Key Findings

Analysis of California Assembly Bill 2203 Insulin Cost-Sharing Cap

Summary to the 2019–2020 California State Legislature, April 13, 2020

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM

AT A GLANCE

The version of California Assembly Bill (AB) 2203 analyzed by CHBRP would limit allowed cost sharing (copayments, coinsurance, and deductible) 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.

1. CHBRP estimates that, in 2020, of the 21.7 million Californians enrolled in state-regulated health insurance, 13.4 million of them will have insurance subject to AB 2203.
2. **Benefit coverage.** At baseline there are 121,442 enrollees who use insulin, where 75,059 enrollees using insulin have cost sharing that does not exceed the AB 2203 cost-sharing cap. Of enrollees using insulin, 46,383 have cost sharing that exceeds the AB 2203 cap. Postmandate, 100% of enrollees with cost sharing that exceeds the cap at baseline would have cost sharing below the cap.
3. **Utilization.** Postmandate, 38% of enrollees who use insulin at baseline would experience changes in cost sharing, resulting in a 7% increase in utilization of insulin among these enrollees.
4. **Expenditures.** Total net annual expenditures would increase by $22,195,000 (0.02%). This is due to an increase of $38,734,000 in total health insurance premiums paid by employers and enrollees due to the cost-sharing caps, adjusted by a $16,539,000 decrease in enrollee expenses.
    a. Out-of-pocket cost-sharing reductions due to AB 2203 are the greatest for enrollees who have the highest out-of-pocket expenses for insulin at baseline, potentially due to benefit designs such as high deductibles and high coinsurance.
5. **Medical effectiveness.**
    a. There is *limited evidence* on cost-related insulin use/adherence that cost sharing affects insulin use and adherence in patients with diabetes.
    b. There is *insufficient evidence* on the effect of cost sharing for insulin on diabetes-related health outcomes and utilization.

AT A GLANCE (CONT'D)

6. **Public health.** AB 2203 may result in improved glycemic control, a reduction in healthcare utilization, a reduction in long-term complications attributable to diabetes mellitus, 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), commonly referred to as diabetes, is one of the most common chronic conditions in California and the United States. According to the 2018 California Health Interview Survey (CHIS), about 10% of the population in California has been diagnosed with diabetes.

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.[1] 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. 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.

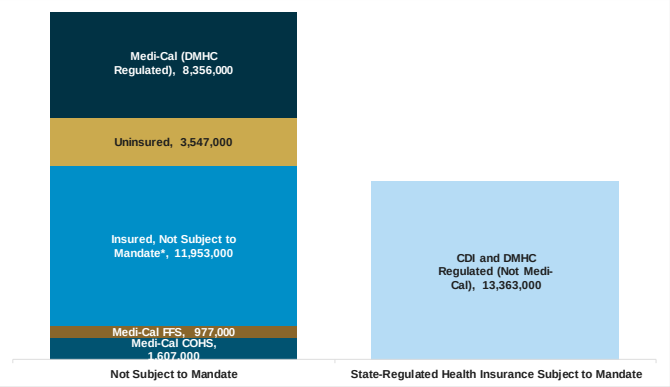
[1] Refer to CHBRP's full report for full citations and references.

BILL SUMMARY

Assembly Bill (AB) 2203 would limit allowed 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. 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 AB 2203.

Figure A. Health Insurance in CA and AB 2203



Source: California Health Benefits Review Program, 2020.

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

IMPACTS

Benefit Coverage, Utilization, and Cost

As of April 19, 2021, projected impacts have been updated to reflect refinements in actuarial approach in estimating per user impacts and inclusion of newly identified research literature that more closely aligns with efforts to estimate the price elasticity of insulin.

Benefit Coverage

CHBRP estimates at baseline there are 121,442 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 75,059 enrollees using insulin have cost sharing that does not exceed the AB 2203 cost-sharing cap. CHBRP estimates 46,383 enrollees using insulin have cost sharing that exceeds the AB 2203 cap. Postmandate, 100% of enrollees with cost sharing that exceeds the cap at baseline would have cost sharing below the cap.

Utilization

Utilization (measured as number of 30-day supply insulin prescriptions per month per user) is 0.82 for enrollees whose claims did not exceed the cost-sharing cap at baseline and 0.86 for enrollees whose claims did exceed the cost-sharing cap. 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 47% 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 2017 Consolidated Health Cost Guidelines Sources Database (CHSD) and Marketscan claims data, the average cost of insulin per prescription per month is $559. For enrollees whose claims do not exceed the cost-sharing cap at baseline, the average cost sharing for insulin is $18, and for those enrollees whose claims exceed the cost-sharing cap at baseline, the average cost sharing for insulin is $74. Postmandate, cost sharing for enrollees who had claims exceeding the cap would experience a 47% reduction in cost sharing, resulting in an average cost share of $39 per month.

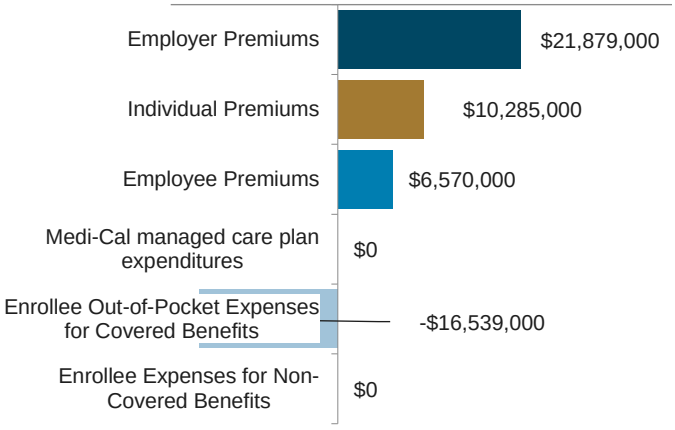
AB 2203 would increase total net annual expenditures by $22,195,000 or total net annual 0.02% for enrollees with DMHC-regulated plans and CDI-regulated policies. This is due to an increase in $38,734,000 in total health insurance premiums paid by employers and enrollees for newly covered benefits, adjusted by a $16,539,000 decrease in enrollee expenses for covered benefits.

CHBRP estimates that total premiums for private employers purchasing group health insurance would increase by $21,879,000, or 0.04%. Total premiums for purchasers of individual market health insurance would increase by $10,285,000, or 0.07%. The greatest change in premiums as a result of AB 2203 is for the small-group plans in the DMHC-regulated market (0.08% per member per month [PMPM] increase) and for the

individual policies in the CDI-regulated market (0.08% PMPM increase).

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 $1.1 million lower allowed costs postmandate in 2021.

Figure B. Expenditure Impacts of AB 2203



Source: California Health Benefits Review Program, 2020.

Enrollee Out-of-Pocket Expenses

For baseline insulin users, AB 2203 caps on cost sharing only impact those enrollees who are above the cap at baseline. Overall, 38% of enrollees who use insulin at baseline would experience changes in cost sharing.

In addition, 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 where 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. However, it is not known what the baseline cost sharing is for this group if they did fill their prescription (i.e., what proportion of non-users are above the cap), nor is it known what cost-sharing threshold would stimulate utilization among these enrollees. While CHBRP expects some demand response from this group when cost sharing is lowered postmandate, CHBRP expects it would be a relatively low utilization increase that would not substantially change the results of this analysis.

The enrollees most likely to experience the greatest out-of-pocket 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 AB 2203 are the greatest for enrollees who have the highest out-of-pocket expense for insulin at baseline. Among the enrollees impacted by the cost-sharing cap, enrollees with out-of-pocket expenditures for insulin in the top 1% at baseline, have an annual savings of greater than $2,709.

Medi-Cal

Although Medi-Cal managed care plans are subject to the Health and Safety Code, cost sharing for all Medi-Cal services is determined through the Welfare and Institutions Code. Therefore, because AB 2203 only impacts cost sharing, Medi-Cal managed care plans are not subject to the provisions of AB 2203.

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 AB 2203.

Medical Effectiveness

Though there is a large body of literature on the effects of cost sharing and adherence to prescribed drug regimens, CHBRP found *limited evidence*[2] from five 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 limited evidence that higher cost sharing reduces adherence to insulin and lower cost sharing increases adherence to insulin.

[2] *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.

CHBRP found *insufficient evidence*[3] 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, resulting 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, 46,383 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 limited 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, AB 2203 may result in improved glycemic control, a reduction in healthcare utilization, a reduction in long-term complications attributable to DM, 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 AB 2203 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. AB 2203 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 AB 2203 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 African Americans than for whites, and there is evidence that cost-related medication nonadherence is also more associated with African Americans, it is possible that this disparity may be reduced for the population AB 2203 impacts.

The impact of AB 2203 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 DM-related comorbidities (blindness, amputations, kidney disease, etc.). Therefore, for those patients who attain good glycemic control through increased adherence to insulin, these DM-related comorbidities that are known to lead to premature death could be prevented, delayed, or ameliorated.

Essential Health Benefits and the Affordable Care Act

AB 2203 would not require coverage for a new state benefit mandate and instead modifies cost-sharing terms and conditions of an already covered medication. Therefore, AB 2203 appears not to exceed the definition of EHBs in California.

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 dynamic.

[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.