Key Findings:

Analysis of California Assembly Bill 2781
Treatment of Infertility

Summary to the 2019–2020 California State Legislature, April 3, 2020

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM

AT A GLANCE

The version of California Assembly Bill (AB) 2781 analyzed by CHBRP would require coverage of infertility treatments, including in vitro fertilization (IVF).

1. CHBRP estimates that, in 2021, of the 21.7 million Californians enrolled in state-regulated health insurance, 100% of them will have insurance subject to AB 2781. This includes enrollees in DMHC-regulated CalPERS HMOs and Medi-Cal managed care plans.
2. **Benefit coverage.** Benefit coverage for infertility treatments, including IVF, would increase from 3% at baseline to 100% postmandate. AB 2781 would likely exceed essential health benefits.
3. **Utilization.** Total utilization of infertility services would increase between 10% for male diagnostic tests and 372% for IVF because while most enrollees have coverage for diagnostic tests, very few have coverage for IVF.
4. **Expenditures.** AB 2781 would increase total net annual expenditures by $704,111,000 or 0.54% due to a $634,938,000 increase in total health insurance premiums, adjusted by changes in enrollee expenses for covered and/or noncovered benefits.
    a. Enrollees with uncovered expenses at baseline would receive on the whole a $152,317,000 reduction in their out-of-pocket spending for covered and noncovered expenses.
    b. Per member per month premiums would increase between $0.92 for enrollees in Medi-Cal managed care plans (an increase of 0.35%) and $4.99 in the DMHC-regulated individual market (an increase of 0.79%).
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. CHBRP 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 by 8,400 (from 6,200 to 14,600) and the number of live births by 6,900 (from 5,100 to 12,000).
7. **Long-term impacts.** It is possible that the coverage of infertility services would encourage couples to undergo infertility treatment earlier than they would normally and where pregnancy might be achieved naturally. The change of definition of infertility due to AB 2258 may also be likely to normalize infertility treatment for same-sex couples, single persons, and transgender persons over time.

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 years experience infertility, and approximately 9% of men aged 19–44 years 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]

There are a number of treatment options consistent with established medical practice for women and men seeking medical help to achieve a pregnancy, including medical advice, medications, surgery, artificial insemination, and assisted reproductive technology (ART). Artificial insemination is the deliberate introduction of semen into the uterus (also known as intrauterine insemination [IUI]). ART is defined as any procedure in which both the oocyte (egg) and sperm are handled. In vitro fertilization (IVF) is a multicomponent process in which mature eggs (oocytes) are retrieved from the ovaries and then combined (fertilized) with sperm in a culture dish in a laboratory. The resulting embryos are then transferred into the uterus. This is the most common form of ART. Intracytoplasmic sperm injection (ICSI) is an assistive IVF procedure wherein a single sperm is injected into a mature egg (as compared with allowing sperm to fertilize eggs on their own in a culture dish) as part of IVF.

BILL SUMMARY

Current law requires most group health plans and policies to offer coverage for infertility services, *excluding* in vitro fertilization. AB 2781 would require all DMHC-regulated health plans and CDI-regulated policies, the individual market and Medi-Cal managed care plans, to provide coverage for infertility treatments, *including* in vitro fertilization (IVF).

AB 2781 defines infertility as "a disease or condition characterized by any of the following:

(1) The failure to conceive a pregnancy or carry a pregnancy to live birth after regular, unprotected sexual intercourse;

(2) A person's inability to reproduce either as an individual or with their partner; or

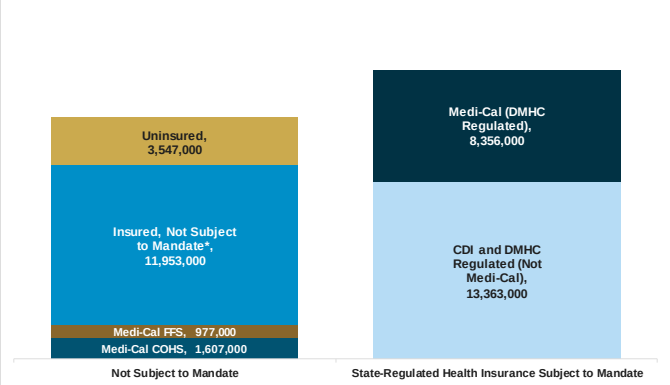
(3) A licensed physician's determination, based on a patient's medical, sexual, and reproductive history, age, physical findings, diagnostic testing, or any combination of those factors."

"Treatment for 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, and other medical procedures.

By broadening the definition of infertility, the diagnosis of infertility is left solely to the provider, and encompasses a wider population eligible to be diagnosed with infertility. This may result in more enrollees receiving a diagnosis of "infertility" earlier than they would have previously or when they would not have received a diagnosis at all, and enrollees would potentially use higher-intensity treatments sooner than they would have previously, as well. AB 2781's definition of infertility would potentially encompass single women, single men, same-sex couples, and transgender individuals, enabling them to receive coverage for infertility treatments.

Figure A notes how many Californians have health insurance that would be subject to AB 2781.

Figure A. Health Insurance in CA and AB 2781



Source: California Health Benefits Review Program, 2020.

Notes: *Medicare beneficiaries, enrollees in self-insured products, etc.

IMPACTS

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.

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

Benefit Coverage

Currently, 3% of enrollees with health insurance that would be subject to AB 2781 in DMHC-regulated plans or CDI-regulated policies have coverage for infertility treatments, including in vitro fertilization. Among enrollees with commercial and CalPERS coverage, 5% of enrollees have coverage for infertility treatments including IVF. No Medi-Cal managed care enrollees currently have fully compliant coverage for infertility treatments. Benefit coverage for infertility treatments would increase to 100% postmandate.

Utilization

In California, there are approximately 60,300 users of female diagnostic tests for infertility at baseline and 13,200 users of medications for infertility (i.e., only medications and no other service). IUI baseline utilization is about 8,000 users annually. IVF services alone (i.e., without ICSI) is estimated to have about 1,800 users and ICSI, which is done with IVF, is 2,200 users annually. For males, at baseline there are 28,400 users of diagnostic tests and 12,600 users of any male treatment. Utilization of infertility services would increase between 10% for male diagnostic tests and 372% for IVF.

Pent-up demand is assumed to occur because some couples hoping to use infertility services are unable to because of cost barriers. It is assumed that utilization in the first 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.

The extent to which the change in the definition of infertility due to AB 2781 would result in higher utilization of infertility treatments among same-sex couples, single persons, and transgender persons is unknown. Assuming a portion of these enrollees receive a diagnosis of infertility and therefore qualify for covered infertility treatments, utilization is likely to increase.

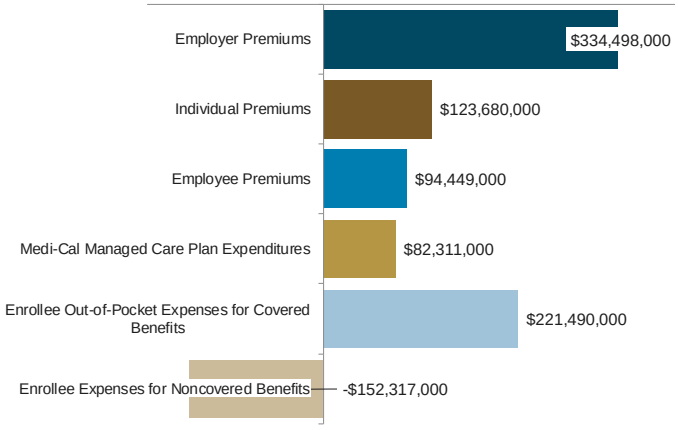
Expenditures

AB 2781 would increase total net annual expenditures by $704,111,000 or 0.54% for enrollees with DMHC-regulated plans and CDI-regulated policies. This is due to a $634,939,000 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 $152,317,000 reduction in their out-of-pocket spending for covered and noncovered expenses associated with AB 2781's coverage of infertility services. Medi-Cal managed care enrollees are assumed to only pay out-of-pocket for noncovered expenses related to diagnosis and male treatment, because the out-of-pocket costs are substantially lower than the other services and may be within reach of some low-income enrollees. Postmandate, Medi-Cal managed care enrollees are assumed to not have any cost-sharing responsibilities.

Per member per month (PMPM) premiums would increase between $0.92 for enrollees in Medi-Cal managed care plans (an increase of 0.35%) and $4.99 in the DMHC-regulated individual market (an increase of 0.79%). Total expenditures would increase between 0.33% for Medi-Cal managed care plans and 0.70% in the DMHC-regulated small-group market.

Figure B. Expenditure Impacts of AB 2781



Source: California Health Benefits Review Program, 2020.

Medi-Cal

Medi-Cal managed care expenditures are projected to increase by $82,311,000 for coverage of infertility treatments. Total premiums would increase by $0.92 PMPM (0.35%) and total expenditures would increase by $0.87 PMPM (0.33%).

CalPERS

CalPERS employer expenditures are projected to increase by $15,130,000 for coverage of infertility treatments. Total premiums would increase by $2.87 PMPM (0.46%) and total expenditures would increase by $3.52 PMPM (0.53%).

Number of Uninsured in California

Because the change in average premiums associated with AB 2781's requirement for coverage of infertility treatments 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 2781.

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.

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.

CHBRP 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

The number of pregnancies resulting from infertility treatments in the first year postmandate will increase by 8,400 (from 6,200 to 14,600) and the number of live births by 6,900 (from 5,100 to 12,000). 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 6,900 persons and couples who would have a live birth resulting from infertility treatments postmandate.

Disparities

AB 2781 would remove language from current law that defines infertility between opposite-sex couples and expand the definition of infertility to include an individual or couple with an inability to reproduce, thereby potentially removing one barrier to care. It stands to reason, that this more inclusive definition of infertility would increase access to infertility care for single and same-sex couples and would reduce disparities in infertility treatment by gender identity and sexual orientation.

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. Yet, due to no cost-sharing requirements for Medi-Cal enrollees, AB 2781 would reduce the disparities in access to fertility treatments by income.

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. The change of definition of infertility due to AB 2258 may also be likely to normalize infertility treatment for same-sex couples, single persons, and transgender persons over time.

Essential Health Benefits and the Affordable Care Act

AB 2781 would require coverage for a new state benefit mandate that appears to exceed the definition of essential health benefits (EHBs) in California. A state that requires qualified health plans (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 2781:

- $5.13 PMPM for each QHP enrollee in a small-group DMHC-regulated plans;
- $7.37 PMPM for each QHP enrollee in individual market DMHC-regulated plans;
- $4.12 PMPM for each QHP enrollee in a small-group CDI-regulated policy;
- $6.19 PMPM for each QHP enrollee in individual market CDI-regulated policies.

CHBRP estimates that this translates to a state-responsibility of $129,217,000 total, which includes:

- $125,284,000 in payments to DMHC-regulated plans; and
- $3,934,000 in payments to CDI-regulated policies.

At the time of this CHBRP analysis, there is substantial uncertainty regarding the impact of the COVID-19 pandemic on premium rates and health plan enrollment, including how the pandemic will impact healthcare costs in 2021. Because the variance of potential outcomes is significant, CHBRP does not take these effects into account as any projections at this point would be speculative, subject to federal and state decisions and guidance currently being developed and released. In addition, insurers', providers', and consumers' responses are uncertain and rapidly evolving to the public health emergency and market dynamics.