California Health Benefits Review Program

Analysis of California Assembly Bill 1930
Medi-Cal: Comprehensive Perinatal Services

A Report to the 2021–2022 California State Legislature

April 16, 2022

CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

Key Findings

Analysis of California Assembly Bill 1930
Medi-Cal: Comprehensive Perinatal Services

Summary to the 2021–2022 California State Legislature, April 16, 2022

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM

SUMMARY

The version of California Assembly Bill 1930 analyzed by CHBRP would mandate that coverage for specified comprehensive perinatal services, delivered through the Comprehensive Perinatal Services Program (CPSP), for Medi-Cal beneficiaries be extended from 60 days to 12 months following the last day of an individual's pregnancy. The bill also seeks to allow unlicensed perinatal health workers (PHWs) to be reimbursed for services rendered in a nonmedical setting and change their supervision requirements.

If enacted, the law would apply to the health insurance of enrollees in Department of Managed Health Care (DMHC)-regulated Medi-Cal managed care plans, County Organized Health Systems (COHS), and the Fee-for-Service (FFS) program.

Benefit Coverage: At baseline, CHBRP estimates 57% of Medi-Cal beneficiaries enrolled in DMHC-regulated managed care plans subject to AB 1930 have coverage for comprehensive perinatal services delivered through CPSP for 12 months following the end of a pregnancy. Postmandate, 100% of eligible Medi-Cal beneficiaries would have coverage of comprehensive perinatal services through CPSP for 12 months postpartum.

At baseline, CHBRP estimates 0% of eligible Medi-Cal beneficiaries have coverage of preventive CPSP services rendered by unlicensed perinatal health workers (PHWs) in the home or other community setting away from a medical site. Postmandate, 100% of eligible Medi-Cal beneficiaries would have coverage of preventive services rendered by unlicensed PHWs in the home or other community setting. AB 1930 does not exceed the definition of essential health benefits (EHBs) in California.

Medical Effectiveness: CHBRP did not identify any studies that compared interventions that were provided for 60 days or less postpartum to interventions that were provided over a longer period of time. There are no CPSP-specific studies comparing these time periods because CPSP does not provide services past 60 days postpartum. Given the general lack of evidence on CPSP, CHBRP mostly included studies conducted in other states that covered comprehensive perinatal services similar to those that would be covered in California if AB 1930 were enacted. These studies provided inconclusive evidence of the impact of programs in which services were delivered solely by unlicensed PHWs on breastfeeding and maternal depression and insufficient evidence of the impact of programs delivered by a combination of unlicensed PHWs and licensed health professionals

Cost and Health Impacts[1]: In 2023, CHBRP estimates AB 1930 would result in an additional 349 Medi-Cal beneficiaries enrolled in DMHC-regulated managed care plans utilizing CPSP services, with an increase of approximately 0.27% (to 82.7 per 1,000 beneficiaries) for services rendered at a medical site and an increase from 0 to 0.4 per 1,000 beneficiaries for those CPSP services rendered at a location away from a medical site. This would result in an increase of $75,000 in annual expenditures. CHBRP estimates no measurable short-term or long-term public health impact at the population level, due to existing barriers to PHW supply and lack of evidence showing the effectiveness of comprehensive perinatal services when provided more than 60 days postpartum.

CONTEXT

Perinatal care is health care for pregnant people from prenatal through postpartum. It allows practitioners an opportunity to detect, monitor, and address health conditions and behaviors that can impact pregnancy, maternal health, and newborn/infant health outcomes.[2]

Receiving timely access to prenatal care is an important factor for maternal and infant health outcomes. Although California exceeded the Healthy People 2030 national goal of at least 80.5% of pregnant people receiving early and adequate prenatal care in 2019, disparities in utilization of prenatal care in the first trimester by race/ethnicity and insurance type persist across the state. There are several barriers to postpartum utilization

[1] Similar cost and health impacts could be expected for the following year, though possible changes in medical science and other aspects of health make stability of impacts less certain as time goes by.
[2] Refer to CHBRP's full report for full citations and references.

of perinatal care including, among others, access to providers, coordination of care, challenges with scheduling, and lack of incentives to prioritize postpartum visits.

California's Comprehensive Perinatal Services Program (CPSP) program is a benefit for all Medi-Cal beneficiaries who become pregnant, including those covered by Medi-Cal Managed Care Plans. CPSP services supplement the obstetric care patients typically receive in an effort to improve pregnancy and postpartum outcomes. CPSP participants are provided enhanced, wraparound perinatal services, including those related to nutrition, psychosocial needs, and health education. Services are available from the date of conception through 60 days following the end of the pregnancy.

Participation by providers is limited to those preapproved by the California Department of Public Health (CDPH) as CPSP providers. CPSP providers may contract with or employ certain health professionals to act as CPSP practitioners to deliver comprehensive perinatal services.

All CPSP services must be provided by or under the personal supervision of a physician. The state typically requires CPSP services to be delivered in a direct, face-to-face manner with the client in order to be reimbursed. Only CPSP providers who enrolled as Medi-Cal providers and in CPSP may bill for services rendered and receive reimbursements; CPSP practitioners that are employed or contract with CPSP providers to render CPSP services are not eligible for reimbursement. Hospital-based outpatient departments/clinics and non–hospital-based clinics that are CPSP providers may bill for CPSP services that are delivered off-site or outside of the clinic (e.g., a physician's office, a school auditorium, or a clinic-run mobile van). For at-home settings, CPSP providers may only be reimbursed for preventive services.

BILL SUMMARY

AB 1930 would make three changes to coverage for CPSP services. The bill would: 1) extend coverage for CPSP services from 60 days to 12 months postpartum; 2) request federal approval to cover certain services by unlicensed perinatal health workers (PHWs); and 3) change the supervision requirements of unlicensed PHWs delivering CPSP services.

AB 1930 does not change the reimbursement rates for CPSP services.

Extension of coverage

AB 1930 requires coverage for specified comprehensive perinatal services for Medi-Cal beneficiaries to be extended from 60 days to 12 months following the last day of an individual's pregnancy. The bill specifies the comprehensive perinatal services during the extended coverage period would include additional comprehensive perinatal assessments and individualized care plans. It would also include provision of additional visits, and units of service.

The bill also requires the Department of Health Care Services (DHCS) to collaborate with the California Department of Public Health (CDPH) and a broad stakeholder group to determine the specific number of additional comprehensive perinatal services to be covered. AB 1930 specifies that additional services must be at least proportional in amount, duration, and scope to those available to participants in California's CPSP on July 27, 2021.

Unlicensed perinatal health workers: reimbursement and supervision

AB 1930 also requires the state to request federal approvals to cover preventive services rendered by an unlicensed perinatal health worker outside of a medical setting, and allow these workers to be supervised by either of the following:

- A Medi-Cal provider that is a clinic, hospital, a community-based organization, or a licensed practitioner; or
- A community-based organization (CBO) that is not a Medi-Cal provider, so long as an enrolled Medi-Cal provider is available for Medi-Cal billing purposes.

IMPACTS

Benefit Coverage, Utilization, and Cost

Benefit Coverage

CHBRP estimates at baseline, there are 69,861 users of CPSP services in Department of Managed Health Care (DMHC)-regulated Medi-Cal Managed Care Plans, and that 0% of which have coverage of preventive CPSP services rendered by unlicensed PHWs in the home or other community setting away from a medical site. CHBRP also estimates that annual utilization of CPSP services rendered at a medical site is 82.5 per 1,000 covered Medi-Cal beneficiaries in DMHC-regulated managed care at baseline.

Utilization and Cost

Postmandate, CHBRP estimates that an additional 349 Medi-Cal beneficiaries in DMHC-regulated managed care would use CPSP services.

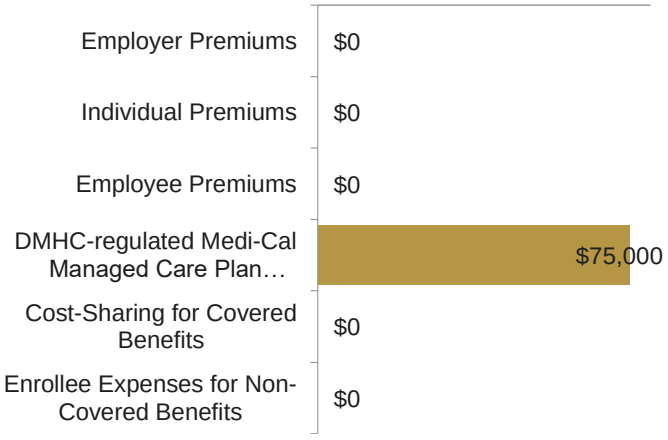
CHBRP estimates that annual utilization of CPSP services rendered at a medical site will increase by approximately 0.27% to 82.7 per 1,000 covered Medi-Cal beneficiaries in DMHC-regulated managed care postmandate. Annual utilization of CPSP services rendered at a beneficiary's home or other community setting away from a medical site will increase from 0 per 1,000 covered Medi-Cal beneficiaries in DMHC-regulated managed care at baseline to 0.4 per 1,000 postmandate.

Expenditures

AB 1930 would raise total net annual expenditures by $75,000 (0.0001%) due to an increase in expenditures by Medi-Cal Managed Care Plans. CPSP services do not have cost sharing for enrollees, meaning the entire increase would be a Medi-Cal expenditure and would not be borne out by enrollees.

No expected offsets are projected due to an increase in CPSP visits. There are no measurable cost offsets due to CPSP services provided by unlicensed PHWs or in a setting away from a medical site.

Figure B. Expenditure Impacts of AB 1930



Source: California Health Benefits Review Program, 2022.

Medi-Cal County Organized Health Systems and Fee-for-Service

In addition to the expected increase of $75,000 in Medi-Cal Managed Care Plan expenditures CHBRP is estimating for the approximately 8 million Medi-Cal beneficiaries enrolled in DMHC-regulated plans, it seems reasonable to assume that a population proportional increase of approximately $16,000 would occur for the approximately 1.7 million beneficiaries enrolled in County Organized Health Systems (COHS) managed care. It seems likely that a similar impact would occur for beneficiaries with health insurance through Medi-Cal's Fee-for-Service (FFS) program (though the exact amount is unknown).

Number of Uninsured in California

Because the change in average premiums does not exceed 1% for any market segment, CHBRP would expect no measurable change in the number of uninsured persons due to the enactment of AB 1930.

Medical Effectiveness

CHBRP identified several studies regarding the strength of evidence of the impact of comprehensive perinatal services on birth and maternal outcomes. AB 1930 would have little impact on birth outcomes, but reporting birth outcomes remains important for two reasons. Although AB 1930 does not change that Medi-Cal beneficiaries receive coverage for CPSP services during the prenatal period, it would allow unlicensed PHWs to provide preventive services outside the medical setting if supervised by a Medi-Cal provider or a community-based organization (CBO) that is not a Medi-Cal provider under certain conditions (see *Policy Context* section) during the prenatal and postpartum period. Additionally, CHBRP reports on birth outcomes because part of the original intent of the CPSP program was to improve birth outcomes.

Overall, there is a lack of evidence on the efficacy of CPSP specifically. CHBRP identified two older studies of CPSP and included them in this analysis. Given the lack of evidence on CPSP, CHBRP mostly included studies that covered comprehensive perinatal services similar to those that would be provided in California's CPSP if AB 1930 were enacted.

CHBRP did not identify any studies that compared interventions that were provided for 60 days or less postpartum to interventions that were provided over a longer period of time. CHBRP identified some studies that compared the provision of comprehensive perinatal services in medical versus nonmedical settings, and these studies were primarily focused on home visiting programs. However, these home-visiting studies did not control for additional perinatal services that may have been received outside of the studied intervention. CHBRP did not identify any studies that compared the provision of comprehensive perinatal services in medical

to nonmedical settings where the nonmedical setting was a location other than a home.

Regarding birth outcomes, CHBRP found there is:

- Insufficient evidence[3] that enrollment in CPSP or the pilot project reduces risk of low birth weight (LBW).
- Insufficient evidence that comprehensive perinatal services reduce risk of newborn intensive care unit admission.
- Limited evidence[4] that comprehensive perinatal services delivered solely by unlicensed PHWs reduce risk of LBW; insufficient evidence that they reduce risk of very low birth weight or extremely low birth weight; and inconclusive evidence[5] that they reduce risk of preterm birth.
- A preponderance of evidence[6] that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals reduce risk of LBW; insufficient evidence that they reduce risk of being small for gestational age or infant mortality; and limited evidence that they reduce risk of preterm birth.

Regarding maternal outcomes, CHBRP found there is:

- Inconclusive evidence that comprehensive perinatal services increase breastfeeding initiation; limited evidence that they do not increase breastfeeding duration; and insufficient evidence that they increase breastfeeding exclusivity and self-efficacy.

- Inconclusive evidence that comprehensive perinatal services delivered solely by unlicensed PHWs decrease the occurrence of postpartum depression or depressive symptoms after childbirth; insufficient evidence that they improve psychosocial resources, including self-esteem, social support, mastery, locus of control, and perceived stress.

- Insufficient evidence that comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed PHWs decrease the occurrence of postpartum depression or depressive symptoms after childbirth, or improve psychosocial resources, including self-esteem, social support, mastery, locus of control, and perceived stress.

Public Health

CHBRP concludes that passage of AB 1930 would have no measurable short-term or long-term public health impact at the population-level, due to existing barriers to PHW supply and lack of evidence showing the effectiveness of comprehensive perinatal services when provided more than 60 days postpartum. It is important to note that the absence of evidence is not "evidence of no effect." It is possible that an impact – desirable or undesirable – could result, but current evidence is insufficient to inform an estimate.

At the individual level, evidence of effectiveness indicates that some Medi-Cal beneficiaries who would use CPSP services postmandate, particularly home visiting interventions when delivered by a combination of unlicensed PHWs plus licensed professionals, may see improved birth outcomes, including reduced risk of low birth weight and preterm birth, and increased breastfeeding duration. However, CHBRP is unable to estimate a specific number.

For these reasons, CHBRP also concludes that AB 1930 would have no measurable impact on disparities or social determinants of health for birth and maternal health outcomes.

Long-Term Impacts

Given the insufficient and inconclusive evidence on CPSP or CPSP-like services on maternal health outcomes, CHBRP is unable to determine the potential long-term utilization of CPSP services and long-term cost impacts.

Essential Health Benefits and the Affordable Care Act

AB 1930 would not result in new benefit coverage that exceeds the definition of essential health benefits (EHBs) in California. Benefit coverage of Medi-Cal beneficiaries is not subject to the same set of EHBs as the benefit coverage of enrollees in nongrandfathered small-group and individual market plans and policies.

[3] *Insufficient evidence* indicates that there is not enough evidence available to know whether or not a treatment is effective, either because there are too few studies of the treatment or because the available studies are not of high quality. It does not indicate that a treatment is not effective.
[4] *Limited evidence* indicates that the studies have limited generalizability to the population of interest and/or the studies have a fatal flaw in research design or implementation.
[5] *Inconclusive evidence* indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.
[6] *Preponderance of evidence* indicates that the majority of the studies reviewed are consistent in their findings that treatment is either effective or not effective.

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The California Health Benefits Review Program (CHBRP) was established in 2002. As per its authorizing statute, CHBRP provides the California Legislature with independent analysis of the medical, financial, and public health impacts of proposed health insurance benefit-related legislation. The state funds CHBRP through an annual assessment on health plans and insurers in California.

An analytic staff based at the University of California, Berkeley, supports a task force of faculty and research staff from multiple University of California campuses to complete each CHBRP analysis. A strict conflict-of-interest policy ensures that the analyses are undertaken without bias. A certified, independent actuary helps to estimate the financial impact. Content experts with comprehensive subject-matter expertise are consulted to provide essential background and input on the analytic approach for each report.

More detailed information on CHBRP's analysis methodology, authorizing statute, as well as all CHBRP reports and other publications, are available at www.chbrp.org.

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Table 1. AB 1930 Impacts on Benefit Coverage, Utilization, and Cost, 2023

	Baseline (2023)	Postmandate Year 1 (2023)	Increase/ Decrease	Change Postmandate
Benefit coverage				
Total enrollees with health insurance subject to state-level benefit mandates (a)	22,810,000	22,810,000	0	0.00%
Total enrollees with health insurance subject to AB 1930	8,034,000	8,034,000	0	0.00%
Total % of enrollees with coverage of Comprehensive Perinatal Services Program (CPSP) services for 1 year postpregnancy	57%	100%	43%	76.54%
Total % of enrollees with coverage of preventive services rendered by unlicensed perinatal health worker away from a medical site	0%	100%	100%	N/A
Utilization and cost				
Number of enrollees utilizing CPSP services	69,861	70,210	349	0.50%
Utilization of CPSP services per 1,000 covered enrollees				
At a medical site	82.5	82.7	0.2	0.27%
In a beneficiary's home or other community setting away from a medical site	N/A	0.4	0.4	N/A
Average cost per unit of CPSP services				
At a medical site	$15.83	$15.81	$(0.02)	−0.12%
In other community setting away from a medical site	N/A	$15.81	$0.00	0.00%
Expenditures				
Premium (expenditures) by payer				
Private employers for group insurance	$52,967,575,000	$52,967,575,000	$0	0.00%
CalPERS HMO employer expenditures (b) (c)	$5,895,476,000	$5,895,476,000	$0	0.00%
Medi-Cal Managed Care Plan (DMHC-regulated only) expenditures (d)	$25,989,411,000	$25,989,486,000	$75,000	0.00%
Enrollee premiums (expenditures)				
Enrollees for individually purchased insurance	$24,029,788,000	$24,029,788,000	$0	0.00%
Individually purchased – outside exchange	$6,324,312,000	$6,324,312,000	$0	0.00%
Individually purchased – Covered California	$17,705,476,000	$17,705,476,000	$0	0.00%
Enrollees with group insurance, CalPERS HMOs, Covered California, and Medi-Cal Managed Care (c)	$24,504,936,000	$24,504,936,000	$0	0.00%
Enrollee out-of-pocket expenses				
Cost-sharing for covered benefits	$15,807,011,000	$15,807,011,000	$0	0.00%

(deductibles, copayments, etc.)				
Total expenditures	$149,194,197,000	$149,194,272,000	$75,000	0.0001%

Source: California Health Benefits Review Program, 2022.

Notes: (a) Enrollees in plans and policies regulated by DMHC or CDI aged 0 to 64 years as well as enrollees 65 years or older in employer-sponsored health insurance. This group includes commercial enrollees (including those associated with Covered California or CalPERS) and Medi-Cal beneficiaries enrolled in DMHC-regulated plans.

(b) Enrollee premium expenditures include contributions by employees to employer-sponsored health insurance, health insurance purchased through Covered California, and contributions to Medi-Cal.

(c) Enrollee premium expenditures include contributions by employees to employer-sponsored health insurance, health insurance purchased through Covered California, and contributions to Medi-Cal Managed Care.

(d) In addition to the possible increase in premiums CHBRP is estimating for the 8,034,000 Medi-Cal beneficiaries enrolled in DMHC-regulated plans subject to AB 1930, CHBRP assumes that a proportional increase of $16,000 would occur for the approximately 1.7 million beneficiaries enrolled in COHS managed care. It seems likely that there would also be an additional increase for the Medi-Cal beneficiaries with health insurance through the FFS program (though the exact amount is unknown).

Key: CalPERS HMOs = California Public Employees' Retirement System Health Maintenance Organizations; CDI = California Department of Insurance; COHS = County Operated Health System; CPSP = Comprehensive Perinatal Services Program; DMHC = Department of Managed Health Care; FFS = Fee-for-Service.

POLICY CONTEXT

The California Assembly Committee on Health has requested that the California Health Benefits Review Program (CHBRP)[7] conduct an evidence-based assessment of the medical, financial, and public health impacts of AB 1930, Comprehensive Perinatal Services, as amended on March 16, 2022.

Bill-Specific Analysis of AB 1930, Comprehensive Perinatal Services

Bill Language

AB 1930 would make three changes to coverage for services provided under the California Comprehensive Perinatal Services Program (CPSP). The bill would: 1) extend coverage for CPSP services from 60 days to 12 months postpartum; 2) request federal approval to cover certain services by unlicensed perinatal health workers; and 3) change the supervision requirements of unlicensed perinatal health workers delivering CPSP services.

Extension of coverage

AB 1930 requires coverage for specified comprehensive perinatal services for Medi-Cal beneficiaries to be extended from 60 days to 12 months following the last day of an individual's pregnancy. The bill specifies the comprehensive perinatal services during the extended coverage period would include additional comprehensive perinatal assessments and individualized care plans. It would also include provision of additional visits, and units of service.

The bill also requires the Department of Health Care Services (DHCS) to collaborate with the California Department of Public Health (CDPH) and a broad stakeholder group to determine the specific number of additional comprehensive perinatal services to be covered. AB 1930 specifies that additional services must be at least proportional in amount, duration, and scope to those available to participants in California's Comprehensive Perinatal Services Program (CPSP) on July 27, 2021.

Unlicensed perinatal health workers: reimbursement and supervision

AB 1930 also requires the state to request federal approvals to cover preventive services rendered by an unlicensed perinatal health worker outside of a medical setting, and allow these workers to be supervised by either of the following:

- A Medi-Cal provider that is a clinic, hospital, a community-based organization, or a licensed practitioner
- A community-based organization (CBO) that is not a Medi-Cal provider, so long as an enrolled Medi-Cal provider is available for Medi-Cal billing purposes.

The full text of AB 1930 can be found in Appendix A.

Relevant Populations

If enacted, the law would apply to the health insurance of enrollees in Department of Managed Health Care (DMHC)-regulated Medi-Cal managed care plans, County Organized Health Systems (COHS), and the Fee-for-Service (FFS) program.

[7] CHBRP's authorizing statute is available at www.chbrp.org/about_chbrp/faqs/index.php.

Definitions

- CHBRP acknowledges that persons who do not identify as "women" may also experience pregnancy and therefore refers to "pregnant people" and "postpartum people" in this analysis. When referring to the literature, CHBRP uses terminology from the source material cited, which frequently uses the term "women" to describe the study populations.

- CHBRP uses the following terms throughout this analysis:

    - **Comprehensive perinatal services:** refers to nonobstetrical care (e.g., psychosocial, nutritional, health education, etc.) delivered during the perinatal period and are not specific to CPSP.

    - **CPSP services**: refers to specific perinatal assessments and care provided exclusively under the CPSP program. These services may only be provided by CPSP providers and CPSP practitioners. See the *Background* section for more information.

    - **Perinatal care**: refers to care provided from the time of conception through the first year of birth.[8]

    - **Perinatal health worker (PHW):** refers to a broad category of health care workers that deliver comprehensive perinatal services and/or CPSP services. This workforce includes social workers, health paraprofessionals, marriage and family therapists, registered dietitians, health educators, childbirth educators, community health workers, promotora/es, and doulas (e.g., birth, postpartum, antepartum, and full-spectrum). PHWs are referenced frequently in the literature analyzed by CHBRP. This analysis uses the terminology from the source material cited, which examines several of the professions listed in the provision of comprehensive perinatal services.

    - **Prenatal**: refers to the period between conception and the end of a pregnancy.

    - **Postpartum:** refers to the period between the end of a pregnancy through the following 12 months.

Interaction With Existing State and Federal Requirements

Health benefit mandates may interact and align with the following state and federal mandates or provisions.

Federal Policy Landscape

The American Rescue Plan Act of 2021

Prior to the passage of the American Rescue Plan Act (ARPA) of 2021, federal law required that all states extend Medicaid eligibility to pregnant women with incomes up to 138% of the federal poverty level ($38,295 for a family of four in 2022[9]). Pregnancy-related coverage for the woman was required to last through at least 60 days postpartum. The enactment of ARPA authorizes states to extend coverage for Medicaid beneficiaries from 60 days to 12 months postpartum through a state plan amendment or section 1115 waiver. The option became effective on April 1, 2022, and is available until March 31, 2027. All states that choose to extend coverage through this option must provide full Medicaid benefits during the

[8] HSC Section 123485(d).
[9] U.S. Health and Human Services Poverty Guidelines for 2022 (https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines).

entire length of the pregnancy and the extended postpartum period. States that do not elect this option may provide a more narrow set of pregnancy-related benefits (KFF, 2021).

Essential health benefits

The Affordable Care Act requires nongrandfathered small-group and individual market health insurance – including, but not limited to, Qualified Health Plans sold in Covered California – to cover 10 specified categories of essential health benefits (EHBs).[10, 11]

AB 1930 would not result in new benefit coverage that exceeds the definition of EHBs in California. Benefit coverage of Medi-Cal beneficiaries is not subject to the same set of EHBs as the benefit coverage of enrollees in nongrandfathered small-group and individual market plans and policies.

California Policy Landscape

California law and regulations

Existing law states that pregnant people and targeted low-income children, who are eligible for Medi-Cal benefits and are participating in a Medi-Cal program, are eligible for full-scope Medi-Cal benefits for the duration of the pregnancy and for 12 months following the last day of the person's pregnancy.[12]

Medi-Cal eligibility for pregnant people

Pregnant or postpartum people can be eligible for and access Medi-Cal through several routes, including traditional Medi-Cal eligibility, eligibility through Medi-Cal expansion, and pregnancy-specific eligibility and coverage.[13,14]

- **Pregnant people with incomes between 0% up to 138% of the federal poverty level (FPL)** are eligible for full-scope benefit coverage through Medi-Cal Managed Care Plans or Fee-for-Service (FFS).
- **Pregnant people with incomes above 138% up to 213% of the FPL:**
    - Are eligible for pregnancy-related Medi-Cal coverage. Pregnancy-related services are services required to assure the health of the pregnant woman and the fetus. These include, but are not limited to, prenatal care, services for other conditions that might complicate the pregnancy, labor, delivery, postpartum care, and family planning services. Pregnancy-related services may be provided prenatally from the day that pregnancy is medically established and postnatally for a period of 1 year following the last day of pregnancy.
    - Pregnant people whose incomes are above 138% up to 213% of the FPL can also choose to enroll in a Qualified Health Plan (QHP) through Covered California and receive advanced premium tax credit (APTC) to reduce their monthly premiums. Pregnant people who are enrolled in a QHP prior to becoming pregnant and are eligible for Medicaid may enroll in Medi-Cal or stay enrolled in their QHP and continue to receive APTC and cost-

[10] Policy and issue briefs on EHBs and other ACA impacts are available on the CHBRP website: www.chbrp.org/other_publications/index.php.
[11] Although many provisions of the ACA have been codified in California law, the ACA was established by the federal government, and therefore, CHBRP generally discusses the ACA as a federal law.
[12] WIC Section 14005.185.
[13] Department of Health Care Services (DHCS). Full-scope Medi-Cal Coverage and Affordability and Benefit Program for Low-Income Pregnant Women and Newly Qualified Immigrants. 2019. Available at: www.dhcs.ca.gov/services/medi-cal/Pages/Affordability-and-Benefit-Program.aspx.
[14] Covered California. Health Coverage Options for Pregnant Women. Available at: www.coveredca.com/individuals-and-families/getting-covered/pregnant-women/.

share reductions. Pregnant people in this income range may not, however, be enrolled in Medi-Cal and a QHP at the same time.

- **Pregnant people who have income over 213% up to 322% of the FPL may be eligible for the Medi-Cal Access Program (MCAP).** Pregnant people who are not eligible for full-scope or pregnancy-related Medi-Cal may qualify for the MCAP, regardless of citizenship and immigration status. MCAP offers low-cost comprehensive coverage, with no copayments, deductibles, or coinsurance. However, there is a fee equal to 1.5% of the yearly family income. The fee can be paid in monthly installments over 12 months. Pregnant people may qualify for both Covered California and the MCAP, but cannot enroll in both programs and must choose one program.
- **Undocumented pregnant people** through age 26 years who meet the income eligibility thresholds may be eligible for full-scope Medi-Cal coverage or may be eligible for partial-scope pregnancy-related Medi-Cal or MCAP if their income exceeds 138% FPL. Undocumented people over age 26 years may be eligible for partial-scope pregnancy-related Medi-Cal coverage or MCAP.

Provisional Postpartum Care Extension and ARPA

In 2020, California implemented the Provisional Postpartum Care Extension (PPCE) program. Prior to PPCE, a pregnant person who was eligible for and received Medi-Cal or MCAP during their last month of pregnancy was eligible for those services for only 60 days following their pregnancy. Under PPCE, if a pregnant person was diagnosed with a maternal mental health condition (e.g., postpartum depression) during their pregnancy, postpartum period, or within 90 days from the end of the postpartum period, the person remains eligible for Medi-Cal or MCAP for up to 1 year following the last day of the pregnancy.

California elected to participate in the federal option to extend Medi-Cal coverage through ARPA. The federal allowance under ARPA requires coverage for the full breadth of medically necessary services under pregnancy and postpartum period, regardless of immigration status or how the pregnancy ends. The ARPA extension replaced the PPCE in California beginning on April 1, 2022.

Comprehensive Perinatal Services Program

California's CPSP program is a benefit for all Medi-Cal beneficiaries who become pregnant, including those covered by Medi-Cal Managed Care Plans. The program is administered by CDPH, with reimbursements for services provided to enrollees overseen by DHCS. CPSP services supplement the obstetric care patients typically receive in an effort to improve pregnancy and postpartum outcomes. CPSP participants are provided enhanced, wraparound perinatal services, including those related to nutrition, psychosocial needs, and health education. Services are available from the date of conception through 60 days following the end of the pregnancy.

Participation by providers is limited to those preapproved by CDPH as CPSP providers. CPSP providers may contract with or employ certain health professionals, authorized by CDPH to act as CPSP practitioners, to deliver comprehensive perinatal services.[15] See the *Background* section for more information.

All CPSP services must be delivered by or under the personal supervision of a physician.[16] Under CPSP, personal supervision is defined as the evaluation of services delivered by others through direct communication, either in-person or electronic means, in accordance with protocols. Each CPSP provider's protocols must define how personal supervision by a physician will occur and will be documented.[17]

[15] Welfare and Institutions Code, Section 14134.5.
[16] CCR Title 22, Section 51179.
[17] CCR Title 22, Section 51179.5.

The state typically requires CPSP services to be delivered in a direct, face-to-face manner with the client in order to be reimbursed. Since March 24, 2020, in light of the Coronavirus disease 2019 (COVID-19) public health emergency, DHCS has allowed CPSP services to be provided via telehealth if the service meets certain requirements.[18] Reimbursement rates vary depending on the service provided and coverage type (i.e., managed care vs. FFS).[19] Only CPSP providers who enrolled as Medi-Cal providers and in CPSP may bill for services rendered and receive reimbursements; CPSP practitioners that are employed or contract with CPSP providers to render CPSP services are not eligible for reimbursement. Hospital-based outpatient departments/clinics and non–hospital-based clinics that are CPSP providers may bill for CPSP services that are delivered off-site or outside of the clinic (e.g., a physician's office, a school auditorium, or a clinic-run mobile van). For at-home settings, CPSP providers may only be reimbursed for preventive services, which must be delivered by a licensed practitioner (DHCS, 2020).[20]

Similar requirements in other states

There are 15 states, Alaska, Idaho, Indiana, Louisiana, Maine, Michigan, Minnesota, New Mexico, North Dakota, Oregon, Rhode Island, South Dakota, Vermont, Washington, and Wisconsin, that reimburse community health worker services through their Medicaid programs. Community health workers in the District of Columbia, Indiana, Michigan, Pennsylvania, and South Dakota are currently authorized to provide perinatal care (NASHP, 2021). Community health workers are one type of PHW that is eligible to deliver CPSP services. AB 1930 would change the supervisory requirements.

Several states are actively seeking to expand Medicaid postpartum coverage through the allowance under the American Rescue Plan Act of 2021 (see *Federal Policy Landscape*). The Centers for Medicare & Medicaid Services approved the section 1115 waivers for Georgia, Illinois, Missouri, New Jersey, and Virginia. Twelve states, in addition to California, have enacted legislation to seek federal approval for the expansion through a state plan amendment or 1115 waiver. An additional five states have legislation pending to seek federal approval or are planning to submit a state plan amendment or 1115 waiver (KFF, 2022).

Legislation pending in Illinois would require the Department of Healthcare and Family Services to amend managed care contracts to require managed care organizations to pay for preventive prenatal and perinatal health care services rendered by a nonaffiliated provider at the same rate that the department would pay for such services.[21]

[18] DHCS policy on Medi-Cal Payment for Telehealth and Virtual/Telephonic Communications Relative to the 2019-Novel Coronavirus (COVID-19). Available at: www.dhcs.ca.gov/Documents/COVID-19/Telehealth_Other_Virtual_Telephonic_Communications_V3.0.pdf.
[19] CCR Title 22, Section 51504.
[20] The U.S. Health Care Financing Administration defines "preventive services" as "services provided by a physician or other licensed practitioner of the healing arts within the scope of his practice under state law to (1) prevent disease, disability, and other health conditions or their progression, (2) prolong life, and promote physical and mental health and efficiency." HCFA regulation 42 CFR 440.130 (c).
[21] Illinois House Bill 5013.

BACKGROUND ON PERINATAL CARE IN CALIFORNIA

This section provides context for consideration of AB 1930 and includes information about perinatal care, the Comprehensive Perinatal Services Program (CPSP), and a description of disparities and social determinants of health related to perinatal care and birth and maternal health outcomes for pregnant people and infants.

Childbirth and Perinatal Care in California

Medi-Cal plays a significant role in coverage for pregnant people in California. In 2020, 39.9% of the 420,259 live births in California were covered by Medi-Cal (March of Dimes, 2022).

Racial/ethnic minorities are disproportionately represented in Medi-Cal. Latino people make up 50% of the Medi-Cal Managed Care population, followed by White people (18%), Asian people (10%), Black people (7%), and Other/Unknown (15%) (CHCF, 2021). As shown in **Error! Reference source not found.**, racial/ethnic minorities comprised more than 84% of births covered by Medi-Cal in 2018 (Simon, 2020b).

Table 2. Births by Mother's Race/Ethnicity and Payer Type, California 2018

	Medi-Cal	Private Insurance
Total	189,747	228,317
Latino	68%	31%
White	16%	40%
Asian	7%	20%
Black	7%	3%
More than one race	2%	3%
American Indian/Alaska Native	<1%	<1%
Native Hawaiian/Pacific Islander	<1%	<1%

Source: California Health Benefits Review Program, 2022 (adapted from Simon, 2020b).

Perinatal care is health care for pregnant people from prenatal through postpartum. Perinatal care allows practitioners an opportunity to detect, monitor, and address health conditions and behaviors that can impact pregnancy, maternal health, and newborn/infant health outcomes.

CHBRP found literature identifying disparities (differences between groups that are modifiable) in perinatal care and outcomes by race/ethnicity and insurance type (Medi-Cal vs. private insurance). See the *Disparities and Social Determinants of Health* section below for more information.

Barriers to Perinatal Care

Receiving timely access to prenatal care is an important factor for maternal and infant health outcomes. Although California exceeded the Healthy People 2030 national goal of at least 80.5% of pregnant people receiving early and adequate prenatal care in 2019, disparities in utilization of prenatal care in the first

trimester by race/ethnicity and insurance type persist across the state (see *Disparities and Social Determinants of Health* section below) (Thomas and Valentine, 2021).

There is a dearth of literature on barriers to access and utilization of prenatal care. A study from 2003 investigating access to prenatal care in California found lack of insurance coverage to be a significant barrier to prenatal care among low-income women (Braveman et al., 2003). Other noninsurance barriers for pregnant people included lack of childcare, transportation problems, inconvenient clinic hours, low educational attainment, lack of family planning, and lack of a usual source of prepregnancy care (Braveman et al., 2000, 2003).

Barriers to postpartum utilization include lack of provider continuity over the course of prenatal care, discontinuity with delivery and postpartum care providers, insufficient patient information on coverage and duration of postpartum services/programs, inadequate referrals, inadequate community-based services to meet population needs, lack of transportation and child care, out-of-date patient contact information for patient visit scheduling and reminders, lack of effective processes for ensuring postpartum visits are scheduled, and lack of incentives for payers, providers, and women to prioritize postpartum visits (de Bocanegra et al., 2017; DiBari et al., 2014; Henderson et al., 2016; Rodin et al., 2019; Wilcox et al., 2016).

Comprehensive Perinatal Services Program

As discussed in the *Policy Context* section, AB 1930 would impact services administered through the CPSP, a benefit of the Medi-Cal program that provides comprehensive perinatal services for eligible low-income pregnant people from the date of conception through 60 days following the end of the pregnancy. A 2014 report on CPSP estimated that approximately half of Medi-Cal–eligible pregnant people were receiving services through CPSP (Kinsler, 2014). CHBRP was unable to find statewide enrollment data for CPSP, as enrollment is tracked at the county-level.

In 1979, the California Department of Health Services, under the sponsorship of the U.S. Department of Health and Human Services, Health Care Financing Administration (HCFA), started a 3-year pilot program called the Obstetrical Access Project (OB Access Project) focused on improving pregnancy outcomes through enhanced prenatal care. The pilot results showed that supplementing obstetric care with nutrition, health education, psychosocial services, and prenatal vitamins and minerals could reduce the incidence of low birth weight in infants by more than one-third, and saved approximately $2 in short-term neonatal intensive care unit costs for every $1 spent (Lennie et al., 1987). Following the OB Access Project in 1982, the California State Legislature enacted a law (AB 2821, Bates) requiring all publicly subsidized prenatal care to include nutrition, health education, and psychosocial services in addition to obstetric care. Then, in 1984, legislation (AB 3021, Margolin) implemented a Medi-Cal reimbursement mechanism for these enhanced perinatal care services. The CPSP was officially created in 1987 to continue efforts in reducing morbidity and mortality among low-income pregnant people and their infants (MCAH, 2018).

Comprehensive perinatal services, as defined in the CPSP Provider Handbook, include “obstetric, psychosocial, nutrition, and health education services, and related case coordination provided by or under the supervision of a physician during pregnancy and 60 days following delivery.” Nutrition, health education, and psychosocial services are considered enhanced services, which supplement the obstetric care a client receives. See Table 3 for a description of CPSP enhanced services (MCAH, 2018).

Table 3. Enhanced Services Provided Under the California Comprehensive Perinatal Services Program

Service	Description
Client orientation	The purpose of the client orientation is to orient the client to comprehensive perinatal services. It includes but is not limited to the following: where to obtain services, where, when, and how comprehensive services are provided, including initial assessments, reassessments, interventions, and referrals, what to expect at prenatal and postpartum visits, information about routine tests and procedures, clinic hours (scheduling missed appointments, etc.), identifying danger signs and symptoms during pregnancy and what to do in case of an emergency, an opportunity to ask questions and express concerns.
Initial assessments	A qualified CPSP practitioner in a face-to-face interview with the client will complete four initial assessments – obstetric, nutrition, health education and psychosocial – to determine the client's strengths, risks, and needs.
Individualized care plan (ICP)	An ICP is developed by a CPSP practitioner, in consultation with the client, based on her unique risk conditions, problems, and strengths identified during the CPSP initial assessments and re-assessments. It is a summary of the perinatal services planned for the client during pregnancy and during the postpartum period. It maximizes the coordination of care and documentation of services provided by all CPSP practitioners: obstetrics, nutrition, health education, and psychosocial.
Interventions	Interventions must be identified for the risk conditions and problems included on the ICP. These interventions may include teaching, counseling, providing referrals, problem solving, or any other action the client or staff takes to resolve a risk or problem.
Trimester reassessments	Reassess client needs in each trimester to identify changes or new developments since the last assessment.
Postpartum assessment	Assess the mother and infant, addressing various issues that may arise, such as breastfeeding difficulties, postpartum depression, bonding challenges, birth control, and birth spacing.
Vitamin/mineral supplement	A 300-day supply of vitamin/mineral supplements may be dispensed to the client or prescribed as medically necessary.
Referrals to mandated services	The CPSP provider shall refer patients, as appropriate, to services not specifically made part of comprehensive perinatal services. These include, but are not limited to the following: Women, Infants and Children's (WIC) Supplemental Nutrition Program, genetic screening, dental care, family planning, and Child Health and Disability Prevention Program (CHDP).

Source: California Health Benefits Review Program, 2022.

CPSP Providers and Practitioners[22]

CPSP services are delivered through providers approved to participate in CPSP by the California Department of Public Health (CDPH). A certified CPSP provider must be enrolled as an active Medi-Cal provider, in good standing with an approved National Provider Identifier (NPI) number, and be in one of the categories listed below:

- Physician in general practice, family medicine, obstetrics/gynecology, or pediatrics

[22] CHBRP uses the terminology "provider" and "practitioner" as found in the CPSP Provider Handbook and California Code of Regulations, Title 22.

- Group medical practice, if at least one member is one of the physician types identified above
- Preferred provider organization
- Clinic (hospital, community, or county)
- Certified nurse midwife (CNM)
- Alternative birth center[23]

To become a certified CPSP provider, the Medi-Cal enrolled provider must submit a completed application to their local health jurisdiction's perinatal services coordinator (PSC). The PSC reviews the application and submits it to the CDPH Maternal, Child and Adolescent Health (MCAH) Division for final approval. The application approval process may take up to 60 days from the date that CDPH/MCAH receives a completed application (MCAH, 2022).

PSCs in local health jurisdictions provide administrative support to CPSP providers and are available in all 58 California counties, in addition to the City of Berkeley, Long Beach, and Pasadena, which have their own health departments separate from their counties' health departments. In 2019, CDPH reported that CPSP had approximately 1,600 approved providers throughout the state (MCAH, 2020).

CPSP providers may employ or contract with any or all of the following practitioners for the purpose of providing CPSP services and working directly face-to-face with clients:

- Physicians (general practitioner, family physician, obstetrician/gynecologist, pediatrician)
- CNMs
- Nurse practitioners
- Physician associates
- Registered nurses
- Licensed vocational nurses
- Social workers
- Psychologists
- Marriage and family therapists
- Registered dietitians/registered dietitian nutritionists
- Health educators
- Certified childbirth educators (Lamaze, Bradley, International Childbirth Education Association)
- Licensed midwives
- Comprehensive perinatal health workers (CPHWs) (e.g., community health workers (CHWs), doulas, and lactation consultants) These health workers are not licensed and can provide preventive services if supervised by a physician and if provided in a medical setting. Qualifications are a minimum of:
    - 18 years old or older
    - High school diploma or GED
    - One year full-time paid perinatal experience

[23] "Alternative or free-standing birth center services" as defined in Title 42 United States Code, Section 1396d (l)(B), is an alternative to traditional, hospital-based maternity care.

Disparities[24] and Social Determinants of Health[25] Related to Perinatal Care and Birth and Maternal Health Outcomes

Per statute, CHBRP includes discussion of disparities and social determinants of health (SDoH) as it relates to perinatal care and birth and maternal health outcomes.

As shown in Table 4, CHBRP found literature identifying disparities (differences between groups that are modifiable) in perinatal care and outcomes by race/ethnicity and insurance type (Medi-Cal vs. private insurance). Further literature identifies that SDoH contribute to disparities in perinatal care and birth and maternal health outcomes (Howell, 2018; Wang, et al., 2020).

Disparities in Perinatal Care in California

Perinatal care is thought to promote healthy pregnancies through screening and management of a woman's risk factors and health conditions, and to promote healthy behaviors during and after pregnancy. The American College of Obstetricians and Gynecologists recommends shifting postpartum care from a single encounter to an ongoing process, with an initial assessment by a maternal care provider occurring within the first 3 weeks postpartum and assessing physical, social, and psychological well-being. (ACOG, 2018).

Pregnant people covered by Medi-Cal were less likely to receive prenatal care in the first trimester in 2018, compared to pregnant people with private insurance. Among pregnant people with Medi-Cal coverage in 2018, starting prenatal care in the first trimester also varied by race/ethnicity, including Native Hawaiian/Pacific Islander people at 63%, American Indian/Alaska Native people at 65%, Black people at 73%, White people at 78%, Latino people at 79%, and Asian people at 80%. Fewer Medi-Cal beneficiaries attended at least one postpartum visit, compared to pregnant people covered by private insurance, in 2018. Fewer Latino pregnant people accessed postpartum office visits compared with pregnant people of other races/ethnicities (Simon, 2020b).

Disparities in Birth and Maternal Health Outcomes in California

Key maternal and infant health outcomes in California demonstrate disparities. Black Californians experience the highest rates of maternal and infant mortality, preterm and low–birth- weight births, low-risk, first-birth cesarean deliveries (C-sections), and prenatal and postpartum depressive symptoms (Thomas and Valentine, 2021). Black pregnant people covered by Medi-Cal have the highest rates of C-sections, preterm and low–birth-weight births, and newborn intensive care unit (NICU) admissions, compared to all other racial/ethnic groups with Medi-Cal coverage, according to data from 2018 (Simon, 2020b).

Maternal and infant mortality

CDPH conducts surveillance of maternal mortality through vital statistics, as reported through the California Pregnancy Mortality Surveillance System (CA-PMSS). Released in September 2021, their California Pregnancy-Related Deaths 2008-2016 report concluded that 1,934 women died while pregnant or within one year of the end of a pregnancy during this time period.

[24] Several competing definitions of "health disparities" exist. CHBRP relies on the following definition: Health disparity is defined as the differences, whether unjust or not, in health status or outcomes within a population. (Wyatt et al., 2016).
[25] CHBRP defines social determinants of health as conditions in which people are born, grow, live, work, learn, and age. These social determinants of health (economic factors, social factors, education, physical environment) are shaped by the distribution of money, power, and resources and impacted by policy (adapted from: (CDC, 2014; Healthy People 2020, 2019).

Eighteen percent (18%) of the pregnancy-related deaths in California occurred while pregnant, and of the remaining 82% that occurred after pregnancy ended, nearly half (44%) of the deaths were within six days of childbirth (or end of pregnancy), 24% occurred 7-42 days after pregnancy ended and 14% were 43-365 days after pregnancy. Timing to death varied greatly depending on the cause of death. The top five leading causes of pregnancy-related deaths were cardiovascular disease (28%), sepsis or infection (17%), hemorrhage (15%), hypertensive disorders (13%) and thrombotic pulmonary embolism (7%).

The state's pregnancy-related mortality ratio (number of pregnancy-related deaths per 100,000 live births, up to 1 year after the end of pregnancy) fluctuated between 9.5 and 14.9 from 2008 to 2016. From 2014 to 2016, the pregnancy-related mortality ratio for Black people was 56.2 deaths per 100,000 live births, four to six times greater than the mortality ratios for people of other racial/ethnic groups, including White people (9.4), Latino people (11.0), and Asian/Pacific Islander people (13.3) (MCAH, 2021).

The infant mortality rate in California is 4.2 per 1,000 live births. Racial/ethnic differences can also be found among infant mortality rates. In 2018, Black infants in California experienced the highest rate of infant mortality among all races/ethnicities at 8.5 deaths per 100,000 live births, more than double the state's goal to reach a target of 4 or lower by 2022 (Let's Get Healthy, 2016). Asian and White infants experienced the lowest rates at 3.4 and 3.0 deaths per 100,000 live births. The rate for Latino infants was 4.4 deaths per 100,000 live births (Thomas and Valentine, 2021).

Preterm and low weight births

Preterm and low birth weight infants have higher rates of mortality. There are serious health problems associated with preterm and low weight births as well, including trouble eating, gaining weight, and fighting infections. An increased risk of serious developmental disabilities may lead to long-term health problems (Ward and Beachy, 2003).

In 2019, the rate of preterm births among all pregnant people in California was 10.4%. Black pregnant people experienced a rate (14.4%) approximately 54% higher than preterm births for Asian (9.3%) and White (8.8%) pregnant people. Native Hawaiian/Pacific Islander pregnant people experienced a rate of 12.5%, followed by American Indian/Alaska Native people at 11.7% and Latino people at 10.9%. One in nine Black infants in California in 2019 had a low birth weight, the highest rate (11.9%) among all races/ethnicities and double the rate for White infants (5.7%), followed by Asian (8%), American Indian and Alaska Native (7.7%), Latino (6.8%), and Native and Pacific Islander (6.3%) (Thomas and Valentine, 2021).

Black pregnant people with Medi-Cal coverage experienced the highest rates of preterm and low weight births (both 13%) compared to all other racial/ethnic groups with Medi-Cal coverage in 2018 (Simon, 2020b).

Cesarean deliveries

Avoiding unnecessary C-sections is a quality metric for hospitals. The state's goal is to reduce the rate of first-birth, single, head-down full-term C-sections to 23.6% by 2030 (Let's Get Healthy, 2016).

In 2019, nearly one in four births among low-risk, first-births across the state were C-sections, nearing the state's goal. However, disparities in C-section rates were found by race/ethnicity and insurance status as well. Black pregnant people experienced the highest rate at 27.0% (Thomas and Valentine, 2021). Pregnant people covered by Medi-Cal are slightly more likely to deliver via C-section compared to pregnant people covered by private insurance. Among all pregnant people with Medi-Cal coverage in 2018, Black pregnant people had the highest rate (36%), followed by American Indian/Alaska Native and multiracial people (32%), Native Hawaiian/Pacific Islander, Latina, and White people (31%), and Asian people (30%) (Simon, 2020b).

Prenatal and postpartum depression

Perinatal depression, which includes major and minor depressive episodes that occur during pregnancy or in the first 12 months after delivery, can impact maternal and infant health. In addition to risks to the pregnant person, risks for infants associated with prenatal depression include preterm birth, low birth weight, and behavioral problems. Risks for infants associated with postpartum depression include impaired bonding and attachment, reduced breastfeeding success, and problems with infant cognitive and social development. Risks to the postpartum person range from lethargy to increased maternal disengagement and hostile, coercive behaviors, and less commonly, suicide ideation (Freeman, 2019).

From 2018 to 2019, Black pregnant people in California were two times more likely to experience symptoms of prenatal depression compared to White pregnant people (24.3% vs. 10.8%). Latino pregnant people followed at 16.7%, then Asian, Native Hawaiian/Pacific Islander people at 15.2%.

Black people also showed the highest percentage for symptoms of postpartum depression at 18.4%, compared to Asian, Native Hawaiian/Pacific Islander people (14.3%), Latino people (12.9%), and White people (11.1%) (Thomas and Valentine, 2021).

Pregnant people covered by Medi-Cal from 2016 to 2018 showed higher rates of prenatal depressive symptoms, compared to pregnant people with private insurance (20.4% vs. 10.6%). Postpartum depressive symptoms were also higher in pregnant people covered by Medi-Cal compared to pregnant people covered by private insurance over that same time period (14.2% to 10.2%) (Simon, 2020b).

Breastfeeding

The health benefits of breastfeeding are well recognized and apply to both postpartum people and children The American Academy of Pediatrics recommends exclusive breastfeeding for about the first 6 months with continued breastfeeding along with introducing appropriate complementary foods for 1 year or longer (Dieterich, 2013; Eidelman et al., 2012).

According to 2016-2018 Maternal Infant and Adolescent Health Survey data, 47.8% of all California postpartum people reported exclusive breastfeeding 1 month after delivery. However, rates of exclusive breastfeeding 3 months after delivery dropped to 33.5%. People with Medi-Cal coverage experienced a larger decrease in breastfeeding rates, dropping from 44.3% at 1 month after delivery to 27.1% at 3 months after delivery, compared to the privately insured population (51% to 40.6%). Latino people in California had the lowest rate of exclusive breastfeeding, 3 months after delivery at 26.4% compared to White people (48.8%), Black people (32.8%), and Asian people (28.2%) (CDPH, 2022).

Table 4. Disparities Among Key Maternal and Infant Health Outcomes in California

	Pregnancy-Related Mortality Ratio (a) (2014-2016)	Infant Mortality (b) (2018)	Preterm Birth (b) (2019)	Low Birth Weight Infants (b) (2019)	Cesarean Deliveries (b) (2019)	Prenatal Depression (b) (2018-2019)	Postpartum Depression (b) (2018-2019)	Exclusive Breastfeeding 3 Months Postpartum (c) (2016-2018)
	(per 100,000 live births)	*(per 1,000 live births)*	%	%	%	%	%	%
California average	13	4.2	10.4	7.1	22.8	15.1	12.9	33.5
American Indian/Alaska Native	—	7.8	11.7	7.7	—	—	—	—
Asian	13.3*	3.4	9.3	8	—	—	—	28.2*
Black	56.2	8.5	14.4	11.9	27	24.3	18.4	32.8
Latino	11	4.3	10.9	6.8	21.9	16.7	12.9	26.4
White	9.4	3	8.8	5.7	22.5	10.8	11.1	48.8

Source: California Health Benefits Review Program, 2022.

Note: *Data includes Asian and Pacific Islander populations.

(a) MCAH, 2021.

(b) Thomas and Valentine, 2021.

(c) CDPH, 2022.

Social Determinants of Health

Social determinants of health (SDoH) include factors outside of the traditional medical care system that influence health status and health outcomes (e.g., income, education, geography, etc.). CHBRP found evidence for the influence of race and ethnicity, insurance, and education on maternal morbidity and mortality. A 2020 systematic review found a large number of studies that examined individual-level indicators of socioeconomic position in relation to maternal outcomes in the United States, of those, the majority suggested that Black race and Hispanic ethnicity, lack of insurance, and lower education are significantly associated with higher risk of maternal mortality and morbidity. (Wang et al., 2020). Further, CHBRP found literature suggesting that although these patient-level factors, such as race, insurance, and education may contribute to maternal mortality and morbidity, they do not fully explain the observed racial/ethnic differences in perinatal care and birth and maternal health outcomes (Howell, 2018). There is a growing body of evidence that associates health system quality and the impact of racism and chronic stress during pregnancy with poor health outcomes, including birth and maternal health outcomes (Howell et al., 2016; Leonard et al., 2019).

MEDICAL EFFECTIVENESS

As discussed in the *Policy Context* section, AB 1930 would mandate that coverage for specified comprehensive perinatal services for Medi-Cal beneficiaries be extended from 60 days to 12 months following the last day of an individual's pregnancy. The bill also seeks to allow unlicensed perinatal health workers (PHWs) to be reimbursed for services rendered in a nonmedical setting and change their supervision requirements. The *Medical Effectiveness* section uses the term "perinatal health worker" to describe a broad category of health care workers that deliver comprehensive perinatal services, as outlined in the "Definitions" subsection of the *Policy Context* section.

Additional information on comprehensive perinatal services is included in the *Background* section. The medical effectiveness review summarizes findings from evidence[26] on the effectiveness of comprehensive perinatal services for pregnant and postpartum persons.

Research Approach and Methods

As described in the *Background* section, comprehensive perinatal services in California are delivered through the Comprehensive Perinatal Services Program (CPSP), a Medi-Cal benefit for all Medi-Cal beneficiaries who become pregnant, including those covered by Medi-Cal Managed Care Plans. CPSP participants are provided multicomponent, wraparound services, including prenatal and postpartum health and parenting education, nutrition and psychosocial assessments, individual case coordination, and referral support, which supplement obstetric care they receive in an effort to improve pregnancy and postpartum outcomes. This medical effectiveness review assesses the impact of comprehensive perinatal services on birth and maternal outcomes compared with standard perinatal care alone.

Studies of comprehensive perinatal services were identified through searches of PubMed, the Cochrane Library, Web of Science, Embase, Scopus, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and PsycINFO. Websites maintained by the following organizations that produce and/or index meta-analyses and systematic reviews were also searched: PubMed Health, the Agency for Healthcare Research and Quality (AHRQ), the National Health Service (NHS) Centre for Reviews and Dissemination, the National Institute for Health and Clinical Excellence (NICE), and the Scottish Intercollegiate Guideline Network.

The search was limited to abstracts of studies published in English and from 1990 to present. Of the 747 articles found in the literature review, 62 were reviewed for potential inclusion in this report on AB 1930, and a total of 14[27] were included in the medical effectiveness review for this report. The other articles were eliminated because services described in the articles did not encompass multiple components of care as described by CPSP (i.e., only addressed one or two components of comprehensive perinatal services), did not span the duration of pregnancy and postpartum (e.g., services were only provided during pregnancy), were of poor quality, or did not report findings from clinical research studies. A more thorough description of the methods used to conduct the medical effectiveness review and the process used to grade the evidence for each outcome measure is presented in Appendix B.

[26] Much of the discussion in this section is focused on reviews of available literature. However, as noted in the section on Implementing the Hierarchy of Evidence on page 11 of the *Medical Effectiveness Analysis and Research Approach* document (posted at http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php), in the absence of fully applicable to the analysis peer-reviewed literature on well-designed randomized controlled trials (RCTs), CHBRP's hierarchy of evidence allows for the inclusion of other evidence.

[27] We identified one dose-response study that found each prenatal visit with a paraprofessional home visitor was associated with approximately 62 grams increase in birth weight and approximately 0.38 weeks (2.66 days) increase in gestational age at birth (Guo et al., 2016). We excluded this study because it did not directly answer our Key Questions.

The conclusions below are based on the best available evidence from peer-reviewed and grey literature.[28] Unpublished studies are not reviewed because the results of such studies, if they exist, cannot be obtained within the 60-day timeframe for CHBRP reports.

Key Questions

1. What is the impact of providing comprehensive perinatal services on birth and maternal outcomes?

2. What is the impact of providing comprehensive perinatal services for a period of 60 days versus 12 months post-delivery following the last day of the individual's pregnancy on birth and maternal outcomes?

3. What is the impact of providing comprehensive perinatal services recommended by a physician or other licensed practitioner and rendered by an unlicensed PHW [29] when delivered in a nonmedical setting on birth and maternal outcomes?

Methodological Considerations

CHBRP's literature review identified two studies that assessed the impact of CPSP on birth outcomes, but both studies were published in 1995 (Korenbrot et al., 1995; Perkocha et al., 1995). CHBRP also identified one study that assessed the impact of the Obstetrical Access Demonstration Project, the pilot project to CPSP, on birth outcomes (Lennie et al., 1987). However, this study was excluded from the *Medical Effectiveness* analysis because the pilot project only provided enhanced prenatal care (i.e., did not include postpartum care). Due to the lack of current literature on the CPSP program, CHBRP included studies of similar interventions conducted in other states in its review. To maximize generalizability of findings to AB 1930, CHBRP included studies that assessed programs that administer multiple, major components of CPSP, such as home visiting, health screenings and assessments, case management, and health education. (Table 3 in the *Background* section contains a list of all "enhanced services" provided by CPSP.) However, none of these programs encompassed all elements of the CPSP model.

In addition to physicians and other licensed practitioners, California's CPSP allows unlicensed PHWs to administer CPSP services under the supervision of a physician. If passed, AB 1930 would allow CPSP services to be delivered outside of a medical setting. The provision of services by unlicensed PHWs outside medical settings would distinguish it from other programs in California aimed at improving maternal and infant health. In light of this, CHBRP's literature review focused on studies of programs that provide home visits aimed at improving maternal and child health, such as Healthy Families America (HFA, 2022) and Healthy Start (NHSA, 2010). CHBRP's literature review identified many studies that assessed the impact of home visiting models where nurses, social workers, and/or other licensed health workers delivered care on maternal and infant health. However, CHBRP excluded these studies because AB 1930 stipulates coverage of preventive services rendered by unlicensed PHWs outside of a medical setting. Several of the studies included in CHBRP's review the home visits were delivered by nurses or social workers as well as unlicensed PHWs. Findings from these studies are discussed separately from findings from studies of interventions in which home visits were provided solely by unlicensed PHWs.

Ten of the 14 studies included in the *Medical Effectiveness* analysis have limited generalizability to CPSP. Nine studies only enrolled groups of low-income people at high risk for poor birth outcomes, and four studies only enrolled adolescents. Findings from these studies may not be generalizable to all pregnant and postpartum people enrolled in Medi-Cal who receive CPSP services. CHBRP included

[28] Grey literature consists of material that is not published commercially or indexed systematically in bibliographic databases. For more information on CHBRP's use of grey literature, visit http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php.

these studies in its review because they provide evidence about the impact of programs like CPSP on subgroups of Medi-Cal beneficiaries who are high risk for poor birth and maternal health outcomes.

Outcomes Assessed

Studies of comprehensive perinatal services have examined a range of birth and maternal outcomes related to the prenatal and postpartum periods. Birth outcomes assessed include birth weight or low birth weight (LBW), preterm birth (PTB)/gestational age, infant mortality, and neonatal intensive care unit (NICU) admission. Maternal outcomes assessed include postpartum depression, psychosocial resources (self-esteem, social support, mastery, locus of control), breastfeeding initiation, breastfeeding duration, and breastfeeding self-efficacy and exclusivity.

Study Findings

This following section summarizes CHBRP's findings regarding the strength of evidence for the impact of comprehensive perinatal services on birth and maternal outcomes (Key Question #1), as addressed by AB 1930. Findings regarding effects on birth outcomes are summarized briefly because AB 1930 would not change Medi-Cal beneficiaries' coverage for CPSP services during the prenatal period. However, AB 1930 would allow unlicensed perinatal health workers (PHWs) to be reimbursed for services rendered in a nonmedical setting, which could affect birth outcomes. Findings regarding impact on maternal health outcomes are discussed in greater depth because AB 1930 would extend coverage for CPSP services from 60 days to 12 months post-delivery.

CHBRP did **not** identify any studies that compared interventions that were provided for 60 days or less postpartum to interventions that were provided over a longer period of time (Key Question #2).

CHBRP identified some studies that compared the provision of comprehensive perinatal services in medical vs. nonmedical settings, and these studies were primarily focused on home visiting programs (Key Question #3). However, these home-visiting studies did not control for additional perinatal services that may have been received outside of the studied intervention. CHBRP did not identify any studies that compared the provision of comprehensive perinatal services in medical to nonmedical settings where the nonmedical setting was a location other than a home. Each section is accompanied by a corresponding figure. The title of the figure indicates the test, treatment, or service for which evidence is summarized. The statement in the box above the figure presents CHBRP's conclusion regarding the strength of evidence about the effect of a particular test, treatment, or service based on a specific relevant outcome and the number of studies on which CHBRP's conclusion is based. Definitions of CHBRP's grading scale terms is included in the box below, and more information is included in Appendix B.

The following terms are used to characterize the body of evidence regarding an outcome:

Clear and convincing evidence indicates that there are multiple studies of a treatment and that the large majority of studies are of high quality and consistently find that the treatment is either effective or not effective.

Preponderance of evidence indicates that the majority of the studies reviewed are consistent in their findings that treatment is either effective or not effective.

Limited evidence indicates that the studies have limited generalizability to the population of interest and/or the studies have a fatal flaw in research design or implementation.

Inconclusive evidence indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.

Insufficient evidence indicates that there is not enough evidence available to know whether or not a treatment is effective, either because there are too few studies of the treatment or because the available studies are not of high quality. It does not indicate that a treatment is not effective.

More information is available in Appendix B.

Birth Outcomes

Nine studies assessed the impact of comprehensive perinatal services on birth outcomes, which included LBW, PTB, infant mortality, and NICU admission. Of these nine studies, one reported on the general occurrence of adverse birth outcomes (Perkocha et al., 1995), eight reported on LBW (Anthony et al., 2021; Arima et al., 2009; Cooper et al., 2013; Guo et al., 2016; Hans et al., 2018; Hillemeier et al., 2015; Korenbrot et al., 1995; Pan et al., 2020; Redding et al., 2015; Sabo et al., 2021), six reported on PTB/gestational age (Anthony et al., 2021; Arima et al., 2009; Cooper et al., 2013; Guo et al., 2016; Hans et al., 2018; Hillemeier et al., 2015; Pan et al., 2020; Sabo et al., 2021), one reported on infant mortality (Arima et al., 2009), and two reported on NICU admission (Hans et al., 2018; Pan et al., 2020). Table 5 describes the populations studied, the types of services provided, the settings in which interventions were provided, the types of personnel who delivered interventions, the duration of interventions, control/comparison groups, and outcomes assessed.

Two of the nine studies assessed the impact of CPSP on birth outcomes(Korenbrot et al., 1995; Perkocha et al., 1995). Although these studies are older (both conducted in 1995), CHBRP has included them in this analysis because they are the only studies that directly assessed the impact of CPSP.

Table 5. Summary of Studies Assessing Birth Outcomes

Study	Population Served	Services Offered to Mothers	Settings in Which Intervention Was Delivered	Who Delivered Intervention	Duration of Intervention	Control / Comparison Group	Outcomes Assessed
Studies of CPSP							
Korenbrot et al. (1995)	Group 1: CPSP-eligible people in California (CPSP: n = 3,648) Group 2: Pilot Project–eligible people in California (Pilot: n = 5,336)	See *Background* section	Medical settings	See *Background* section	Pregnancy through 60 days postpartum	People receiving routine perinatal services provided by obstetric providers generally participating in Medicaid (n = 10,836)	LBW
Perkocha et al. (1995)	CPSP- and CTAPPP-eligible people in California aged 12-18 (CPSP: n = 143) (CTAPPP: n = 132)	CPSP: see *Background* section CTAPPP: specialized education curriculum; referrals to medical and social services programs; case management services; academic, health, nutrition, perinatal, and parenting education support	CPSP: Medical settings CTAPPP: School	CPSP: See *Background* section CTAPPP: Not described	CPSP: Pregnancy to 60 days postpartum CTAPPP: Not described	CPSP- and CTAPPP-eligible people in California who delivered singleton births and did not receive either of these services (CPSP: n = 70) (CTAPPP: n = 124)	Composite measure of adverse perinatal outcomes

Studies of interventions delivered solely by unlicensed PHWs							
Anthony et al. (2021)	(Predominantly) Black pregnant people of all ages with low-income who gave singleton births in Cleveland, Ohio (n = 4,065)	Case management; Education on prenatal care, substance use, breastfeeding, family planning, and safe sleep; screening and assessment; referrals to community agencies	Home and other community-based settings	Community health workers	<33 weeks gestation up to 2 years postpartum	All people who gave singleton births between 2008 and 2012 in Cleveland, Ohio, who did not receive MomsFirst services (n = 22,749)	LBW; PTB
Hans et al. (2018)	High-poverty Black, Latino, and mixed-ethnic people aged 14-26 years in Illinois (two in a large city, two in smaller urban areas) (n = 156)	Doulas: pregnancy health education, childbirth preparation, and breastfeeding Home visitors (a): child development education and basic needs screening	Home	Doulas (primary provider during pregnancy and first weeks postpartum) Home visitors (primary provider by 6 weeks postpartum)	<34 weeks gestation up to 3 months postpartum	People meeting the same eligibility requirements for Healthy Families America or Parents as Teachers who receive case management (2 visits total – one prenatal and one postpartum) instead of doula-home-visiting services (n = 156)	LBW; PTB; NICU admission
Redding et al. (2015)	Pregnant people of all ages at risk of poor birth outcomes in Richland County, Ohio (n = 115)	Intensive home visiting and community-based care coordination	Home	Community health workers	Pregnancy to an unspecified length of time postpartum	People who gave singleton births between 2001-2004 in Richland County, Ohio, who did not receive Community Health Access Project services (n = 115)	LBW

Sabo et al. (2021)	Medically and socially high risk, racially and ethnically diverse, rural and urban pregnant people of all ages in Arizona (n = 7,212)	Providing perinatal and postpartum, nutrition, and breastfeeding education; providing referral and advocacy services; assisting with access and enrollment of perinatal care; screening for maternal behavioral health disorders	Home	Community health workers	Pregnancy to 2 years postpartum	People who were similar to Health Start Programme participants who did not receive services (n = 53,948)	LBW; VLBW; ELBW; PTB
Studies of interventions delivered by a combination of unlicensed PHWs and licensed professionals							
Arima et al. (2009)	Low-income pregnant people of all ages in Washington State (n = 19,668)	Maternity support services (pregnancy and parenting information, screening for possible pregnancy risk factors, brief counseling for identified risk factors, referral to community resources); infant case management; childbirth education; outreach; transportation; interpreter services[b]	Clinic or office; home setting; community setting	Nurses; dieticians; behavioral health specialists; community health workers (some locations)	As early as people discover they are pregnant to 1 year postpartum	People who indicated Medicaid as their primary payer for prenatal services and gave singleton births between 1999-2002 in Washington State who did not receive First Steps services (n = 56,728)	LBW; SGA; PTB; infant mortality
Cooper et al. (2013)	Medicaid-eligible Black people of all ages in their first trimester of pregnancy who lived in one of three high-risk zip codes in St. Louis, Missouri (n = 84)	Intensive case management and home visitation, including risk assessment, depression screening, health education, and outreach[c]	Home	Nurses; community outreach mothers	First trimester of pregnancy up to 2 years postpartum[b]	People similar to those who received St. Louis Healthy Start Program services who did not receive program services (n = 168)	LBW; PTB

Pan et al. (2020)	Pregnant people of all ages in Rochester, New York (which has a high poverty rate) (n = 353)	Linking participants with health and community support services; educating participants on perinatal- and parenting-related topics; providing support and advocacy for participants	Home	Community health workers; social workers	Pregnancy up to 1 year postpartum	People who were eligible for and referred to the Baby Love program but were not successfully enrolled because of inability to contact them (n = 102)	LBW; PTB; NICU admission

Source: California Health Benefits Review Program, 2022.

Note: (a) In the study, home visitors were also called a Family Support Worker or Parent Educator and focused on the mother–infant relationship, child development, child safety, and educational-work planning, as well as screening to make sure that family basic needs were being met.

(b) Information obtained from https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/first-steps-maternity-and-infant-care.

(c) Information obtained from https://www.nationalhealthystart.org/wp-content/uploads/2021/04/NHSA_WhitePaper.pdf.

Key: CPSP = Comprehensive Perinatal Services Program; CTAPPP = Comprehensive Teenage Pregnancy and Parenting Program. ELBW = extremely low birth weight. LBW = low birth weight; NICU = newborn intensive care unit; PTB = preterm birth; SGA = small for gestational age; VLBW = very low birth weight.

Composite measure of adverse perinatal outcomes

One observational study assessed the impact of participation in CPSP and a school-based program called the Comprehensive Teenage Pregnancy and Parenting Program (CTAPPP) (n = 469) on adverse perinatal outcomes, which were defined as the occurrence of one of the following: LBW (<2,500 grams), PTB (gestational age <37 weeks), or NICU admission (not related to congenital syphilis). Details about CPSP can be found in the *Background* section. Based on findings from this one study, there is insufficient evidence that comprehensive perinatal services are associated with reduced risk of perinatal outcomes among adolescents. More details about this study can be found in Table 5 (Perkocha et al., 1995).

Figure 1. Impact of Comprehensive Perinatal Services on Adverse Perinatal Outcomes

Low birth weight (LBW)

Nine studies reported on LBW, one of which also reported on very low birth weight (VLBW) and extremely low birth weight (ELBW). All studies defined LBW as <2,500 grams with the exception of three studies (Hans et al., 2018; Pan et al., 2020; Redding et al., 2015), which did not provide definitions of LBW. One study reported on small for gestational age (SGA), which was defined as <10th percentile birth weight for Washington State–born infants of the same gestational age and sex (Arima et al., 2009).

Study of CPSP

One study compared effects on birth outcomes for state-wide implementation of CPSP (program details can be found in the *Background* section) to outcomes of CPSP's pilot project (Obstetrical Access Demonstration Project) and services provided by non-CPSP and non-pilot project–participating Medicaid providers (n = 19,820). The major components of the pilot project, which operated in 13 California counties from the summer of 1979 to 1982 (Lennie et al., 1987), were similar to CPSP, but the two programs had several differences. More details about this study can be found in Table 5. Based on findings from this one study, there is insufficient evidence that enrollment in CPSP or the pilot project is associated with reduced risk of LBW (Korenbrot et al., 1995).

Figure 2. Impact of CPSP and Pilot Project on LBW

Studies of interventions delivered solely by unlicensed perinatal health workers

Four studies conducted in other states examined whether comprehensive perinatal services provided via a home visiting intervention that utilized either community health workers (CHWs) or doulas directly affected birth outcomes (Anthony et al., 2021; Hans et al., 2018; Redding et al., 2015; Sabo et al., 2021). Anthony et al. (2021) conducted a retrospective study, utilizing a propensity score technique, to assess the impact of a CHW home visiting program (MomsFirst) on birth outcomes of people in Cleveland, Ohio (n = 26,814). Redding et al. (2015) conducted an evaluation of an intensive CHW-based home visiting program (Community Health Access Project) on birth outcomes of pregnant people in Richland County,

Ohio (n = 230). Sabo et al. (2021) conducted a quasiexperimental retrospective study utilized propensity score matching to assess the impact of a CHW-based home visiting program (Health Start Programme) on birth outcomes among pregnant people in Arizona (n =61,160). Hans et al. (2018) conducted a randomized controlled trial (RCT) assessed the impact of doula home visiting programs (Healthy Families America, Parents as Teachers) on birth outcomes of pregnant people (n = 312). More details about these studies can be found in Table 5. Two studies (Anthony et al., 2021; Redding et al., 2015) found that home visiting provided by CHWs and doulas was associated with lower odds of delivering a LBW baby among all enrollees. Sabo et al., (2021) found a reduced risk of LBW among American Indian participants. One study found no statistically significant difference between intervention and comparison groups (Hans et al., 2018). Based on the findings of these four studies, there is limited evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of LBW.

Figure 3. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on LBW

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

Three studies conducted in other states examined whether comprehensive perinatal services provided via an intervention that utilized a combination of CHWs and licensed health workers, such as nurses and social workers directly affected birth outcomes (Arima et al., 2009; Cooper et al., 2013; Pan et al., 2020). Pan et al. (2020) conducted an evaluation of a CHW- and social worker-based home visiting program (Baby Love) to assess the impact of the program on birth outcomes of pregnant people in Rochester, New York (n = 455). Cooper et al. (2013) utilized a retrospective, case-control design and a propensity score technique to assess the impact of an intensive case management program (St. Louis Health Start Program) on birth outcomes of pregnant people (n = 252). Arima et al. (2009) conducted a retrospective, population-based cohort study to assess the impact of a comprehensive perinatal services program (First Steps) on birth outcomes of low-income pregnant people in Washington State (n = 76,396). More details about these studies can be found in Table 5. All three of these studies concluded that the intervention was associated with lower odds of delivering a LBW baby. Based on findings from these three studies, there is a preponderance of evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of LBW.

Figure 4. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on LBW

Very Low Birth Weight (VLBW)

One study assessed the impact of a CHW-based home visiting program on VLBW, which was defined as <1,500 grams. More details about this study can be found in Table 5. This study found no statistically significant difference when comparing all participants to non-participants, but found that among Latinas, participation was associated with a lower VLBW rate, and that the difference was statistically significant.

Based on the findings from this one study, there is insufficient evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of VLBW (Sabo et al., 2021).

Figure 5. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on VLBW

Extremely low birth weight (ELBW)

One study assessed the impact of a CHW-based home visiting program on ELBW, which was defined as <1,000 grams. More details about this study can be found in Table 5. This study found no statistically significant difference when comparing all participants to nonparticipants, but found that among Latinas, participation was associated with a lower ELBW rate and that the difference was statistically significant. Based on the findings from this one study, there is insufficient evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of ELBW. (Sabo et al., 2021).

Figure 6. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on ELBW

Small for gestational age (SGA)

Arima et al. (2009) examined the First Steps program. More details about this study can be found in Table 5. The authors found that participating in the program did not have a statistically significant effect on risk of SGA. Based on the findings from this one study, there is insufficient evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of SGA.

Figure 7. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on SGA

Preterm birth (PTB)

Six studies reported on preterm birth (prematurity All studies defined PTB as <37 weeks gestation with the exception of two studies (Hans et al., 2018; Pan et al., 2020), which did not provide definitions of PTB.

Studies of home visiting interventions delivered solely by unlicensed perinatal health workers

Three studies conducted in other states examined comprehensive perinatal services provided via a home visiting intervention that utilized either community health workers (CHWs) or doulas (Anthony et al. (2021; Sabo et al., 2021; Hans et al., 2018). One study (Anthony et al., 2021) found that participation in the program was associated with lower odds of delivering a premature baby, but another study (Hans et al., 2018) found that participation had no statistically significant effect on odds of premature birth. A third study found that participation reduced the rate of preterm birth among teenage mothers, but not among other participants (Sabo et al., 2021). Based on findings from these three studies, there is inconclusive evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of PTB.

Figure 8. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on PTB

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

Three studies examined comprehensive perinatal services provided via an intervention that utilized a combination of CHWs and licensed health workers, such as nurses and social workers (Arima et al., 2009; Cooper et al., 2013; Pan et al., 2020). Two of these three studies found that comprehensive perinatal services were associated with reduced odds of delivering a premature baby across all persons enrolled in the program (Cooper et al., 2013; Pan et al., 2020). One study found that participation was associated with a reduced risk of preterm birth among Latina participants but not among other participants (Arima et al., 2009). Based on findings from these three studies, there is limited evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of PTB.

Figure 9. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on PTB.

Infant mortality

One study reported on infant mortality and concluded that participation did not reduce odds of infant death within one year of birth (Arima et al., 2009). This study examined the First Steps program. More details about this study can be found in Table 5. Based on the findings from this one study, there is insufficient evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of infant mortality.

Figure 10. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on Infant Mortality

NICU admission

Two studies reported on NICU admission. Hans et al. (2018) examined the Healthy Families America and Parents as Teachers programs, where comprehensive perinatal services were delivered solely by doulas and home visitors, and found no statistically significant difference in odds of NICU admission between the intervention and comparison groups. Pan et al. (2020) examined the Baby Love program, where comprehensive perinatal services were delivered by CHWs and social workers and found that babies born to participants were less likely to be admitted to a NICU. More details about these studies can be found in Table 5. Based on the findings from these two studies, there is insufficient evidence that comprehensive perinatal services is associated with reduced risk of NICU admission.(Hans et al., 2018).

Figure 11. Impact of Comprehensive Perinatal Services on NICU Admission

Maternal Outcomes

Six studies assessed the impact of comprehensive perinatal services on maternal outcomes, which included postpartum depression, psychosocial resources, breastfeeding initiation, breastfeeding duration, and breastfeeding self-efficacy and exclusivity. Of these six studies, all six reported on postpartum depression (Barlow et al. , 2006, 2015; Barnet et al., 2007; Hans et al., 2018; Lutenbacher et al., 2018; Roman et al., 2009), two reported on psychosocial resources (Barlow et al., 2006; Roman et al., 2009), two reported on breastfeeding initiation (Hans et al., 2018; Lutenbacher et al., 2018), two reported on breastfeeding duration (Hans et al., 2018; Lutenbacher et al., 2018), and one reported on breastfeeding self-efficacy and exclusivity (Lutenbacher et al., 2018). Table 6 describes the populations studied, the types of services provided, the settings in which interventions were provided, the types of personnel who delivered interventions, the duration of interventions, control/comparison groups, and outcomes assessed. The only pertinent studies CHBRP identified are RCTs.

Table 6. Summary of Studies Assessing Maternal Outcomes.

Study	Population Served	Services Offered to Mothers	Settings in Which Intervention Was Delivered	Who Delivered Intervention	Duration of Intervention	Control/Comparison Group	Maternal Outcomes Assessed
Studies of interventions delivered solely by unlicensed PHWs							
Barlow et al. (2006)	American Indian adolescents aged 12-19 years from Apache and Navajo communities in New Mexico and Arizona (n = 28)	25 home visits and 41 discrete lessons covering prenatal care, labor, delivery, breastfeeding, nutrition, parenting, home safety, immunizations, well-baby care, family planning, sexually transmitted disease prevention, and maternal goal setting for personal and family development	Home	Paraprofessionals	28 weeks gestation to 6 months postpartum	Adolescents meeting the same eligibility requirements received 23 home visits covering 20 breastfeeding lessons (n = 25)	Postpartum depression, psychosocial resources
Barlow et al. (2015)	American Indian adolescents aged 12-19 years from Apache and Navajo communities in New Mexico and Arizona (n = 159)	43 structured lessons following a culturally congruent format on positive parenting, maternal behavior, and maternal mental health problems	Home	Family health educators	32 weeks gestation to 36 months postpartum	Adolescents meeting the same eligibility requirements received transportation to recommended prenatal and well-baby clinic visits, pamphlets about child care and community resources, and referrals to local services delivered by family health liaisons (n = 163)	Postpartum depression

Barnet et al. (2007)	Low-income, Black adolescents aged 12-18 years from Baltimore, Maryland (n = 44)	Primary care coordination; assessment of depression; education on parenting, child development, safe sexual practices, prevention of repeat pregnancy	Home and other community-based settings	Community health workers	Third trimester of pregnancy to 24 months postpartum	Adolescents meeting the same eligibility requirements received usual care* (n = 40)	Postpartum depression
Hans et al. (2018)	High-poverty Black, Latino, and mixed-ethnic people aged 14-26 years in Illinois (two in a large city, two in smaller urban areas) (n = 156)	Doulas: pregnancy health education, childbirth preparation, and breastfeeding Home visitors: child development education and basic needs screening	Home	Doulas (primary provider during pregnancy and first weeks postpartum) Home visitors (primary provider by 6 weeks postpartum)	<34 weeks gestation to 3 months postpartum	People meeting the same eligibility requirements for Healthy Families America or Parents as Teachers who receive case management (two visits total – one prenatal and one postpartum) instead of doula-home-visiting services (n = 156)	Postpartum depression, breastfeeding initiation, breastfeeding duration, breastfeeding self-efficacy and exclusivity
Lutenbacher et al. (2018)	Low-income, Hispanic people aged 18 years and above from large metropolitan area in Tennessee (n = 91)	Listening to maternal concerns; education about objectives relevant to the woman's stage of pregnancy or the age of the child, such as healthy eating, developmental milestones, attachment, and breastfeeding; and care coordination between medical and social services	Home	Peer mentors (Women recruited from the community of the same race, culture, and language)	<26 weeks gestation to 6 months postpartum	People meeting the same eligibility requirements for the Maternal Infant Health Outreach Worker (MIHOW) program received printed educational materials instead of peer mentor home-visiting services (n = 87)	Postpartum depression, breastfeeding initiation, breastfeeding duration

Studies of interventions delivered by a combination of unlicensed PHWs plus licensed professionals

Roman et al. (2009)	Medicaid-eligible, low-income people above the age of 16 years from Kent County, MI (n = 266)	Nurses and CHWs: care coordination, case management, risk assessment, nutritional counseling, health education, home visiting, and health and mental health assessment; CHWs: relationship-based support delivered by community health workers	Home	Nurses and CHWs	24 weeks gestation to 12 months postpartum	People eligible for Medicaid received enhanced prenatal and postnatal services delivered by nurses, including care coordination, case management, risk assessment, nutritional counseling, health education, and home visiting (n = 264)	Postpartum depression, psychosocial resources

Source: California Health Benefits Review Program, 2022.

* Barnet et al. (2007) did not define the services that control group participants under usual care.

Key: CHW = community health worker; PHW = perinatal health worker.

Postpartum depression

Postpartum depression is depression that occurs within the first year after giving birth. Feelings of postpartum depression are more intense and last longer than those of “baby blues,” a term used to describe the worry, sadness, and tiredness many people experience after having a baby (CDC, 2020).

CHBRP identified six RCTs that evaluated the impact of comprehensive perinatal services on postpartum depression among individuals who have given birth; all six studies were conducted among low-income people, and two were conducted in American Indian reservation communities (see Table 6 for more details on each study). Five RCTs compared home visiting interventions delivered by unlicensed PHWs with usual or standard care, and one RCT compared a home visiting intervention that was delivered by a combination of unlicensed PHWs and licensed professionals with an intervention delivered solely by licensed professionals.

Studies of interventions delivered solely by unlicensed perinatal health workers

Two of the five RCTs that compared home visiting interventions delivered by unlicensed PHWs with usual or standard care enrolled adults as well as adolescents. The first RCT (Hans et al., 2018) assessed the impact of doula home visiting programs (Healthy Families America, Parents as Teachers) on postpartum depression of people in four high-poverty communities in Illinois (n = 312). Pregnant people in the intervention group received home visits from doulas during the last half of pregnancy and for 6 weeks postpartum in addition to labor support in the hospital. Participants in the intervention were equally as likely as participants in the control group to report a high burden of depressive symptoms at the 3-week and 3-month follow-up assessments. A second RCT (Lutenbacher et al., 2018) assessed the impact of the Maternal Infant Health Outreach Worker Program, a peer mentor home visiting program, on postpartum depressive symptoms of underserved Latino people in living in a large city in Tennessee (n = 178). Participants were randomized to receive home visits from peer mentors from the third trimester of pregnancy to 6 months postpartum. The peer mentors, who were recruited from the community of the same race, culture, and language, provided health education, social support, and linkage to community resources. Compared to the control group, who only received printed educational materials, those who received home visits reported fewer depressive symptoms at the 2-week and 2-month assessment, but not at the 6-month assessment.

Three of the five RCTs that compared a home visiting intervention delivered by unlicensed PHWs with usual or standard care enrolled only adolescents (aged 12 to 19 years at conception). The generalizability of these studies to all pregnant and postpartum persons enrolled in Medi-Cal is limited. In Barlow et al. (2006), pregnant adolescents between the ages of 12 and 19 years from American Indian reservation communities in New Mexico and Arizona (n = 53) were randomized to receive home visits from paraprofessionals during the third trimester of pregnancy and for 6 months postpartum during which the paraprofessionals provided education about a wide range of perinatal care topics. Those in the control group also received home visits from paraprofessionals but the content of the visit was limited to breastfeeding. Adolescents in the intervention displayed a nonsignificant reduction in depression symptoms compared to adolescents in the control at both 2 months and 6 months postpartum. In Barlow et al. (2015), pregnant adolescents between the ages of 12 and 19 years from American Indian reservation communities in New Mexico and Arizona (n = 322) were randomized to receive home visits from family health educators during the third trimester of pregnancy and for 3 years postpartum. Relative to those in the control group, adolescents receiving the home visits had fewer depressive symptoms at the end of the 3-year intervention. The data were averaged across all time points, so it was not possible to disaggregate the impact of the intervention over time. In Barnet et al. (2007), pregnant Black adolescents between the ages of 12 and 18 years from Baltimore, Maryland (n = 84) received home visits from community health workers during the third trimester and for 2 years postpartum. The program displayed no impact on the mothers’ depressive symptoms at the 1-year and 2-year follow-up assessments.

Studies of interventions delivered by a combination of licensed professionals and unlicensed perinatal health workers

One RCT compared an intervention that combined paraprofessionals and nurses to an intervention delivered by nurses alone. In Roman et al. (2009), Medicaid-eligible, low-income pregnant people above the age of 16 years in Kent County, Michigan were randomized into two groups (n = 613). Among all studies that reported maternal outcomes, this study's population is most generalizable to the population whose coverage would be affected by AB 1930. Participants in the first intervention group received home visits from a nurse and CHW team during the last trimester pregnancy and for 1 year postpartum. Nurses were present at two initial prenatal visits, a post-delivery visit, and two additional visits during the postpartum year to provide crisis intervention, case management, and manage health problems. CHWs provided additional relationship-based support that targeted stressors and maternal mental health. Participants in the control group received home visits through a Medicaid enhanced prenatal and postpartum services program, which included care coordination, case management, risk assessment, nutritional counseling, and health education delivered by a professional nurse. Individuals in the control group did not have access to a CHW and services did not target stressors and maternal mental health. Compared to the group who did not receive relationship-based support from CHWs, those who did displayed significantly fewer depressive symptoms, and reductions in depressive symptoms were most pronounced for women with low psychosocial resources, high stress, or both high stress and low resources.

Summary of findings regarding the impact of comprehensive perinatal services delivered solely by unlicensed PHWs on postpartum depression: There is inconclusive evidence from five RCTs that comprehensive perinatal services delivered solely by unlicensed PHWs is effective in decreasing the occurrence of postpartum depression or depressive symptoms after childbirth. Of these five studies, two studies with home visiting interventions demonstrated a decrease in postpartum depression or depressive symptoms after childbirth. Three studies demonstrated no significant effect. Findings from three of the trials may be limited in their generalizability to CPSP because they enrolled adolescent participants.

Figure 12. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on Postpartum Depression

Summary of findings regarding the impact of comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed PHWs on postpartum depression: There is insufficient evidence from 1 RCT that comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed perinatal health workers is effective in decreasing the occurrence of postpartum depression or depressive symptoms after childbirth. In the study, people who received a home visiting intervention delivered by both licensed and unlicensed professionals displayed decreased depressive symptoms compared with people who received the intervention delivered solely by licensed professionals.

Figure 13. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on Postpartum Depression

Psychosocial resources

Psychosocial resources are the skills, beliefs, talents, and individual personality factors that influence how people manage stressful events. They include self-esteem, optimism, a sense of mastery, active coping skills, and social support (Taylor and Seeman, 1999). Pregnancy, childbirth, and new parenthood are large stressors, helping to explain why people may be especially vulnerable to depression at this life stage. Psychosocial resources may ameliorate postpartum depression.

Two RCTs evaluated the impact of comprehensive perinatal services on improvement of psychosocial resources (see Table 6 for more details). One RCT compared a home visiting intervention delivered by unlicensed PHWs with usual or standard care, and one RCT compared a home visiting intervention delivered by a combination of licensed professionals and unlicensed PHWs with an intervention delivered solely by licensed professionals.

Studies of interventions delivered solely by unlicensed perinatal health workers

In Barlow et al. (2006), pregnant adolescents in the intervention group received home visits from paraprofessionals during the third trimester of pregnancy and for 6 months postpartum. Results from the study found significant improvement of self-esteem, but no significant changes for social support or locus of control.

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

In Roman et al. (2009), participants in the intervention group received home visits from a nurse and community health worker team during the last trimester of pregnancy and for 1 year postpartum with a focus on relationship-based support from community health workers. Individuals in the control group received home visits from a nurse and services did not focus on relationship-based support. Compared to the control group, those in the intervention group displayed some significant improvement of psychosocial resources, including less perceived stress, and greater mastery. However, no differences between the groups were found for self-esteem and social support.

Summary of findings regarding the impact of comprehensive perinatal services delivered solely by unlicensed PHWs on psychosocial resources: There is insufficient evidence from 1 RCT that comprehensive perinatal services is effective in improving psychosocial resources. One RCT found significant improvement of self-esteem but no significant changes for social support or locus of control.

Figure 14. Impact of Interventions Delivered Solely by Unlicensed Perinatal Health Workers on Psychosocial Resources

Summary of findings regarding the impact of comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed PHWs on psychosocial resources: There is insufficient evidence from one RCT that comprehensive perinatal services is effective in improving psychosocial resources. One RCT found significant improvement in perceived stress and mastery but not significant changes for self-esteem and social support.

Figure 15. Impact of Interventions Delivered by a Combination of Unlicensed Perinatal Health Workers and Licensed Professionals on Psychosocial Resources

Breastfeeding initiation

Breastfeeding is associated with a range of positive infant and maternal outcomes. The American Academy of Pediatrics recommends that children be breastfed during the first year of life (American Academy of Pediatrics, 2012). Breastfeeding initiation is an important measure of potential future breastfeeding and typically occurs in hospital settings shortly after birth.

Two RCTs assessed differences in breastfeeding initiation between persons who received home visits and persons who received standard care (see Table 6 for more details). In Hans et al. (2018), pregnant and postpartum people who received home visits from doulas were significantly more likely to initiate breastfeeding. However, Lutenbacher et al. (2018) did not find a significant difference in breastfeeding initiation between people who received prenatal and postpartum home visiting versus women who received standard care.

Summary of findings regarding the impact of comprehensive perinatal services on breastfeeding initiation: There is inconclusive evidence from two RCTs that comprehensive perinatal services delivered by unlicensed PHWs affect breastfeeding initiation. One RCT found significant improvement in breastfeeding initiation and 1 RCT did not find a significant difference in breastfeeding initiation.

Figure 16. Impact of Comprehensive Perinatal Services on Breastfeeding Initiation

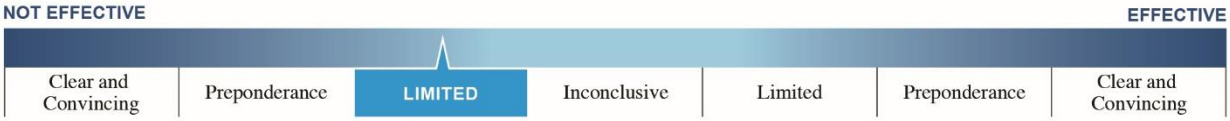
Breastfeeding duration

Not all individuals who initiate breastfeeding after birth will continue to breastfeed throughout the first year of the infant's life as recommended by the American Academy of Pediatrics. Although there are many reasons why some individuals cannot breastfeed, studies indicate that disparities in breastfeeding duration may be attributable to differences in health care access and education and social supports such as maternity leave, working conditions, and influence of family members (Jones et al., 2015; Lind et al., 2014).

CHBRP identified 2 RCTs which reported breastfeeding outcomes at three months postpartum or longer (see Table 6 for more details). In their study of home visiting by doulas, Hans et al. (2018) observed no differences in duration of breastfeeding among patients who started breastfeeding at the 3-month follow-up between individuals who received prenatal and postpartum home visits from a doula versus individuals who received standard care. In their study of home visiting by peer mentors, Lutenbacher et al. (2018) observed that people who received home visiting showed no difference in duration of breastfeeding at 6 months postpartum when compared with the control group.

Summary of findings regarding the impact of comprehensive perinatal services on breastfeeding duration: There is limited evidence from 2 RCTs that comprehensive perinatal services provided by unlicensed PHWs do not affect breastfeeding duration. Both RCTs observed no significant differences in the duration of breastfeeding between participants who received home visiting by paraprofessionals and participants who received standard care.

Figure 17. Impact of Comprehensive Perinatal Services on Breastfeeding Duration



Breastfeeding exclusivity and self-efficacy

Breastfeeding self-efficacy is defined as a mother's confidence in her ability to breastfeed her new infant and has been positively associated with breastfeeding duration and exclusivity in various cultures and age groups (Dennis, 1999). Maternal breastfeeding self-efficacy has been identified as an important psychometric factor for improving breastfeeding outcomes.

CHBRP identified 1 RCT that reported outcomes of breastfeeding exclusivity and self-efficacy. Lutenbacher et al. (2018) reported that people who received home visits from peer mentors breastfed exclusively at a higher rate and for a longer duration of time compared with the control group, who received no home visiting. The difference of the duration of exclusive breastfeeding between those who received home visiting and those who did not was a median 1.4 weeks, with 25 percent of the home-visited group exclusively breastfeeding for at least 6 weeks. Also, breastfeeding self-efficacy was higher in the intervention group at all postpartum time points – 2 weeks postpartum, 2 months postpartum, and 6 months postpartum.

Summary of findings regarding the impact of comprehensive perinatal services on breastfeeding exclusivity and self-efficacy: There is insufficient evidence from 1 RCT that comprehensive perinatal services provided by unlicensed PHWs impact breastfeeding exclusivity and self-efficacy.

Figure 18. Impact of Comprehensive Perinatal Services on Breastfeeding Exclusivity and Self-Efficacy

Summary of Findings

The *Medical Effectiveness* review examined 14 articles that assessed the impact of comprehensive perinatal services programs on birth and maternal outcomes. Eleven of these 14 studies examined the impact of comprehensive perinatal services that were provided for more than 60 days postpartum. Findings from 10 studies may not be fully generalizable to CPSP because they only enrolled low-income people or adolescents at high risk for poor birth outcomes. CHBRP did **not** find any studies that addressed Key Question #2: What is the impact of providing comprehensive perinatal services for a period of 60 days versus 12 months post-delivery following the last day of the individual's pregnancy on birth and maternal outcomes?

The *Medical Effectiveness* review reached the following conclusions regarding the impact of comprehensive perinatal services on birth outcomes:

Birth Outcomes

Low birth weight (LBW)

Study of CPSP

- There is insufficient evidence that enrollment in CPSP or the pilot project is associated with reduced risk of LBW.

Studies of interventions delivered solely by unlicensed perinatal health workers

- There is limited evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of LBW.
- There is insufficient evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of VLBW or ELBW.

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

- There is a preponderance of evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of LBW.
- There is insufficient evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of SGA.

Preterm birth (PTB)

Studies of interventions delivered solely by unlicensed perinatal health workers

- There is inconclusive evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is associated with reduced risk of PTB.

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

- There is limited evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of PTB.

Infant mortality

- There is insufficient evidence that comprehensive perinatal services delivered by a combination of unlicensed PHWs and licensed professionals is associated with reduced risk of infant mortality.

NICU admission

- There is insufficient evidence that comprehensive perinatal services are associated with reduced risk of NICU admission.

The *Medical Effectiveness* review reached the following conclusions regarding the impact of comprehensive perinatal services on maternal outcomes:

Maternal Outcomes

Postpartum depression

Studies of interventions delivered solely by unlicensed perinatal health workers

- There is inconclusive evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is effective in decreasing the occurrence of postpartum depression or depressive symptoms after childbirth.

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

- There is insufficient evidence that comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed PHWs is effective in decreasing the occurrence of postpartum depression or depressive symptoms after childbirth.

Psychosocial resources

Studies of interventions delivered solely by unlicensed perinatal health workers

- There is insufficient evidence that comprehensive perinatal services delivered solely by unlicensed PHWs is effective in improving psychosocial resources, including self-esteem, social support, mastery, locus of control, and perceived stress.

Studies of interventions delivered by a combination of unlicensed perinatal health workers and licensed professionals

- There is insufficient evidence that comprehensive perinatal services delivered by a combination of licensed professionals and unlicensed PHWs is effective in improving psychosocial resources, including self-esteem, social support, mastery, locus of control, and perceived stress.

Breastfeeding initiation

- There is inconclusive evidence that comprehensive perinatal services is effective in increasing breastfeeding initiation.

Breastfeeding duration

- There is limited evidence that comprehensive perinatal services is not effective in increasing breastfeeding duration.

Breastfeeding exclusivity and self-efficacy

- There is insufficient evidence that comprehensive perinatal services is effective in increasing breastfeeding exclusivity and self-efficacy.

BENEFIT COVERAGE, UTILIZATION, AND COST IMPACTS

As discussed in the *Policy Context* section, AB 1930 requires coverage for specified comprehensive perinatal services for Medi-Cal beneficiaries to be extended from 60 days to 12 months following the last day of a person's pregnancy. The bill also seeks to allow unlicensed PHWs to be reimbursed for services rendered in a nonmedical setting and change their supervision requirements.

This section reports the potential incremental impacts of AB 1930 on estimated baseline benefit coverage, utilization, and overall cost related to Medi-Cal beneficiaries enrolled in DMHC-regulated managed care plans. A large majority of Medi-Cal beneficiaries in California are enrolled in managed care plans. A brief discussion of impacts related to beneficiaries enrolled in COHS managed care or FFS is included in the discussion of expenditures.

Key Assumptions and Analytic Approach

In order to estimate postmandate utilization, CHBRP examined the provisions of the bill separately. First, CHBRP estimated the effect of expanding coverage from 0 to 60 days postpartum to 0 days to 12 months postpartum. Second, CHBRP estimated the effects of allowing unlicensed perinatal health workers (PHWs) to provide CPSP services outside of a medical setting and changes in their supervisory requirements. The analytic approach for each is detailed below. For further details on the underlying data sources and methods used in this analysis, please see Appendix C.

Assumptions Regarding Expanded Coverage in the Postpartum Period

In the absence of evidence of uptake from similar mandates or programs in California or otherwise, CHBRP assumed that utilization in the 60 days to 12-month postpartum period would increase by 5% of the current 0 to 60 days postpartum period. CHBRP made this assumption based on the following literature on current utilization of, and demand for, postpartum visits:

- There is substantial evidence finding that postpartum care is underutilized (Henderson et al., 2016), particularly in the Medi-Cal population, due to a large number of barriers. A 2016 population-based survey conducted in English and Spanish among 2,539 women who gave birth in California found that approximately 12% of women with Medi-Cal had no postpartum visit, 43% had one postpartum visit, 25% had two postpartum visits, and 20% had three or more (Sakala et al., 2018).
- There are several barriers to postpartum utilization at both the system and patient levels:
    - At the health care system level, barriers to postpartum utilization include lack of provider continuity over the course of prenatal care, discontinuity with delivery and postpartum care providers, insufficient patient information on coverage and duration of postpartum services and programs, inadequate referrals, inadequate community-based services to meet population needs, lack of transportation and child care, out-of-date patient contact information for patient visit scheduling and reminders, lack of effective processes for ensuring postpartum visits are scheduled, and lack of incentives for payers, providers, and people who have recently given birth to prioritize postpartum visits (de Bocanegra et al., 2017; DiBari et al., 2014; Henderson et al., 2016; Rodin et al., 2019; Wilcox et al., 2016).
    - Patient-level barriers include feeling overwhelmed with childcare responsibilities; lack of time for caring for self; fears of receiving bad news at follow-up appointments; perceived discrimination during the childbirth hospitalization based on race, ethnicity, cultural background or language; and dissatisfaction with care (Bennett et al., 2011; Wouk et al., 2020). Sakala et al. (2018) found that among women who did not have a postpartum visit, 36% noted that they felt they didn't need more care, 16% reported lack of time as a barrier, 11% reported not feeling well or didn't want to go, 8% reported lack of insurance coverage, and 7% reported transportation issues. DiBari et al. (2014) found similar

findings. Barriers such as lack of transportation and childcare may be alleviated with the increased availability of telehealth in the future.
    - As noted in the *Medical Effectiveness* section, AB 1930 may address some of these barriers through the use of unlicensed PHWs rendering services in the nonmedical setting, but barriers to the use of PHWs also exist and are listed in the "Assumptions Regarding Use of Services Rendered by Unlicensed Perinatal Health Workers" section.
- A thorough review of the literature found that research on preferences for postpartum care, and specifically CPSP-like services, is extremely limited. A 2020 study which surveyed 300 women found that most women prefer two to three visits postpartum, and preferred for these visits to occur during the 0 to 2-month period (Peahl et al., 2020). The study focused on people who had been admitted for birth and recovery at an academic institution; most were White and had private insurance. While the respondents of the study are different from the population accessing CPSP services, this is one of the few studies specifically surveying preferences for postpartum care. The study focused on preferences for obstetrical care and not CPSP-like assessments and services; however, CHBRP assumed that preferences for CPSP services would be similar to those for obstetrical care, as many CPSP services are currently delivered alongside obstetrical care visits.
- CHBRP assumed that the provision to extend CPSP services from 60 days to 12 months postpartum would only lead to increased utilization from existing users of the CPSP program and would not lead to an increase of additional Medi-Cal beneficiaries using CPSP services. CHBRP made this assumption based on literature that finds that the strongest indicator of whether people who have given birth will utilize postpartum care is use of prenatal care (Kogan, 1990; Wouk 2020).

CHBRP assumed that the number of CPSP services provided from 60 days to 12 months postpartum would be proportional to those currently provided in the 0 to 60 days period.

Assumptions Regarding Use of Services Rendered by Unlicensed Perinatal Health Workers

At baseline, unlicensed PHWs can provide preventive services if supervised by a licensed provider and if provided in a medical site. Postmandate, unlicensed PHWs would be allowed to provide services in a setting away from a medical site and would be allowed to be supervised by a CBO, as long as a Medi-Cal provider was available for billing. CHBRP assumed that these two provisions in AB 1930 would lead to a 0.50% increase in the use of CPSP services throughout the entire perinatal period due to the allowance of unlicensed PHWs to render preventive services in nonmedical settings and changes in supervisory requirements. CHBRP made this assumption based on data on utilization in the Oregon Health Plan doula program (Bluth, 2022; Oregon Health Authority, 2018). Traditional health workers participating in the Oregon Health Plan doula program provide "nonmedical physical and behavioral health services that promote better outcomes and greater equity," can provide services in the home, and do not have to be supervised by a physician (Oregon Health Authority, 2018). The Oregon doula program includes a package of services including two maternity support visits prior to delivery and two maternity support visits after delivery, in addition to doula support provided on the day of delivery. CHBRP assumed that utilization in the Oregon doula program would be similar to services provided before and after delivery by unlicensed PHWs participating in the CPSP program providing services in a setting other than a medical site and/or not supervised by a physician. Although traditional health workers have been eligible to serve as doulas in Oregon since 2014, Oregon paid for doulas in only 0.39% of births to Medicaid enrollees from 2018-2021 (Bluth, 2022).

CHBRP identified several potential barriers regarding PHW participation and supply in the CPSP program and utilization of the services in a nonmedical setting, which led to the 0.50% increase estimate:

- First, CHBRP identified barriers to increasing unlicensed provider supply of unlicensed PHWs, including low reimbursement rates, a high administrative burden related to data collection and reimbursement, high levels of turnover, and lack of adequate training; these barriers may lead to low participation by PHWs and low utilization of PHWs in general by CBOs and Medi-Cal

providers (George et al., 2020; Pittman et al., 2015). Although CBOs may supervise PHWs postmandate if they work with a Medi-Cal provider for billing purposes, CBOs may encounter high administrative burdens in establishing these contracts.

- Second, CHBRP identified potential barriers to services rendered by unlicensed PHWs in a non-medical setting (e.g., the home). Although perinatal programs that provide services in the home aim to reduce barriers faced by pregnant and postpartum people in attending clinic-based programs (such as lack of childcare and transportation barriers), established home visitation programs using nurses and CHWs have experienced significant challenges in retaining people and families in these programs (Boller et al., 2014). These barriers include fears that Child Protection Services may remove children from the home, lack of perceived benefit of the program, fears of criticism, and lack of connection with the CHW (Krysik et al., 2008). Similar barriers may be encountered by unlicensed PHWs participating in home visits as part of the CPSP program.

Baseline and Postmandate Benefit Coverage

Current coverage of CPSP services from 60 days to 12 months postpartum was determined by a CHBRP survey of the largest (by enrollment) providers of Medi-Cal managed care in California. At baseline, CHBRP estimates that 57% of Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans subject to AB 1930 have existing coverage for comprehensive perinatal services delivered through CPSP from 0 days to 12 months postpartum. Postmandate, 100% of eligible Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans would have coverage for comprehensive perinatal services delivered through CPSP from 0 days to 12 months postpartum. See estimates in Table 1.

At baseline, 0% of eligible Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans subject to AB 1930 have coverage of preventive CPSP services rendered by unlicensed PHWs in the home or other community setting away from a medical site. Postmandate, 100% of eligible Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans subject to AB 1930 would have coverage of preventive services rendered by unlicensed PHWs in the home or other community setting.

Baseline and Postmandate Utilization

CHBRP assumed that the underlying rates of pregnancy, abortion, miscarriage, and stillbirth will not substantially change by 2023 if the mandate is fully implemented. Underlying rates are based on 2020 administrative enrollment data and demographic data from the 2018 California Health Interview Survey.

At baseline, CHBRP estimates 69,861 Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans utilize CPSP services. Postmandate, CHBRP estimates that an additional 349 Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans are estimated to use CPSP services. See estimates in Table 1.

CHBRP estimates an increase in annual utilization of CPSP services among existing enrollees and new users of CPSP services as a result of all provisions of AB 1930 (i.e., extending the postpartum coverage period and use of services from unlicensed PHWs at a non-medical site and changes in supervision of PHWs). Annual utilization of CPSP services rendered at a medical site will increase from 82.5 per 1,000 covered Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans at baseline to 82.7 per 1,000 covered Medi-Cal beneficiaries postmandate. Annual utilization of CPSP services rendered at a beneficiary's home or other community setting away from a medical site will increase from 0 per 1,000 covered Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans at baseline to 0.4 per 1,000 covered Medi-Cal beneficiaries postmandate.

Baseline and Postmandate Per-Unit Cost

CHBRP estimates that the average per-unit cost will decrease slightly because on average postpartum services are less costly than prenatal services covered by CPSP. Higher estimated use of postpartum services as a result of the expanded postpartum coverage from AB 1930 will lead to an estimated lower per-unit cost. The average per-unit cost of CPSP services rendered at a either a medical site or at a beneficiary's home or other community setting away from a medical site will decrease from $15.83 to $15.81, a 0.12% decrease.

Baseline and Postmandate Expenditures

AB 1930 applies to all Medi-Cal beneficiaries, including beneficiaries enrolled in COHS managed care as well as Medi-Cal beneficiaries associated with the Medi-Cal's FFS program. CHBRP estimates AB 1930 would increase total net annual expenditures by $75,000 for Medi-Cal as a result of the increase in utilization of services by the approximately 8 million Medi-Cal beneficiaries enrolled in managed care through DMHC-regulated plans. Assuming a similar impact for the 1.7 million Medi-Cal beneficiaries enrolled in COHS, an additional increase of $16,000 would be expected. A similar increase could occur for Medi-Cal beneficiaries associated with FFS, but the impact is unknown. CPSP services do not have cost sharing for enrollees, meaning the entire increase would be a Medi-Cal expenditure and would not be borne out by enrollees.

Potential Cost Offsets or Savings in the First 12 Months After Enactment

As described in the *Medical Effectiveness* section, the evidence is inconclusive or insufficient regarding maternal outcomes due to the services proposed in AB 1930. As such, CHBRP assumed no offsets or increases in additional Medi-Cal health services associated with the increase in CPSP visits. There is scant evidence examining changes in health care utilization as a result of additional postpartum assessments or home visits from unlicensed PHWs. A 2018 study by Lutenbacher et al. examining the use of peer mentors to improve maternal health and child outcomes in underserved communities found that while the program resulted in higher rates of breastfeeding, reductions in parenting stress, and improvements in social and emotional support, there were no changes in health care utilization (Lutenbacher et al., 2018). Although some research literature exists that indicates increased mental health screening and treatment prevents future health problems, it is unclear whether or how much of those prevented health problems would occur within the first year postmandate, or how much those prevented problems would have cost. Therefore, the cost offsets are unknown.

Postmandate Administrative Expenses and Other Expenses

CHBRP estimates that the increase in administrative costs of Medi-Cal Managed Care Plans will remain proportional to the increase in expenditures. CHBRP assumes that if health care costs increase as a result of increased utilization or changes in unit costs, there is a corresponding proportional increase in administrative costs. CHBRP assumes that the administrative cost portion of premiums is unchanged and to comply with the requirements of participating in CPSP, Medi-Cal Managed Care Plans will develop methods to inform pregnant women and their providers about access to CPSP services as described in AB 1930 (e.g., notifications at each visit). All DMHC-regulated health plans and CDI-regulated insurers include a component for administration and profit in their premiums. In the case of Medi-Cal Managed Care Plans, CHBRP estimates a 12% administrative/overhead rate.

Other Considerations for Policymakers

In addition to the impacts a bill may have on benefit coverage, utilization, and cost, related considerations for policymakers are discussed below.

Postmandate Changes in the Number of Uninsured Persons

Because the change in expenditures is limited to the Medi-Cal program and does not cause increases in private insurance premiums, CHBRP expects no measurable change in the number of uninsured persons due to the enactment of AB 1930.

Changes in Public Program Enrollment

CHBRP estimates that the mandate would produce no measurable impact on enrollment in publicly funded insurance programs due to the enactment of AB 1930.

How Lack of Benefit Coverage Results in Cost Shifts to Other Payers

Untreated postpartum mental health conditions may lead enrollees to access mental health care through county-funded services, or they may pay out-of-pocket for their own mental health providers. Additionally, primary care utilization may increase, as a large proportion of mental health care is provided in the primary care setting. CHBRP cannot quantify the extent to which this is occurring, and therefore does not include these potential out-of-pocket costs in the modeling.

Long-Term Utilization and Cost Impacts

Utilization and Cost Impacts

As noted in the *Medical Effectiveness* section, given the insufficient and inconclusive evidence on CPSP or CPSP-like services on maternal health outcomes, CHBRP is unable to determine the potential long-term utilization of CPSP services and long-term cost impacts.

PUBLIC HEALTH IMPACTS

As discussed in the *Policy Context* section, AB 1930 requires coverage for specified comprehensive perinatal services for Medi-Cal beneficiaries to be extended from 60 days to 12 months following the last day of an individual's pregnancy. The bill also allows unlicensed perinatal health workers (PHWs) to be reimbursed for services rendered in a nonmedical setting and changes their supervision requirements.

This public health impact analysis includes estimated impacts AB 1930 on birth and maternal health outcomes in the short-term (within 12 months of implementation) and in the long term (beyond the first 12 months post mandate).

Estimated Public Health Outcomes

As discussed in the *Background* section, CPSP services are currently available from the date of conception through 60 days following the end of the pregnancy and must be provided by or under the personal supervision of a physician. Unlicensed PHWs (i.e., community health workers, promotora/es, and doulas) can provide preventive perinatal services if supervised by a physician and if provided in a medical setting. AB 1930 permits these PHWs to provide services in a setting outside of a medical site and allows community based organizations (rather than physicians) to supervise PHWs as long as a Medi-Cal provider was available to facilitate billing.

As presented in the *Medical Effectiveness* section, CHBRP found varying levels of effectiveness of comprehensive perinatal services depending on the outcome measured, provider type, and setting with the strongest evidence centered on services delivered in the home setting by unlicensed PHWs (in partnership with or without licensed professionals).

There is a preponderance of evidence that home visiting interventions when delivered by a combination of unlicensed PHWs plus licensed professionals are associated with reduced risk of low birth weight and limited evidence that these services are associated with reduced risk of preterm birth and increased breastfeeding duration. When delivered solely by unlicensed PHWs, CHBRP found limited evidence of the effectiveness of home visiting interventions on low birth weight. Evidence of comprehensive perinatal services delivered by a combination of unlicensed PHWs plus licensed professionals was found to be either inconclusive or insufficient for the following outcomes: infant mortality, NICU admission, postpartum depression, psychosocial resources (including self-esteem, social support, mastery, locus of control, and perceived stress), and breastfeeding initiation, exclusivity, and self-efficacy. Evidence of comprehensive perinatal services was found to be either inconclusive or insufficient for the following outcomes when delivered solely by unlicensed PHWs: preterm birth, postpartum depression, psychosocial resources (including self-esteem, social support, mastery, locus of control, and perceived stress).

CHBRP did not identify any evidence that compared interventions that were provided for 60 days or less postpartum to interventions that were provided over a longer period of time. It is important to note that the absence of evidence is not "evidence of no effect." It is possible that an impact – desirable or undesirable – could result, but current evidence is insufficient to inform an estimate.

As presented in the *Benefit Coverage, Utilization, and Cost Impacts* section, CHBRP estimates that an additional 349 Medi-Cal beneficiaries would use CPSP services postmandate, due to new access to unlicensed PHWs who may treat clients in nonmedical settings as well as changes in PHW supervisory requirements. CHBRP estimates an increase in annual utilization of CPSP services among existing users at baseline and new users of CPSP services as a result of all provisions of AB 1930 (i.e., extending the postpartum coverage period, allowance of unlicensed PHWs to render services outside of medical sites, and changes in supervision requirements). Postmandate, CHBRP projects CPSP services rendered at a medical site, a beneficiary's home, or other community setting would increase less than 1% (from 82.5 per 1,000 covered Medi-Cal beneficiaries at baseline to 83.1 per 1,000 covered Medi-Cal beneficiaries postmandate).

There are many barriers to perinatal care for Medi-Cal beneficiaries some of which would be mediated by AB 1930 and others that would remain. For example, CHBRP assumes that the use of unlicensed PHWs providing services in home settings would mediate barriers related to a client's lack of transportation or child care. However, there is some evidence that clients that could benefit from home-based services may be reluctant to participate, due to fears of Child Protection Services removing children from the home, lack of perceived benefit of the program, fears of criticism, or immigration status. Moreover, barriers affecting provider supply are likely to remain, such as low reimbursement rates and high administrative burdens for PHWs and their supervising CBOs.

CHBRP concludes that passage of AB 1930 would have no measurable short-term or long-term public health impact at the population-level, due to existing barriers to PHW supply**,** which would result in less than a 1% increase in CPSP services used postmandate, and lack of evidence showing the effectiveness of comprehensive perinatal services when provided more than 60 days postpartum**.** It is important to note that the absence of evidence is not "evidence of no effect." It is possible that an impact – desirable or undesirable – could result, but current evidence is insufficient to inform an estimate.

At the individual-level, evidence of effectiveness indicates that some Medi-Cal beneficiaries who would use CPSP services postmandate, particularly home visiting interventions when delivered by a combination of unlicensed PHWs plus licensed professionals, may see improved birth outcomes, including reduced risk of low birth weight and preterm birth and increased breastfeeding duration. However, CHBRP is unable to estimate a specific number.

For these reasons, CHBRP also concludes that AB 1930 would have no measurable impact on disparities or social determinants of health for birth and maternal health outcomes.

APPENDIX A TEXT OF BILL ANALYZED

On February 17, 2022, the California Assembly Committee on Health requested that CHBRP analyze AB 1930.

AMENDED IN ASSEMBLY MARCH 16, 2022

ASSEMBLY BILL **NO. 1930**

Introduced by Assembly Member Arambula

February 10, 2022

An act to amend Section 14005.185 of, and to add Section 14134.51 to, the Welfare and Institutions Code, relating to Medi-Cal.

LEGISLATIVE COUNSEL'S DIGEST

AB 1930, as amended, Arambula. Medi-Cal: comprehensive perinatal services.

Existing law establishes the Medi-Cal program, which is administered by the State Department of Health Care Services and under which qualified low-income individuals receive health care services, including comprehensive perinatal services. The Medi-Cal program is, in part, governed and funded by federal Medicaid program provisions. Under existing law, a pregnant individual or targeted low-income child who is eligible for, and is receiving, health care coverage under any of specified Medi-Cal programs is eligible for full-scope Medi-Cal benefits for the duration of the pregnancy and for a period of one year following the last day of the individual's pregnancy.

This bill, during the one-year postpregnancy eligibility period, and as part of comprehensive perinatal services under Medi-Cal, would require the department to cover additional comprehensive perinatal assessments and individualized care plans and to provide additional visits and units of services in an amount, duration, and scope that are at least proportional to those available on July 27, 2021, during pregnancy and the initial 60-day postpregnancy period in effect on that date. The bill would require the department to collaborate with the State Department of Public Health and a broad stakeholder group to determine the specific number of additional comprehensive perinatal assessments, individualized care plans, visits, and units of services to be covered.

The bill would ~~also~~ require the department to seek any necessary federal approvals to ~~(1)~~ cover preventive services that are recommended by a physician or other licensed practitioner and that are rendered by a nonlicensed perinatal health worker in a beneficiary's home or other community setting away from a medical site, as ~~specified, and (2)~~ *specified. The bill would also require the department to seek any necessary federal approvals to* allow a nonlicensed perinatal health worker rendering those preventive services to be supervised by *(1)* an enrolled Medi-Cal provider that is a clinic, hospital, community-based ~~organization, or licensed practitioner.~~ *organization (CBO), or licensed practitioner, or (2) a CBO that is not an enrolled Medi-Cal provider, so long as an enrolled Medi-Cal provider is available for Medi-Cal billing purposes.*

The bill would condition implementation of the provisions above on receipt of any necessary federal approvals and the availability of federal financial participation.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

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THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 14005.185 of the Welfare and Institutions Code is amended to read:

14005.185. (a) (1) Notwithstanding Section 15840, the income eligibility requirements specified in Section 15832, and the annual redetermination requirements described in Section 14005.37, a pregnant individual or targeted low-income child who is eligible for and is receiving health care coverage under a Medi-Cal program identified in subdivision (b) shall be eligible for full-scope Medi-Cal benefits for the duration of the pregnancy and for a period of one year following the last day of the individual's pregnancy.

(2) (A) During the one-year postpregnancy eligibility period described in paragraph (1), as part of comprehensive perinatal services under Medi-Cal, as described in subdivision (u) of Section 14132 and in Section 14134.5, the department shall cover additional comprehensive perinatal assessments and individualized care plans and shall provide additional visits and units of services in an amount, duration, and scope that are at least proportional to those available on July 27, 2021, during pregnancy and the initial 60-day postpregnancy period in effect on that date.

(B) The department shall collaborate with the State Department of Public Health and a broad stakeholder group to determine the specific number of additional comprehensive perinatal assessments, individualized care plans, visits, and units of services to be covered pursuant to subparagraph (A).

(b) For purposes of this section, "Medi-Cal program" refers to any of the following programs:

(1) The Medi-Cal Access Program, as described in Chapter 2 (commencing with Section 15810) of Part 3.3.

(2) The Medi-Cal program, as described in this article.

The Perinatal Services Program, as described in Article 4.7 (commencing with Section 14148).

(c) The department shall seek any federal approvals, including under Titles XIX and XXI of the federal Social Security Act (42 U.S.C. Sec. 1396 et seq.), that it determines are necessary to extend coverage for eligible pregnant and postpartum individuals or targeted low-income children as described in this section.

(d) (1) Except as provided in paragraph (2), coverage described in this section shall commence on April 1, 2022, or the effective date or dates reflected in any necessary federal approvals obtained by the department pursuant to subdivision (c), whichever is later.

(2) Notwithstanding paragraph (1), coverage described in this section for populations authorized under Title XXI of the federal Social Security Act (42 U.S.C. Sec. 1397aa) shall be effective on the date reflected in any necessary federal approvals obtained by the department pursuant to subdivision (c).

(e) Notwithstanding Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, the department may implement, interpret, or make specific this section by means of all-county letters, provider bulletins, or similar instructions, without taking any further regulatory action.

(f) Implementation of this section is subject to an appropriation in the annual Budget Act, or any other act approved by the Legislature, for the purposes described in this section.

(g) (1) Except as provided in paragraph (2), this section shall be implemented only to the extent that any necessary federal approvals are obtained and federal financial participation is available and not otherwise jeopardized.

(2) With respect to coverage described in the section for populations authorized under Title XXI of the federal Social Security Act (42 U.S.C. Sec. 1397aa), the department may implement this section prior to receipt of all necessary federal approvals, so long as the department determines that federal financial participation under the Medi-Cal program is not otherwise jeopardized.

SEC. 2. Section 14134.51 is added to the Welfare and Institutions Code, to read:

14134.51. (a) As part of comprehensive perinatal services under Medi-Cal, as described in subdivision (u) of Section 14132 and in Section 14134.5, the department shall seek any necessary federal approvals to do both of the following:

(1) Cover preventive services that are recommended by a physician or other licensed practitioner and that are rendered by a nonlicensed perinatal health worker in a beneficiary's home or other community setting away from a medical site, as described in Section 1396d(a)(13) of Title 42 of the United States Code and Section 440.130(c) of Title 42 of the Code of Federal Regulations.

(2) Allow a nonlicensed perinatal health worker rendering preventive services in accordance with paragraph (1) to be supervised by ~~an~~ *either of the following:*

(A) An enrolled Medi-Cal provider that is a clinic, a hospital, a community-based organization, or a licensed practitioner.

(B) A community-based organization that is not an enrolled Medi-Cal provider, so long as an enrolled Medi-Cal provider is available for Medi-Cal billing purposes.

(b) This section shall be implemented only to the extent that any necessary federal approvals are obtained and federal financial participation is available.

APPENDIX B LITERATURE REVIEW METHODS

This appendix describes methods used in the literature review conducted for this report. A discussion of CHBRP's system for medical effectiveness grading evidence, as well as lists of MeSH Terms, publication types, and keywords, follows.

Studies of comprehensive perinatal services were identified through searches of PubMed, the Cochrane Library, Web of Science, Embase, Scopus, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and PsycINFO. Websites maintained by the following organizations that produce and/or index meta-analyses and systematic reviews were also searched: PubMed Health, the Agency for Healthcare Research and Quality (AHRQ), the National Health Service (NHS) Centre for Reviews and Dissemination, the National Institute for Health and Clinical Excellence (NICE), and the Scottish Intercollegiate Guideline Network. The search was limited to abstracts of studies published in English. The search was limited to studies published from 1990 to present. The majority of the identified literature about birth outcomes examined the impact of comprehensive perinatal services on low birth weight (LBW) and preterm birth (PTB). The majority of the identified literature about maternal outcomes examined the impact of comprehensive perinatal services on postpartum depression.

Reviewers screened the title and abstract of each citation retrieved by the literature search to determine eligibility for inclusion. The reviewers acquired the full text of articles that were deemed eligible for inclusion in the review and reapplied the initial eligibility criteria.

Medical Effectiveness Review

The medical effectiveness literature review returned abstracts for 747 articles, of which 62 were reviewed for inclusion in this report. A total of 14[30] studies were included in the medical effectiveness review for AB 1930.

Medical Effectiveness Evidence Grading System

In making a "call" for each outcome measure, the medical effectiveness lead and the content expert consider the number of studies as well the strength of the evidence. Further information about the criteria CHBRP uses to evaluate evidence of medical effectiveness can be found in CHBRP's *Medical Effectiveness Analysis Research Approach*.[31] To grade the evidence for each outcome measured, the team uses a grading system that has the following categories:

- Research design;
- Statistical significance;
- Direction of effect;
- Size of effect; and
- Generalizability of findings.

The grading system also contains an overall conclusion that encompasses findings in these five domains. The conclusion is a statement that captures the strength and consistency of the evidence of an intervention's effect on an outcome. The following terms are used to characterize the body of evidence regarding an outcome:

[30] We identified one dose-response study that found each prenatal visit with a paraprofessional home visitor was associated with approximately 62 grams increase in birth weight and approximately 0.38 weeks (2.66 days) increase in gestational age at birth (Guo et al., 2016). We excluded this study because it did not directly answer our Key Questions.

[31] Available at: http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php.

- *Clear and convincing evidence;*
- *Preponderance of evidence;*
- *Limited evidence;*
- *Inconclusive evidence;* and
- *Insufficient evidence.*

A grade of *clear and convincing evidence* indicates that there are multiple studies of a treatment and that the large majority of studies are of high quality and consistently find that the treatment is either effective or not effective.

A grade of *preponderance of evidence* indicates that the majority of the studies reviewed are consistent in their findings that treatment is either effective or not effective.

A grade of *limited evidence* indicates that the studies had limited generalizability to the population of interest and/or the studies had a fatal flaw in research design or implementation.

A grade of *inconclusive evidence* indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.

A grade of *insufficient evidence* indicates that there is not enough evidence available to know whether or not a treatment is effective, either because there are too few studies of the treatment or because the available studies are not of high quality. It does not indicate that a treatment is not effective.

Search Terms

Community health services

Community health workers

Comprehensive perinatal services

Fetal mortality

Health aides

Health education assessment

Home visits

House calls

Maternal health

Maternal health services

Maternal mortality

Maternal nutrition

Maternal welfare

Medicaid

Medi-Cal

Outcome assessment

Paraprofessionals

Patient education

Perinatal depression

Post-natal care

Postnatal care

Postpartum depression

Peri-natal care

Perinatal care

Pregnancy

Pregnancy outcome

Pregnancy complications

Pre-natal care

Prenatal care

Treatment outcome

United States or USA

APPENDIX C COST IMPACT ANALYSIS: DATA SOURCES, CAVEATS, AND ASSUMPTIONS

With the assistance of CHBRP's contracted actuarial firm, Milliman, Inc, the cost analysis presented in this report was prepared by the faculty and researchers connected to CHBRP's Task Force with expertise in health economics.[32] Information on the generally used data sources and estimation methods, as well as caveats and assumptions generally applicable to CHBRP's cost impacts analyses, are available at CHBRP's website.[33]

This appendix describes analysis-specific data sources, estimation methods, caveats, and assumptions used in preparing this cost impact analysis.

Analysis-Specific Data Sources

Current coverage of CPSP services for Medi-Cal beneficiaries was determined by a survey of the largest (by enrollment) DMHC-regulated plans enrolling Medi-Cal beneficiaries. CHBRP surveyed DMHC-regulated managed care plans, representing 77% of all Medi-Cal beneficiaries. CHBRP received responses from plans representing 44% of the Medi-Cal population. CHBRP extrapolated the responses to all Medi-Cal beneficiaries covered by DMHC-regulated managed care plans; responses to this survey are assumed to represent 57% of enrollees with health insurance that can be subject to the state benefit mandates.

CHBRP used Milliman's 2019 Consolidated Health Cost Guidelines Sources Database (CHSD) to estimate annual utilization and average cost for CPSP services in 2023. Milliman's CHSD data contains claims and encounter data from Medi-Cal Managed Care (MMC) plans, as opposed to Fee-for-Service (FFS) claims paid by Medi-Cal. The CPSP services were identified in the claims data using HCPCS (Healthcare Common Procedure Coding System) codes listed in the CPSP Provider Handbook. See Table 7 for the list of HCPCS with a description.

Table 7. Procedure Codes Used to Identify CPSP Services.

HCPCS	Description
S0197	Prenatal vitamins
Z6500	Initial combined assessment and case coordination
Z6200	Nutrition – initial assessment and development of care plan, first 30 minutes
Z6202	Nutrition – initial assessment and development of care plan, each subsequent 15 minutes
Z6204	Nutrition – follow-up antepartum reassessment/treatment/intervention, each 15 minutes
Z6208	Nutrition – postpartum assessment/treatment/intervention and development of care plan

[32] CHBRP's authorizing statute, available at https://chbrp.org/about_chbrp/index.php, requires that CHBRP use a certified actuary or "other person with relevant knowledge and expertise" to determine financial impact.
[33] See method documents posted at http://chbrp.com/analysis_methodology/cost_impact_analysis.php; in particular, see *2022 Cost Analyses: Data Sources, Caveats, and Assumptions*.

Z6206	Nutrition group – antepartum nutrition education/treatment/assessment/intervention
Z6300	Psychosocial – initial assessment and development of care plan, first 30 minutes
Z6302	Psychosocial – initial assessment and development of care plan, each subsequent 15 minutes
Z6304	Psychosocial – reassessment/treatment/intervention each 15 minutes
Z6308	Psychosocial – postpartum assessment/treatment/intervention and development of care plan
Z6306	Psychosocial group – antepartum treatment/assessment/intervention
Z6400	Health education – client orientation, each 15 minutes
Z6402	Health education – initial assessment and development of care plan, first 30 minutes
Z6404	Health education – initial assessment and development of care plan, each subsequent 15 minutes
Z6406	Health education – follow-up antepartum reassessment/treatment/intervention, each 15 minutes
Z6414	Health education – postpartum assessment/treatment/intervention and development of care plan, each 15 minutes
Z6408	Health education group – assessment/treatment/intervention each 15 minutes
Z6410	Perinatal education individual – antepartum or postpartum, each 15 minutes
Z6412	Perinatal education group – antepartum or postpartum, each 15 minutes
Z1032-ZL	Initial antepartum obstetric office visit performed within 16 weeks of LMP

Analysis-Specific Caveats and Assumptions

The analytic approach and key assumptions are determined by the subject matter and language of the bill being analyzed by CHBRP. As a result, analytic approaches may differ between topically similar analyses, and therefore the approach and findings may not be directly comparable.

Assumptions for Baseline Benefit Coverage

- The population subject to the mandate includes individuals covered by DMHC-regulated Medi-Cal Managed Care Plans, full-scope Medi-Cal, or limited scope Medi-Cal and are either pregnant or were pregnant within the previous 12 months.

- CHBRP assumed that pregnant people in Medi-Cal will continue to receive services through Fee-for-Service (FFS) or Medi-Cal Managed Care Plans based on their aid code and eligibility for partial- or full-scope benefits. While 80% of people covered by Medi-Cal are covered by a Medi-Cal Managed Care Plan (MMCP), 40% of the births paid for by Medi-Cal are covered by the FFS system (Simon, 2020a). These include people newly eligible for Medi-Cal on the basis of their pregnancy, including (1) undocumented persons and (2) persons with incomes 139% to 213% of the FPL.

- CHBRP assumed 100% of the population subject to the mandate currently offer some form of coverage for CPSP services and are subject to AB 1930. Based on responses from the survey, CHBRP assumed 57% of Medi-Cal beneficiaries enrolled in DMHC-regulated managed care plans subject to the mandate currently offer CPSP services for one year postpartum.

Assumptions for Baseline Utilization and Cost

- CHBRP calculated the baseline utilization rates by first determining the total number of CPSP units in the claims data. That figure was then converted into a utilization per 1,000 enrollees, as shown in Table 1, by dividing it by the number of Medi-Cal beneficiaries in the claims data and multiplying by 1,000. CHBRP assumed a 0% annual increase in utilization of CPSP services over time.
- CHBRP calculated the baseline average cost per unit by dividing the total allowed dollars observed in the data for CPSP services by the total units observed in the data for CPSP services. CHBRP compared the average cost per unit for each HCPCS code listed above in Table 7 against the reimbursement rates found in the CPSP Provider Handbook, and generally found them to be close. CHBRP assumed a 0% annual increase in costs of CPSP services over time.
- Medi-Cal Managed Care Plans are required to execute a subcontract or memorandum of understanding with local health departments in the area of Maternal and Child Health to provide perinatal services (State of California - Health and Human Services Agency, 2012). MMCPs are required to implement a comprehensive risk assessment comparable to the standards of the American College of Obstetricians and the CPSP and must include obstetrical, nutrition, psychosocial, and health education interventions when individual risk factors are identified. assessments and services may vary from those in the CPSP. CHBRP assumed that the services covered by Medi-Cal Managed Care Plans would be very similar to those available to people with FFS coverage.

Assumptions for Postmandate Utilization

- In order to estimate postmandate utilization, CHBRP examined these two provisions of the bill separately: expanding coverage from 0-60 days postpartum and allowing unlicensed PHWs to provide CPSP services outside of a medical setting and changing their supervisory requirements.

    - CHBRP assumed that AB 1930 would lead to a 0.50% increase in the use of CPSP services throughout the entire perinatal period due to the allowance of unlicensed PHWs to render preventive services outside of a medical setting and changes in their supervisory requirements.

    - CHBRP assumed that for the 43% of Medi-Cal beneficiaries enrolled in DMHC-regulated managed care plans that do not currently have coverage for the full year postpartum, utilization in the 2- to 12-month postpartum period would increase by 5% of the current first 60 days' postpartum period. This only impacted the CPSP HCPCS codes that are postpartum services. In order to model this impact, CHBRP calculated the percentages of CPSP services that are rendered within 60 days postpartum by identifying a birth in the claims data and looking at dates of service. This was done for each HCPCS code. The percentage was then applied to the total utilization for each HCPCS code in order to

capture the utilization for the beneficiaries that had births falling outside of the calendar year of the claims data.

- CHBRP assumed that new users of CPSP are only as a result of the provision regarding the use of services from unlicensed PHWs at a nonmedical site and changes in supervision of PHWs.

Assumptions for Postmandate Cost

- AB 1930 does not change the reimbursement rates for CPSP services, thus CHBRP assumes there will be no impact on cost for individual services postmandate. As seen in Table 1, the average cost of CPSP services did decrease slightly from $15.83 to $15.81, due to a change in the mix of services provided. The change in the mix of services is driven by the postmandate utilization assumption regarding the increase in utilization in the 2-12 month postpartum period. Since the postpartum CPSP services on average cost less than the average CPSP service, an increase in postpartum CPSP services leads to a slight decrease in average cost of CPSP services overall.

Second-Year Impacts on Benefit Coverage, Utilization, and Cost

CHBRP has considered whether continued implementation during the second year of the benefit coverage requirements of AB 1930 would have a substantially different impact on utilization of either the tests, treatments, or services for which coverage was directly addressed, the utilization of any indirectly affected utilization, or both. CHBRP reviewed the literature and consulted content experts about the possibility of varied second-year impacts and determined the second year's impacts of AB 1930 would be substantially the same as the impacts in the first year (see Table 1). Minor changes to utilization and expenditures are due to population changes between the first year postmandate and the second year postmandate.

APPENDIX D INFORMATION SUBMITTED BY OUTSIDE PARTIES

In accordance with the California Health Benefits Review Program (CHBRP) policy to analyze information submitted by outside parties during the first 2 weeks of the CHBRP review, the following parties chose to submit information.

The following information was submitted by the Assemblymember Arambula's office in March 2022.

- Lennie JA, Klun JR, Hausner T. Low-birth-weight rate reduced by the obstetrical access project. Health Care Financ Rev. 1987;883-86. The impetus for enacting CPSP into law as a Medi-Cal benefit was this 3-year pilot project showing that these enhancements resulted in fewer low birth weights (a major cause of infant mortality and morbidity) as well savings to Medi-Cal.
- CMS guidance for the ARPA implementation (SHO # 21-007,Dec 7, 2021). https://www.medicaid.gov/federal-policy-guidance/downloads/sho21007.pdf. Pp 9-10.
- https://www.kff.org/medicaid/issue-brief/medicaid-authorities-and-options-to-address-social-determinants-of-health-sdoh/
- https://www.medicaid.gov/federal-policy-guidance/downloads/sho21001.pdf
- MIHA Social Determinants of Health 2013-14. Source: https://archive.cdph.ca.gov/data/surveys/MIHA/MIHAAnnualReports/MIHACountyRegionalReport2013-2014.pdf
- A letter cosigned by multiple organizations, directed to Michelle Baass, Director of DHCS and Dr. Tomás J. Aragón, Director of CDPH dated December 10, 2021.
- An informational handout, co-signed by multiple organizations, regarding "Key Supports and Referral Services During the 12-Month Postpregnancy Period through Medi-Cal's Comprehensive Perinatal Services Program."
- A paper authored by Sarah Hollister, RN, BSN, PHN, IBCLC, West County Health Centers, and Liz George, RN, BSN, PHN, HNB-BC, IBCLC, the Sonoma County Maternal Child and Adolescent Health Coordinator, Perinatal Services Coordinator. "The Comprehensive Perinatal Services Program During Twelve Months Postpartum.

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CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM COMMITTEES AND STAFF

A group of faculty, researchers, and staff complete the analysis that informs California Health Benefits Review Program (CHBRP) reports. The CHBRP **Faculty Task Force** comprises rotating senior faculty from University of California (UC) campuses. In addition to these representatives, there are other ongoing researchers and analysts who are **Task Force Contributors** to CHBRP from UC that conduct much of the analysis. The **CHBRP staff** coordinates the efforts of the Faculty Task Force, works with Task Force members in preparing parts of the analysis, and manages all external communications, including those with the California Legislature. As required by CHBRP's authorizing legislation, UC contracts with a certified actuary, **Milliman**, to assist in assessing the financial impact of each legislative proposal mandating or repealing a health insurance benefit.

The **National Advisory Council** provides expert reviews of draft analyses and offers general guidance on the program to CHBRP staff and the Faculty Task Force. CHBRP is grateful for the valuable assistance of its National Advisory Council. CHBRP assumes full responsibility for the report and the accuracy of its contents.

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CHBRP assumes full responsibility for the report and the accuracy of its contents. All CHBRP bill analyses and other publications are available at www.chbrp.org.

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