Key Findings:

Analysis of California Assembly Bill 767
Infertility

Summary to the 2019–2020 California State Legislature, April 18, 2019

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM

AT A GLANCE

The version of California Assembly Bill (AB) 767 analyzed by CHBRP would require coverage of infertility treatments, including in vitro fertilization (IVF), and mature oocyte cryopreservation (OC).

1. CHBRP estimates that, in 2020, of the 24.5 million Californians enrolled in state-regulated health insurance, 14.6 million of them will have insurance subject to AB 767.
2. **Benefit coverage.** Benefit coverage for infertility treatments, including IVF, would increase from 4.3% premandate to 100% postmandate. Benefit coverage of planned OC would increase from 0% premandate to 100% postmandate. AB 767 would likely exceed EHBs.
3. **Utilization.** Utilization of infertility services would increase between 9% for diagnostic tests and 350% for IVF with intracytoplasmic sperm injection (ICSI). Utilization of planned OC is expected to increase from 0% to between 2% and 5%.
4. **Expenditures.** AB 767 would increase total net annual expenditures by $627,288,000 or 0.39% due to a $537,777,000 increase in total health insurance premiums, adjusted by decrease in enrollee expenses for covered and/or noncovered benefits.
    a. Enrollees with uncovered expenses at baseline would receive on the whole a $133,897,000 reduction in their out-of-pocket spending for covered and noncovered expenses.
    b. Per member per month premiums would increase between $2.76 for enrollees in CalPERS HMOs (an increase of 0.47%) and $3.72 in the DMHC-regulated small group market (an increase of 0.68%).
5. **Medical effectiveness.**
    a. There is a *preponderance of evidence* that IVF is an effective treatment for infertility.

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    b. There is a *preponderance of evidence* that IVF is associated with certain maternal harms.
    c. There is cl*ear and convincing evidence* that IVF can lead to multiple gestation and preterm delivery. However, these outcomes can be mitigated by single embryo transfers.
    d. CHRBP found a *preponderance of evidence* that IVF mandates are associated with lower numbers of embryos transferred per cycle, lead to fewer births per cycle, and a reduction in overall harms of IVF.
6. **Public health.** The number of pregnancies resulting from infertility treatments in the first year postmandate will increase the number of pregnancies by 6,000 (from 7,000 to 13,000) and the number of live births by 5,000 (from 6,000 to 11,000).
7. **Long-term impacts.** For each cohort of females electing to undergo mature OC for the prevention of age-related infertility in a given year, CHBRP estimates the long-term marginal impact of AB 767 would yield about 685 more live births among these women over a 20 year period.

CONTEXT

Infertility is the inability to have a child and is a complex condition that can take many forms. Approximately 12% of women aged 15–44 experience infertility and approximately 9% of men aged 19–44 report some type of infertility.

The cost of undergoing infertility treatments such as assisted reproductive technology (ART) can be a prohibitive factor for couples and individuals faced with infertility.[1]

[1] Refer to CHBRP's full report for full citations and references.

BILL SUMMARY

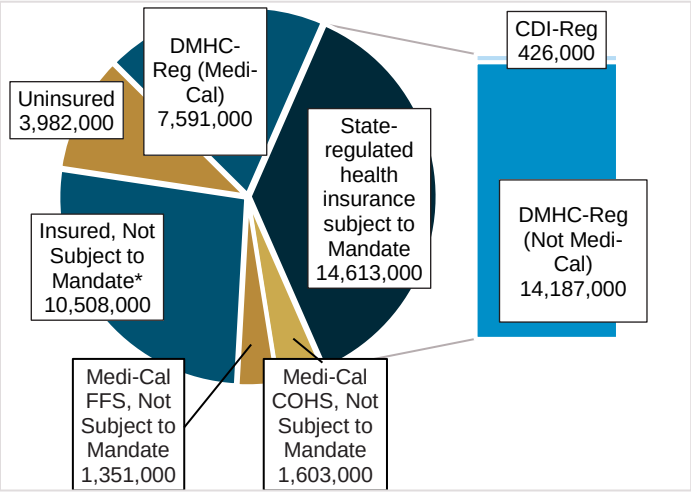
Current law requires most group health plans and policies to offer coverage for infertility services, excluding in vitro fertilization. AB 767 would require group health plans and policies, excluding the individual market and Medi-Cal, to provide coverage for infertility treatments, including in vitro fertilization (IVF), and mature oocyte cryopreservation (OC).

AB 767 defines infertility as the presence of a demonstrated condition recognized by a licensed physician and surgeon as a cause of infertility. "Treatment of infertility" includes procedures consistent with established medical practices in the treatment of infertility by licensed physicians and surgeons, including, but not limited to, diagnosis, diagnostic tests, medication, surgery, gamete intrafallopian transfer, and in vitro fertilization.

Mature OC is a form of fertility preservation. While fertility preservation usually refers to the preservation of fertility in advance of medical procedures that can lead to iatrogenic infertility (medically caused infertility), such as treatment for cancer or during sex transition, AB 767 could expand coverage of mature OC to a woman seeking to preserve her fertility for age-related reasons or to women seeking to preserve their fertility if they experience other medical conditions, such as endometriosis.

Figure A notes how many Californians have health insurance that would be subject to AB 767.

Figure A. Health Insurance in CA and AB 767



Source: California Health Benefits Review Program, 2019.
Notes: *Medicare beneficiaries, enrollees in self-insured products, etc.

IMPACTS

Revision

The initially released version of these Key Findings (April 18) referenced an incorrect figure (see the updated full report for more). This version has been updated using the correct total expenditures impact figure, 0.39%.

Benefit Coverage, Utilization, and Cost

To capture the full cost of coverage of infertility services for each year, CHBRP included the cost of pregnancies and births resulting from infertility services in year 1 into year 1 cost estimates.

No utilization data are available for planned OC in MarketScan claims data. There are no studies that estimate utilization of OC for non-iatrogenic or planned use, thus the approach to CHBRP's estimation of utilization change postmandate due to AB 767's coverage of mature OC included an estimate of potential increase in utilization per CHBRP's content expert. The estimates of utilization change do not include planned fertility preservation, however CHBRP offers an estimate of potential cost increase if a modest proportion of females of reproductive age opt to use the service in the *Planned Oocyte Cryopreservation* section.

Benefit Coverage

Currently, 4.3% of enrollees with health insurance that would be subject to AB 767 in DMHC-regulated plans or CDI-regulated policies have coverage for infertility treatments, including in vitro fertilization. No enrollees currently have coverage for mature OC as defined by AB 767. Benefit coverage for infertility treatments and planned OC would increase to 100% postmandate.

Utilization

In California, there are approximately 53,000 users of female diagnostic tests at baseline and about the same number of users of medications for infertility (i.e., only medications and no other service). IUI baseline utilization is about 9,000 users annually. IVF services alone (i.e., without ICSI) is estimated to have about 2,000 users and ICSI, which is done with IVF, is 2,000 users annually. For males, at baseline there are 25,000 users of diagnostic tests and 11,000 users of any male treatment.

Pent-up demand is assumed to occur given the financial burden currently cited by couples hoping to use infertility services but are unable to because of cost barriers. It is assumed that utilization in the first and second year would be 10% greater. Pent-up demand for infertility services likely dissipates over time and utilization reaches a steady state after a few years postmandate.

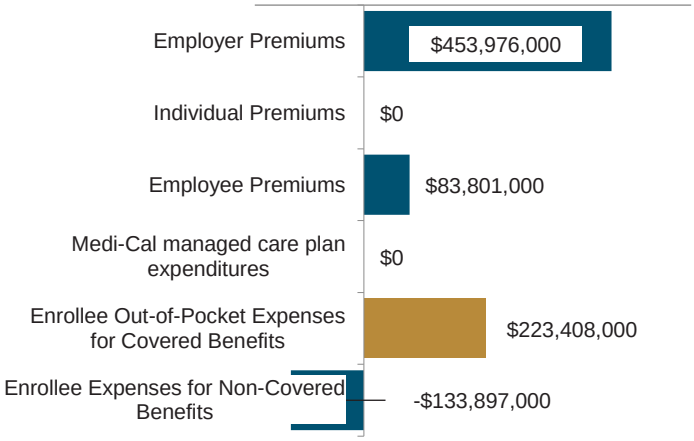
Expenditures

AB 767 would increase total net annual expenditures by $627,288,000 or 0.39% for enrollees with DMHC-regulated group plans and CDI-regulated group policies. This is due to a $537,777,000 increase in total health insurance premiums paid by employers and enrollees for newly covered benefits, adjusted by an increase in enrollee expenses for covered expenses and a decrease in enrollee expenses for noncovered benefits.

CHBRP estimates that enrollees with uncovered expenses at baseline would receive on the whole a $133,897,000 reduction in their out-of-pocket spending for covered and noncovered expenses associated with AB 767's coverage of infertility services.

Per member per month (PMPM) premiums would increase between $2.76 among CalPERS HMOs (an increase of 0.47%) and $3.72 in the DMHC-regulated small-group market (an increase of 0.68%). Total expenditures would increase between 0.33% in the CDI-regulated large-group market and 0.64% in the DMHC-regulated small-group market.

Figure B. Expenditure Impacts of AB 767



Source: California Health Benefits Review Program, 2019.

Planned Oocyte Cryopreservation

CHBRP did not find any source of data on baseline utilization for planned OC or likely changes postmandate. CHBRP estimates that if 2% of women aged 25–37 years used planned OC services, the total expenditures would increase by $319,683,000. If a higher share of women aged 25–37 used planned OC (5%), total expenditures would increase by $799,197,000. This assumes the average cost for OC is $10,078.

Medi-Cal

AB 767 does not apply to Medi-Cal enrollees and therefore there is no measurable impact.

CalPERS

CalPERS employer expenditures are projected to increase by $14,539,000 for coverage of infertility treatments. Total premiums would increase by $2.76 PMPM (0.47%) and total expenditures would increase by $3.38 PMPM (0.53%).

Number of Uninsured in California

Because the change in average premiums does not exceed 1% for any market segment for coverage of infertility treatments, CHBRP would expect no measurable change in the number of uninsured persons due to the enactment of AB 767.

However, should 5% of female enrollees aged 25–37 use mature OC services as a form of fertility preservation, premiums would increase by more than 1% for enrollees in group and CalPERS HMO plans (premium increases for private employers for group insurance increase 1.24% and CalPERS HMO 1.31%). It is unclear how the increase in premiums translates into uninsurance since not all of the increase is transferred to the enrollee.

Medical Effectiveness

CHBRP found a *preponderance of evidence* that IVF is an effective treatment for infertility, resulting in increased pregnancy rates and live birth rates. There is also a *preponderance of evidence* that planned OC is an effective treatment for infertility, resulting in pregnancies and live births.

CHBRP found a *preponderance of evidence* that IVF is associated with certain maternal harms, including ovarian hyperstimulation syndrome and thromboembolism. There is also *clear and convincing evidence* that IVF can lead to multiple gestation and preterm delivery. However, it is important to note that multiple gestation is associated with higher numbers of embryos transferred per cycle, and that preterm delivery is associated with multiple gestation — these outcomes can be mitigated by single embryo transfers.

CHRBP found a *preponderance of evidence* that IVF mandates are associated with lower numbers of embryos transferred per cycle. There is also a *preponderance of evidence* that IVF mandates lead to fewer births per cycle (due to the decreased number of embryos transferred per cycle), and a reduction in overall harms of IVF (i.e., lower rates of multiple gestation, preterm deliveries, and low-birthweight births).

Public Health

CHBRP estimates that the number of pregnancies resulting from infertility treatments in the first year postmandate will increase the number of pregnancies by 6,000 (from 7,000 to 13,000) and the number of live births by 5,000 (from 6,000 to 11,000).These estimates are supported by a preponderance of evidence that infertility treatments, including IVF, are medically effective and that health insurance benefit mandates are effective in increasing utilization of treatments for infertility, including IVF.

Although CHBRP found evidence that engaging in infertility treatments may result in short-term psychosocial harms, evidence-based literature also indicates that the inability to have wanted children is itself associated with stress, anxiety, depression, and quality of life deficits that are likely to decrease upon the achievement of a successful pregnancy through treatment. Therefore, it stands to reason that mental health and quality of life would improve for the additional 5,000 persons and couples who would have a live birth resulting from infertility treatments postmandate.

Disparities

Barriers in fertility treatment access related to sexual orientation are reduced with the change in language defining infertility to be more inclusive, however barriers remain as the bill does not cover donor materials (sperm or eggs) or gestational carriers (surrogates) that are required for same-sex couples. Cost-related barriers to infertility treatment would be significantly reduced for those covered by the bill, however cost sharing could still represent a significant cost barrier.

Long-Term Impacts

In the short-term, the aggregate pregnancy and birth rate is expected to increase postmandate due to increased utilization of infertility services. In the longer term, it is possible that the coverage of infertility services results in encouraging couples to undergo infertility treatment earlier than they would normally and where pregnancy might be achieved naturally.

For each cohort of females electing to undergo mature OC for the prevention of age-related infertility in a given year, CHBRP estimates the long-term marginal impact of AB 767 would yield about 685 more live births among these women over a 20-year period.

Although AB 767 would decrease the financial burden of planned OC services in the short term, AB 767 would not cover future storage costs, which can range from range from $100 to $1,500 per year (average $300/year). These additional uncovered costs may have an impact on the demand for these services, but the magnitude of this effect is unknown.

Essential Health Benefits and the Affordable Care Act

AB 767 would require coverage for a new state benefit mandate that appears to exceed the definition of EHBs in California. A state that requires QHPs to offer benefits in excess of the EHBs must make payments to defray the cost of those additionally mandated benefits, either by paying the purchaser directly or by paying the QHP.

CHBRP estimates that the state would potentially be required to defray the following amounts due to AB 767:

- $6.43 PMPM for each QHP enrollee in a small-group DMHC-regulated plans; and
- $7.10 PMPM for each QHP enrollee in a small-group CDI-regulated policy.

CHBRP estimates that this translates to a state-responsibility of $51,823,000 total, which includes:

- $50,801,000 in payments to DMCH-regulated small group plans; and
- $1,023,000 in payments to CDI-regulated small group policies.