Key Findings

Analysis of California Senate Bill 888: Substance Use Disorder Services: Contingency Management

Summary to the 2019–2020 California State Legislature, April 16, 2020

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM

AT A GLANCE

The version of California Senate Bill 888 analyzed by CHBRP would, as law, regulation, and funding allow, require the Department of Health Care Services (DHCS) to cover contingency management (CM) as an aspect of substance use disorder (SUD) treatment for approximately 10.9 million Medi-Cal beneficiaries.

Medical effectiveness evidence (and evidence of effect duration) for SUD treatment with CM varies by SUD. CM can increase during-treatment abstinence for alcohol, cannabis, opioids, stimulants (including methamphetamines), and tobacco use disorders. CM can also increase posttreatment (months) abstinence for cannabis, opioid, and tobacco use disorders. *Limited* evidence suggests CM increased abstinence does not persist beyond treatment for stimulant use disorder.

Benefit coverage for SUD treatment is standard for Medi-Cal beneficiaries. However, federal law and regulation are unclear as to whether Medicaid funds can be used for CM. This analysis models one SUD more associated with acute impacts, overdose deaths, and one SUD that is less so. Both models scale: twice participants would mean twice costs and outcome impacts.

For 1,000 participants, annual cost of methamphetamines use disorder treatment with CM could cost $829,600 (without CM, $460,800). Although CM-increased abstinence may not persist posttreatment, a reduction in premature overdose deaths during treatment could occur.

For 1,000 participants, annual cost of tobacco use disorder treatment with CM could cost $829,600 (without CM, $460,800). With CM-increased abstinence, 29 more participants would be abstinent at 6 months, leading to a reduction in related negative health impacts.

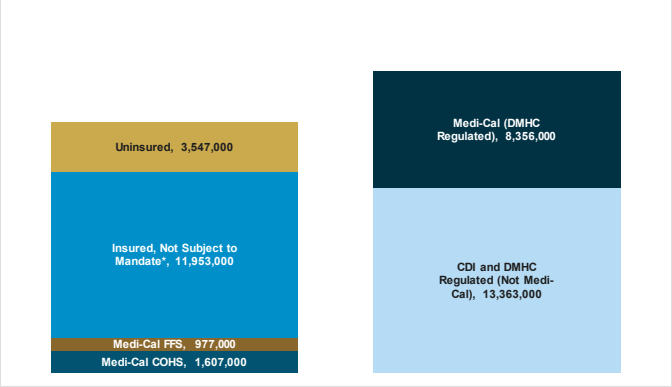
Models of CM for other SUDs would vary depending on the SUD, the particulars of treatment, and the evidence of effectiveness.

BILL SUMMARY[1]

As law, regulation, and funding allow, Senate Bill (SB) 888 would require the Department of Health Care Services (DHCS) to cover contingency management (CM) programs as an aspect of substance use disorder (SUD) treatment for Medi-Cal beneficiaries. It would also require DHCS to provide CM guidance and training.

SB 888 would be relevant to the benefit coverage of all 10.5 million Medi-Cal beneficiaries. As noted in Figure A, these beneficiaries can be enrolled in health plans regulated by the Department of Managed Care (DMHC), in County Organized Health System (COHS) plans, or be primarily associated with Medi-Cal's fee-for-service (FFS) program.

Figure A. Health Insurance in CA and SB 888



Source: California Health Benefits Review Program, 2020.
Notes: *Medicare beneficiaries, enrollees in self-insured products, etc.

CONTEXT

Contingency Management

CM related to SUD treatment generally involves giving patients tangible rewards such as prizes, cash, or vouchers to reinforce goal behaviors, such as abstinence, medication adherence, or greater/continued engagement with treatment. SUD services such as counseling are already a Medi-Cal covered benefit. CM is intended as a way to improve the outcomes of these

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

services. CM is not a benefit that directly covers a health care screening, treatment, service, or item. Rather it is an incentive, analogous to, for example, incentive payments for members participating in wellness programs to encourage healthy behaviors. The total cash value a patient could receive through CM is generally under $500.

CM can be considered to be subject to prohibitions against kickbacks or limits on inducements. For example, the Centers for Medicare and Medicaid Services (CMS) generally imposes an annual maximum limit of $75 on incentives provided to Medicaid beneficiaries. Such laws and regulations are intended to prevent fraud, waste, and abuse — to prevent promotion of unnecessary care or efforts to direct patients toward particular treatment programs or health insurance plans. It is unclear, however, whether such prohibitions would be applied to CM for SUD. The federal Department of Health and Human Services Office of Inspector General has released an advisory opinion, taking the position that CM at a specific rigorous treatment program did not violate anti-kickback statutes, and the federal Office of Inspector General is currently engaged in rulemaking to evaluate changes to anti-kickback laws, potentially allowing CM. Furthermore, CM has previously been allowed for Medicaid programs. In 2011 the Affordable Care Act (ACA) authorized a Medicaid Incentives for Prevention of Chronic Disease program for smoking cessation in five states, of which California was one, that offered value of more than $75 to participating beneficiaries. In addition, the Department of Veterans Affairs (VA) offers CM and the National Institute on Drug Abuse at the National Institutes of Health recommends CM for SUD treatment.

For this analysis, CHBRP has assumed that CM for SUD treatment programs would be allowed for Medi-Cal beneficiaries.

Treatment for Substance Use Disorders

Treatments for SUD include residential, inpatient, and outpatient care using behavioral therapy, counseling, and/or prescription medication. Mutual help groups (e.g., Alcoholics Anonymous, Narcotics Anonymous) also support those with SUD to quit substance use and maintain sobriety. CM is commonly used as an adjunct to treatments for SUD. Descriptions of treatment for methamphetamine use disorder and tobacco use disorder (modeled in two case studies presented in the *Benefit Coverage, Utilization, and Cost* section) follow.

In California, stimulants (including methamphetamine and other amphetamines) were the third most common drug reported for treatment admissions among people aged 12 years and older. Currently, there are no medications approved by the Food and Drug Administration (FDA) to treat stimulant use disorders. Standard care instead includes psychosocial interventions, including cognitive behavioral therapy and motivational interviewing. The rate of individuals seeking treatment for stimulant use disorders is generally low. Changes in brain function from high use of stimulants may also lead to an inability to control or stop stimulant use and increase risk of relapse. Approximately 61% of individuals using methamphetamine relapse within a year following treatment.

Tobacco use is the leading cause of premature morbidity and mortality in California. Effective treatments for tobacco cessation include behavioral therapies; telephone-based support and quitlines; text-message, print, and/or web-based cessation interventions; and FDA-approved medications. Former smokers recalled an average of 4.7 quit attempts before successfully abstaining.

For many patients with SUD, attitudinal barriers are the most significant barrier to treatment initiation and persistence. The stigma of addiction and the ability to acknowledge an SUD affect patient desire to seek care; even more so for those who have co-occurring psychiatric conditions. Many people with SUD believe they can solve the problem themselves.

Another barrier for patients participating in treatment specifically using CM is the requirement to travel to the provider's office, sometimes up to 2 to 3 times a week. This can cause more of a burden for patients who do not have flexible schedules and those who are living in areas with a shortage of providers administering CM programs.

IMPACTS

Medical Effectiveness

There is a *preponderance* of evidence that voucher-based and prize-based CM added to SUD outpatient treatment makes the treatment more effective in increasing abstinence. However, the effectiveness and the effect (duration of abstinence) varies by SUD:

- For alcohol use disorder, *limited* evidence suggests that CM increases during-treatment abstinence.
- For cannabis use disorder, there is a *preponderance* of evidence that CM increases during-treatment abstinence. *E*vidence is

inconclusive regarding increased posttreatment (months) abstinence.

- For opioid use disorder, there is a *preponderance* of evidence that CM increases during-treatment and posttreatment (months) abstinence and treatment retention.
- For stimulant use disorder (including methamphetamines), there is a *preponderance* of evidence that CM increases during-treatment abstinence. However, there is also a *preponderance* of evidence that CM increased abstinence does not persist posttreatment.
- For tobacco use disorder, there is *clear and convincing* evidence that CM increases during-treatment and posttreatment (months) abstinence.

Benefit Coverage, Utilization, and Cost

Currently CM services are not mentioned as a core Medi-Cal benefit. CM programs run by SUD providers may exist in California, but CHBRP is unaware of such services being reimbursed as Medi-Cal covered benefits.

SB 888 does not specify how the DHCS should implement CM for SUD. As the amount of funding that would be available, if any, is unknown, CHBRP has modeled a limited expansion — for only 1,000 beneficiaries — intending to provide two examples that could be scaled larger, depending on the amount of available funds. The cost of the scaling up would be roughly linear (twice as many participants would cost twice as much) although some administrative savings may be realized as scale increases.

CHBRP has modeled CM as an addition to outpatient treatment for two SUDs: stimulant (methamphetamine) use disorder treatment, an SUD for which acute impacts, such as overdose deaths are likely; and tobacco use disorder treatment, an SUD for which acute impacts are less common. Models of CM for other SUDs would vary, depending on the SUD, the particulars of treatment, and the evidence of effectiveness.

The actual design of CM programs may differ materially from these hypothetical examples, but the selected pair are similar to models in current use and to models that have been evaluated in the scientific literature.

Model 1: CM and Stimulant (Methamphetamine) Use Disorder Treatment

The first model is for a 12-week outpatient methamphetamine use disorder treatment program with and without CM. The treatment program includes counseling and urine testing, both of which are covered services for Medi-Cal beneficiaries.

The Model 1 treatment program has the following parameters:

- The CM can begin at any time during the year, but each beneficiary can only participate in one 12-week CM program.
- The SUD treatment program includes group counseling sessions. The maximum number of outpatient counseling sessions during the 12 weeks of CM is 24 (2 sessions per week).
- Urine samples are collected and tested at each group counseling sessions for a maximum of 24 times during the 12 weeks of CM.
- For each negative urine sample, participants receive a voucher for $20 (redeemable at program-selected vendors for food, toiletries, and other program-approved items).
- The maximum cash value of the CM program per participant is $480.

Based on published studies, for this model, CHBRP assumes an average of 90% attendance at group counseling sessions with CM compared to an average of 80% attendance at group counseling sessions for the SUD treatment program with no CM. CHBRP assumes all participants submit urine samples at each group counseling session they attend. CHBRP estimates 60% of the urine samples are negative for participants with CM compared to 40% for participants without CM.

In addition to the direct costs of the CM (vouchers and administration), the model projects higher attendance for the SUD treatment program with CM services, which generates additional costs for counseling and urinalysis.

Given these parameters and assumptions, CHBRP estimates the following annual costs to offer the 12-week treatment program to 1,000 Medi-Cal beneficiaries with methamphetamine use disorder:

- $460,800: SUD treatment without CM
- $829,600: SUD treatment with CM

There is not sufficient evidence to project applicable cost offsets or savings (such would result from reduced emergency department visits or hospitalizations) for intermittent or continuous abstinence during a 12-week SUD program.

Similarly, as there is not sufficient evidence to project additional posttreatment or long-term abstinence, no long-term offset or savings are projected.

Model 1: Public health impacts

Methamphetamine has taken over as the leading cause of overdose deaths in California (now surpassing opioid overdose deaths).

Although abstinence may not, even with CM, persist posttreatment, achieving periods of abstinence is a goal of treatment. In addition, as there is no FDA-approved medication to treat stimulant use disorder, CM to improve treatment engagement and abstinence may be the best treatment option available.

For every 1,000 Medi-Cal enrollees engaged in SUD treatment, adding CM would result in an increase in 5,280 stimulant-free urine samples (15,000 methamphetamine-free days) and an increase in engagement in treatment for stimulant use disorder by 2,400 group counseling sessions.

Although the quantitative impact of SB 888 on premature death associated with methamphetamine is unknown, it stands to reason that there could be a reduction in premature deaths due to overdose during periods of abstinence for as well an increase in productivity due to an increased ability to work for those who are abstinent.

Model 2: CM and Tobaccos Use Disorder Treatment

The second model is CM added to a tobacco use disorder treatment program. The treatment program, which runs for 4 weeks, consists of phone counseling sessions and nicotine patches mailed to participants' homes, both of which are covered services for Medi-Cal beneficiaries.

The Model 2 treatment program has the following parameters:

- The CM can begin at any time during the year, but each beneficiary can only participate in one 4-week CM program.
- The program includes individual phone counseling sessions no shorter than 10 minutes in duration. The maximum number of phone counseling sessions is 4. Nicotine patches are mailed to all participants who complete the first phone counseling session.
- For each participation in a phone counseling session, participants receive a $15 voucher (redeemable at program-selected vendors for food, toiletries, and other program-approved items).
- The maximum cash value of the CM program per participant is $60.

Based on published studies, for this model, CHBRP assumes approximately 95% of participants will utilize the first individual phone counseling session with CM compared to 85% of participants utilizing the first individual phone counseling session for the SUD treatment program with no CM. CHBRP estimates utilization will decrease to 65% by the last phone counseling session for the SUD treatment program with CM compared to 40% utilization without CM.

In addition to the direct costs of the CM (vouchers and administration), the model projects greater participation for the SUD treatment program with CM services, which generates additional costs for counseling.

Given these parameters and assumptions, CHBRP estimates the following annual cost to offer the 4-week treatment program to 1,000 Medi-Cal beneficiaries with tobacco use disorder:

- $111,350: SUD treatment without CM
- $317,645: SUD treatment with CM

CHBRP expects 13% greater increase is cessation at 6 months for participants in the SUD treatment with CM.

There is not sufficient evidence to project applicable cost offsets or savings (such would result from reduced emergency department visits or hospitalizations) for during treatment or following month's posttreatment abstinence.

Model 2: Public health impacts

Tobacco use is the leading cause of preventable illness and death in the United States and California. An estimated 17.1 years of potential life are lost per smoker due to smoking-related disease in California. Causes of premature death included premature birth, low birth weight, sudden infant death syndrome (SIDS), respiratory stress syndrome, lung cancer, heart disease, and asthma. There is evidence that smoking cessation can reverse negative health effects from tobacco and can produce similar reductions in morbidity and mortality that would be achieved through pharmaceutical interventions commonly prescribed for heart disease patients.

For every 1,000 Medi-Cal enrollees engaged in SUD treatment for tobacco use disorder, CHBRP estimates that adding CM treatment would result in 29 more enrollees abstinent from tobacco use at 6 months, likely leading to a reduction in relevant negative health impacts of tobacco use.

Long-Term Impacts

For those users who are able to sustain abstinence, SB 888 would reduce related morbidity and mortality. However, given limited evidence on sustained abstinence, the effects of SB 888 on long-term public health is uncertain.

Essential Health Benefits and the Affordable Care Act

Because SB 888 affects only the benefit coverage of Medi-Cal beneficiaries, it would not exceed essential health benefits (EHBs).

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 health care 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