

Key Findings

Analysis of California Assembly Bill 2029 Health Care Coverage: Treatment for Infertility

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



SUMMARY

The version of California Assembly Bill 2029 analyzed by CHBRP would require coverage for fertility services to diagnose and treat infertility; cost sharing must be similar in structure as for other benefits.

In 2023, of the 22.8 million Californians enrolled in state-regulated health insurance, 14.8 million of them would have insurance subject to AB 2029. Enrollees in Medi-Cal managed care plans regulated by the Department of Managed Health Care (DMHC) have coverage that is exempt, as do employees of religious employers.

Benefit Coverage: At baseline, 23% of enrollees with health insurance that would be subject to AB 2029 have coverage for fertility services that includes in vitro fertilization (IVF). CHBRP found 0% of enrollees have fully compliant health insurance that includes coverage for fertility services *and* cost sharing for covered fertility services (i.e., deductible, copayment, or coinsurance) that is **not** different from those imposed on other benefits. Postmandate, fully compliant benefit coverage would increase to 100%. AB 2029 would require coverage for a new state benefit mandate that appears to exceed the definition of Essential Health Benefits (EHBs) in California.

Medical Effectiveness: CHBRP finds there is *clear and convincing evidence* that IVF is an effective treatment for infertility and a *preponderance of evidence* that IVF is associated with certain maternal and offspring harms. CHBRP also finds *clear and convincing evidence* that mandates for fertility services are associated with increased utilization of infertility treatments, a decrease in the number of embryos transferred per cycle, and a lower likelihood of adverse birth outcomes, including rates of multiple births.

Cost and Health Impacts¹: In 2023, AB 2029 would increase total net annual expenditures by \$714,800,000 or 0.48% for enrollees with plans regulated by DMHC and policies regulated by the

California Department of Insurance (CDI). This is due to a \$957,449,000 (0.72%) increase in total health insurance premiums paid by employers and enrollees for newly covered benefits, an increase of \$44,921,000 in enrollee cost sharing for covered benefits, and a decrease of \$287,570,000 in enrollee expenses for noncovered benefits.

The largest premium increases are among DMHC-regulated small-group plans (1.1%), DMHC-regulated individual plans (1.0%), and CDI-regulated individual plans (1.1%). Increases in premiums stems from both increases of (1) utilization of fertility services and (2) resulting pregnancies and births. About 74% of increase in premiums is attributable to the increase in fertility services and about 26% is attributable to increases in pregnancy related services. The increase in utilization of fertility services would lead to an estimated additional 6,000 live birth deliveries postmandate (a 55% increase from baseline), of which 3.4% are twin deliveries and 0.2% are 3+ multiple births.

Mental health and quality of life would improve for the additional 6,000 persons and couples who would have live birth deliveries resulting from infertility treatments postmandate, in both the short and long term.

Because the rate of multiple gestation pregnancies would decrease due to the requirement of single-embryo transfers unless indicated, and by decreasing the financial barrier to IVF that has previously encouraged multiple embryos transferred in a single IVF cycle, there would be a resulting decrease in the harms associated with multiple gestation pregnancies for enrollees accessing IVF treatments.

Disparities related to income, relationship status, sexual orientation and gender identity are expected to decrease but not reach complete parity for those with insurance subject to the mandate. Cost sharing for IVF could remain a financial barrier to utilization. As Medi-Cal is excluded, disparities for those with Medi-Cal compared to those with commercial insurance subject to the mandate would increase, worsening income and racial/ethnicity disparities.

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.

CONTEXT

Infertility is the inability to have a child and is a complex condition that can take many forms.² Persons attempting to have a child may experience *primary infertility* (physical difficulties having a first child) or *secondary infertility* (having had at least one child, but experience difficulty having another), either of which may be related to the inability to become pregnant or successfully carry a pregnancy to term. Infertility can have many causes including medical conditions, as the result of medical treatments (such as for cancer), or because it is not possible for the individual or couple to become pregnant without intervention (such as for single persons or same-sex couples).

In 2019, 2.1% of all births in the United States resulted from using assisted reproductive technology. Advances in infertility treatments and in vitro fertilization (IVF) have made single-embryo transfers the preferred method for the majority of women seeking pregnancy through IVF, especially for women under 38 years of age.

BILL SUMMARY

AB 2029 would require commercial and CalPERS health plans and policies to provide “coverage for the diagnosis and treatment of infertility and fertility services.” Health plans and policies must include the notice of coverage in the plan’s evidence of coverage (EOC) materials. DMHC-regulated Medi-Cal managed care plans are not subject to AB 2029.

AB 2029 also:

- Specifies that coverage includes up to four completed oocyte retrievals and unlimited embryo transfers;
- Expands the definition of infertility to include persons unable to reproduce either as an individual or with their partner without medical intervention;
- Limits cost sharing (deductible, copayment, coinsurance) to the same structure as for other benefits; and
- Prohibits other coverage limitations that are different from those of other benefits.

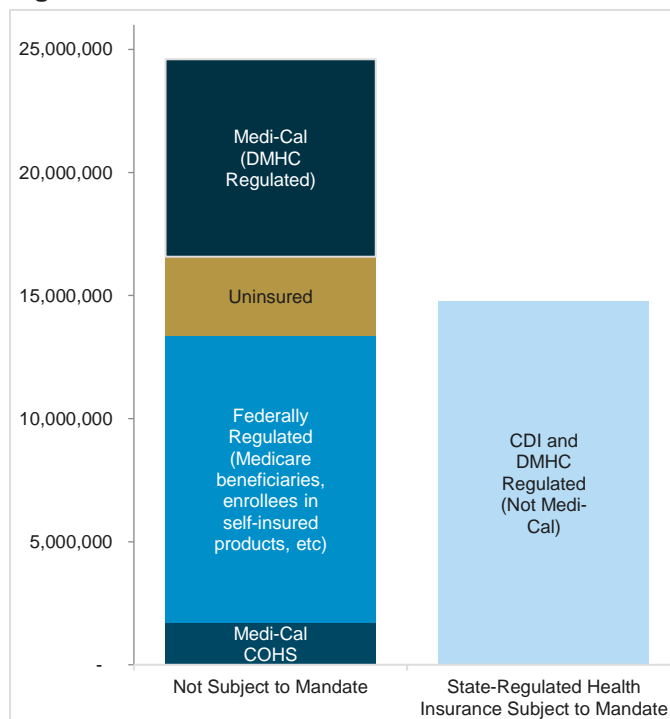
For this analysis, CHBRP assumes:

- All nonexperimental infertility treatments would need to be covered for a plan to be in compliance with AB 2029. These services include diagnosis, medications, surgery, artificial

insemination (such as intrauterine insemination [IUI]), IVF, and IVF with intracytoplasmic sperm injection (ICSI).

Figure A notes how many Californians have health insurance that would be subject to AB 2029.

Figure A. Health Insurance in CA and AB 2029



Source: California Health Benefits Review Program, 2022.

IMPACTS

Benefit Coverage, Utilization, and Cost

Due to changes in bill language, baseline population estimates within CHBRP’s cost and coverage model, and CHBRP’s analytic approach, the utilization and expenditures in the analysis of AB 2029 cannot be compared to the utilization and expenditure estimates in CHBRP’s analyses of AB 767 conducted in 2019 or AB 2871 conducted in 2020.

Benefit Coverage

At baseline, 23% of enrollees with health insurance that would be subject to AB 2029 have fertility coverage that includes IVF. CHBRP found 0% enrollees have health insurance that includes fertility coverage *and* cost sharing for covered fertility services (i.e., deductible, copayment, or coinsurance) that is **not** different from

² Refer to CHBRP’s full report for full citations and references.

those imposed on other benefits. Coverage by type of procedure varies substantially. While the majority of enrollees (76%) have coverage for female and male diagnostic tests, about 42% have coverage for female medication prescriptions for infertility and 23% have coverage for IVF and ICSI.

Postmandate, benefit coverage for fertility services would increase to 100% for all enrollees with health insurance subject to AB 2029.

Utilization

IVF utilization at baseline is approximately 1 procedure per 1,000 enrollees and 1 procedure per 1,000 enrollees for ICSI. CHBRP's IVF utilization data are defined by services per 1,000 enrollees, rather than by users, thus CHBRP is unable to identify users of more than 4 oocyte retrievals. However, literature suggests that most users of IVF complete fewer than four cycles of IVF.

With regards to other fertility services, the highest utilization is of diagnostic tests and medication prescriptions for infertility. For females at baseline there are 31 diagnostic tests per 1,000 enrollees and 24 prescriptions for infertility medications per 1,000. For males, there are about 13 diagnostic tests, treatments, and medications per 1,000 enrollees. IUI is used at a rate of about 2 procedures per 1,000 enrollees. Some enrollees may use multiple services. For example, enrollees who use IVF also use prescription medications and may also receive diagnostic tests. CHBRP is not able to identify this overlap in utilization.

Of services provided at baseline, approximately 60% of IVF and ICSI services are not covered, in contrast to 24% to 26% of diagnostic tests for females and males.

In addition to the shift of fertility benefits from not covered to covered, additional utilization would occur among enrollees who were previously not using fertility services. Postmandate, CHBRP estimates IVF utilization rises to about 2 procedures per 1,000 with a similar increase for ICSI. For both ICSI and IVF, these changes reflect an 80% increase in utilization postmandate. The increases in utilization postmandate for all other services are lower than the increases estimated for IVF and fall in the range of a 3% to 19% increase, which is expected not only because coverage for these services at baseline is greater but also because with the availability of IVF as a covered service postmandate, utilization would shift towards IVF.

Expenditures

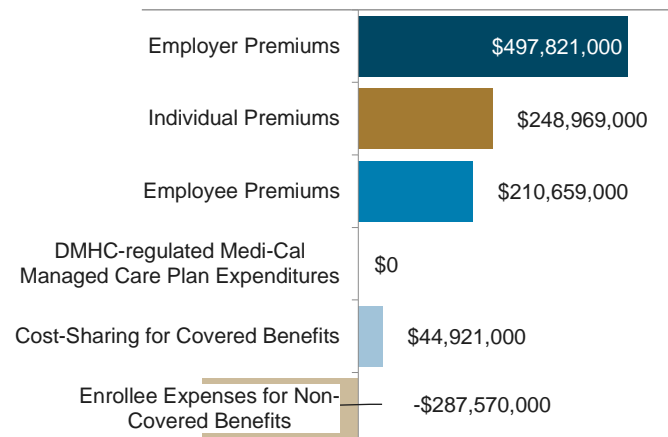
AB 2029 would increase total net annual expenditures by \$714,800,000 or 0.48% for enrollees with DMHC-

regulated plans and CDI-regulated policies. This is due to a \$957,449,000 (0.72%) increase in total health insurance premiums paid by employers and enrollees for newly covered benefits, an increase of \$44,921,000 in enrollee cost sharing for covered benefits, and a decrease of \$287,570,000 in enrollee expenses for noncovered benefits.

The largest premium increases are among DMHC-regulated small-group plans (1.1%), DMHC-regulated individual plans (1.0%), and CDI-regulated individual policies (1.1%).

It is important to note that the increase in premiums stem from both increases in utilization of (1) fertility services as mandated by AB 2029 and (2) pregnancies and births for which AB 2029 does not change coverage. About 74% of increase in premiums is attributable to the increase in fertility services and about 26% is attributable to increases in pregnancy-related services.

Figure B. Expenditure Impacts of AB 2029



Source: California Health Benefits Review Program, 2022.

Enrollee expenses

Impacts on enrollee out-of-pocket expenses can be classified in the following way:

- For the enrollees who do not have fertility coverage at baseline and are using fertility services paid for entirely out of their own pocket, enrollee out-of-pocket expenses for these noncovered benefits decrease postmandate given these enrollees would be covered when using fertility services postmandate.
- For enrollees who have coverage for fertility services at baseline but have cost sharing that is more than for other benefits (e.g., 50% coinsurance and no annual out-of-pocket maximum), postmandate these enrollees would experience reduced out-of-pocket expenses.

- For enrollees who do not have coverage for fertility services at baseline and are not using these services due to cost barriers, postmandate out-of-pocket expenses would increase given their new utilization.

Postmandate, average cost sharing per service for covered benefits would mostly decrease, because cost sharing would be limited to the same structure as for other benefits. The majority of enrollees with coverage for infertility treatments at baseline have cost sharing that is higher than that for other benefits, such as a 50% coinsurance. As a result, average cost sharing for IVF, ICSI, and IUI procedures would decrease by 73% to 74% postmandate, from \$7,350 to \$1,940 for IVF, \$740 to \$190 for ICSI, and \$260 to \$70 for IUI.

However, at the per member per month (PMPM) level, cost sharing for covered benefits in the form of deductibles, coinsurance, and copayments would mostly increase given greater utilization of fertility services and due to the change in noncovered services becoming covered postmandate (Figure B). The enrollee expenses for noncovered benefits decreases, offsetting all increases in cost sharing for covered benefits (Figure B). Changes range between a reduction of \$0.52 PMPM for large-group DMHC-regulated plans and an increase of \$1.99 for CDI-regulated individual market policies.

Pregnancy-Related Offsets

CHBRP estimates an increase in 7,000 pregnancies due to the increase in fertility services postmandate, a 54% increase from baseline. This results in an additional 6,000 live birth deliveries due to increases in utilization of fertility services postmandate (a 55% increase from baseline), of which 3.4% are twin deliveries and 0.2% are 3+ multiple births. This reflects the lower rate for multiple births (i.e., more than twins) for enrollees with coverage for fertility services.

The average cost of pregnancies and deliveries from fertility services would decrease by \$1,000, which is a 3% reduction from baseline, because of the reduction in higher-cost twin/multiples deliveries.

Medi-Cal

Beneficiaries in DMHC-regulated Medi-Cal managed care plans do not have coverage subject to AB 2029. Therefore, there is no impact for these beneficiaries.

CalPERS

Among publicly funded DMHC-regulated CalPERS HMOs, the premium increase is 0.86% (\$50,650,000). PMPM, total premiums would increase by \$5.77. Enrollees using fertility services would experience a reduction in expenses for noncovered benefits of \$1.30 PMPM.

Covered California – Individually Purchased

Premiums for enrollees in individual plans purchased through Covered California would increase by \$185,158,000 or 1.05%. PMPM, premiums would increase by \$7.13 (DMHC-regulated plans) or \$6.55 (CDI-regulated policies) and expenses for noncovered benefits would decrease by \$2.77 (DMHC-regulated plans) or \$2.72 (CDI-regulated policies).

Number of Uninsured in California

The change in average premiums exceeds 1% for DMHC-regulated small-group and individual plans and for CDI-regulated individual plans; however, when split into premiums stemming from fertility services versus pregnancies and births, the average change in premiums from fertility services is below 1%. CHBRP expects potential premium increases might be applied by health plans and policies in different years subsequent to the mandate, thus premium increases would likely be spread out. It is unclear how these increases in premiums could translate into uninsurance postmandate since not all of the increase is transferred to the enrollee.

Medical Effectiveness

The medical effectiveness review summarizes the following findings from evidence: (1) the medical effectiveness and harms of IVF (i.e., the treatment newly mandated) and (2) the impact of health insurance mandates requiring coverage for fertility treatments on health outcomes. CHBRP finds there is:

- *Clear and convincing*³ evidence that IVF is an effective treatment for infertility, resulting in increased pregnancy rates and birth rates.
- *A preponderance of evidence*⁴ that certain harms are increased among children conceived via IVF, including preterm birth, low birthweight, certain congenital malformations, and infant

³ *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.

⁴ *Preponderance of evidence* indicates that the majority of the studies reviewed are consistent in their findings that treatment is either effective or not effective.

death. However, it is important to note that risk for some harms is higher for multiple gestation pregnancies; these outcomes can be mitigated by single-embryo transfers.

- *Clear and convincing evidence* that infertility treatment health insurance mandates are associated with an increase in utilization of infertility treatments.
- *Clear and convincing evidence* that IVF insurance mandates are associated with a decrease in the number of embryos transferred per IVF cycle and a decrease in the proportion of cycles transferring ≥ 2 embryos, and that these decreases are more pronounced among younger women.
- *Clear and convincing evidence* that IVF mandates are associated with lower pregnancy rates resulting from IVF postmandate compared to baseline (due to a decrease in embryos transferred), and a lower likelihood of other adverse birth outcomes, including rates of multiple births.

Public Health

Mental Health and Quality of Life

CHBRP found evidence that mental health and quality of life would improve for the additional 6,000 persons and couples who would have live birth deliveries resulting from infertility treatments postmandate. CHBRP also 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 associated with stress, anxiety, depression, and quality-of-life deficits that decreases upon the achievement of a successful pregnancy through treatment.

Although persons experiencing infertility and engaging in unsuccessful treatment may experience mental health and quality-of-life deficits, it is important to consider that the alternative to attempting treatment is having no children or pursuing adoption, which may not be acceptable or feasible for many enrollees with infertility.

Potential Harms from Multiple Births

CHBRP estimates that AB 2029 would decrease the rate of multiple gestation pregnancies such that for enrollees without coverage for IVF, 6.7% are twin births and 0.3% are multiple births (i.e., more than twins) versus for enrollees with IVF coverage 4.5% are twin births and 0.2% are multiple births. By limiting IVF to single-embryo transfers and by decreasing the financial barrier to IVF

that has previously encouraged multiple embryos transferred in a single IVF cycle, there would be a decrease in harms associated with multiple gestation pregnancies for enrollees accessing IVF treatments.

For enrollees who experience multiple gestation pregnancies, the risks associated with IVF and infertility treatments remain unchanged. However, the benefits of IVF may outweigh the risks for persons who desire a child.

Impact on Disparities

There is evidence that state health insurance mandates for fertility services increase utilization of infertility treatments for Black and Hispanic women; however, the disparity between White women and Black and Hispanic women persist despite increased access to IVF through health insurance coverage for infertility treatments. Therefore, CHBRP projects that by covering infertility treatments for all commercially insured enrollees, AB 2029 would result in increased IVF utilization by persons of all races/ethnicities but would have no impact on the disparity in IVF utilization between White persons and persons of other racial backgrounds among persons with commercial insurance. However, AB 2029 excludes Medi-Cal beneficiaries enrolled in DMHC-regulated plans for mandated coverage for infertility treatments, including IVF. In excluding Medi-Cal, a significant portion of Black and Hispanic persons and low-income persons in California would continue to face high out-of-pocket and uncovered costs for infertility treatment, which could potentially exacerbate racial/ethnic and income-related disparities in infertility treatment use and infertility outcomes.

Additionally, CHBRP projects that AB 2029's more inclusive definition of infertility would increase access to infertility care for single persons and same-sex couples and would reduce disparities in infertility treatment by gender identity and sexual orientation. It should be noted that the implementation of AB 2029 would not eliminate all financial disparities in infertility treatment between same-sex couples/single persons and opposite-sex couples, as there could still be a disparity between male and female same-sex couples or single persons compared to couples who do not need donor materials, surrogates or gestational carriers.

To the extent that the mandated coverage would reduce cost-related barriers to infertility treatment access and use, disparities by income level would be reduced. However, it is unknown how the increase in utilization would be distributed across income-levels and how different cost-sharing requirements impact persons of varying income levels, therefore the reduction in income-

related disparities in access to fertility treatments is unknown.

Long-Term Impacts

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

Insurance coverage for IVF is associated with fewer medically unnecessary multiple-embryo transfers and ongoing insurance coverage would be associated with a sustained reduction in multiple-embryo transfer. Therefore, in future years as in the first year postmandate, fewer multiple-embryo transfers would be associated with fewer multiple gestation pregnancies, fewer multiple births, and fewer maternal and offspring harms that are associated with multiple gestation pregnancies and multiple deliveries. Some of these maternal and offspring harms could have long-term health impacts and these would then be avoided.

For couples who experience infertility, AB 2029 could prevent long-term negative mental health outcomes associated with infertility and not being able to have a

desired child to the extent that AB 2029 allows access to IVF that was previously inaccessible due to financial barriers and that assisted reproductive technology (ART) treatments are successful and result in live birth.

Essential Health Benefits and the Affordable Care Act

AB 2029 would require coverage for a new state benefit mandate that appears to exceed the definition of Essential Health Benefits (EHBs) in California. The state is required to defray the additional cost incurred by enrollees in qualified health plans (QHPs) for any state benefit mandate that exceeds the state's definition of EHBs. Coverage for infertility treatment required by mandate (not resulting pregnancies and births), as would be required if AB 2029 were enacted, could trigger this requirement and so require the state to defray related costs.

Total estimates for the state range between \$224,739,000 (\$3.93 PMPM) and \$235,557,000 (\$4.12 PMPM).