Key Findings

Analysis of California Senate Bill 473
Insulin Cost Sharing

Summary to the 2021–2022 California State Legislature, April 19, 2021

SUMMARY

The version of California Senate Bill (SB) 473 analyzed by CHBRP would limit cost sharing (copayments, coinsurance, and deductibles) for insulin to $50 for a 30-day supply and no more than $100 per month total, regardless of the amount or type of insulin prescribed.

In 2022, of the 21.9 million Californians enrolled in state-regulated health insurance, 13.9 million of them would have insurance subject to, and potentially impacted by, SB 473.

Benefit Coverage: At baseline there are 118,014 enrollees who use insulin, where 64,619 enrollees using insulin have cost sharing that *does not exceed* the SB 473 cost-sharing cap (55%) and 53,395 enrollees using insulin have cost sharing that *exceeds* the SB 473 cap (45%). Postmandate, 100% of enrollees with cost sharing that exceeds the cap at baseline would have cost sharing below the cap. SB 473 appears not to exceed the definition of essential health benefits (EHBs) in California.

Medical Effectiveness: CHBRP found a *preponderance of evidence* that higher cost sharing reduces adherence to insulin and lower cost sharing increases adherence to insulin. There is *insufficient evidence* on the associated effect of cost sharing for insulin on diabetes-related health outcomes, including HbA1c levels, outpatient visits, emergency department visits, hospitalizations, long-term complications, and disability/absenteeism rates.

Cost and Health Impacts[1]: In 2022, SB 473 would increase total net annual expenditures by $23,663,000 or 0.02% for enrollees with DMHC-regulated plans and CDI-regulated policies. This is due to an increase in $51,527,000 in total health insurance premiums paid by employers and enrollees, adjusted by a $27,864,000 decrease in enrollee expenses.

The 45% of enrollees with cost sharing that exceeds the cap at baseline would experience a 55% reduction in cost sharing, which results in a 7% increase in utilization of insulin postmandate for those enrollees. Average cost sharing for these enrollees decreases from $88 per prescription to $39 per prescription.

Additionally, CHBRP assumed a 10% decrease in diabetes-related emergency department visits due to increased insulin utilization stemming from better adherence to insulin prescription regimens for those who underuse. Offsets stemming from this reduction in diabetes-related emergency department visits are estimated to result in $2,356,000 million lower allowed costs postmandate in 2022.

SB 473 may result in improved glycemic control, a reduction in healthcare utilization, a reduction in long-term complications attributable to diabetes, and improved quality of life for enrollees that experience a decrease in cost sharing and improved insulin adherence, or begin using insulin due to reduced costs.

CONTEXT

Diabetes mellitus (DM), frequently referred to as diabetes, is one of the most common chronic conditions in California and the United States. According to the 2019 data from the Behavioral Risk Factor Surveillance System, about 10% of the adult population in California has been diagnosed with diabetes. The incidence of diabetes is highest among adults aged 65 and older.

Diabetes is a chronic disease with short- and long-term health effects that prevent the proper production of and/or response to insulin, a hormone that facilitates the transfer of glucose into cells to provide energy.[2] Insulin can be used to treat all three types of diabetes: Type 1 diabetes mellitus (T1DM); Type 2 diabetes mellitus (T2DM); and gestational diabetes (GDM). The American Diabetes Association recommends different insulin regimens based on the type of diabetes a person has.

[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.

Insulin is necessary for the treatment of T1DM and sometimes necessary for the treatment of T2DM and GDM.

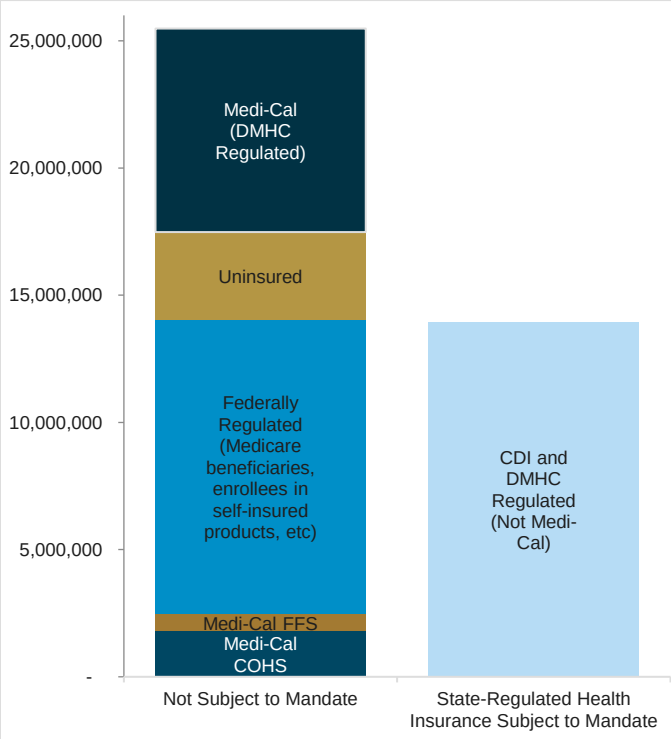
In general, insulin has become expensive for individuals living with diabetes; therefore, cost may be a barrier to insulin use for some individuals. Other identified barriers to insulin use that are independent of cost include regimen complexity and treatment tolerability, as well as injection-related factors.

BILL SUMMARY

Senate Bill (SB) 473 would limit allowed copayments for insulin to $50 for a 30-day supply and no more than $100 per month total, regardless of the amount or type of insulin prescribed. SB 473 also prohibits plans and policies from applying a deductible, coinsurance, and other cost-sharing requirements on insulin prescriptions. The $100 per month cap may impact enrollees using multiple insulin prescriptions per month.

Figure A notes how many Californians have health insurance that would be subject to SB 473 (approximately 35% of Californians).

Figure A. Health Insurance in CA and SB 473



Source: California Health Benefits Review Program, 2021.

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

IMPACTS

Benefit Coverage, Utilization, and Cost

Benefit Coverage

CHBRP estimates that, at baseline, there are 118,014 enrollees who use insulin in plans regulated by the California Department of Managed Health Care (DMHC) and policies regulated by the California Department of Insurance (CDI), where 64,619 enrollees (55%) using insulin have cost sharing *that does not exceed* the SB 473 cost-sharing cap, and 53,395 enrollees (45%) using insulin have cost sharing *that exceeds* the SB 473 cap. Postmandate, 100% of enrollees with cost sharing that exceeds the cap at baseline would have cost sharing below the cap.

Utilization

Postmandate, the group whose claims exceeded the cost-sharing cap at baseline would experience an increase in utilization because this group would experience a decrease in cost sharing due to the bill. Utilization among enrollees who exceeded the cap at baseline is higher than those under the cap, which reflects the greater need for insulin in this group of enrollees.

To estimate changes in utilization postmandate, CHBRP applied an estimate of price elasticity of demand to enrollees exceeding the cap at baseline. CHBRP assumes that utilization increases by 8% when cost-sharing doubles. Based on this assumption, CHBRP estimates a 55% reduction in cost sharing for those enrollees who have cost sharing exceeding the cost-sharing cap at baseline, and therefore estimates a 7% increase in utilization of insulin postmandate for those enrollees.

Expenditures

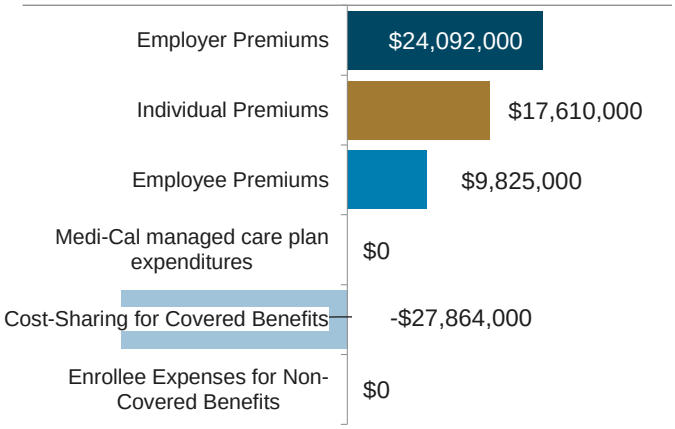
Based on Milliman's 2019 Consolidated Health Cost Guidelines Sources Database (CHSD) claims data, the average cost of insulin per prescription per month is $491. For enrollees whose claims do not exceed the cost-sharing cap at baseline, the average cost sharing for insulin is $19, and for those enrollees whose claims exceed the cost-sharing cap at baseline, the average cost sharing for insulin is $88. Postmandate, cost sharing for enrollees who had claims exceeding the cap would experience a 55% reduction in cost sharing, resulting in an average cost share of $39 per month.

SB 473 would increase total net annual expenditures by $23,663,000 or total net annual 0.02% for enrollees with DMHC-regulated plans and CDI-regulated policies. This is due to an increase in $51,527,000 in total health insurance premiums paid by employers and enrollees, adjusted by a $27,864,000 decrease in enrollee expenses.

CHBRP estimates that total premiums for private employers purchasing group health insurance would increase by $24,092,000, or 0.04%. Total premiums for purchasers of individual market health insurance would increase by $17,610,000, or 0.11%. The greatest change in premiums as a result of SB 473 is for the small-group plans (0.13% increase) and individual plans (0.11% increase) in the DMHC-regulated market.

Based on the medical effectiveness review, which examined the literature on outcomes associated with better adherence to insulin, CHBRP assumed a 10% decrease in diabetes-related emergency department visits due to increased insulin utilization stemming from better adherence to insulin prescription regimens for those who underuse. Offsets stemming from this reduction in diabetes-related emergency department visits are estimated to result in $2,356,000 lower allowed costs postmandate in 2022.

Figure B. Expenditure Impacts of SB 473



Source: California Health Benefits Review Program, 2021.

Enrollee Cost Sharing Expenses

For baseline insulin users, SB 473 caps on cost sharing only impact those enrollees who are above the cap at baseline. Overall, 45% of enrollees who use insulin at baseline would experience changes in cost sharing.

It is possible that some enrollees who had deferred insulin treatment due to cost could begin using insulin postmandate; thus, this group of enrollees would incur cost sharing postmandate, whereas they did not have cost sharing at baseline. However, this group is estimated to be relatively small. Literature suggests approximately 2.5% of people who were prescribed insulin never started their prescription in the past year due to cost. Thus, for some enrollees, cost sharing may be the sole barrier to filling their insulin prescription.

The enrollees most likely to experience the greatest cost sharing reductions postmandate are those who are enrolled in plans that require significant deductibles to be met before coinsurance or copayment is applied to the insulin purchase. Cost-sharing reductions due to SB 473 are the greatest for enrollees who have the highest cost sharing for insulin at baseline. Among the enrollees impacted by the cost-sharing cap, enrollees with cost sharing expenditures for insulin in the top 1% at baseline have an annual savings of greater than $3,111.

Medi-Cal

CHBRP assumes Medi-Cal's pharmacy benefit carve out transition will be complete by 2022. Because SB 473 only impacts DMCH-regulated pharmacy benefits, Medi-Cal managed care plans are not subject to the provisions of SB 473.

CalPERS

For CalPERS HMO enrollees, the impact on premiums is $0, because there are no enrollees for whom cost sharing for insulin prescription is higher than the cap at baseline.

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 SB 473.

Medical Effectiveness

CHBRP found a *preponderance of evidence*[3] from seven cross-sectional and retrospective studies on cost-related insulin use/adherence that cost sharing affects insulin use and adherence in patients with diabetes. These studies provided a *preponderance of evidence* that

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

higher cost sharing reduces adherence to insulin, and lower cost sharing increases adherence to insulin.

CHBRP found *insufficient evidence*[4] on the associated effect of cost sharing for insulin on diabetes-related health outcomes, including HbA1c levels, outpatient visits, emergency department visits, hospitalizations, long-term complications, and disability/absenteeism rates. Though the studies presented did report on these health and utilization outcomes, the findings were not specific to the effect of insulin alone, but combined with use of other oral antidiabetic medications and testing supplies.

There were several limitations that contributed to the gradings provided in this review, most notably the inherent differences between the types of diabetes conditions and the multifaceted nature of diabetes treatment. This resulted in a literature base that is not as rigorous and thereby limiting the certainty of conclusions drawn from the evidence.

Public Health

In the first year postmandate, 53,395 enrollees who exceed the insulin cost-sharing cap at baseline would have reduced cost sharing. CHBRP projects that as a result, there would be a 7% increase in utilization of insulin. CHBRP found a preponderance of evidence that cost sharing for insulin is effective in improving adherence to insulin in patients with diabetes, and insufficient evidence on the effect of cost sharing for diabetes-related health outcomes. Therefore, SB 473 may result in improved glycemic control, a reduction in healthcare utilization such as emergency department visits, a reduction in long-term complications attributable to diabetes, and improved quality of life for enrollees that experience a decrease in cost sharing and improved insulin adherence, or begin using insulin due to reduced costs.

Long-Term Impacts

CHBRP estimates annual insulin utilization after the initial 12 months from the enactment of SB 473 would likely stay similar to utilization estimates during the first 12 months postmandate. Health care utilization due to improved diabetes management may change in the long term. Reductions in significant complications or comorbidities may take years to develop, but are not trivial.

Similarly, reductions in significant complications or comorbidities may take years to develop, as would significant differences in disability and absenteeism. SB 473 is unlikely to impact these public health outcomes statewide, but at a person-level it could make a substantial difference in long-term healthcare spending, morbidity, and mortality.

CHBRP estimates that SB 473 would improve disparities related to income for some enrollees who have cost-related barriers to insulin use. CHBRP is unable to estimate reductions in existing disparities. However, because the prevalence of diabetes is higher for Blacks than for Whites, and there is evidence that cost-related medication nonadherence is also more associated with Blacks, it is possible that this disparity may be reduced for the population SB 473 impacts.

The impact of SB 473 on premature mortality is unknown due to the lack of evidence that reduced cost sharing for insulin reduces mortality. However, well-controlled blood glucose results in fewer diabetes-related comorbidities (blindness, amputations, kidney disease, etc.). Therefore, for those patients who attain good glycemic control through increased adherence to insulin, these diabetes-related comorbidities that are known to lead to premature death could be prevented, delayed, or ameliorated.

Essential Health Benefits and the Affordable Care Act

SB 473 would not require coverage for a new state benefit mandate and instead modifies cost-sharing terms and conditions of an already covered medication. Therefore, SB 473 appears not to exceed the definition of EHBs in California.

[4] *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.