Postpartum Care for Women up to One Year After Birth

The Patient-Centered Outcomes Research Institute (PCORI) is partnering with the Agency for Healthcare Research and Quality's (AHRQ) to develop a systematic evidence review on Postpartum Care for Women up to One Year After Birth. The American College of Obstetrics and Gynecology (ACOG) plans to use this systematic evidence review to develop related clinical guidelines.

Over the past few decades, maternal mortality and morbidity has increased steadily in the United States, with large, persistent disparities by race and ethnicity, particularly among Black and American Indian/Alaska Native women.[1] Half of the more than 700 annual deaths related to pregnancy or pregnancy complications are considered preventable.[2] In addition, as many as 60,000 – 70,000 U.S. women experience some type of severe maternal morbidity annually; furthermore, it has been estimated that these women have a two-fold increase in mortality in the postpartum period and beyond compared to women who experience no complications.[3]

The Centers for Disease Control and Prevention (CDC) and Maternal Mortality Review Committees (MMRC) report on all maternal deaths. They estimate that over half of maternal deaths occur postpartum, described within the following discrete time intervals: 1-6 days postpartum (19%), 7-42 days postpartum (21%), and 43-365 days postpartum (12%).[4] Despite the increased risk of postpartum mortality[4] and morbidity,[5] a large number of women (40%-50%), regardless of whether they experienced complications of pregnancy or not, do not receive routine care after birth from a medical provider.[6,7,8]

Postpartum care encompasses a range of important maternal health needs, including recovery from childbirth, health maintenance, follow up on pregnancy complications, management of chronic health conditions, counselling for healthy birth spacing, access to contraception, and addressing mental health conditions.[9] The extent of postpartum care may vary significantly, depending on where a women receives it (e.g., access to high quality care, social and political policies, healthcare institutions, and birth setting), who provides it (e.g., education, training, practice, implicit bias, and communication), or her level of health care coverage (e.g., Medicaid, private, uninsured).[2]

As the largest single payer of maternity care in the U.S. (43% of all U.S. births in 2018),[9, 10] Medicaid reimbursement has shaped maternity-related services for many pregnant and postpartum women. Until very recently[1], federal law only required each state's Medicaid program to cover low-income pregnant

[1] The American Rescue Plan Act of 2021 was signed into law on March 11th, 2021. Section 9812 of this bill includes modifications to Medicaid coverage for pregnant and postpartum women, indicating that states are given the option to voluntarily extend the postpartum coverage period under Medicaid from 60 days following childbirth to 365 days after childbirth. Of note, states that elect the new option must provide full Medicaid benefits during pregnancy and the extended postpartum period. If selected by a state, the bill takes effect starting April 1, 2022. Nonetheless, postpartum women currently covered by Medicaid can remain on the program beyond 60 days because of a Maintenance of Eligibility (MOE) requirement enacted in 2020 as part of the Families First Coronavirus Response Act that lasts through the end of the COVID public health emergency period.

women who are U.S. citizens or residents with over 5 years of residence in the U.S.[2,3] for up to 60 days postpartum.[10,11] As a result, after 60 days, Medicaid-covered postpartum women's benefits vary greatly by state and eligibility (e.g., traditional Medicaid, pregnancy-related Medicaid, and Medicaid expansion).[10] Among the Medicaid-covered population, 60% of women attend a postpartum visit and one in three experience a disruption in care which is often due to a lapse in coverage.[9,10]

Although postpartum care has traditionally centered around one clinical visit six to eight weeks after delivery, the paradigm has recently shifted to acknowledge that postpartum care is ongoing rather than a one-time event and best when tailored to each woman's needs.[12] Current recommendations from ACOG suggest an interaction with the obstetrician/gynecologist or other obstetric care provider within the first 3 weeks postpartum, followed up with ongoing care as needed, and concluding with a comprehensive postpartum visit no later than 12 weeks after birth.[12] Furthermore, ACOG recommends that women with chronic medical conditions (e.g. hypertensive disorders, obesity, diabetes, thyroid disorders, renal disease, and mood disorders) be counseled regarding the importance of timely follow-up with their obstetrician/gynecologists or primary care providers for ongoing coordination of care.[12] These recommendations have been endorsed by several other professional colleges and societies including the Society for Maternal-Fetal Medicine, the American College of Nurse-Midwives, the National Association of Nurse Practitioners in Women's Health, the Society for Academic Specialists in General Obstetrics and Gynecology, and the Academy of Breastfeeding Medicine.[12]

To date, no systematic review has comprehensively assessed whether strategies around postpartum healthcare delivery increase appropriate postpartum health care utilization and maternal well-being. A handful of reviews have focused on specific aspects of postpartum health care delivery, including predictors of postpartum health care utilization among minority populations,[13] face-to-face interactions between healthcare providers and postpartum women with low-risk pregnancies,[14] schedules for home visits in the early postpartum period among women with low risk pregnancies,[15] and the impact of collaborative care models on women with depression, including pregnant and postpartum women.[15] None of these reviews, however, has sought to synthesize the totality of the evidence on this topic. The goal of this review is to identify and describe studies and strategies which seek to improve utilization of postpartum care and maternal health outcomes in the U.S.

Draft Key Questions.

Key Question 1. What strategies for healthcare delivery increase appropriate postpartum healthcare utilization within one year of birth?

a. What is the optimal timing for the postpartum visit for improving attendance?

[2]Undocumented immigrant women are not eligible for Medicaid coverage due to their citizenship/immigration status. Many uninsured women in the U.S. have their delivery covered though Emergency Medicaid (EM), which provides coverage for emergency medical conditions. Nonetheless, this service is only designed to meet a sudden critical medical need, such as delivery and labor. EM cannot be applied for in advance, and it does not cover any prenatal or postpartum healthcare services.

[3]Some states have exceptions to the five-year waiting period for certain immigrants such as refugees and asylees. Twenty-five states have adopted the option to cover immigrant pregnant women who have been lawfully residing in the US for less than five years without a waiting period, known as the Legal Immigrant Children's Health Improvement Act of 2007 option, whereas pregnant women who are noncitizens and lived in the US with qualified status for fewer than five years are ineligible in the remaining states.

b. Which strategies increase appropriate health care utilization within 60 days of birth? Does this relationship differ by timing since birth, specifically 1-6 days postpartum, 7-42 days postpartum or 43-60 days postpartum?
c. Which strategies increase appropriate health care utilization between 60 days and 1 year postpartum?

Key Question 2. What strategies for health care delivery improve maternal (and infant) health outcomes within one year of birth?

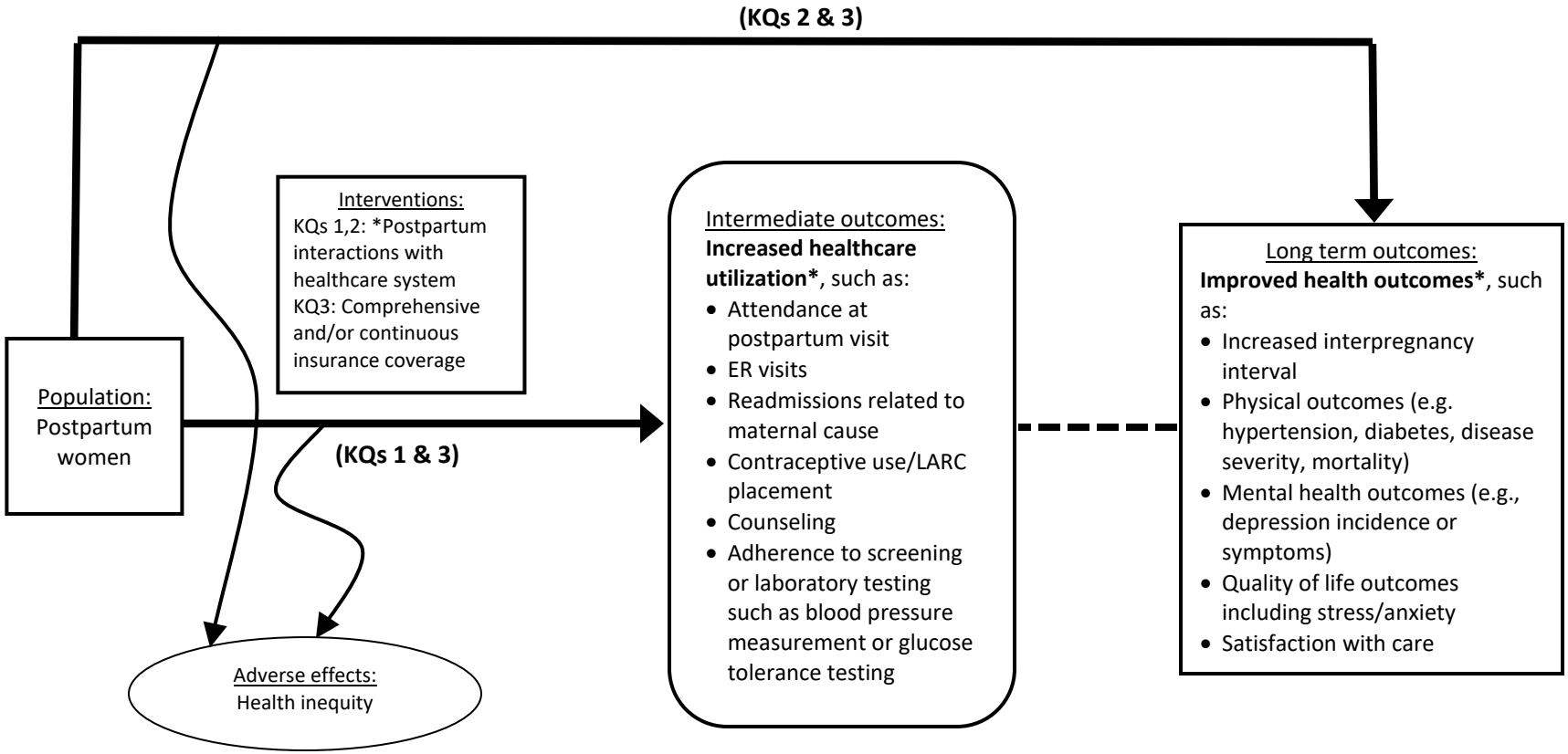
a. What is the optimal timing for the postpartum visit for reducing adverse maternal (and infant) health outcomes?
b. Do these strategies reduce adverse maternal health outcomes within 60 days of birth? Does this relationship differ by timing since birth, specifically for 1-6 days postpartum, 7-42 days postpartum and 43-60 days postpartum?
c. Do these strategies reduce adverse maternal health outcomes between 60 days and 1 year postpartum?

Key Question 3. Does expansion of healthcare or better healthcare coverage result in increased healthcare utilization or better maternal health outcomes?

For all key questions, how do the findings vary by women with high and low risk of postpartum complications, by specific complications or disorders of pregnancy (such as hypertensive and cardiovascular disorders of pregnancy, gestational diabetes, etc.) and subgroups defined by patient and hospital characteristics (e.g., by race, socioeconomic status, type of coverage, hospital patient population and volume, and in rural areas, etc.).

Contextual Question: What additional evidence is needed (e.g., research gaps) to assess the value of extending postpartum care to one year after pregnancy?

Draft Analytic Framework for postpartum care for women up to 1 year after birth



*The full list of interventions and outcomes are too extensive to illustrate in their entirety in this diagram. See the inclusion criteria for the full list of interventions and outcomes.

PICOTS FOR A SYSTEMATIC REVIEW ON POSTPARTUM CARE FOR WOMEN UP TO ONE YEAR AFTER BIRTH

Table 1. Key Question 1. What strategies for healthcare delivery increase appropriate postpartum healthcare utilization within one year of birth?

a. What is the optimal timing for the postpartum visit for improving attendance?	**b. Which strategies increase appropriate health care utilization within 60 days of birth? Does this relationship differ by timing since birth, specifically 1-6 days postpartum, 7-42 days postpartum or 43-60 days postpartum?**	**c. Which strategies increase appropriate health care utilization between 60 days and 1 year postpartum?**
Population		
Postpartum women and their infants	Postpartum women	Postpartum women
Interventions		
Timing of postpartum visit	***How/when/where care is delivered,*** *such as* - Maternal care received at well-child visit - Home visits, including lay support or outreach workers such as community health workers - Laboratory facilities, such as testing for glucose tolerance - Contraceptive care administer in the hospital ***Who provides care,*** *such as* - Mid-wife or doula led care - Proxy for a visit as determined by use of prescription medications that require a physician visit, such as antiviral therapy for HIV ***Care coordination and management of care processes,*** *such as* - Patient navigators - Creation and implementation of post birth care plans - Strategies for continuity of care or care transitions - Strategies to facilitate access to appointments (e.g. scheduling interventions) - Postpartum specialty care clinics - Multidisciplinary care models or evidence-based care protocols ***Information and communication technology,*** *such as* - Bidirectional telehealth strategies ***Interventions targeted at healthcare provider,*** *such as* - Interventions to improve guideline-adherent care in areas such as social needs, smoking cessation/relapse prevention, postpartum depression, substance use disorder. ***Health education interventions,*** *such as* - Culturally tailored (or any) postpartum patient/provider education focused on postpartum health and associated risks - Prenatal patient/provider education focused on postpartum health and associated risks	All interventions listed for KQ1b plus any interactions with the health system/strategies occurring in the first 60 days postpartum aimed at improving postpartum care, for example the 6–8-week postpartum visit or appropriate screening visits.
	EXCLUDE: referral only interventions; insurance expansion (included in KQ3)	***EXCLUDE***: Same exclusions listed for KQ1b

continued

Key Question 1. Do strategies around healthcare delivery arrangements increase appropriate postpartum healthcare utilization within one year of birth?		
a. What is the optimal timing for the postpartum visit for improving attendance?	**b. Which strategies increase appropriate health care utilization within 60 days of birth? Does this relationship differ by timing since birth, specifically 1-6 days postpartum, 7-42 days postpartum or 43-60 days postpartum?**	**c. Which strategies increase appropriate health care utilization between 60 days and 1 year postpartum?**
Comparators		
Postpartum visit at a different time (i.e., 3- week versus 6-week)	Standard of care or a different type of care interaction/strategy	Standard of care or a different type of care interaction/strategy
Outcomes		
Maternal outcomes: - Postpartum visit attendance ***Infant outcomes:*** - Health care utilization (well-baby visits, ED visits, hospital admissions etc.)	***Healthcare utilization within 60 days of birth***, *such as* - ER visits - Readmissions related to maternal cause - Contraceptive use/LARC placement - Postpartum visit attendance - Counseling - Adherence to screening or laboratory testing such as blood pressure measurement or glucose tolerance testing ***Harms*:** Health inequity	Healthcare utilization outcomes listed for KQ2b but measured between 60 days and 1 year postpartum.
Timing		
Any timing of intervention within 12 weeks of pregnancy	Any. Timing of intervention may be prenatal, delivery or postnatal.	Any. Timing of intervention may be prenatal, delivery or postnatal.
Setting		
All settings within developed countries	All settings within developed countries	All settings within developed countries
Study design		
- Clinical trials, cohort/case-control studies	- Clinical trials, cohort/case-control studies	- Clinical trials, cohort/case-control studies
- Cross-sectional studies	- Cross-sectional studies	- Cross-sectional studies

Table 2. Key Question 2. What strategies for health care delivery improve maternal (and infant) health outcomes within one year of birth?

a. What is the optimal timing for the postpartum visit for reducing adverse maternal (and infant) health outcomes?	b. Do these strategies reduce adverse maternal health outcomes within 60 days of birth? Does this relationship differ by timing since birth, specifically for 1-6 days postpartum, 7-42 days postpartum and 43-60 days postpartum?	c. Do these strategies reduce adverse maternal health outcomes between 60 days and 1 year postpartum?
Population		
Postpartum women and their infants	Postpartum women	Postpartum women
Interventions		
Timing of postpartum visit	***How/when/where care is delivered,*** *such as* - Maternal care received at well-child visit - Home visits, including lay support or outreach workers such as community health workers - Laboratory facilities, such as testing for glucose tolerance - Contraceptive care administer in the hospital ***Who provides care,*** *such as* - Mid-wife or doula led care - Proxy for a visit as determined by use of prescription medications that require a physician visit, such as antiviral therapy for HIV ***Care coordination and management of care processes,*** *such as* - Patient navigators - Creation and implementation of post birth care plans - Strategies for continuity of care or care transitions - Strategies to facilitate access to appointments (e.g. scheduling interventions) - Postpartum specialty care clinics - Multidisciplinary care models or evidence-based care protocols ***Information and communication technology,*** *such as* - Bidirectional telehealth strategies ***Interventions targeted at healthcare provider,*** *such as* - Interventions to improve guideline-adherent care in areas such as social needs, smoking cessation/relapse prevention, postpartum depression, substance use disorder. ***Health education interventions,*** *such as* - Culturally tailored (or any) postpartum patient/provider education focused on postpartum health and associated risks - Prenatal patient/provider education focused on postpartum health and associated risks	All interventions listed for KQ1b plus any interactions with the health system/strategies occurring in the first 60 days postpartum aimed at improving postpartum care, for example the 6–8-week postpartum visit or appropriate screening visits.
	EXCLUDE: referral only interventions; insurance expansion (included in KQ3)	***EXCLUDE***: Same exclusions listed for KQ2b

continued

Key Question 2. Do strategies around health care delivery arrangements improve maternal (and infant) health outcomes within one year of birth?		
a. What is the optimal timing for the postpartum visit for reducing adverse maternal (and infant) health outcomes?	**b. Do these strategies reduce adverse maternal health outcomes within 60 days of birth? Does this relationship differ by timing since birth, specifically for 1-6 days postpartum, 7-42 days postpartum and 43-60 days postpartum?**	**c. Do these strategies reduce adverse maternal health outcomes between 60 days and 1 year postpartum?**
Comparators		
Postpartum visit at a different time (i.e., 3-week versus 6-week)	Standard of care or a different type of care interaction/strategy	Standard of care or a different type of care interaction/strategy
Outcomes		
Maternal health outcomes, such as: - Interpregnancy interval - Physical outcomes (e.g. hypertension, diabetes, disease severity, mortality) - Mental health outcomes (e.g., depression incidence or symptoms) - Use of contraception - Quality of life outcomes including stress/anxiety - Satisfaction with care in studies that also measure any of the above outcomes ***Harms*:** Health inequity	Maternal health outcomes listed for KQ2a but measured up to 60 days postpartum	Maternal health outcomes listed for KQ2a but measured between 60 days and 1 year postpartum.
Infant outcomes, such as: - Morbidity and mortality - Neglect or abuse - Physical, social, behavioral development	***EXCLUDE:*** Breastfeeding outcomes, body weight/size, urinary Incontinence, sexual function	***EXCLUDE:*** Same as those listed for KQ1b
Timing		
Any timing of intervention within 12 weeks of pregnancy	Any. Timing of intervention may be prenatal, delivery or postnatal.	Any. Timing of intervention may be prenatal, delivery or postnatal.
Setting		
All settings within developed countries	All settings within developed countries	All settings within developed countries
Study design		
- Clinical trials, cohort/case-control studies - Cross-sectional studies	- Clinical trials, cohort/case-control studies - Cross-sectional studies	- Clinical trials, cohort/case-control studies - Cross-sectional studies

Table 3. Key Question 3. Does expansion of healthcare or better healthcare coverage result in increased healthcare utilization or better maternal health outcomes?

Population
Postpartum women
Interventions
- Women with a more comprehensive level of insurance coverage or better access to care as the result of a targeted program at the system or provider level - Women with continuous insurance coverage and consequently continuous access to care
Comparators
- Lower level of coverage or access - Women who experience gaps in their insurance coverage
Outcomes
Continuity of insurance coverage ***Healthcare utilization***, such as - ER visits - Readmissions related to maternal cause - Contraceptive use/LARC placement - Postpartum visit attendance - Counseling - Adherence to screening or laboratory testing such as blood pressure measurement or glucose tolerance testing ***Maternal health outcomes***, such as: - Interpregnancy interval - Physical outcomes (e.g. hypertension, diabetes, disease severity, mortality) - Mental health outcomes (e.g., depression incidence or symptoms) - Use of contraception - Quality of life outcomes including stress/anxiety - Satisfaction with care in studies that also measure any of the above outcomes ***Harms*:** Health inequity
Timing
Any. Timing of intervention may be prenatal, delivery or postnatal.
Setting
All settings within developed countries
Study design
- Clinical trials, cohort and case-control studies - Cross-sectional studies

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