25 (0.29, 5.26)	0.77
	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	39/51 (76.5)	.	Ref	Ref
Levi 2015 26241250	RCT	Moderate	Continued IUD use	Immediate PP levonorgestrel or copper IUD after delivery	6 mo	40/48 (83.3)	RR	1.30 (1.02, 1.66)	.
	.	.	.	Levonorgestrel or copper IUD at ≥6 wk PP	.	32/50 (64.0)	.		.
Dempsey 2018 N/A	RCT	Moderate	Continued implant use	Etonogestrel insertion before discharge	6 mo	15/15 (100)	RR	1.57 (1.00, 2.45)*	.
	.	.	.	Etonogestrel insertion at 6 wk PP visit	.	7/11 (63.6)	.	Ref	.
Baldwin 2019 N/A	RCT	Moderate	Continued IUD use	Levonorgestrel IUD placement at 3 wk PP	3 mo	66/100 (66.0)	RR	0.88 (0.73, 1.05)*	.
	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	73/97 (75.3)	.	Ref	.

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	Levonorgestrel IUD placement at 3 wk PP	6 mo	53/100 (53.0)	RR	0.97 (0.75, 1.26)*	.
	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	53/97 (54.6)	.	Ref	.
Whitaker 2014 24457061	RCT	High	Continued IUD use	Immediate levonorgestrel IUD placement after delivery	6 mo	14/20 (70.0)	RR	1.18 (0.75, 1.85)*	0.53
	.	.	.	Levonorgestrel IUD placement at 4-8 wk PP visit	.	13/22 (59.1)	.	Ref	.
	.	.	.	Immediate levonorgestrel IUD placement after delivery	1 yr	12/20 (60.0)	RR	1.47 (0.79, 2.72)*	0.35
	.	.	.	Levonorgestrel IUD placement at 4-8 wk PP visit	.	9/22 (40.9)	.	Ref	.
Morse 2016 N/A	RCT	High	Continued implant use	Etonogestrel implant before discharge	6 mo	27/27 (100)	RR	1.33 (1.07, 1.65)*	.
	.	.	.	Etonogestrel implant at 6 wk PP	.	21/28 (75.0)	.	Ref	.
	.	.	.	Etonogestrel implant before discharge	1 yr	20/22 (90.9)	RR	1.06 (0.85, 1.32)*	.
	.	.	.	Etonogestrel implant at 6 wk PP	.	18/21 (85.7)	.	Ref	.
Chen 2018 N/A	RCT	High	Highly effective contraception (DMPA, IUD, implant, sterilization, or lactational amenorrhea)	PP DMPA administration before discharge	6 mo	43/79 (54.4)	RR	0.97 (0.73, 1.28)*	.
	.	.	.	PP DMPA administration 4-6 weeks PP	.	44/78 (56.4)	.	Ref	.
Jensen 2019 N/A	RCT	High	Continued IUD use	Immediate PP levonorgestrel IUD placement	3 mo	12/17 (70.6)	RR	2.26 (1.03, 4.97)*	.
	.	.	.	Levonorgestrel IUD placement at 6 wk PP visit	.	5/16 (31.3)	.	Ref	.
Simmons 2013 23218851	RCT	Low	LARC placement	Contraceptive counselor phone calls at 2 weeks and clinic visit at 6 weeks	3 mo	18/25 (72.0)	RR	1.08 (0.74, 1.57)*	0.76
	.	.	.	Clinic visit at 6 weeks	.	16/24 (66.7)	.	Ref	.

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Rutledge, 2016, 27350389	NRCS	Moderate	Injections, IUDs, implants, or at- home contraception	Case management and referral through Maternity Care Coordination (MCC) programs	3 mo	938/1709 (54.9)	NR	NR	<0.001
	.	.	.	Usual care	.	1799/4848 (37.1)	.	Ref	Ref
Tsai 2011 21365543	NRCS	High	Pills, patch, ring, DMPA	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	PP	57/115 (49.6)	adjRR	1.43 (1.04, 1.96)	NR
	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	37/106 (34.9)	.	Ref	Ref
	.	.	Sterilization or IUD	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	PP	22/115 (19.1)	adjRR	1.69 (0.88, 3.23)	NR
	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	12/106 (11.3)	.	Ref	Ref

Abbreviations: Adj = adjusted, CI = confidence interval, DMPA = depot medroxyprogesterone acetate, IUD = intrauterine device, mo = months, OR = odds ratio, PMID = PubMed ID, PP = postpartum, Ref = reference arm, RoB = risk of bias, RR = relative risk

**Table E-1.7. Evidence Table – Key Question 1: Categorical outcomes: Clinical: Interpregnancy interval and unplanned pregnancy**

Study Year PMID	Design	Overall RoB	Outcome Measure	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Norr 2003 12716399	RCT	Moderate	Subsequent pregnancy	Mexican Americans	Home visits by nurse-led community worker team (REACH-Futures Program)	1 yr	5/76 (6.7)	RR	0.64 (0.22, 1.87)*	≥0.05
	.	.	.	.	Routine PP and well-baby visits with current provider	.	8/78 (10.3)	.	Ref	Ref
	.	.	.	African Americans	Home visits by nurse-led community worker team (REACH-Futures Program)	1 yr	24/182 (13.2)	RR	1.03 (0.58, 1.82)*	≥0.05
	.	.	.	.	Routine PP and well-baby visits with current provider	.	18/141 (12.8)	.	Ref	Ref
Koniak-Griffin 2003 12657988	RCT	Moderate	Subsequent pregnancy	All	Early Intervention Program (EIP)	2 yr	18/56 (32.1)	RR	0.69 (0.42, 1.13)*	>0.10
	.	.	.	.	Traditional Public Health Nursing Care (TPHNC)	.	21/45 (46.7)	.	Ref	Ref
Baldwin 2019 N/A	RCT	Moderate	Pregnancy with IUD in place	All	Levonorgestrel IUD placement at 3 wk PP	6 mo	0/100 (0)	RR	No events	.
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	0/97 (0)	.	No events	.
Morse 2016 N/A	RCT	High	Pregnancy	All	Etonogestrel implant before discharge	1 yr	0/22 (0)	RR	0.36 (0.02, 8.39)*	.
	.	.	.	.	Etonogestrel implant at 6 wk PP	.	1/24 (4.1)	.	Ref	Ref
Tsai 2011 21365543	NRCS	High	Subsequent pregnancy	All	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	<6 mo	6/106 (5.7)	adjRR	Ref	Ref
	.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	9/115 (7.8)	.	0.72 (0.27, 1.95)*	.
	.	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	6-12 mo	10/106 (9.4)	adjRR	Ref	Ref
	.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	7/115 (6.1)	.	1.55 (0.61, 3.93)*	.
	.	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	>1 yr	13/106 (12.3)	adjRR	Ref	Ref
	.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	8/115 (7)	.	1.76 (0.76, 4.08)*	.

Abbreviations: CI = confidence interval, PMID = PubMed ID, RoB = risk of bias



**Table E-1.8. Evidence Table – Key Question 1: Categorical outcomes: Clinical: Mental health**

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Lieu 2000 10790463	RCT	Moderate	Depressive symptoms (CESD $\geq 16$ )	Home visit by nurse on day 3 or 4 PP	2 wk	126/580 (22)	RR	1.02 (0.82, 1.27)	0.94
	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	123/583 (21)	.	Ref	.
Escobar 2001 11533342	RCT	High	Significant depressive symptoms (CESD $\geq 16$ )	Home visit by nurse on day 3 or 4 PP	2 wk	103/508 (20.8)	RR	1.19 (0.92, 1.54)*	0.24
	.	.	.	Hospital visit on day 3 or 4 PP	.	86/506 (17.9)	.	Ref	Ref
McCarter, 2019, 31222789	RCT	High	EPDS score 10-12	Telephone-based nursing care	PP	7/190 (4)	RR	0.62 (0.24, 1.58)	NR
	.	.	.	Usual Care	.	10/167 (6)	.	Ref	Ref
	.	.	EPDS score >12	Telephone-based nursing care	PP	11/190 (7)	RR	2.42 (0.78, 7.45)	NR
	.	.	.	Usual care	.	4/167 (2)	.	Ref	Ref
Dodge, 2019, 31675088	RCT	Moderate	Possible depression or anxiety	Nurse home visitation through Family Connects (FC) Program	6 mo	29/158 (18.4)	$\beta$	-7.70 (-16.7, 1.33)	0.09
	.	.	.	Usual care	.	41/158 (25.9)	.	Ref	Ref
Koniak-Griffin 2003 12657988	RCT	Moderate	Alcohol use in past mo	Early Intervention Program (EIP)	1 yr	18/56 (32.9)	RR	0.76 (0.46, 1.27)*	.
	.	.	.	Traditional Public Health Nursing Care (TPHNC)	.	19/45 (43.3)	.	Ref	.
	.	.	Marijuana use in past mo	Early Intervention Program (EIP)	1 yr	5/56 (8.6)	RR	0.50 (0.18, 1.42)*	.
	.	.	.	Traditional Public Health Nursing Care (TPHNC)	.	8/45 (16.8)	.	Ref	.
	.	.	Tobacco use in past mo	Early Intervention Program (EIP)	1 yr	11/56 (19.7)	RR	0.98 (0.45, 2.16)*	.
	.	.	.	Traditional Public Health Nursing Care (TPHNC)	.	9/45 (20.9)	.	Ref	.
Hans 2018 29855838	RCT	High	Depressive symptoms (CESD $\geq 16$ )	Home visits by doula and hospital support for childbirth preparation and childbirth	3 wk	31/140 (22.1)	adj OR	0.96 (0.53, 1.71)	NS

Study Year PMID	Design	Overall RoB	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	Case management by community case managers or social service providers	.	31/142 (21.8)	.	Ref	Ref
	.	.	.	Home visits by doulas and hospital support for childbirth preparation and childbirth	3 mo	18/138 (13)	adj OR	0.95 (0.47, 1.91)	0.45
	.	.	.	Case management by community case managers or social service providers	.	21/139 (15.1)	.	Ref	Ref
Edwards 1997 9170692	RCT	Low	PP depression diagnosis	Public Health Nurse Telephone Visit	3 mo	18/279 (6.5)	RR	vs. Education package 1.71 (0.82, 3.55)* vs. Health Department 1.56 (0.72, 3.41)*	.
	.	.	.	Health Department Clerk Reminder Call	.	9/218 (4.2)	.	vs. Education package 1.09 (0.46, 2.59)*	.
	.	.	.	PP education package	.	11/291 (3.8)	.	Ref	.
Tandon 2021 33655429	RCT	High	Major depressive episode	Home visits by mental health professionals through the Mothers and Babies (MB) Program	6 mo	16/272 (5.9)	OR	vs. Usual 0.82 (0.22, 3.09)	.
	.	.	.	Home visits by community health workers through the Mothers and Babies (MB) Program	.	24/365 (6.6)	OR	vs. Usual 0.74 (0.20, 2.60) vs. Mental Health Professionals: 0.89 (0.31, 2.55)	.
	.	.	.	Usual home visits (visitor type unspecified)	.	10/146 (6.8)	OR	Ref	.
Falconi, 2022, 35812994	NRCS	High	PP anxiety or depression	Doula support	2 mo	18/298 (6.0)	adjOR	0.93 (0.48, 1.79)	NR
	.	.	.	No doula support	.	42/298 (14.1)	.	Ref	Ref

Abbreviations: adj = adjusted, CESD = Center for Epidemiological Studies Depression score, CI = confidence interval, EPDS = Edinburgh Postpartum Depression Scale, PMID = PubMed ID, OR = odds ratio, PP = postpartum, RoB = risk of bias, RR = relative risk

**Table E-1.9. Evidence Table – Key Question 1: Categorical outcomes: Severe morbidity, mortality, harms, infections**

Study Year PMID	Design	Overall RoB	Outcome	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Chen 2010 20966692	RCT	Moderate	Harms	Infection	Immediate PP levonorgestrel IUD placement after delivery	6 mo	1/51 (2)	RR	1.00 (0.06, 15.56)*	NR
	.	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	1/51 (2)	.	Ref	Ref
Levi 2015 26241250	RCT	Moderate	Harms	Serious AEs	Immediate PP levonorgestrel or copper IUD after delivery	PP	0/56 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel or copper IUD at ≥6 wk PP	.	0/56 (0)	.	Ref	-
	.	.	Harms	Perforation	Immediate PP levonorgestrel or copper IUD after delivery	NR	0/56 (0)	RR	0.33 (0.01, 7.93)*	NR
	.	.	.	.	Levonorgestrel or copper IUD at ≥6 wk PP	.	1/56 (1.8)	.	Ref	Ref
Dempsey 2018 N/A	RCT	Moderate	Mortality	All-cause mortality	Etonogestrel insertion before discharge	PP	0/15 (0)	RR	No events	-
	.	.	.	.	Etonogestrel insertion at 6 wk PP visit	.	0/11 (0)	.	Ref	-
	.	.	Harms	Serious AEs	Etonogestrel insertion before discharge	PP	0/15 (0)	RR	2.23 (0.10, 49.9)*	NR
	.	.	.	.	Etonogestrel insertion at 6 wk PP visit	.	0/11 (0)	.	Ref	Ref
Baldwin 2019 N/A	RCT	Moderate	Harms	Serious AEs	Levonorgestrel IUD placement at 3 wk PP	PP	0/100 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	0/97 (0)	.	Ref	-
	.	.	.	IUD perforation	Levonorgestrel IUD placement at 3 wk PP	6 mo	0/100 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	0/97 (0)	.	Ref	-
	.	.	Infections	Infection with IUD in place	Levonorgestrel IUD placement at 3 wk PP	6 mo	0/100 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP	.	0/97 (0)	.	Ref	-
Whitaker 2014 24457061	RCT	High	Severe morbidity - Bleeding	Menorrhagia	Immediate levonorgestrel IUD placement after delivery	PP	0/20 (0)	RR	0.22 (0.01, 4.32)*	NR
	.	.	.	.	Levonorgestrel IUD placement at 4-8 wk PP visit	.	2/22 (9.1)	.	Ref	Ref
	.	.	Harms	Serious AEs	Immediate levonorgestrel IUD placement after delivery	PP	0/20 (0)	RR	No events	-

Study Year PMID	Design	Overall RoB	Outcome	Outcome Measure	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	Levonorgestrel IUD placement at 4-8 wk PP visit	.	0/22 (0)	.	Ref	-
Morse 2016 N/A	RCT	High	Harms	Serious AEs	Etonogestrel implant before discharge	1 yr	0/29 (0)	RR	No events	-
	.	.	.	.	Etonogestrel implant at 6 wk PP	.	0/30 (0)	.	Ref	-
Chen 2018 N/A	RCT	High	Mortality	All-cause mortality	PP DMPA administration before discharge	6 mo	0/79 (0)	.	No events	-
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	0/78 (0)	.	Ref	-
	.	.	Harms	Serious AEs	PP DMPA administration before discharge	6 mo	0/79 (0)	.	No events	-
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	0/78 (0)	.	Ref	-
Jensen 2019 N/A	RCT	High	Mortality	All-cause mortality	Immediate PP levonorgestrel IUD placement	3 mo	0/17 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP visit	.	0/16 (0)	.	Ref	-
	.	.	Harms	Serious AEs	Immediate PP levonorgestrel IUD placement	3 mo	0/17 (0)	RR	No events	-
	.	.	.	.	Levonorgestrel IUD placement at 6 wk PP visit	.	0/16 (0)	.	Ref	-
Kerver 2019 N/A	RCT	High	Mortality	All-cause mortality	In-person, phone, and online support by peer counselors and smart phone-based weight control program	7 mo	0/18 (0)	RR	No events	-
	.	.	.	.	Support by prenatal care provider	.	0/17 (0)	.	Ref	-
Falconi, 2022, 35812994	NRCS	High	Severe PP morbidity or mortality	Severe PP morbidity or mortality	Doula support	2 mo	6/298 (2.0)	adjOR	0.45 (0.11, 1.83)	NR
	.	.	.	.	No doula support	.	7/298 (2.4)	.	Ref	Ref
Mendez-Figueroa, 2014, 24481876	NRCS	High	Diabetes	Fasting glucose $\geq 126$ mg/dl and/or 2-hr glucose $\geq 200$ mg/dl	Telephone reminders for diabetes screening	1 yr	8/217 (3.7)	NR	NR	0.77
	.	.	.	.	No telephone reminders for diabetes screening	.	4/181 (2.2)	.	Ref	Ref

\*Calculated

Abbreviations: AE = adverse event, CI = confidence interval, mo = months, N/A = not applicable, PMID = PubMed ID, RoB = risk of bias, Ref = reference arm, OR = odds ratio, RR = relative risk

**Table E-1.10. Evidence Table – Key Question 1: Categorical outcomes: Any breastfeeding or breastfeeding initiation**

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Escobar 2001 11533342	RCT	High	Any BF	All	Home visit by nurse on day 3 or 4 PP	2 wk	423/508 (83.3)	RR	0.99 (0.94, 1.05)*	.
	.	.	.	.	Hospital visit on day 3 or 4 PP	.	424/506 (83.8)	.	Ref	.
Steel O'Connor 2003 12675164	RCT	High	Any BF	All	Telephone visit by public health nurse	2 wk	292/332 (88)	RR	0.99 (0.94, 1.05)*	.
	.	.	.	.	Home visit by public health nurse	.	271/306 (88.6)	.	Ref	.
	.	.	.	.	Telephone visit by public health nurse	1 mo	266/289 (92)	RR	0.97 (0.93, 1.01)*	.
	.	.	.	.	Home visit by public health nurse	.	255/269 (94.8)	.	Ref	.
	.	.	.	.	Telephone visit by public health nurse	6 mo	149/261 (57.1)	RR	0.97 (0.84, 1.12)*	.
.	.	.	.	Home visit by public health nurse	.	146/247 (59.1)	.	Ref	.	
Paul 2012 22064874	RCT	High	Any BF	All	First PP visit at home	2 wk	NR/NR (92.3)	NR	NR	0.05
	.	.	.	.	First PP visit in clinic	.	NR/NR (88.6)	.	.	Ref
	.	.	.	.	First PP visit at home	2 mo	NR/NR (72.1)	NR	NR	0.05
	.	.	.	.	First PP visit in clinic	.	NR/NR (66.4)	.	.	Ref
	.	.	.	.	First PP visit at home	6 mo	NR/NR (49.8)	NR	NR	0.80
.	.	.	.	First PP visit in clinic	.	NR/NR (48.9)	.	.	Ref	
Mersky 2021 33078655	RCT	High	BF initiation	All	Home visits by human service professionals through the Healthy Families America (HFA) Program	PP	61/72 (88.4)	RR	vs. No home visits 1.30 (1.10, 1.55)* vs. PNCC 1.02 (0.88, 1.18)*	.
	.	.	.	.	Home visits by public health nurses through the Prenatal Care and Coordination (PNCC) Program	.	54/65 (88.5)	RR	vs. No home visits 1.28 (1.07, 1.53)*	.
	.	.	.	.	No home visits	.	65/100 (65)	RR	Ref	Ref
Pugh 2010 19854119	RCT	High	Any BF	All	BF support team inpatient and home visits and pager access	1.5 mo	111/168 (66.7)	adj OR	1.72 (1.07, 2.76)	0.03
	.	.	.	.	Inpatient visits by lactation consultant and home telephone access	.	91/160 (56.9)	.	Ref	Ref
	.	.	.	.	BF support team inpatient and home visits and pager access	3 mo	83/168 (49.4)	adj OR	1.58 (1.00, 2.49)	0.05
	.	.	.	.	Inpatient visits by lactation consultant and home telephone access	.	65/160 (40.6)	.	Ref	Ref
	.	.	.	.	BF support team inpatient and home visits and pager access	6 mo	49/168 (29.2)	adj OR	1.14 (0.69, 1.87)	NS
.	.	.	.	Inpatient visits by lactation consultant and home telephone access	.	45/160 (28.1)	.	Ref	Ref	

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Bender, 2022, 36201773	RCT	Moderate	Any BF	All	Text message-based BF support	1.5 mo	73/93 (78.5)	NR	1.11 (0.94, 1.32)*	0.22
	.	.	.	.	Usual care	.	65/92 (70.7)	.	Ref	Ref
	.	.	.	Black	Text message-based BF support	.	29/43 (67.4)	NR	1.25 (0.90, 1.74)*	0.19
	.	.	.	.	Usual care	.	27/50 (54.0)	.	Ref	Ref
	.	.	.	Non-Black	Text message-based BF support	.	44/50 (88.0)	NR	1.11 (0.94, 1.32)*	0.70
	.	.	.	.	Usual care	.	38/42 (90.5)	.	Ref	Ref
Arias, 2022, 35331971	NRCS	Moderate	Any BF	All	Virtual visits	PP visit	473/654 (72.3)	adjOR	0.97 (0.84, 1.12)	0.25
	.	.	.	.	In-person visits	.	420/558 (75.3)	.	Ref	Ref
Gill 2007 17557933	NRCS	High	Any BF	All	Telephone calls from research team and as needed lactation consultant home visits	1 mo	58/79 (74)	adj RR	1.19 (NR)	.
	.	.	.	.	Standard BF education in clinic and/or WIC site	.	49/79 (62)	.	Ref	.
	.	.	.	.	Telephone calls from research team and as needed lactation consultant home visits	3 mo	44/79 (56)	adj RR	1.61 (NR)	.
	.	.	.	.	Standard BF education in clinic and/or WIC site	.	28/79 (35)	.	Ref	.
	.	.	.	.	Telephone calls from research team and as needed lactation consultant home visits	6 mo	34/79 (43)	adj RR	2.08 (NR)	.
	.	.	.	.	Standard BF education in clinic and/or WIC site	.	17/79 (21)	.	Ref	.
Hans 2018 29855838	RCT	High	Any BF	All	Home visits by doulas and hospital support for childbirth preparation and childbirth	3 mo	24/142 (16.9)	adj OR	0.85 (0.45, 1.60)	NS
	.	.	.	.	Case management by community case managers or social service providers	.	31/142 (21.8)	.	Ref	.
Rozga 2016 27423234	NRCS	Moderate	Any BF	All	Home visits, phone calls, and WIC clinical support from peer counselors as part of the BF Initiative Program	6 mo	110/472 (23.3)	.	NR	0.19
	.	.	.	.	Standard home visit, phone calls, and hospital contact with peer counselors	.	63/226 (27.9)	.	Ref	.
	.	.	.	.	Home visits, phone calls, and WIC clinical support from peer counselors as part of the BF Initiative Program	1 yr	38/472 (8)	.	NR	0.50

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	Standard home visit, phone calls, and hospital contact with peer counselors	.	21/226 (9.5)	.	NR	Ref
Witt 2021 33956505	NRCS	Moderate	Any BF	All	Before integration of lactation consultant and primary care provider care	Initial PP visit	150/197 (77.7)	.	NR	Ref
	.	.	.	.	After integration of lactation consultant and primary care provider care	.	203/245 (82.9)	.	NR	0.18
	.	.	.	.	Before integration of lactation consultant and primary care provider care	2 mo	94/197 (54)	.	NR	Ref
	.	.	.	.	After integration of lactation consultant and primary care provider care	.	144/245 (60.5)	.	NR	0.19
	.	.	.	.	Before integration of lactation consultant and primary care provider care	4 mo	69/197 (44.2)	.	NR	Ref
	.	.	.	.	After integration of lactation consultant and primary care provider care	.	98/245 (50.3)	.	NR	0.26
	.	.	.	.	Before integration of lactation consultant and primary care provider care	6 mo	47/197 (32.4)	.	NR	Ref
	.	.	.	.	After integration of lactation consultant and primary care provider care	.	55/245 (37.4)	.	NR	0.37
Dahlke 2011 21843688	RCT	Low	Any BF	All	Immediate PP levonorgestrel IUD within 10 min after delivery	6 mo	12/15 (80.0)	RR	<u>vs. 6 wk</u> 1.28 (0.81, 2.02)* <u>vs. 10 min-48 hr</u> 1.00 (0.70, 1.43)*	.
	.	.	.	.	PP levonorgestrel IUD 10 min-48 hr after delivery	.	12/15 (80.0)	.	<u>vs. 6 wk</u> 1.28 (0.81, 2.02)*	.
	.	.	.	.	PP levonorgestrel IUD at 6 wk PP	.	10/16 (62.5)	.	Ref	.
Chen 2010 20966692	RCT	Moderate	Any BF	All	Immediate PP levonorgestrel IUD placement after delivery	3 mo	7/50 (14.0)	RR	0.50 (0.22, 1.14)*	.
	.	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	13/46 (28.3)	.	Ref	.
	.	.	.	.	Immediate PP levonorgestrel IUD placement after delivery	6 mo	3/50 (6.0)	RR	0.25 (0.08, 0.84)*	.
	.	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	11/46 (23.9)	.	Ref	.



Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Morse 2016 N/A	RCT	High	Any BF	All	Etonogestrel implant before discharge	6 mo	6/27 (22.2)	RR	1.24 (0.43, 3.59)*	.
	.	.	.	.	Etonogestrel implant at 6 wk PP	.	5/28 (17.9)	.	Ref	.
Chen 2018 N/A	RCT	High	Any BF	All	PP DMPA administration before discharge	1 mo	69/79 (87.3)	RR	1.02 (0.90, 1.15)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	66/77 (85.7)	.	Ref	.
	.	.	.	.	PP DMPA administration before discharge	3 mo	51/79 (64.6)	RR	1.04 (0.82, 1.33)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	47/76 (61.8)	.	Ref	.
	.	.	.	.	PP DMPA administration before discharge	6 mo	34/78 (43.6)	RR	1.05 (0.73, 1.51)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	32/76 (42.1)	.	Ref	.
Kozhimannil 2013 23837663	NRCS	Moderate	BF initiation	All	Doula support through the Everyday Miracles Program	PP	1047/1069 (97.9) [97, 98.7]	.	NR	NR
	.	.	.	.	No doula supported care	.	41791/51721 (80.8) [78, 83.3]	.	NR	NR
	.	.	.	White	Doula support through the Everyday Miracles Program	PP	NR/NR (98.2) [95.6, 100]	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (78.7) [74.5, 82.4]	.	NR	NR
	.	.	.	African American	Doula support through the Everyday Miracles Program	PP	NR/NR (92.7) [87.8, 97.7]	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (70.3) [64.5, 75.5]	.	NR	NR
	.	.	.	African Descent	Doula support through the Everyday Miracles Program	PP	NR/NR (99.5) [98.8, 100]	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (95.2) [82.4, 98.8]	.	NR	NR
	.	.	.	Hispanic	Doula support through the Everyday Miracles Program	PP	NR/NR (99.2) [98.4, 100]	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (92) [85.5, 95.8]	.	NR	NR
	.	.	.	Asian	Doula support through the Everyday Miracles Program	PP	NR/NR (86.4) [77.4, 95.4]	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (NR) [NR, NR]	.	NR	NR

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	Native American	Doula support through the Everyday Miracles Program	PP	NR/NR (NR)	.	NR	NR
	.	.	.	.	No doula supported care	.	NR/NR (66.1)	.	NR	NR
Dennis 2002 11800243	RCT	Low	Any BF	All	BF peer support and standard care	1 mo	122/132 (92.4)	RR	1.10 (1.01, 1.21)*	0.03
	.	.	.	.	BF standard care only	.	104/124 (83.9)	.	Ref	.
	.	.	.	.	BF peer support and standard care	3 mo	107/132 (81.1)	RR	1.21 (1.04, 1.41)	0.01
	.	.	.	.	BF standard care only	.	83/124 (66.9)	.	Ref	.
Gross 1998 12515413	RCT	Moderate	Any BF	All	Heritage and Pride (BHP) peer counseling program	1.4 wk	25/35 (80)	RR	1.34 (0.80, 2.25)*	.
	.	.	.	.	Routine BF education	.	23/32 (72)	.	1.35 (0.80, 2.27)*	.
	.	.	.	.	Video BF education	.	22/33 (67)	.	1.25 (0.70, 2.13)*	.
	.	.	.	.	Standard WIC BF education	.	8/15 (53)	.	Ref	.
	.	.	.	.	Heritage and Pride (BHP) peer counseling program	2 mo	21/30 (70)	RR	3.03 (1.09, 8.41)*	.
	.	.	.	.	Routine BF education	.	3/4 (75)	.	3.25 (1.03, 10.2)*	.
	.	.	.	.	Video BF education	.	21/28 (75)	.	3.23 (1.18, 8.97)*	.
	.	.	.	.	Standard WIC BF education	.	3/13 (23)	.	Ref	.
	.	.	.	.	Heritage and Pride (BHP) peer counseling program	4 mo	16/30 (40)	RR	Not estimable	.
	.	.	.	.	Routine BF education	.	12/23 (52)	.	Not estimable	.
	.	.	.	.	Video BF education	.	13/27 (48)	.	Not estimable	.
	.	.	.	.	Standard WIC BF education	.	0/13 (0)	.	Ref	.
Wambach 2011 20876551	RCT	High	BF initiation	All	Lactation consultant-peer counselor team support	At dischar ge	77/97 (79)	RR	<u>vs. Advanced</u> 1.21 (1.01, 1.45)* <u>vs. Usual</u> 1.27 (1.06, 1.52)*	.
	.	.	.	.	Advanced-practice nurse and peer counselor attention control	.	59/90 (66)	NR	<u>vs. Usual</u> 1.05 (0.85, 1.29)*	.
	.	.	.	.	Usual home visits	.	64/102 (63)	.	Ref	Ref
Chapman 2013 23209111	RCT	High	Any BF	All	Specialized BF peer counseling (SBFPC)	2 wk	NR/NR (NR)	adj OR	3.76 (1.07, 13.2)	0.04
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (NR)	.	Ref	Ref
Srinivas 2015 25193602	RCT	High	Any BF	All	BF counseling by peer and non-peer counselors	1 mo	34/50 (68)	RR	1.22 (0.93, 1.6)	0.14
	.	.	.	.	BF counseling by non-peer counselors only	.	28/53 (53)	.	Ref	.
	.	.	.	.	BF counseling by peer and non-peer counselors	6 mo	4/50 (8)	adj OR/RR	0.97 (0.22, 3.56)	0.96

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	BF counseling by non-peer counselors only	.	4/52 (8)	.	Ref	.
Kerver 2019 N/A	RCT	High	Any BF	All	In-person, phone, and online support by peer counselors and smart phone-based weight control program	5 mo	9/18 (50.0)	RR	1.06 (0.53, 2.10)*	.
	.	.	.	.	Support by prenatal care provider	.	8/17 (47.1)	.	Ref	.
Porteous 2000 11155608	RCT	Moderate	Any BF	All	Hospital visits by midwife and telephone access through 1 mo PP	1 mo	26/26 (100)	RR	1.47 (1.12, 1.92)*	.
	.	.	.	.	Conventional nursing care group	.	17/25 (68)	.	Ref	.
Rasmussen 2011 20958105	RCT	Moderate	Any BF	All	Additional BF support by a lactation consultant	1 mo	13/19 (68.4)	RR	0.76 (0.54, 1.07)*	.
	.	.	.	.	Standard BF support without a lactation consultant	.	18/20 (90.0)	.	Ref	.
	.	.	.	.	Additional BF support by a lactation consultant	3 mo	6/19 (31.6)	RR	0.53 (0.25, 1.12)*	.
	.	.	.	.	Standard BF support without a lactation consultant	.	12/20 (60.0)	.	Ref	.
Bonuck 2014a 24354834	RCT	Moderate	Any BF	All	Electronic prompts for provider and lactation consultant for patients	1 mo	108/129 (87.1)	RR	2.79 (1.46, 5.32)	0.002
	.	.	.	.	Standard BF support	.	92/133 (70.8)	.	Ref	Ref
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	3 mo	76/129 (60.8)	RR	1.93 (1.17, 3.19)	0.01
	.	.	.	.	Standard BF support	.	57/133 (44.5)	.	Ref	Ref
	.	.	.	.	Lactation consultant and electronically prompted guidance from provider	6 mo	46/129 (37.7)	RR	1.77 (1.03, 3.07)	0.04
	.	.	.	.	No explicit BF support	.	31/133 (25.4)	.	Ref	Ref
Bonuck 2014b 24354834	RCT	Moderate	Any BF	All	Electronic prompts for provider and lactation consultant for patients	1 mo	172/238 (76.1)	RR	1.27 (1.03, 1.56)*	.
	.	.	.	.	Only lactation consultant for patients	.	54/77 (74)	.	1.23 (0.96, 1.56)*	.
	.	.	.	.	Only electronic prompts for provider	.	158/236 (70.9)	.	1.17 (0.85, 1.45)*	.
	.	.	.	.	Standard BF support	.	44/77 (60.3)	.	Ref	.
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	3 mo	127/238 (56.2)	RR	1.47 (1.07, 2.02)*	.
	.	.	.	.	Only lactation consultant for patients	.	37/77 (50.7)	.	1.31 (0.91, 1.92)*	.
	.	.	.	.	Only electronic prompts for provider	.	102/236 (44.5)	.	1.19 (0.86, 1.65)*	.
	.	.	.	.	Standard BF support	.	28/77 (37.8)	.	Ref	.
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	6 mo	80/238 (34.6)	RR	1.29 (0.95, 1.96)*	.
.	.	.	.	Only lactation consultant for patients	.	30/77 (40.5)	.	1.50 (0.94, 2.40)*	.	

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	Only electronic prompts for provider	.	75/236 (33.0)	.	1.22 (0.80, 1.66)*	.
	.	.	.	.	Standard BF support	.	20/77 (27.0)	.	Ref	.
Uscher-Pines 2020 31629118	RCT	High	Any BF	All	Unlimited on-demand video BF support by lactation consultant through Telelactation app and standard in-hospital BF support	3 mo	67/94 (71)	RR	1.05 (0.87, 1.27)*	.
	.	.	.	.	Standard in-hospital BF support only	.	63/93 (68)	.	Ref	.
Tsai 2011 21365543	NRCS	High	Any BF	All	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	PP visit 1	17/106 (16.0)	Adj RR	Ref	Ref
	.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	33/115 (28.7)	.	1.79 (1.06, 3.03)	0.015
	.	.	.	.	Before initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	PP visit 2	13/106 (12.3)	Adj RR	Ref	Ref
	.	.	.	.	After initiative to provide patient PP appointment information in the hospital and a photo of patient and baby at PP visit	.	33/115 (28.7)	.	2.33 (1.30, 4.17)	0.01
Abbass-Dick 2020 32739716	RCT	Moderate	Any BF	All	eHealth BF co-parenting website	1 mo	56/56 (100)	RR	1.02 (0.98, 1.06)*	1
	.	.	.	.	Available community resources only	.	55/56 (98)	.	Ref	.
	.	.	.	.	eHealth BF co-parenting website	3 mo	52/56 (93)	RR	0.98 (0.89, 1.08)*	1
	.	.	.	.	Available community resources only	.	53/56 (95)	.	Ref	.
	.	.	.	.	eHealth BF co-parenting website	6.5 mo	49/55 (89)	RR	1.00 (0.88, 1.14)*	.
	.	.	.	.	Available community resources only	.	50/56 (89)	.	Ref	.
	.	.	.	.	eHealth BF co-parenting website	1 y	39/55 (71)	RR	0.91 (0.73, 1.14)*	0.41
	.	.	.	.	Available community resources only	.	42/54 (78)	.	Ref	.

**Table E-1.11. Evidence Table – Key Question 1: Categorical outcomes: Exclusive BF**

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Gagnon 2002 12042545	RCT	Moderate	Exclusive BF	All	Home visit by community nurse	2 wk	183/259 (72.6)	RR	1.04 (0.94, 1.17)	.
	.	.	.	.	Hospital visit with nurse	.	171/254 (69.2)	.	Ref	.
Pugh, 2002, 12000411	RCT	Moderate	Exclusive BF	All	Home visits by peer counselors	3 mo	9/21 (45)	RR	1.71 (0.69, 4.24)	NR
	.	.	.	.	Usual care	.	5/20 (25)	.	Ref	Ref
	.	.	.	.	Home visits by peer counselors	6 mo	6/21 (30)	RR	1.91 (0.55, 6.60)	NR
	.	.	.	.	Usual care	.	3/20 (15)	.	Ref	Ref
Laliberte 2016 26871448	RCT	Moderate	Exclusive BF in past 2 weeks	All	BF clinic within 48 hours PP with additional visits as indicated	2 wk	192/295 (65.1)	OR	1.32 (0.87, 1.99)	.
	.	.	.	.	Standard Care	.	82/140 (58.6)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	1 mo	191/294 (65)	OR	1.25 (0.82, 1.91)	.
	.	.	.	.	Standard Care	.	80/134 (59.7)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	3 mo	195/295 (66.1)	OR	1.28 (0.84, 1.95)	.
	.	.	.	.	Standard Care	.	81/134 (60.5)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	6 mo	151/292 (51.7)	OR	1.24 (0.83, 1.86)	.
.	.	.	.	Standard Care	.	64/138 (46.4)	.	Ref	.	
Chen 2010 20966692	RCT	Moderate	Exclusive BF	All	Immediate PP levonorgestrel IUD placement after delivery	3 mo	1/50 (2.0)	RR	0.10 (0.01, 0.76)*	.
	.	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	9/46 (19.6)	.		
	.	.	.	.	Immediate PP levonorgestrel IUD placement after delivery	6 mo	1/50 (2.0)	RR	0.15 (0.02, 1.20)*	0.05
	.	.	.	.	Levonorgestrel IUD placement at 6-8 wk PP visit	.	6/46 (13.0)	.		.
Chen 2018 N/A	RCT	High	Exclusive BF	All	PP DMPA administration before discharge	1 mo	29/79 (36.7)	RR	1.01 (0.67, 1.53)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	28/77 (36.4)	.	Ref	.
	.	.	.	.	PP DMPA administration before discharge	3 mo	17/79 (21.5)	RR	0.74 (0.43, 1.29)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	22/76 (28.9)	.	Ref	.

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
	.	.	.	.	PP DMPA administration before discharge	6 mo	9/78 (11.5)	RR	0.88 (0.38, 2.04)*	.
	.	.	.	.	PP DMPA administration 4-6 weeks PP	.	10/76 (13.2)	.	Ref	.
Dennis 2002 11800243	RCT	Low	Exclusive BF	All	BF peer support and standard care	1 mo	98/132 (74.2)	RR	1.18 (1, 1.4)*	0.03
	.	.	.	.	BF standard care only	.	78/124 (62.9)	.	Ref	Ref
	.	.	.	.	BF peer support and standard care	3 mo	75/132 (56.8)	RR	1.41 (1.09, 1.83)*	0.01
	.	.	.	.	BF standard care only	.	50/124 (40.3)	.	Ref	Ref
Reeder 2014 25092936	RCT	Low	Exclusive BF	All	Peer counseling with 4-8 telephone calls and WIC Program	1 mo	NR/NR (NR)	RR	1.07 (0.97, 1.18)	≥0.05
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	Ref
	.	.	.	.	Peer counseling with 4-8 telephone calls and WIC Program	3 mo	NR/NR (NR)	RR	1.10 (0.97, 1.26)	≥0.05
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	Ref
	.	.	.	.	Peer counseling with 4-8 telephone calls and WIC Program	6 mo	NR/NR (NR)	RR	0.99 (0.83, 1.18)	≥0.05
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	.
Anderson 2005 16143742	RCT	Moderate	Exclusive BF	All	Peer counselor BF support and conventional support from clinic staff	At discharge	37/63 (58.7)	RR	1.32 (0.95, 1.84)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	31/72 (43.1)	.	Ref	.
	.	.	.	.	Peer counselor BF support and conventional support from clinic staff	1 mo	17/63 (27)	RR	3.89 (1.52, 9.90)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	5/72 (6.9)	.	Ref	.
	.	.	.	.	Peer counselor BF support and conventional support from clinic staff	3 mo	13/63 (20.6)	RR	14.9 (2.0, 111.8)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	1/72 (1.4)	.	Ref	.

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Chapman 2004 15351756	RCT	High	Exclusive BF	All	Heritage and Pride (BHP) peer counseling program	1 mo	NR/84 (NR)	RR	1.07 (0.90, 1.27)	.
	.	.	.	.	Routine BF education	.	NR/73 (NR)	.	Ref	.
Wambach 2011 20876551	RCT	High	Exclusive BF	All	Lactation consultant-peer counselor team support	At discharge	63/97 (65)	RR	<u>Vs. Advanced</u> 0.96 (0.78, 1.18)* <u>Vs. Usual</u> 1.05 (0.85, 1.30)*	.
	.	.	.	.	Advanced-practice nurse and peer counselor attention control	.	61/90 (68)	.	<u>Vs. Usual</u> 1.10 (0.89, 1.35)*	.
	.	.	.	.	Usual home visits	.	63/102 (62)	.	Ref	.
Chapman 2013 23209111	RCT	High	Exclusive BF since delivery	All	Specialized BF peer counseling (SBFPC)	1 d	NR/NR (44.7)	NR	NR	0.99
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (44.9)	.	NR	Ref
	.	.	.	.	Specialized BF peer counseling (SBFPC)	1 mo	NR/NR (17.6)	NR	NR	0.37
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (12.1)	.	NR	Ref
	.	.	.	.	Specialized BF peer counseling (SBFPC)	3 mo	NR/NR (5)	NR	NR	0.49
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (9.4)	.	NR	Ref
	.	.	.	.	Specialized BF peer counseling (SBFPC)	6 mo	NR/NR (1.7)	NR	NR	0.49
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (0)	.	NR	Ref
	.	.	Exclusive BF in the past week	All	Specialized BF peer counseling (SBFPC)	1 mo	NR/NR (31.7)	NR	NR	0.61
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (27.4)	.	NR	Ref
.	.	.	.	Specialized BF peer counseling (SBFPC)	3 mo	NR/NR (24.1)	NR	NR	0.27	

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (15.9)	.	NR	Ref
	.	.	.	.	Specialized BF peer counseling (SBFPC)	6 mo	NR/NR (3.4)	NR	NR	0.24
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (0)	.	NR	Ref
Srinivas 2015 25193602	RCT	High	Exclusive BF	All	BF counseling by peer and non- peer counselors	1 mo	7/31 (23)	RR	0.76 (0.33, 1.72)	0.51
	.	.	.	.	BF counseling by non-peer counselors only	.	9/32 (28)	.	Ref	Ref
	.	.	.	.	BF counseling by peer and non- peer counselors	6 mo	1/42 (2)	RR	0.47 (0.05, 4.89)	0.51
	.	.	.	.	BF counseling by non-peer counselors only	.	2/45 (4)	.	Ref	Ref
Porteous 2000 11155608	RCT	Moderate	Exclusive BF	All	Hospital visits by midwife and telephone access through 1 mo PP	1 mo	22/26 (85)	RR	2.35 (1.36, 4.06)*	.
	.	.	.	.	Conventional nursing care group	.	9/25 (36)	.	Ref	.
Rasmussen 2011 20958105	RCT	Moderate	Exclusive BF	All	Additional BF support by a lactation consultant	1 wk	13/19 (68.4)	RR	0.77 (0.54, 1.09)*	.
	.	.	.	.	Standard BF support without a lactation consultant	.	16/18 (88.9)	.	Ref	.
	.	.	.	.	Additional BF support by a lactation consultant	1 mo	8/19 (42.1)	RR	0.63 (0.34, 1.17)*	.
	.	.	.	.	Standard BF support without a lactation consultant	.	12/18 (66.7)	.	Ref	.
Bonuck 2014a 24354834	RCT	Moderate	Exclusive BF	All	Electronic prompts for provider and lactation consultant for patients	1 mo	30/129 (24.2)	RR	3.44 (1.70, 6.96)*	.
	.	.	.	.	Standard BF support	.	9/133 (6.9)	.	Ref	.
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	3 mo	20/129 (16.0)	RR	2.58 (1.18, 5.65)*	.
	.	.	.	.	Standard BF support	.	8/133 (6.0)	.	Ref	.
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	6 mo	2/129 (1.6)	RR	1.03 (0.15, 7.20)*	.
	.	.	.	.	Standard BF support	.	2/133 (1.6)	.	Ref	.



Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Bonuck 2014b 24354834	RCT	Moderate	Exclusive BF	All	Electronic prompts for provider and lactation consultant for patients	1 mo	31/238 (13.7)	RR	1.43 (0.66, 3.12)*	.
	.	.	.	.	Only lactation consultant for patients	.	10/77 (13.7)	.	1.43 (0.57, 3.56)*	.
	.	.	.	.	Only electronic prompts for provider	.	17/236 (7.6)	RR	0.79 (0.34, 1.84)*	.
	.	.	.	.	Standard BF support	.	7/77 (9.6)	.	Ref	.
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	3 mo	24/238 (10.6)	RR	3.88 (0.84, 16.1)*	.
	.	.	.	.	Only lactation consultant for patients	.	8/77 (11.0)	.	4.00 (0.88, 18.2)*	.
	.	.	.	.	Only electronic prompts for provider	.	10/236 (4.4)	.	1.63 (0.37, 7.28)*	.
	.	.	.	.	Standard BF support	.	2/77 (2.7)	.	Ref	Ref
	.	.	.	.	Electronic prompts for provider and lactation consultant for patients	6 mo	6/238 (2.6)	RR	1.94 (0.24, 15.9)*	.
	.	.	.	.	Only lactation consultant for patients	.	1/77 (1.4)	.	1.00 (0.06, 15.7)*	.
	.	.	.	.	Only electronic prompts for provider	.	4/236 (1.8)	.	1.31 (0.15, 11.5)*	.
.	.	.	.	Standard BF support	.	1/77 (1.4)	.	Ref	Ref	
Uscher-Pines 2020 31629118	RCT	High	Exclusive BF	All	Unlimited on-demand video BF support by lactation consultant through Telelactation app and standard in-hospital BF support	3 mo	48/94 (51)	RR	1.10 (0.82, 1.48)*	.
	.	.	.	.	Standard in-hospital BF support only	.	43/93 (46)	.	Ref	.
Martinez- Brockman 2018 29325660	RCT	Moderate	Exclusive BF	All	Text messaging of the benefits of BF and BF peer counselors	2 wk	36/71 (50.7)	OR	1.35 (0.66, 2.75)	.
	.	.	.	.	BF peer counselors only	.	25/56 (44.6)	.	Ref	.
	.	.	.	Overweight/ obese	Text messaging of the benefits of BF and BF peer counselors	2 wk	31/70 (44.3)	RR	0.96 (0.63, 1.47)*	0.72
	.	.	.	.	BF peer counselors only	.	18/39 (46.2)	.	Ref	Ref
.	.	.	Underweight /normal weight	Text messaging of the benefits of BF and BF peer counselors	2 wk	27/50 (54)	RR	0.86 (0.58, 1.27)*	0.17	

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
	.	.	.	.	Breastfeeding peer counselors only	.	17/27 (63)	.	Ref	Ref
	.	.	.	All	Text messaging of the benefits of BF and BF peer counselors	3 mo	22/67 (32.8)	RR	1.11 (0.53, 2.33)	.
	.	.	.	.	BF peer counselors only	.	19/62 (30.6)	.	Ref	.
Abbass-Dick 2020 32739716	RCT	Moderate	Exclusive BF in the past week	All	eHealth BF co-parenting website	1 mo	36/56 (64)	RR	0.86 (0.67, 1.1)*	0.22
	.	.	.	.	Available community resources only	.	42/56 (75)	.	Ref	Ref
	.	.	.	.	eHealth BF co-parenting website	3 mo	42/56 (75)	RR	1.02 (0.82, 1.27)*	0.83
	.	.	.	.	Available community resources only	.	41/56 (73)	.	Ref	Ref
	.	.	.	.	eHealth BF co-parenting website	6.5 mo	35/56 (63)	RR	1.09 (0.80, 1.48)*	0.56
	.	.	.	.	Available community resources only	.	32/56 (57)	.	Ref	Ref
	.	.	Exclusive BF since delivery	All	eHealth BF co-parenting website	1 mo	23/56 (41)	RR	0.82 (0.54, 1.23)*	0.34
	.	.	.	.	Available community resources only	.	28/56 (50)	.	Ref	Ref
	.	.	.	.	eHealth BF co-parenting website	3 mo	21/56 (38)	RR	0.91 (0.57, 1.44)*	0.7
	.	.	.	.	Available community resources only	.	23/56 (41)	.	Ref	Ref
	.	.	.	.	eHealth BF co-parenting website	6.5 mo	19/56 (34)	RR	0.86 (0.53, 1.40)*	0.61
	.	.	.	.	Available community resources only	.	22/56 (39)	.	Ref	Ref
Bender, 2022, 36201773	RCT	Moderate	Exclusive BF	All	Text message-based BF support	1 wk	44/93 (47.2)	RR	0.89 (0.67, 1.18)*	NR
	.	.	.	.	Usual care	.	49/92 (53.9)	.	Ref	Ref
	.	.	.	.	Text message-based BF support	1 mo	56/93 (60.0)	RR	1.73 (1.25, 2.40)*	NR
	.	.	.	.	Usual care	.	32/92 (46.9)	.	Ref	Ref
	.	.	.	All	Text message-based BF support	1.5 mo	45/93 (48.4)	RR	1.17 (0.85, 1.62)*	0.33
	.	.	.	.	Usual care	.	38/92 (41.3)	.	Ref	Ref
	.	.	.	Black	Text message-based BF support	.	17/43 (39.5)	RR	1.98 (1.02, 3.85)*	0.039
	.	.	.	.	Usual care	.	10/50 (20.0)	.	Ref	Ref
	.	.	.	Non-Black	Text message-based BF support	.	28/50 (56.0)	RR	0.84 (0.61, 1.16)*	0.30
.	.	.	.	Usual care	.	28/42 (66.7)	.	Ref	Ref	

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Report ed P Value
Ahmed 2016 26779838	RCT	High	Exclusive BF	All	Interactive web-based BF monitoring and usual care	At discharge	39/49 (79.6)	RR	0.97 (0.81, 1.17)*	0.71
	.	.	.	.	Usual BF support	.	47/57 (82.5)	.	Ref	Ref
	.	.	.	.	Interactive web-based BF monitoring and usual care	1 mo	31/49 (63.3)	RR	1.57 (1.07, 2.30)*	0.03
	.	.	.	.	Usual BF support	.	23/57 (40.4)	.	Ref	Ref
	.	.	.	.	Interactive web-based BF monitoring and usual care	3 mo	27/49 (55.1)	RR	2.86 (1.59, 5.15)*	0.002
	.	.	.	.	Usual BF support	.	11/57 (19.3)	.	Ref	Ref
Rozga 2016 27423234	NRCS	Moderate	Exclusive BF	All	Home visits, phone calls, and WIC clinical support from peer counselors as part of the BF Initiative Program	3 mo	145/472 (30.7)	.	NR	0.37
	.	.	.	.	Standard home visit, phone calls, and hospital contact with peer counselors	.	62/226 (27.4)	.	NR	Ref
	.	.	.	.	Home visits, phone calls, and WIC clinical support from peer counselors as part of the BF Initiative Program	6 mo	54/472 (11.4)	.	NR	0.22
	.	.	.	.	Standard home visit, phone calls, and hospital contact with peer counselors	.	19/226 (8.4)	.	NR	Ref
Chen 2019 30414598	NRCS	Moderate	Exclusive BF	All	One PP visit (2-3 wk)	PP visit	168/214 (78.5)	.	NR	0.30
	.	.	.	.	One PP visit (6 wk)	.	153/200 (76.5)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	3 mo	106/201 (52.7)	.	NR	0.97
	.	.	.	.	One PP visit (6 wk)	.	114/211 (54)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	6 mo	75/184 (40.8)	.	NR	0.25
	.	.	.	.	One PP visit (6 wk)	.	75/175 (42.9)	.	NR	Ref

**Table E-1.12. Evidence Table – Key Question 1: Categorical outcomes: Non-exclusive BF**

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Pugh, 2002, 12000411	RCT	Moderate	Non-exclusive BF	All	Home visits by peer counselors	6 mo	9/21 (45)	RR	1.23 (0.56, 2.66)	NR
	.	.	.	.	Usual care	.	7/20 (35)	.	Ref	Ref
Laliberte 2016 26871448	RCT	Moderate	Non-exclusive BF in past 2 weeks	All	BF clinic within 48 hours PP with additional visits as indicated	2 wk	86/295 (29.2)	OR	0.87 (0.56, 1.34)	.
	.	.	.	.	Standard Care	.	45/140 (32.1)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	1 mo	85/294 (28.9)	OR	0.86 (0.55, 1.34)	.
	.	.	.	.	Standard Care	.	43/134 (32.1)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	3 mo	84/295 (28.5)	OR	0.84 (0.54, 1.31)	.
	.	.	.	.	Standard Care	.	43/134 (32.1)	.	Ref	.
Chen 2019 30414598	NRCS	Moderate	Non-exclusive BF	All	One PP visit (2-3 wk)	PP visit	37/214 (17.3)	.	NR	0.03
	.	.	.	.	One PP visit (6 wk)	.	26/200 (13.0)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	3 mo	47/201 (23.4)	.	NR	0.97
	.	.	.	.	One PP visit (6 wk)	.	48/211 (22.7)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	6 mo	33/184 (17.9)	.	NR	0.25
	.	.	.	.	One PP visit (6 wk)	.	41/175 (23.4)	.	NR	Ref
Edwards 1997 9170692	RCT	Low	BF with ≤1 bottle/day of non-breast milk	All	Public Health Nurse Telephone Visit	3 mo	108/279 (38.8)	RR	0.92 (0.74, 1.14)*	.
	.	.	.	.	Health Department Clerk Reminder Call	.	92/218 (42.2)	.	1.07 (0.87, 1.32)*	.
	.	.	.	.	PP education package	.	115/291 (39.5)	.	Ref	.
	.	.	BF with >1 bottle/day of non-breast milk	All	Public Health Nurse Telephone Visit	3 mo	37/279 (13.3)	RR	1.16 (0.72, 1.87)*	.
	.	.	.	.	Health Department Clerk Reminder Call	.	25/218 (11.5)	.	1.01 (0.62, 1.65)*	.
	.	.	.	.	PP education package	.	33/291 (11.3)	.	Ref	.
Dennis 2002 11800243	RCT	Low	Non-exclusive BF	All	BF peer support and standard care	1 mo	24/132 (18.2)	RR	0.87 (0.53, 1.43)*	0.03
	.	.	.	.	BF standard care only	.	26/124 (21)	.	Ref	Ref

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	BF peer support and standard care	3 mo	32/132 (24.2)	RR	0.91 (0.60, 1.38)*	0.01
	.	.	.	.	BF standard care only	.	33/124 (26.6)	.	Ref	Ref
Reeder 2014 25092936	RCT	Low	Non-exclusive BF	All	Peer counseling with 4-8 telephone calls and WIC Program	1 mo	NR/NR (NR)	RR	1.16 (1.08, 1.25)	<0.01
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	.
	.	.	.	.	Peer counseling with 4-8 telephone calls and WIC Program	3 mo	NR/NR (NR)	RR	1.19 (1.07, 1.31)	<0.01
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	.
	.	.	.	.	Peer counseling with 4-8 telephone calls and WIC Program	6 mo	1	RR	1.16 (1.02, 1.32)	<0.01
	.	.	.	.	WIC Program but no peer counseling	.	NR/NR (NR)	.	Ref	.
Anderson 2005 16143742	RCT	Moderate	Non-exclusive BF in past week	All	Peer counselor BF support and conventional support from clinic staff	1 mo	42/63 (66.7)	RR	0.73 (0.60, 0.88)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	66/72 (91.7)	.	Ref	.
	.	.	.	.	Peer counselor BF support and conventional support from clinic staff	3 mo	47/63 (74.6)	RR	0.77 (0.66, 0.89)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	70/72 (97.2)	.	Ref	.
	.	.	Non-exclusive BF since birth	All	Peer counselor BF support and conventional support from clinic staff	1 mo	46/63 (73)	RR	0.79 (0.67, 0.93)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	67/72 (93.1)	.	Ref	.
	.	.	.	.	Peer counselor BF support and conventional support from clinic staff	3 mo	50/63 (79.4)	RR	0.81 (0.71, 0.92)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	71/72 (98.6)	.	Ref	.
Chapman 2013 23209111	RCT	High	≥50% feedings as breast milk	All	Specialized BF peer counseling (SBFPC)	2 wk	NR/NR (NR)	adj OR	4.47 (1.38, 14.5)	0.01
	.	.	.	.	Standard BF care by BF: Heritage and Pride peer counselors	.	NR/NR (NR)	.	Ref	.
Porteous 2000 11155608	RCT	Moderate	Non-exclusive BF	All	Hospital visits by midwife and telephone access through 1 mo PP	1 mo	4/26 (15)	RR	0.48 (0.17, 1.40)*	.

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
	.	.	.	.	Conventional nursing care group	.	8/25 (32)	.	Ref	.
Ahmed 2016 26779838	RCT	High	Non- exclusive BF	All	Interactive web-based BF monitoring and usual care	At discharge	10/49 (20.4)	RR	1.16 (0.53, 2.55)*	.
	.	.	.	.	Usual BF support	.	10/57 (17.5)	.	Ref	.
	.	.	.	.	Interactive web-based BF monitoring and usual care	1 mo	15/49 (30.6)	RR	0.56 (0.35, 0.91)*	.
	.	.	.	.	Usual BF support	.	31/57 (54.4)	.	Ref	.
	.	.	.	.	Interactive web-based BF monitoring and usual care	3 mo	12/49 (24.5)	RR	0.52 (0.30, 0.91)*	.
	.	.	.	.	Usual BF support	.	27/57 (47.4)	.	Ref	.

**Table E-1.13. Evidence Table – Key Question 1: Categorical outcomes: BF duration/frequency**

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Gagnon 2002 12042545	RCT	Moderate	BF frequency ≤4.5 times/day	All	Home visit by community nurse	2 wk	38/259 (15.1)	RR	1.10 (0.71, 1.68)	.
					Hospital visit with nurse	.	34/254 (13.8)	.	Ref	.
Edwards 2013 24187119	RCT	High	BF duration <1.5 mo	All	Home visits by doulas	PP	40/108 (37)	RR	1.07 (0.75, 1.52)*	NS
					Standard care without home visits by doulas	.	39/113 (34.5)	.	Ref	Ref
			BF duration 1.5-4 mo	All	Home visits by doulas	PP	22/108 (20.4)	RR	1.64 (0.89, 3.04)*	NS
					Standard care without home visits by doulas	.	14/113 (12.4)	.	Ref	Ref
			BF duration >4 mo	All	Home visits by doulas	PP	9/108 (8.3)	RR	1.88 (0.65, 5.43)*	NS
					Standard care without home visits by doulas	.	5/113 (4.4)	.	Ref	Ref

Abbreviations: BF = breastfeeding, CI = confidence interval, mo = months, NR = not reported, OR = odds ratio, PMID = PubMed identifier, PP = postpartum, RCT = randomized controlled trial, Ref = reference arm, RoB = risk of bias, RR = relative risk, wk = weeks

**Table E-1.14. Evidence Table – Key Question 1: Categorical outcomes: No BF**

Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Lieu 2000 10790463	RCT	Moderate	BF discontinuati on among initiators	All	Home visit by nurse on day 3 or 4 PP	2 wk	95/521 (18)	RR	0.84 (0.66, 1.07)	0.10
	.	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	111/505 (22)	.	Ref	Ref
	.	.	.	.	Home visit by nurse on day 3 or 4 PP	3 mo	227/507 (45)	RR	0.94 (0.82, 1.07)	0.28
	.	.	.	.	Pediatric clinic visit on day 3 or 4 PP	.	239/498 (48)	.	Ref	Ref
Edwards 2013 24187119	RCT	High	BF non- initiation	All	Home visits by doulas	4 mo	37/103 (35.9)	RR	0.74 (0.54, 1.02)*	.
	.	.	.	.	Standard care without home visits by doulas	.	55/113 (48.7)	.	Ref	.
Laliberte 2016 26871448	RCT	Moderate	Non-BF in past 2 weeks	All	BF clinic within 48 hours PP with additional visits as indicated	2 wk	15/295 (5.1)	OR	0.7 (0.30, 1.59)	.
	.	.	.	.	Standard Care	.	10/140 (7.1)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	1 mo	16/294 (5.4)	OR	0.80 (0.34, 1.86)	.
	.	.	.	.	Standard Care	.	9/134 (6.7)	.	Ref	.
	.	.	.	.	BF clinic within 48 hours PP with additional visits as indicated	3 mo	14/295 (4.8)	OR	0.78 (0.32, 1.92)	.
	.	.	.	.	Standard Care	.	8/134 (6)	.	Ref	.
	.	.	.	.	BF standard care only	.	20/124 (16.1)	.	Ref	Ref
	.	.	.	.	BF peer support and standard care	6 mo	25/132 (18.9)	RR	0.57 (0.37, 0.88)*	.
Chen 2019 30414598	NRCS	Moderate	BF non- initiation	All	One PP visit (2-3 wk)	PP visit	9/214 (4.2)	.	NR	0.03
	.	.	.	.	One PP visit (6 wk)	.	21/200 (10.5)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	3 mo	48/201 (23.9)	.	NR	0.97
	.	.	.	.	One PP visit (6 wk)	.	49/211 (23.2)	.	NR	Ref
	.	.	.	.	One PP visit (2-3 wk)	6 mo	76/184 (41.3)	.	NR	0.25
	.	.	.	.	One PP visit (6 wk)	.	59/175 (33.7)	.	NR	Ref
Edwards 1997 9170692	RCT	Low	Bottle feeding only	All	Public Health Nurse Telephone Visit	3 mo	133/279 (47.8)	RR	0.97 (0.82, 1.15)*	.
	.	.	.	.	Health Department Clerk Reminder Call	.	101/218 (46.3)	.	0.94 (0.78, 1.13)*	.
	.	.	.	.	PP education package	.	143/291 (49.1)	.	Ref	.



Study Year PMID	Design	Overall RoB	Outcome Description	Population	Arm	Time Point	n/N (%) or [95% CI]	Effect Measure	Effect Size (95% CI)	Reported P Value
Dennis 2002 11800243	RCT	Low	Non-BF	All	BF peer support and standard care	1 mo	10/132 (7.6)	RR	0.47 (0.23, 0.96)*	.
	.	.	.	.	BF standard care only	.	20/124 (16.1)	.	Ref	.
	.	.	.	.	BF peer support and standard care	3 mo	25/132 (18.9)	RR	0.57 (0.37, 0.88)*	.
	.	.	.	.	BF standard care only	.	41/124 (33.1)	.	Ref	.
Anderson 2005 16143742	RCT	Moderate	BF non- initiation	All	Peer counselor BF support and conventional support from clinic staff	At discharg e	57/63 (90.5)	RR	2.48 (1.04, 5.90)	.
	.	.	.	.	Conventional BF support from clinic staff only	.	55/72 (76.4)	.	Ref	.
Chapman 2004 15351756	RCT	High	BF non- initiation	All	Heritage and Pride (BHP) peer counseling program	At delivery	8/90 (8.9)	RR	0.39 (0.18, 0.86)	.
	.	.	.	.	Routine BF education	.	17/75 (22.7)	.	Ref	Ref
	.	.	.	All	Heritage and Pride (BHP) peer counseling program	1 mo	30/84 (35.7)	RR	0.72 (0.50, 1.05)	.
	.	.	.	.	Routine BF education	.	36/73 (49.3)	.	Ref	Ref
	.	.	.	.	Heritage and Pride (BHP) peer counseling program	3 mo	45/81 (55.6)	RR	0.78 (0.61, 1.00)	.
	.	.	.	.	Routine BF education	.	51/72 (70.8)	.	Ref	Ref
	.	.	.	.	Heritage and Pride (BHP) peer counseling program	6 mo	59/77 (76.6)	RR	0.94 (0.79, 1.11)	.
	.	.	.	.	Routine BF education	.	51/67 (80.6)	.	Ref	Ref
Martinez- Brockman 2018 29325660	RCT	Moderate	Non-BF	All	Text messaging of the benefits of BF and BF peer counselors	3 mo	17/67 (25.4)	RR	0.87 (0.49, 1.53)*	0.64
	.	.	.	.	Breastfeeding peer counselors only	.	18/62 (29)	.	Ref	Ref

Abbreviations: BF = breastfeeding, CI = confidence interval, mo = months, NR = not reported, OR = odds ratio, PMID = PubMed identifier, PP = postpartum, RCT = randomized controlled trial, Ref = reference arm, RoB = risk of bias, RR = relative risk

**Table E-2.1. Evidence Table – Key Question 2: Continuous outcomes, healthcare utilization**

Study, Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Mean at Baseline (SD or 95% CI)	Followup Time-Point	Mean at Followup (SD or 95% CI)	MD Within Arms (95% CI)	Effect Size (95% CI)	Reported P Value	
Cilenti, 2015, 25627330	Moderate	Number of PP visits	More comprehensive insurance	All	NR	3 mo	4.3 (NR)	N/A	adjMD 1.6 (NR)	<0.001	
			Less comprehensive insurance	.	NR	.	2.7 (NR)	N/A	Ref	Ref	
Gordon, 2020, 31905073	Moderate	Number of outpatient visits by 1 mo	More comprehensive insurance	All	1.4 (NR)	After CO's expansion	1.38 (NR)	-0.02 (NR)	adjNMD 0 (NR)	NS	
			Less comprehensive insurance	.	0.73 (NR)	.	0.7 (NR)	-0.20 (NR)	Ref	Ref	
		Number of outpatient visits by 3 mo	More comprehensive insurance	All	0.44 (NR)	After CO's expansion	0.49 (NR)	0.05 (NR)	adjNMD 0.10 (NR)	<0.0001	
			Less comprehensive insurance	.	0.32 (NR)	.	0.27 (NR)	-0.05 (NR)	Ref	Ref	
		Number of outpatient visits by 6 mo	More comprehensive insurance	All	3 (NR)	After CO's expansion	3.3 (NR)	0.30 (NR)	adjNMD 0.52 (NR)	<0.01	
			Less comprehensive insurance	.	2 (NR)	.	1.8 (NR)	-0.20 (NR)	Ref	Ref	
		Severe PP morbidity	More comprehensive insurance	Severe PP morbidity		2.7 (NR)	After CO's expansion	3.4 (NR)	0.70 (NR)	adjNMD 1.25 (NR)	<0.01
			Less comprehensive insurance	.		1.8 (NR)	.	1.6 (NR)	-0.20 (NR)	Ref	Ref
Steenland, 2021b, 35977301	High	Number of outpatient visits by 2 mo	More comprehensive insurance	All	NR	2 mo	NR	NR	adjMD 0.2 (0.1, 0.3)	<0.001	
			Less comprehensive insurance	.	NR	.	NR	NR	Ref	Ref	
		Number of outpatient visits by 6 mo	More comprehensive insurance	All	NR	6 mo	NR		adjMD 0.9 (0.7, 1.1)	<0.001	
			Less comprehensive insurance	.	NR	.		NR	Ref	Ref	

Abbreviations: adj = adjusted, CI = confidence interval, mo = months, MD = mean difference, mo = months, NMD = net mean difference, NR = not reported, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias, SD = standard deviation

**Table E-2.2. Evidence Table – Key Question 2: Continuous outcomes, interpregnancy interval**

Study, Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Mean at Baseline (SD or 95% CI)	Followup Time-Point	Mean at Followup (SD or 95% CI) % Change per Month	MD Within Arms (95% CI)	Effect Size (95% CI) % Change per Month	Reported P Value
Steenland, 2021a, 33523747	High	Number of subsequent childbirths within 21 mo	More comprehensive insurance	Age 12-19	NR	PP	0.01 (-0.03, 0.04)	NR	MD -0.09 (-0.14, -0.03)	0.002
	.	.	Less comprehensive insurance	.	NR	.	0.09 (0.05, 0.14)	NR	Ref	Ref
	.	.	More comprehensive insurance	Age 20-50	NR	PP	0.00 (-0.02, 0.01)	NR	MD 0.03 (-0.01, 0.07)	0.14
	.	.	Less comprehensive insurance	.	NR	.	-0.03 (-0.07, 0.01)	NR	Ref	Ref

Abbreviations: CI = confidence interval, MD = mean difference, NR = not reported, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias, SD = standard deviation

**Table E-2.3. Evidence Table – Key Question 2: Continuous outcomes, contraceptive initiation/continuation**

Study, Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Mean at Baseline (SD or 95% CI)	Follow Up Time-Point	Mean at Followup (SD or 95% CI)	Change Within Arms (95% CI or SE)	Effect Size (95% CI)	Reported P Value
Okoroh, 2018, 29530670	High	Number of immediate PP LARC per mo	More comprehensive insurance	IA	NR	3 d	6.6 (NR)	NR	NR	0.12
	.	.	Less comprehensive insurance	.	NR	.	4.6 (NR)	NR	Ref	Ref
	.	.	More comprehensive insurance	LA	NR	3 d	2.6 (NR)	NR	NR	0.0002
	.	.	Less comprehensive insurance	.	NR	.	45.2 (NR)	NR	Ref	Ref
Pace, 2022, 34908011	High	LARC (IUD or implant) use	More comprehensive insurance	All	NR	NR	NR	$\beta$ 1.32 (0.04)	NR	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	$\beta$ 0.83 (0.03)	Ref	Ref
Steenland, 2021a, 33523747	High	Number of immediate PP LARC	More comprehensive insurance	All	NR	PP	NR	0.10% per mo (NR)	MD 0.09% per mo (NR)	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	0% per mo (NR)	Ref	Ref
	.	.	More comprehensive insurance	Age 12-19	NR	PP	NR	0.20% per mo (NR)	MD 0.19% per mo (NR)	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	0.19% per mo (NR)	Ref	Ref
	.	.	More comprehensive insurance	Age 20-50	NR	PP	NR	0.08% per mo (NR)	0.08% per mo (NR)	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	0% per mo (NR)	Ref	Ref
	.	Number of sterilizations	More comprehensive insurance	All	NR	2 mo	NR	-0.02% per mo (NR)	MD -0.09% per mo (NR)	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	0.07% per mo (NR)	Ref	Ref
	.	.	More comprehensive insurance	Age 12-19	NR	2 mo	NR	0% per mo (NR)	0% per mo (NR)	NS
	.	.	Less comprehensive insurance	.	NR	.	NR	0% per mo (NR)	Ref	Ref
	.	.	More comprehensive insurance	Age 20-50	NR	2 mo	NR	-0.05% per mo (NR)	-0.10% per mo (NR)	<0.001
	.	.	Less comprehensive insurance	.	NR	.	NR	0.05% per mo (NR)	Ref	Ref

Study, Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Mean at Baseline (SD or 95% CI)	Follow Up Time-Point	Mean at Followup (SD or 95% CI)	Change Within Arms (95% CI or SE)	Effect Size (95% CI)	Reported P Value
.	.	Number of outpatient LARC	More comprehensive insurance	All	NR	2 mo	NR	0.03% per mo (NR)	MD -0.03% per mo (NR)	NS
.	.	.	Less comprehensive insurance	.	NR	.	NR	0.06% per mo (NR)	Ref	Ref
.	.	.	More comprehensive insurance	Age 12-19	NR	2 mo	NR	0.06% per mo (NR)	-0.06% per mo (NR)	NS
.	.	.	Less comprehensive insurance	.	NR	.	NR	0.12% per mo (NR)	Ref	Ref
.	.	.	More comprehensive insurance	Age 20-50	NR	2 mo	NR	0.03% per mo (NR)	-0.02% per mo (NR)	NS
.	.	.	Less comprehensive insurance	.	NR	.	NR	0.05% per mo (NR)	Ref	Ref
.	.	Number of short-acting methods	More comprehensive insurance	All	NR	2 mo	NR	-0.05% per mo (NR)	MD 0.01% per mo (NR)	NS
.	.	.	Less comprehensive insurance	.	NR	.	NR	-0.06% per mo (NR)	Ref	Ref
.	.	.	More comprehensive insurance	Age 12-19	NR	2 mo	NR	-0.12% per mo (NR)	-0.02% per mo (NR)	NS
.	.	.	Less comprehensive insurance	u	NR	.	NR	-0.10% per mo (NR)	Ref	Ref
.	.	.	More comprehensive insurance	Age 20-50	NR	2 mo	NR	-0.03% per mo (NR)	0% per mo (NR)	NS
.	.	.	Less comprehensive insurance	.	NR	.	NR	-0.03% per mo (NR)	Ref	Ref

Abbreviations: CI = confidence interval, d = days, mo = months, LARC = long-acting reversible contraception, MD = mean difference, mo = month, NR = not reported, NS = not statistically significant, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias, SD = standard deviation, SE = standard error

**Table E-2.4. Evidence Table – Key Question 2: Categorical outcomes, healthcare utilization**

Study, Publication Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Time Point	n/N (%)	Effect Size (95% CI)	Reported P Value
DeSisto, 2020, 32335806	Moderate	PP visit, cervical cytology, IUD insertion, or a bundled service	More comprehensive insurance	All	8 wk	NR	adjRD 6.27 (5.72, 6.82)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	PP visit, cervical cytology, or IUD insertion	More comprehensive insurance	All	8 wk	NR	adjRD 12.0 (11.2, 12.7)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
Dunlop, 2020, 32958368	Moderate	PP visit attendance	More comprehensive insurance	Income-eligible	6 mo	1580/36603 (37.1)	OR, adjusted marginal effect 5.09	<0.01
	.	.	Less comprehensive insurance	.	.	1458/46428 (31.5)	Ref	Ref
	.	.	More comprehensive insurance	Pregnancy-eligible	6 mo	5430/17784 (30.5)	OR, adjusted marginal effect -0.16	NS
	.	.	Less comprehensive insurance	.	.	12082/37521 (32.2)	Ref	Ref
Eliason, 2021, 34870677	Moderate	PP visit attendance	More comprehensive insurance	All	Before policy change	2460/3389 (89.6)	NR	NR
	.	.	Less comprehensive insurance	.	.	1307/1645 (90.5)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	3630/4197 (87.6)	adjNPD 0.3 (-3.1, 3.9)	NR
	.	.	Less comprehensive insurance	.	.	1903/2201 (86.9)	Ref	Ref
Kozhimannil, 2011, 21485419	Moderate	PP visit attendance 21-56 days	More comprehensive insurance	All	Before policy change	418/711 (58.8)	NR	NR
	.	.	Less comprehensive insurance	.	.	52/86 (60.5)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	893/1569 (56.9)	Ref	Ref
	.	.	Less comprehensive insurance	.	.	73/143 (51.1)	adjOR 0.74 (0.42, 1.32)	NR
Liberty, 2020, 31846612	Moderate	PP visit attendance	More comprehensive insurance	All	6 wk	83621/129645 (64.5)	NR	NR
	.	.	Less comprehensive insurance	.	.	38652/57862 (66.8)	NR	NR
	Moderate	PP visit within 2mo	More comprehensive insurance	All	Before policy change	1050/11988 (8.8)	NR	NR

Study, Publication Year, PMID	Overall RoB	Outcome Description	Arm Name	Subgroup	Time Point	n/N (%)	Effect Size (95% CI)	Reported P Value
Rodriguez, 2021, 34910148	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	.	After policy change	1933/3477 (55.6)	AdjNPD 47.9 (41.3, 54.6)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	NR
Symum, 2022, 35628011	Moderate	Preventable readmissions	More comprehensive insurance	All	1.5 mo	NR	IRR 0.86 (0.80, 0.93)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	NR
	.	ED visits	More comprehensive insurance	All	1.5 mo	NR	IRR 0.87 (0.82, 0.93)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	NR
Taylor, 2020, 31397625	Moderate	PP visit attendance	Commercial insurance	All	6 wk	2715/3998 (67.9)	Ref	Ref
	.	.	Medicaid insurance	.	.	2455/4990 (49.2)	adjOR 0.65 (0.58, 0.74)	<0.01
	.	.	No insurance	.	.	75/182 (41.2)	adjOR 0.42 (0.34, 0.51)	<0.01
Wang, 2022, 35592081	High	Attendance at PP visits	More comprehensive insurance	All	3 mo	(66.4)	NR	NR
	.	.	Less comprehensive insurance	.	.	(69.4)	NR	NR
	.	.	More comprehensive insurance	All	3-6 mo	(6.7)	NR	NR
	.	.	Less comprehensive insurance	.	.	(3.2)	NR	NR

Abbreviations: adj = adjusted, CI = confidence interval, ED = emergency department, IRR = incidence rate ratio, NR = not reported, NPD = net prevalence difference, OR = odds ratio, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias, wk = weeks

**Table E-2.5. Evidence Table – Key Question 2: Categorical outcomes, mental health symptoms**

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
Austin, 2022, 34974107	Moderate	"Always" or "often" experiencing depressive symptoms	More comprehensive insurance	Before Medicaid expansion	25074/30250 (86.9)	NR	NR
	.	.	Less comprehensive insurance	Before Medicaid expansion	14222/17736 (83.5)	NR	NR
	.	.	More comprehensive insurance	After Medicaid expansion	18635/20935 (91.4)	adjPR 0.93 (0.80, 1.07)	NR
	.	.	Less comprehensive insurance	After Medicaid expansion	12000/13792 (87.8)	Ref	Ref
Margerison, 2021, 34606358	Moderate	"Always" or "often" felt down/ depressed/hopeless or had little interest/pleasure in doing things	More comprehensive insurance	Before Medicaid expansion	NR/NR (15.2)	NR	NR
	.	.	Less comprehensive insurance	Before Medicaid expansion	NR/NR (17.6)	NR	NR
	.	.	More comprehensive insurance	After Medicaid expansion	NR/NR (15.5)	adjNPD 0.0	NS
	.	.	Less comprehensive insurance	After Medicaid expansion	NR/NR (18.6)	Ref	Ref
Schuster, 2022, 34670222	High	"Always" or "often" felt down/ depressed/hopeless or had little interest/pleasure in doing things	More comprehensive insurance	PP	NR	adjPD -3.5%	0.042
	.	.	Less comprehensive insurance	PP	NR	Ref	Ref

Abbreviations: adj = adjusted, CI = confidence interval, NPD = net prevalence difference, NR = not reported, NS = not statistically significant, PD = prevalence difference, PMID = PubMed identifier, PP = postpartum, PR = prevalence ratio, Ref = reference arm, RD = risk difference, RoB = risk of bias

**Table E-2.6. Evidence Table – Key Question 2: Categorical outcomes, unplanned pregnancies**

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
Arora, 2018, 29490290	High	Subsequent pregnancy within 12 mo PP	More comprehensive insurance	Did not receive a desired PP sterilization	12 mo	5/54 (9.3)	Ref	Ref
	.	.	Less comprehensive insurance	.	.	132/555 (23.8)	adjRR 2.57 (1.10, 6.00)	0.023
Brant, 2021, 34619694	Moderate	Subsequent pregnancy within 12 mo PP	More comprehensive insurance	All	12 mo	40/2129 (1.9)	adjOR 0.35 (0.25, 0.50)	<0.001
	.	.	Less comprehensive insurance	.	.	229/6387 (3.6)	Ref	Ref
Eliason, 2022, 35259409	Moderate	Early PP pregnancy (within 4 mo)	More comprehensive insurance	All	Before policy change	188/6945 (2.7)	NR	NR
	.	.	Less comprehensive insurance	.	.	38/2390 (1.6)	NR	NR
	.	.	More comprehensive insurance	Hispanic	.	NR	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	NR	NR



Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	All	After policy change	584/18836 (3.1)	adjNPD 0.0 (-2.4, 2.4)	NR
	.	.	Less comprehensive insurance	.	.	180/6427 (2.8)	Ref	Ref
	.	.	More comprehensive insurance	Hispanic	.	NR	adjNPD 0.5 (-2.1, 3.0)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	adjNPD 1.6 (-1.9, 5.1)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	adjNPD -4.8 (-8.7, 0.9)	NR
Redd, 2019, 3048473	Moderate	Unplanned pregnancy	More comprehensive insurance	All	Before policy change	3825/7083 (54)	NR	NR
	.	.	Less comprehensive insurance	.	.	18142/37796 (48)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	7167/12799 (56)	adjOR 0.99 (0.92, 1.08)	NS
	.	.	Less comprehensive insurance	.	.	8180/17404 (47)	Ref	Ref

Abbreviations: adj = adjusted, CI = confidence interval, mo = months, NR = not reported, NS = not statistically significant, NPD = net prevalence difference, OR = odds ratio, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, RoB = risk of bias, RR = relative risk

**Table E-2.7. Evidence Table – Key Question 2: Categorical outcomes, contraceptive initiation/continuation**

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
Arora, 2018, 29490290	High	Sterilization fulfillment	More comprehensive insurance	All	Delivery	75/154 (48.7)	NR	NR
	.	.	Less comprehensive insurance	.	Delivery	306/1030 (29.7)	NR	NR
	.	.	More comprehensive insurance	.	Hospital discharge	80/154 (51.9)	NR	NR
	.	.	Less comprehensive insurance	.	Hospital discharge	348/1030 (33.8)	NR	NR
	.	.	More comprehensive insurance	.	1.4 mo	82/154 (53.2)	adjOR 1.35 (0.70, 2.62)	NR
	.	.	Less comprehensive insurance	.	1.4 mo	356/1030 (34.6)	Ref	Ref
	.	.	More comprehensive insurance	.	3 mo	100/154 (64.9)	adjOR 0.94 (0.54, 1.64) adjHR 1.03 (0.79, 1.34)	NR
	.	.	Less comprehensive insurance	.	3 mo	475/1030 (46.1)	Ref	Ref
Caudillo, 2022, 35488950	Moderate	LARC use within 9 months	More comprehensive insurance	All	Before policy change	NR/NR (13.5)	NR	NR
	.	.	Less comprehensive insurance	.	.	NR/NR (17.6)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	NR/NR (19.6)	adjNPD 7.61 (5.26, 2.90)	<0.001
	.	.	Less comprehensive insurance	.	.	NR/NR (18.9)	Ref	Ref
Dunlop, 2020, 32958368	Moderate	Any contraceptive use	More comprehensive insurance	Income-eligible	6 mo	15802/36603 (43.2)	OR, adjusted marginal effect 0.25	NS
	.	.	Less comprehensive insurance	.	.	18771/46428 (40.4)	Ref	Ref
	.	.	More comprehensive insurance	Pregnancy-eligible	6 mo	6823/17874 (38.2)	OR, adjusted marginal effect 0.70	NS
	.	.	Less comprehensive insurance	.	.	15001/37521 (40.0)	Ref	Ref
	.	Receipt of contraceptive counseling	More comprehensive insurance	Income-eligible	6 mo	2526/36603 (6.9)	OR, adjusted marginal effect -0.52	NS
	.	.	Less comprehensive insurance	.	.	2832/46428 (6.1)	Ref	Ref
	.	.	More comprehensive insurance	Pregnancy-eligible	6 mo	1019/17874 (5.7)	OR, adjusted marginal effect -1.27	NS
.	.	Less comprehensive insurance	.	.	2139/37521 (5.7)	Ref	Ref	
Eliason, 2021, 34870677	Moderate	Sterilization, IUD, implants, injectables, oral contraceptive, transdermal patch, vaginal ring	More comprehensive insurance	All	Before policy change	1347/3389 (36.6)	NR	NR

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
	.	.	Less comprehensive insurance	.	.	699/1645 (43.5)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	2276/4197 (51.0)	adjNPD 4.9 (-5.2, 12.6)	NR
	.	.	Less comprehensive insurance	.	.	124/2201 (54.2)	Ref	Ref
Eliason, 2022, 35259409	Moderate	Any contraceptive use (within 4 mo)	More comprehensive insurance	All	Before policy change	5369/6945 (77.3)	NR	NR
	.	.	Less comprehensive insurance	.	.	2029/2390 (84.9)	NR	NR
	.	.	More comprehensive insurance	Hispanic	.	NR	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	All	After policy change	16613/18836 (88.2)	adjNPD 3.6 (0.3, 6.9)	NR
	.	.	Less comprehensive insurance	.	.	5142/6427 (80.1)	Ref	Ref
	.	.	More comprehensive insurance	Hispanic	.	NR	adjNPD 0.3 (-4.6, 5.2)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	adjNPD 4.1 (-0.1, 8.4)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	adjNPD 6.9 (2.5, 11.4)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	LARC use	More comprehensive insurance	All	Before policy change	1514/6945 (21.8)	NR	NR
	.	.	Less comprehensive insurance	.	.	667/2390 (27.9)	NR	NR
.	.	More comprehensive insurance	Hispanic	.	NR	NR	NR	

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	All	After policy change	4615/18836 (24.5)	adjNPD 7.0 (3.0, 11.0)	NR
.	.	.	Less comprehensive insurance	.	.	1639/6427 (25.5)	Ref	Ref
.	.	.	More comprehensive insurance	Hispanic	.	NR	adjNPD 2.2 (-5.0, 9.5)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	adjNPD 6.2 (3.5, 8.9)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	adjNPD 10.4 (1.7, 19.1)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	Short-acting contraceptive use	More comprehensive insurance	All	Before policy change	2389/6945 (34.4)	NR	NR
.	.	.	Less comprehensive insurance	.	.	772/2390 (32.3)	NR	NR
.	.	.	More comprehensive insurance	Hispanic	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
.	.	.	More comprehensive insurance	All	After policy change	5971/18836 (31.7)	adjNPD -3.1 (-6.0, -0.2)	NR
.	.	.	Less comprehensive insurance	.	.	2102/6427 (32.7)	Ref	Ref
.	.	.	More comprehensive insurance	Hispanic	.	NR	adjNPD 0.6 (-4.0, 5.3)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	adNjPD -3.5 (-9.4, 2.4)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	adjNPD -8.2 (-13.1, -3.4)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	Sterilization use	More comprehensive insurance	All	Before policy change	695/6945 (10.0)	NR	NR
.	.	.	Less comprehensive insurance	.	.	289/2390 (12.1)	NR	NR
.	.	.	More comprehensive insurance	Hispanic	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	NR	NR
.	.	.	Less comprehensive insurance	.	.	NR	NR	NR
.	.	.	More comprehensive insurance	All	After policy change	2185/18836 (11.6)	adjNPD -0.6 (-2.4, 1.2)	NR
.	.	.	Less comprehensive insurance	.	.	881/6427 (13.7)	Ref	Ref
.	.	.	More comprehensive insurance	Hispanic	.	NR	adjNPD 2.0 (-2.9, 6.8)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
.	.	.	More comprehensive insurance	Non-Hispanic White	.	NR	adjNPD 0.5 (-3.2, 4.1)	NR
.	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
	.	.	More comprehensive insurance	Non-Hispanic Black	.	NR	adjNPD -5.0 (-8.6, -1.4)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
Koch, 2022, 35588793	Moderate	Postplacental IUD	More comprehensive insurance	All	At delivery	229/3128 (7.3)	adjOR 15.4 (9.3, 25.8)	NR
	.	.	Less comprehensive insurance	.	.	16/3105 (0.5)	Ref	Ref
	.	.	More comprehensive insurance	Medicaid insurance	.	182/1904 (9.6)	adjOR 14.9 (8.6, 25.9)	NR
	.	.	Less comprehensive insurance	.	.	14/1998 (0.7)	Ref	Ref
	.	.	More comprehensive insurance	Commercial insurance	.	30/1041 (2.9)	adjOR 13.3 (3.2, 55.8)	NR
	.	.	Less comprehensive insurance	.	.	2/951 (0.2)	Ref	Ref
	.	IUD or implant	More comprehensive insurance	All	1wk	303/3128 (9.7)	adjOR 15.6 (10.1, 24.2)	NR
	.	.	Less comprehensive insurance	.	.	22/3105 (0.7)	Ref	Ref
	.	.	More comprehensive insurance	Medicaid insurance	.	251/1904 (13.2)	adjOR 15.8 (9.9, 25.4)	NR
	.	.	Less comprehensive insurance	.	.	19/1998 (0.9)	Ref	Ref
	.	.	More comprehensive insurance	Commercial insurance	.	33/1041 (3.2)	adjOR 9.7 (3.0, 31.8)	NR
	.	.	Less comprehensive insurance	.	.	3/951 (0.3)	Ref	Ref
	.	Tubal ligation	More comprehensive insurance	All	1wk	328/3128 (10.5)	adjOR 1.1 (0.9, 1.3)	NR
	.	.	Less comprehensive insurance	.	.	319/3105 (10.3)	Ref	Ref
	.	.	More comprehensive insurance	Medicaid insurance	.	224/1904 (11.8)	adjOR 1.2 (1.0, 1.5)	NR
	.	.	Less comprehensive insurance	.	.	242/1998 (12.1)	Ref	Ref
.	.	More comprehensive insurance	Commercial insurance	.	85/1041 (8.2)	adjOR 0.8 (0.5, 1.1)	NR	
.	.	Less comprehensive insurance	.	.	56/951 (5.9)	Ref	Ref	
Kramer, 2021, 33849768	Moderate	Immediate PP LARC	More comprehensive insurance	All	PP	99/22405 (0.44)	adjOR 1.55 (1.12, 2.13)	<0.05
	.	.	Less comprehensive insurance	.	PP	64/22795 (0.28)	Ref	Ref
	.	.	More comprehensive insurance	Academic hospitals	PP	62/5852 (1.06)	NR	0.008
	.	.	Less comprehensive insurance	.	PP	36/5884 (0.61)	Ref	Ref

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
	.	.	More comprehensive insurance	Non-academic hospitals	PP	36/16553 (0.22)	NR	NS
	.	.	Less comprehensive insurance	.	PP	27/16911 (0.16)	Ref	Ref
Liberty, 2020, 31846612	Moderate	PP LARC	More comprehensive insurance	All	Before discharge	NR	adjOR 1.39 (1.34, 1.43)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	.	More comprehensive insurance	.	2 mo	NR	adjOR 1.10 (1.09, 1.11)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
Myerson, 2020, 33136489	Moderate	PP initiation of effective contraception	More comprehensive insurance	All	Before policy change	NR/NR (53.4)	NR	NR
	.	.	Less comprehensive insurance	.	Before policy change	NR/NR (NR)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	NR/NR (NR)	adjPD 3.8% (0.3%, 11.0%)	<0.05
	.	.	Less comprehensive insurance	.	After policy change	NR/NR (NR)	Ref	Ref
Redd, 2019, 30484739	Moderate	Any PP contraceptive use	More comprehensive insurance	All	Before policy change	5879/7083 (83)	NR	NR
	.	.	Less comprehensive insurance	.	Before policy change	31749/37796 (84)	NR	NR
	.	.	More comprehensive insurance	.	After policy change	10367/12799 (81)	adjOR 1.14 (1.04, 1.24)	<0.01
	.	.	Less comprehensive insurance	.	After policy change	13923/17404 (80)	Ref	Ref
Rodriguez, 2008, 18692614	High	Bilateral TL during Cesarean	More comprehensive insurance	Emergency Medicaid	After delivery	181/975 (18.6)	NR	<0.05
	.	.	Less comprehensive insurance	.	.	147/622 (23.6)	Ref	Ref
	.	.	More comprehensive insurance	Standard Medicaid	After delivery	206/899 (22.9)	NR	NS
	.	.	Less comprehensive insurance	.	.	117/510 (22.9)	Ref	Ref
	.	PP bilateral TL after vaginal delivery	More comprehensive insurance	Emergency Medicaid	After delivery	316/3201 (9.9)	NR	<0.05
	.	.	Less comprehensive insurance	.	.	14/1488 (0.1)	Ref	Ref
	.	.	More comprehensive insurance	Standard Medicaid	After delivery	216/2713 (8.7)	NR	NS
	.	.	Less comprehensive insurance	.	.	103/1118 (9.2)	Ref	Ref

Study, Year, PMID	Overall ROB	Outcome Description	Arm Name	Subgroup	Timepoint	n/N (%)	Effect Size (95% CI)	Reported P Value
Rodriguez, 2021, 34910148	Moderate	Any contraception within 2 mo	More comprehensive insurance	All	Before policy change	1129/11988 (9.4)	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	.	After policy change	1506/3477 (43.3)	adjNPD 28.2 (25.8, 30.6)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	Sterilization within 2 mo	More comprehensive insurance	All	Before policy change	921/11988 (7.7)	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	.	After policy change	525/3477 (15.1)	adjNPD 4.1 (2.0, 6.3)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	LARC within 2 mo	More comprehensive insurance	All	Before policy change	63/11988 (0.5)	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	.	After policy change	683/3477 (19.6)	adjNPD 17.7 (15.6, 19.8)	NR
	.	.	Less comprehensive insurance	.	.	NR	Ref	Ref
	.	Hormonal contraception within 2 mo	More comprehensive insurance	All	Before policy change	145/11988 (1.2)	NR	NR
	.	.	Less comprehensive insurance	.	.	NR	NR	NR
	.	.	More comprehensive insurance	.	After policy change	298/3477 (8.6)	adjNPD 6.4 (4.2, 8.5)	NR
.	.	Less comprehensive insurance	.	.	NR	Ref	Ref	
Smith, 2021, 34109490	High	Any LARC	More comprehensive insurance	All	PP	1600/3683 (43.4)	NR	NR
	.	.	Less comprehensive insurance	.	.	491/1965 (25)	NR	NR
	.	Inpatient PP LARC	More comprehensive insurance	All	PP	648/3683 (17.6)	NR	NR
	.	.	Less comprehensive insurance	.	.	52/1965 (2.6)	NR	NR
	.	Interval LARC	More comprehensive insurance	All	≥9 wk	693/3683 (18.1)	NR	NR
.	.	Less comprehensive insurance	.	.	259/1965 (13.2)	NR	NR	

Abbreviations: adj = adjusted, CI = confidence interval, HR = hazard ratio, NPD = net prevalence difference, NR = not reported, NS = not statistically significant, PD = prevalence difference, PMID = PubMed identifier, PP = postpartum, Ref = reference arm, OR = odds ratio, RoB = risk of bias, TL = tubal ligation, wk = weeks



## **Appendix F. Patient-Centered Outcomes Research Institute (PCORI) Methodology Standards**

The associated Microsoft Excel<sup>®</sup> file is for this section is located at <https://effectivehealthcare.ahrq.gov/products/postpartum-care-one-year/research>.

## Appendix G. References

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