

California Health Benefits Review Program

Analysis of California Senate Bill 1337 Coordinated Specialty Care for First-Episode Psychosis

A Report to the 2021–2022 California State Legislature

April 20, 2022



Key Findings

Analysis of California Senate Bill 1337 Coordinated Specialty Care for First-Episode Psychosis

Summary to the 2021–2022 California State Legislature, April 20, 2022



AT A GLANCE

The version of California Senate Bill 1337 analyzed¹ by CHBRP would require coverage of coordinated specialty care (CSC) services for the treatment of first-episode psychosis (FEP).

In 2023, of the 22.8 million Californians enrolled in state-regulated health insurance, 14.8 million would have insurance subject to SB 1337.

Benefit Coverage: At baseline, none have benefit coverage compliant with the bill's requirements. Postmandate, 100% would

Medical Effectiveness: Evidence of the effectiveness of CSC, as compared to outpatient treatment-as-usual is varied among the outcomes of interest.

Cost and Health Impacts²: In 2024, SB 1337 would result in 5,010 (of 15,029) enrollees with FEP accessing services from CSC teams. Annual expenditures would increase by \$69,146,000 (0.04%). This change includes increases in premiums as well as, for enrollees engaged with CSC teams, decreases in cost sharing

SB 1337 would produce limited public health impacts because, although the CSC model is effective in improving some health outcomes (treatment adherence, psychiatric hospital admissions, reductions in hallucinations and delusions, recovery from psychosis and general functioning), it does not appear to be more effective than outpatient treatment-as-usual for other outcomes (relapse rates, psychotic and depressive symptoms, and quality of life).

Long-term impacts would remain limited, due to persistent provider supply limitations and other barriers (e.g., stigma, misdiagnosis of symptoms).

CONTEXT

Psychosis is a symptom of a range of mental health disorders. It is an abnormal state involving significant problems with reality testing. It can include delusions, hallucinations, incoherent or nonsense speech, behavior inappropriate to the situation, paranoia, and/or catatonia. Episodes are sometimes accompanied by violent acts most often self-directed. It may affect a person briefly as an episode, or as a long-term chronic illness that requires mental health treatment. Nationally, three out of 100 people experience psychosis during their lifetime, with most recovering.

First-episode psychosis (FEP) refers to the initial onset of signs and symptoms of loss of contact with reality; it often occurs before a mental health disorder or physical condition is clinically diagnosed. FEP experiences usually occur in adolescence to early adulthood (12–30 years of age) with the peak age of onset for schizophrenia-spectrum/primary psychotic disorders at 20.5 years of age.

BILL SUMMARY

SB 1337 would:

- Require coverage of coordinated specialty care (CSC) services for the treatment of FEP, a team-based service delivery method including but not limited to case management, pharmacotherapy and medication management, psychotherapy, and outreach and recruitment activities.
- Require CSC services to be consistent with the National Institute of Mental Health's (NIMH) *Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation*, and would specify the CSC team membership, training, and supervision requirements.
- Require use of specified billing procedures for bundled CSC team services.

SB 1337 would also require the Department of Managed Health Care (DMHC) and the California Department of Insurance (CDI), in collaboration with Department of

and other aspects of health make stability of impacts less certain as time goes by.

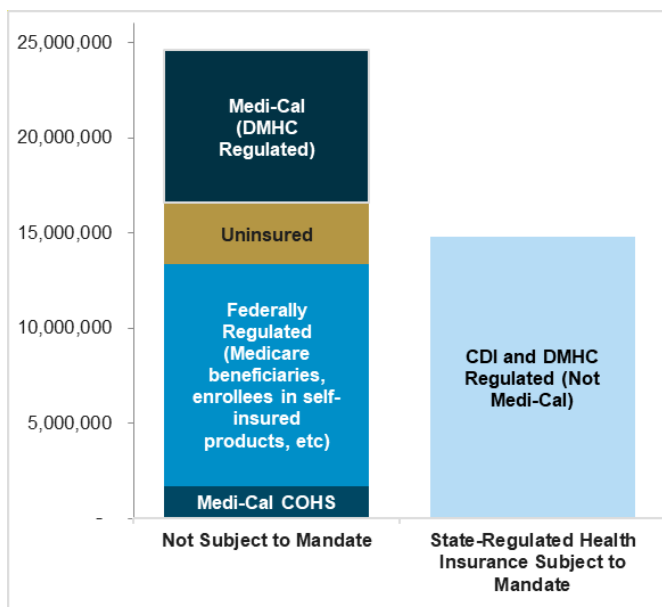
¹ Refer to CHBRP's full report for full citations and references.

² Similar cost and health impacts could be expected for the following year, though possible changes in medical science

Health Care Services (DHCS), to create a working group to establish guidelines, including but not limited to inclusion and exclusion criteria for enrollees eligible to receive CSC services, and caseload and geographic boundary parameters for the CSC teams.

As noted in Figure A, SB 1337 would apply to the benefit coverage of commercial enrollees and enrollees in plans and policies regulated by DMHC and CDI — including those associated with the California Public Employees’ Retirement System (CalPERS). As Medi-Cal already covers CSC services and as it is unclear how the change in the Health & Safety Code would affect the benefit coverage of beneficiaries enrolled in DMHC-regulated plans, CHBRP has assumed SB 1337 would not apply to the benefit coverage of these Medi-Cal beneficiaries.

Figure A. Health Insurance in CA and SB 1337



Source: California Health Benefits Review Program, 2022.
Key: CDI = California Department of Insurance; DMHC = Department of Managed Health Care; COHS = County Organized Health System.

ANALYTIC APPROACH

Figure B shows the relationship between CSC services, outpatient treatment-as-usual, and other services used by people experiencing FEP.

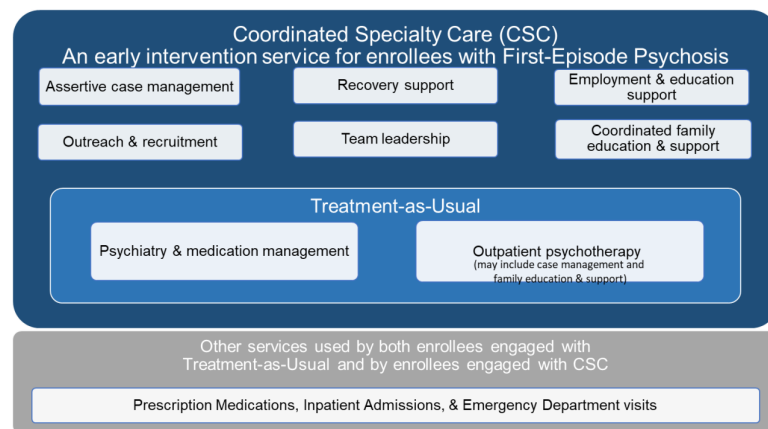
Although SB 1337 does not address coverage for services outside of CSC, this analysis considers the impact of engagement with a CSC team on enrollees’

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.

use of psychiatric and nonpsychiatric hospitalizations, emergency room visits, and prescription drugs.

Although SB 1337 would require coverage for employment and education support beyond the 1 to 2 years of an enrollee’s engagement with a CSC team, CHBRP has not modeled that additional utilization and cost, which would not begin until some years after the projections included in this analysis.

Figure B. Services Used by Persons Experiencing First-Episode Psychosis



Source: California Health Benefits Review Program, 2022.

IMPACTS

Medical Effectiveness

Evidence of the effectiveness of CSC, as compared to outpatient treatment-as-usual, is varied among the outcomes of interest. Below are the medical effectiveness findings for CSC for an average duration of 2 years compared with outpatient treatment-as-usual.

CHBRP found a *preponderance of evidence*³ that, compared to outpatient treatment-as-usual, CSC:

- Increases treatment adherence;
- Improves positive and negative psychotic symptoms;
- Improves general functioning; and
- Reduces admissions to a psychiatric hospital.

CHBRP found *limited evidence*⁴ that, compared to outpatient treatment-as usual, CSC:

⁴ *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.

- Reduces mean number of hospital days per year;
- Increases the likelihood that people will recover from psychosis;
- Improves cognitive functioning; and
- Does not affect relapse rates or quality of life.

CHBRP found *inconclusive evidence*⁵ that CSC decreased effects on general psychotic symptoms and depressive symptoms.

CHBRP found *insufficient evidence*⁶ about the effects of CSC on:

- Emergency room visits;
- Recreational drug use; and
- Incidence of violence.

One study (*insufficient evidence*) found that CSC improves mental health status and quality of life among people in the highest socioeconomic status (SES) quartile but not among people in lower SES quartiles.

CHBRP found *limited evidence* that receiving CSC for up to 5 years, when compared to CSC for an average of 2 years:

- Reduces disengagements from mental health treatment services.
- Increases remission rates.
- Does not reduce psychiatric hospital utilization.
- Does not improve general functioning.

Benefit Coverage, Utilization, and Cost

SB 1337 would require DMHC and CDI, in collaboration with DHCS, to create a working group to establish guidelines, including but not limited to inclusion and exclusion criteria for enrollees eligible to receive CSC services, and caseload and geographic boundary parameters for the treatment team. In 2023, the first postmandate year, the working group would begin and existing CSC programs would begin to expand capacity, but no measurable impact is expected. The impact figures in this report would be for the following year, 2024.

CHBRP has assumed that the diagnoses that would most commonly be associated with engagement with

CSC teams would include those reported in the NIMH manual for implementation of CSC teams: schizophrenia, schizoaffective and schizophreniform disorders, delusional disorder, and psychosis not otherwise specified (NOS). This report presents changes in utilization for enrollees with these diagnoses, some of whom, postmandate, would become engaged with CSC teams while others continued with outpatient treatment-as-usual.

Benefit Coverage

Of the 14,776,000 enrollees with health insurance that would be subject to SB 1337, none have benefit coverage compliant with the bill's requirements. Postmandate, 100% would.

Utilization

In 2024, when the DMHC-CDI-DHCS working group will have provided guidance and by when CSC teams will have had time to expand capacity, CHBRP estimates that one-third of eligible commercial/CalPERS enrollees (i.e., those aged 15–35 years experiencing FEP) would engage with a CSC team.

For those enrollees engaged with a CSC team, CHBRP estimates:

- A 5% reduction in inpatient psychiatric hospitalizations; and
- An end to use of outpatient treatment-as-usual (psychotherapy and medication management visits) with a concomitant increase in use of the CSC team for those services.

Unit Costs

Postmandate, per-unit costs for CSC team services would be monthly payments for bundled services. CHBRP estimates a monthly CSC team cost per enrollee of \$1,551, so \$18,606 for an enrollee engaged with a CSC team for a full year.

CHBRP projects no change in per-unit costs for other services used by enrollees with FEP.

Expenditures

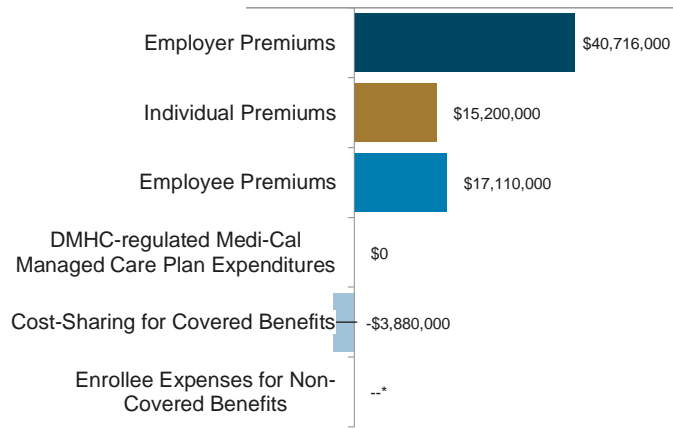
SB 1337 would increase total net annual expenditures by \$69,146,000 (0.04%). This change includes increases in premiums as well as — for enrollees engaged with

⁵ *Inconclusive evidence* indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.

⁶ *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.

CSC teams — decreases in cost sharing (which are not expected to be applicable for CSC team services).

Figure C. Expenditure Impacts of SB 1337



Source: California Health Benefits Review Program, 2022.

Notes: *Although it is possible, CHBRP is unaware of any commercial enrollees self-paying for CSC services.

Medi-Cal

No impact would be expected for Medi-Cal beneficiaries enrolled in DMHC-regulated plans.

CalPERS

Premiums for CalPERS enrollees in DMHC-regulated plans would increase by 0.06%.

Covered California – Individually Purchased

Premiums for individually purchased Covered California plans/policies would increase by 0.06%.

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 1337.

Public Health

In the short term, SB 1337 would produce a limited public health impact with 5,010 (of 15,029) eligible enrollees with FEP accessing CSC programs. This projection is supported by evidence that the CSC model is effective in improving some health outcomes, including treatment adherence, psychiatric hospital admissions, reductions in hallucinations and delusions, recovery from psychosis, and general functioning. However, CSC programs do not appear to be more effective than outpatient treatment-as-usual for other outcomes, including relapse rates, psychotic and depressive symptoms, and quality of life. Moreover, although some barriers to care would be removed, such as insurance coverage/cost, coordinated care, outreach and intake, other barriers to care would remain, including limited provider supply, misdiagnosis of symptoms, and patient concerns with stigma.

Long-Term Impacts

The long-term impacts from SB 1337 would remain limited, similar to the short-term impacts projected in this analysis, due to persistent provider supply limitations and other barriers (e.g., stigma, misdiagnosis of symptoms). CHBRP estimates about 5,000 enrollees per year would receive treatment through a CSC team.

Essential Health Benefits and the Affordable Care Act

Two components of CSC team service (as defined by SB 1337) could exceed essential health benefits (EHBs): outreach and recruitment activities and educational and employment support. As the two services would be only a limited portion of the bundled set of services for which a CSC team would bill on a monthly basis, CHBRP cannot estimate the potential cost of SB 1337 exceeding EHBs.

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The California Health Benefits Review Program (CHBRP) was established in 2002. As per its authorizing statute, CHBRP provides the California Legislature with independent analysis of the medical, financial, and public health impacts of proposed health insurance benefit-related legislation. The state funds CHBRP through an annual assessment on health plans and insurers in California.

An analytic staff based at the University of California, Berkeley, supports a task force of faculty and research staff from multiple University of California campuses to complete each CHBRP analysis. A strict conflict-of-interest policy ensures that the analyses are undertaken without bias. A certified, independent actuary helps to estimate the financial impact. Content experts with comprehensive subject-matter expertise are consulted to provide essential background and input on the analytic approach for each report.

More detailed information on CHBRP's analysis methodology, authorizing statute, as well as all CHBRP reports and other publications, are available at www.chbrp.org.

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Table 1. SB 1337 Impacts on Benefit Coverage, Utilization, and Cost, 2024

	Baseline (2024)	Postmandate Year 2 (2024)	Increase/Decrease	Percentage Change
Benefit coverage				
Enrollees with health insurance subject to state-level benefit mandates (a)	22,810,000	22,810,000	0	0.00%
Enrollees with health insurance subject to SB 1337	14,776,000	14,776,000	0	0.00%
Percentage of enrollees with coverage compliant with SB 1337	0%	100%	100%	0.00%
Utilization and unit cost				
Enrollees using CSC services	-	5,010	5,010	N/A
Enrollees using outpatient treatment-as-usual	15,029	10,019	(5,010)	-33.33%
Treatments for enrollees diagnosed with psychosis				
Admissions/visits				
Inpatient mental health	9,506	9,348	(158)	-1.67%
Emergency department (f)	20,385	20,385	-	0.00%
Outpatient psychotherapy (Facility cases)	73,199	48,800	(24,400)	-33.3%
Outpatient psychotherapy (Clinician visits)	174,010	116,007	(58,003)	-33.3%
Outpatient prescription drugs (f)	218,276	218,276	0	0.00%
CSC model monthly services	-	60,116	-	N/A
Unit cost				
Admissions/visits				
Inpatient mental health	\$15,748	\$15,748	\$0	0.00%
Emergency department (f)	\$4,287	\$4,287	\$0	0.00%
Outpatient psychotherapy (Facility cases)	\$860	\$860	\$0	0.00%
Outpatient psychotherapy (Clinician visits)	\$222	\$222	\$0	0.00%
Outpatient prescription drugs (f)	\$144	\$144	\$0	0.00%
CSC model monthly services	-	\$1,551	-	N/A
Expenditures				
Premiums (expenditures) by payer				
Private employers for group insurance	\$55,699,451,000	\$55,736,637,000	\$37,186,000	0.07%
CalPERS HMO employer expenditures (b) (c)	\$6,171,780,000	\$6,175,310,000	\$3,530,000	0.06%
Medi-Cal Managed Care Plan expenditures (f)	\$26,768,552,000	\$26,768,552,000	\$0	0.00%
Enrollee premiums (expenditures)				
Enrollees with individually purchased insurance	\$24,462,025,000	\$24,477,225,000	\$15,200,000	0.06%
Individually purchased – outside Exchange	\$6,438,071,000	\$6,442,831,000	\$4,760,000	0.07%
Individually purchased – Covered California	\$18,023,954,000	\$18,034,394,000	\$10,440,000	0.06%
Enrollees with group insurance, CalPERS HMOs, Covered	\$25,754,543,000	\$25,771,653,000	\$17,110,000	0.07%

California, and Medi-Cal Managed Care (c)				
<u>Enrollee out-of-pocket expenses</u>				
Cost-sharing for covered benefits (deductibles, copayments, etc.)	\$16,404,357,000	\$16,400,477,000	-\$3,880,000	-0.02%
Expenses for noncovered benefits (d) (e)	--	--	--	--
Total expenditures	\$155,260,708,000	\$155,329,854,000	\$69,146,000	0.04%

Source: California Health Benefits Review Program, 2022.

Notes: (a) Enrollees in plans and policies regulated by DMHC or CDI aged 0 to 64 years as well as enrollees 65 years or older in employer-sponsored health insurance. This group includes commercial enrollees (including those associated with Covered California or CalPERS) and Medi-Cal beneficiaries enrolled in DMHC-regulated plans.⁷

(b) Approximately 51.7% of CalPERS enrollees in DMHC-regulated plans are state retirees, state employees, or their dependents. About one in five of these enrollees has a pharmacy benefit not subject to DMHC.⁸ CHBRP has projected no impact for those enrollees. However, CalPERS could, postmandate, require equivalent coverage for all its members (which could increase the total impact on CalPERS).

(c) Enrollee premium expenditures include contributions by employees to employer-sponsored health insurance, health insurance purchased through Covered California, and contributions to Medi-Cal Managed Care.

(d) Includes only expenses paid directly by enrollees (or other sources) to providers for services related to the mandated benefit that are not covered by insurance at baseline. This only includes those expenses that will be newly covered postmandate. Other components of expenditures in this table include all health care services covered by insurance.

(e) For covered benefits, such expenses would be eliminated, although enrollees with newly compliant benefit coverage might pay some expenses if benefit coverage is denied (through utilization management review).

(f) Includes psychiatric and non-psychiatric.

Key: CalPERS = California Public Employees' Retirement System; CDI = California Department of Insurance; COHS = County Organized Health Systems; DMHC = Department of Managed Health Care; HMO = Health Maintenance Organization.

⁷ For more detail, see CHBRP's *Estimates of Sources of Health Insurance in California for 2023*, a resource available at http://chbrp.org/other_publications/index.php.

⁸ For more detail, see CHBRP's *Estimates of Pharmacy Benefit Coverage in California for 2023*, a resource available at http://chbrp.org/other_publications/index.php.

POLICY CONTEXT

The Senate Committee on Health has requested that the California Health Benefits Review Program (CHBRP)⁹ conduct an evidence-based assessment of the medical, financial, and public health impacts of SB 1337, Coordinated Specialty Care for First-Episode Psychosis.

Bill-Specific Analysis of SB 1337

SB 1337 would:

- Require coverage of coordinated specialty care (CSC) services for the treatment of first-episode psychosis (FEP), a team-based service delivery method including but not limited to case management, pharmacotherapy and medication management, psychotherapy, and outreach and recruitment activities.
- Require CSC services to be consistent with the National Institute of Mental Health's (NIMH) *Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation*, and would specify the CSC team membership, training, and supervision requirements.
- Require use of specified billing procedures for bundled CSC team services.

SB 1337 would also require the Department of Managed Health Care (DMHC) and the California Department of Insurance (CDI), in collaboration with Department of Health Care Services (DHCS), to create a working group to establish guidelines, including but not limited to inclusion and exclusion criteria for persons eligible to receive CSC services, and caseload and geographic boundary parameters for the CSC teams.

The full text of SB 1337 can be found in Appendix A.

Relevant Populations

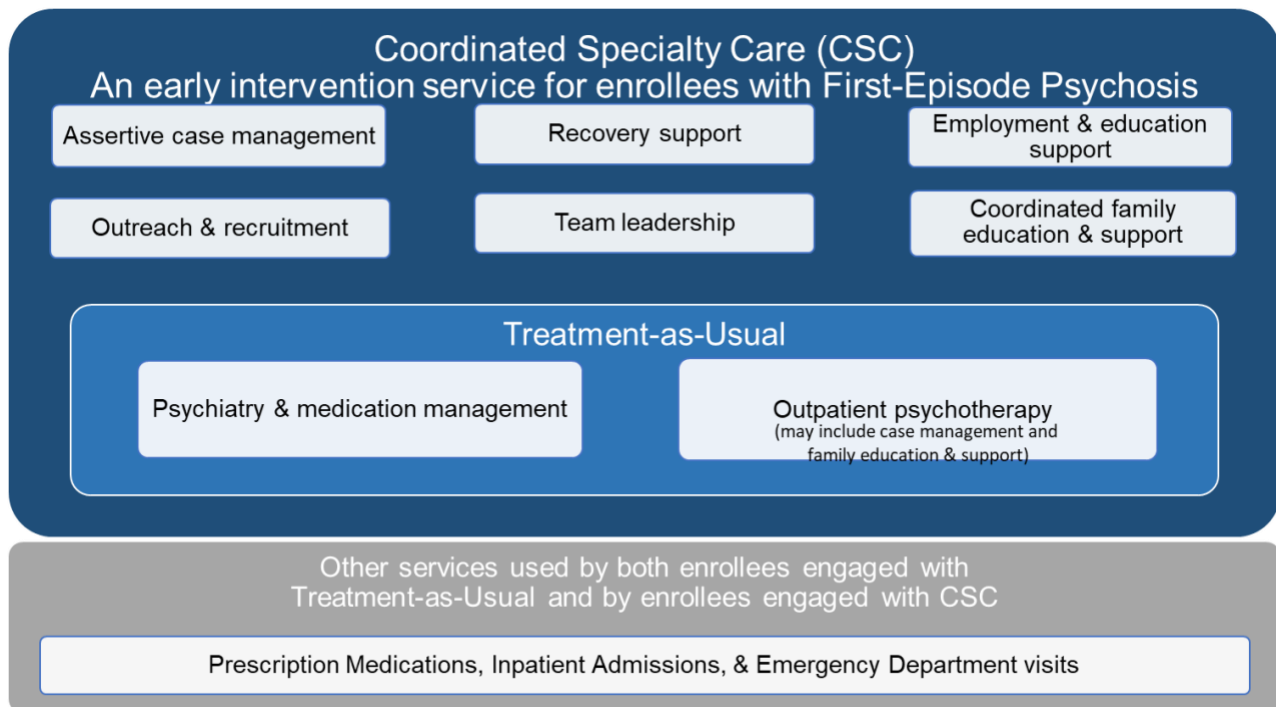
If enacted, SB 1337 would apply to the health insurance of approximately 14.8 million enrollees (37% of all Californians). This represents 65% of the 22.8 million Californians who will have health insurance regulated by the state that may be subject to any state health benefit mandate law, which includes health insurance regulated by DMHC or CDI. As Medi-Cal already covers CSC services and as it is unclear how the change in the Health & Safety Code would affect the benefit coverage of Medi-Cal beneficiaries enrolled in DMHC-regulated plans. For these reasons, CHBRP has assumed that SB 1337 would not apply to the benefit coverage of these Medi-Cal beneficiaries.

⁹ CHBRP's authorizing statute is available at www.chbrp.org/about_chbrp/faqs/index.php.

Analytic Approach and Key Assumptions

Figure 1 shows the relationship between CSC services, outpatient treatment-as-usual, and other services used by people experiencing FEP.

Figure 1. Services Used by Persons Experiencing First-Episode Psychosis



Source: California Health Benefits Review Program, 2022

For this report, CHBRP has used the key services noted in Figure 1 to model a CSC team that would serve no more than 30 clients, each receiving services from the team for 1 to 2 years. As the CSC team model has yet to be determined by the DHCS-CDI-DMHC working group, CHBRP used a model that aligns with the team structure outlined in the NIMH manual (NIMH, 2014).

Although SB 1337 does not address coverage for services outside of CSC, this analysis considers the impact of engagement with a CSC team on enrollees' use of psychiatric and nonpsychiatric hospitalizations, emergency room visits, and prescription drugs.

Although SB 1337 would require coverage for employment and education support beyond the 1 to 2 years of an enrollee's engagement with a CSC team, CHBRP has not modeled that additional utilization and cost, which would not begin until some years after the projections included in this analysis.

Interaction With Existing State and Federal Requirements

Health benefit mandates may interact and align with the following state and federal mandates or provisions.

California Policy Landscape

California law and regulations

Although it does not specify coverage of CSC for FEP, California law¹⁰ requires plans and policies to cover treatment for all mental health and substance use disorders listed in the most recent edition of either the *International Classification of Disease* or the *Diagnostic and Statistical Manual (DSM) of Mental Disorders* at parity with other medical services. This requirement is similar to those specified by the federal Mental Health Parity and Addiction Equity Act (MHPAEA, see below), but applies to all health insurance plans and policies subject to either the Health and Safety Code or the Insurance Code.

Similar requirements in other states

Illinois has a benefit mandate law that requires coverage of CSC for FEP (HB 2154 passed during the 2019-2020 session).

Two other states are currently considering similar bills: Massachusetts (SB 646) and Texas (SB 1141).

Federal Policy Landscape

Federal Mental Health Parity and Addiction Equity Act

Although it does not specify CSC for FEP, the federal Mental Health Parity and Addiction Equity Act (MHPAEA) addresses parity for mental health benefits.¹¹ The MHPAEA requires that when mental health or substance use disorder services are covered, cost-sharing terms and treatment limits be no more restrictive than the predominant terms or limits applied to medical/surgical benefits. The MHPAEA directly applies to large-group health insurance, but the ACA requires small-group and individual market plans and policies purchased through a state health insurance marketplace to comply with the MHPAEA. This federal requirement is similar to the California mental health parity law described previously,¹² although the state law applies to some plans and policies not captured in the MHPAEA.

Affordable Care Act

A number of Affordable Care Act (ACA) provisions have the potential to or do interact with state benefit mandates. Below is an analysis of how SB 1337 may interact with requirements of the ACA as presently exist in federal law, including the requirement for certain health insurance to cover essential health benefits (EHBs).^{13,14}

¹⁰ H&SC Section 1374.72; IC Section 10144.5 and 10123.15.

¹¹ Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA), as amended by the ACA.

¹² H&SC Section 1374.72; IC Section 10144.5 and 10123.15.

¹³ The ACA requires nongrandfathered small-group and individual market health insurance — including but not limited to QHPs sold in Covered California — to cover 10 specified categories of EHBs. Policy and issue briefs on EHBs and other ACA impacts are available on the CHBRP website: www.chbrp.org/other_publications/index.php.

¹⁴ Although many provisions of the ACA have been codified in California law, the ACA was established by the federal government, and therefore, CHBRP generally discusses the ACA as a federal law.

Essential Health Benefits

In California, nongrandfathered¹⁵ individual and small-group health insurance is generally required to cover EHBs.¹⁶ In 2023, approximately 12.1% of all Californians will be enrolled in a plan or policy that must cover EHBs.¹⁷

States may require state-regulated health insurance to offer benefits that exceed EHBs.^{18,19,20} Should California do so, the state could be required to defray the cost of additionally mandated benefits for enrollees in health plans or policies purchased through Covered California, the state's health insurance marketplace. However, state benefit mandates specifying provider types, cost sharing, or other details of existing benefit coverage would not meet the definition of state benefit mandates that could exceed EHBs²¹ and CHBRP is unaware of any state mandate passed into law that has been determined to exceed EHBs.

As mentioned above, California law²² requires plans and policies to cover treatments for all mental health and substance use disorders listed in the most recent edition of either the *International Classification of Disease* or the *Diagnostic and Statistical Manual (DSM) of Mental Disorders* at parity with other medical services. Therefore, coverage for many of the treatments addressed in this analysis of SB 1337 are already covered by plans and policies that must cover EHBs. However, from CHBRP's reading of California's EHB benchmark plan, the DSM, and the ACA's definition of habilitative services,²³ two components of CSC team service (as defined by SB 1337) could exceed EHBs: outreach and recruitment activities and educational and employment support. Should federal or state regulators determine this is the case, the state may be required to defray the costs of these additional services.

Table 2, below, describes the conditions that may trigger the requirement for the state to defray costs, and SB 1337's interaction with each condition.

¹⁵ A grandfathered health plan is "a group health plan that was created — or an individual health insurance policy that was purchased — on or before March 23, 2010. Plans or policies may lose their 'grandfathered' status if they make certain significant changes that reduce benefits or increase costs to consumers." Accessed at: www.healthcare.gov/glossary/grandfathered-health-plan.

¹⁶ For more detail, see CHBRP's issue brief *California State Benefit Mandates and the Affordable Care Act's Essential Health Benefits*, available at https://chbrp.org/other_publications/index.php.

¹⁷ See CHBRP's resource *Estimates of Sources of Health Insurance in California* and CHBRP's issue brief *California State Benefit Mandates and the Affordable Care Act's Essential Health Benefits: An Update and Overview of New Federal Regulations*, both available at https://chbrp.org/other_publications/index.php.

¹⁸ ACA Section 1311(d)(3).

¹⁹ State benefit mandates enacted on or before December 31, 2011, may be included in a state's EHBs, according to the U.S. Department of Health and Human Services (HHS). Patient Protection and Affordable Care Act: Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation. Final Rule. Federal Register, Vol. 78, No. 37. February 25, 2013. Available at: www.gpo.gov/fdsys/pkg/FR-2013-02-25/pdf/2013-04084.pdf.

²⁰ However, as laid out in the Final Rule on EHBs HHS released in February 2013, state benefit mandates enacted on or before December 31, 2011, would be included in the state's EHBs, and there would be no requirement that the state defray the costs of those state-mandated benefits. For state benefit mandates enacted after December 31, 2011, that are identified as exceeding EHBs, the state would be required to defray the cost.

²¹ Essential Health Benefits. Final Rule. A state's health insurance marketplace would be responsible for determining when a state benefit mandate exceeds EHBs, and QHP issuers would be responsible for calculating the cost that must be defrayed.

²² HSC Section 1374.72; IC Section 10144.5 and 10123.15

²³ 45 CFR Section 156.115 (<https://www.law.cornell.edu/cfr/text/45/156.115>)

Table 2. SB 1337 and EHBs

Conditions That May Trigger State to Defray the Cost of a New Benefit Mandate	Service Coverage Mandated by SB 1337
Bill would mandate benefit coverage not included in the Kaiser Small Group HMO 30 plan, which is part of the definition of the EHB benchmark package in California (a) or required by basic health care services (BHCS) (b).	Would require benefit coverage (outreach and recruitment activities by the CSC team, as well as educational and employment support for the patient) beyond what is present in Kaiser Small Group HMO 30 plan or required by BHCS.
Bill would mandate new benefit coverage (not just alter the terms/conditions of existing benefit coverage). (c)	Would require new benefit coverage (outreach and recruitment activities by the CSC team, as well as educational and employment support for the patient) for many enrollees.

Source: California Health Benefits Review Program, 2022.

Notes: (a) California selected Kaiser Small Group HMO 30 as its base EHB benchmark plan and supplemented this plan with pediatric dental and vision benefits, and habilitative services to meet federal requirements.

(b) Basic health care services (BHCS) are defined by the Knox Keene Health Care Service Plan Act of 1975.

(c) Federal regulations define benefit mandates that could exceed EHBs as benefits that are specific to care, treatment, and/or services. Essential Health Benefits. Final Rule 12843.

Key: EHB = essential health benefit; HMO = health maintenance organization; QHP = qualified health plan.

As outlined in the table above, SB 1337 could require coverage for a new state benefit mandate that appears to exceed the definition of EHBs in California.

As the two services that could exceed EHBs would be only a limited portion of the bundled set of services for which a CSC team would bill on a monthly basis, CHBRP cannot estimate the potential cost of SB 1337 exceeding EHBs.

However, as SB 1337 does state that the mandate would not apply to a nongrandfathered individual market or a nongrandfathered group market plan/policy “if the department determines that compliance with the section, in whole or part, will require the state to assume the cost and provide payments to enrollees to defray the cost of the services, pursuant to 42 U.S.C. SEC. 18031(d)(3)(B)(ii).” This clause might nullify some impact of SB 1337, should the mandate be judged to exceed EHBs.

BACKGROUND ON FIRST-EPISODE PSYCHOSIS

SB 1337 would require plans and policies regulated by DMHC and CDI to cover coordinated specialty care (CSC) for first-episode psychosis (FEP). CSC is an early intervention program designed for people experiencing symptoms of psychosis within 2 years of symptom onset. This section presents contextual information describing psychosis and FEP, including incidence and risk factors, as well as the CSC model and the supply of CSC providers in California. It also discusses known barriers to treatment, including CSC, and disparities associated with psychosis and FEP.

First-Episode Psychosis

First-episode psychosis (FEP) or early psychosis refers to the initial onset of symptoms of loss of contact with reality; it often occurs before a mental health disorder or physical condition is clinically recognized. FEP usually begins in adolescence to early adulthood (12–30 years of age) with the peak age of onset for Schizophrenia-spectrum/primary psychotic disorders at 20.5 years of age (Solmi et al., 2022), and less commonly among people aged 30 years and older and especially among females as diagnosis occurs later than males (Simon et al., 2017).

FEP may not be recognized immediately because symptoms can be varied, transient, and/or gradual and may be confused initially with signs of depression or substance use disorder (FEP can manifest in different mood disorders and disorders related to substance abuse [Lambert et al., 2003]). Two-thirds of people who develop FEP report at least one of the following symptoms before diagnosis: suspiciousness or odd ideas of reference, odd or bizarre ideas that are not delusional, odd, unusual, or eccentric behavior, unusual perceptual experiences that are clearly psychotic, disorganized or odd speech, inappropriate affect, subthreshold hallucinations, subthreshold delusions, and passivity experiences (Shah et al., 2017). Other early warning signs of FEP include drop in grades or work performance, trouble concentrating, decline in personal hygiene, isolation, or lack of emotion (NIMH, 2022). Longer durations of untreated psychosis lead to worse outcomes. Reducing the duration of untreated psychosis for people with FEP can lead to reductions in relapse and reductions in long-term disability (Savill et al., 2019).

Incidence and Progression of FEP

Incidence

Incidence of FEP is challenging to discern due to a wide range of (subclinical) symptoms, differences in definitions of onset of psychosis and FEP, and true differences in rates among various populations (see Risk Factors and Disparities). Estimated rates of incidence of FEP in the U.S. commercially insured population range from 86/100,000 for those aged 15 to 29 years to 46/100,000 for those aged 30 to 59 years (Simon et al., 2017). Those in the Medicaid population appear to have higher FEP incidence rates

What Is Psychosis?

Psychosis is a “condition that affects the mind” and occurs as episodes (NIMH, 2015). It is associated with a range of mental health disorders that may affect a person briefly as an episode, or as a long-term chronic illness that requires mental health treatment.

The American Psychological Association (APA) defines psychosis as “an abnormal state involving significant problems with reality testing. It is characterized by serious impairments or disruptions in the most fundamental higher brain functions—perception, cognition and cognitive processing, and emotions or affect...” (APA, 2022a).

Symptoms include delusions (false beliefs), hallucinations (seeing, hearing, smelling, tasting, or feeling things that others do not experience), incoherent or nonsense speech, behavior that is inappropriate to the situation, extreme uneasiness with others, catatonia (frozen appearance), sometimes preceded by or in combination with depression, anxiety, sleep problems, social withdrawal, lack of motivation, sudden decline in self-care, trouble thinking clearly or concentrating, and difficulty functioning overall (Arciniegas, 2015; NIMH, 2015). Episodes are sometimes accompanied by violent acts most often self-directed (NIMH, 2015).

Symptoms are different for everyone and often occur as episodes that can last a few hours to six months or longer, depending on the cause and access to treatment.

estimated to be 272/100,000 persons per year (Radigan et al., 2019) (see *Social Determinants of Health* for more information).

There appear to be differences by sex²⁴ in FEP characteristics and outcomes. In a review by Ochoa et al. (2012), evidence shows that among people diagnosed with FEP, males are diagnosed at an earlier age than females; substance use is greater among males compared with females, and females tend to have better remission and lower relapse rates than males. However, differences in the symptoms between males and females diagnosed with FEP are inconclusive. While some studies found negative symptoms (e.g., blunted affect, emotional withdrawal, poor rapport, lack of spontaneity [APA, 2022b]) were higher among men and affective symptoms (e.g., symptoms of psychosis during mood episodes associated with bipolar disorder or major depressive disorder [APA, 2022c]) were higher among women; several other studies found no significant clinical differences in symptoms between men and women (Ochoa et al., 2012).

Symptom progression and outcomes: Remission and recovery

People experiencing FEP progress through stages of symptoms (early onset, prodromal, acute, recovery) and ultimately may be diagnosed with milder mental health conditions that include remission and recovery, to more serious mental health conditions (e.g., schizophrenia) that result in episodic courses, or even antipsychotic treatment-resistant illness (Suvisaari et al., 2018). “Episodic course” is the most common presentation with cyclic periods of remission and symptom presentation (Morgan et al., 2014); a minority of people experience early sustained recovery (Lappin et al., 2018).

Remission and Recovery

Remission: Symptoms of FEP abate and return to pre-morbid functioning for at least 6 months.

Recovery: Reduction in symptoms of FEP and improvements in social, occupational, and educational functioning sustained for greater than 2 years (Lally et al., 2017).

A systematic review and meta-analysis determined that 58% of those diagnosed with FEP and receiving some sort of mental health treatment experience periods of remission and 38% experience recovery with an average study follow up of 7 years. The authors note that although remission rates have improved over time, recovery rates have decreased (from 45% [1976-1996] compared 32% [1997-2016]) (Lally et al., 2017). Differences in outcomes are attributable to interacting factors such as duration of untreated psychosis, age of onset, severity of negative symptoms, co-occurring physical health diagnosis, co-occurring substance use, history of suicide attempts and suicidal ideation, and environmental risk factors.

Co-occurring substance use

Substance use is common among people with FEP with approximately one-half of FEP patients who present for treatment have a current substance use disorder, and continued substance use in treatment is associated with increased symptoms, treatment nonadherence, relapses, and hospitalizations (Wade et al., 2006; Wisdom et al., 2015).

Mental Health Diagnoses Associated with FEP

FEP is a person’s first experience with psychosis; the symptoms inform a clinical diagnosis. Common diagnoses with associated psychotic features include the following (APA, 2013):

- Brief psychotic disorder (i.e., short, sudden episodes usually lasting less than 1 month and occurring in response to stressful situations or sleep deprivation)

²⁴ CHBRP uses the National Institutes of Health (NIH) distinction between “sex” and “gender.” “Sex’ refers to biological differences between females and males, including chromosomes, sex organs, and endogenous hormonal profiles. ‘Gender’ refers to socially constructed and enacted roles and behaviors which occur in a historical and cultural context and vary across societies and over time.” (NIH, 2019).

- Substance/medication-induced psychotic disorder (can occur during withdrawal from substances and is short term)
- Schizophrenia-related disorders:
 - Schizophrenia
 - Schizophreniform disorder
 - Schizoaffective disorder
 - Other specified schizophrenia spectrum and other psychotic disorder
 - Unspecified schizophrenia spectrum and psychotic disorder
- Psychotic disorder due to another medical condition (e.g., seizure disorders, stroke, Parkinson's disease, endocrine disorders) (Keshava and Kaneko, 2013; NIMH, 2015)

Risk Factors for FEP and Psychosis

Risk factors for psychosis vary across populations. Multiple genetic and environmental risk factors can have a cumulative effect placing persons at clinical high risk (CHR) for developing psychosis (Fusar-Poli et al., 2012; Radua et al., 2018).

The following risk factors impact people differently throughout the lifespan and at different times throughout disease progression (Heckers, 2009). Risk factors include:

- *Environmental factors*: Environmental risk factors for developing psychosis can occur during three stages of life: early life (obstetric complications, season of birth, prenatal/postnatal infection, maternal malnutrition, maternal stress), childhood (adverse child rearing, head injury), and later life (drug abuse, migration/ethnicity, urbanization, social adversity, life events) (Dean and Murray, 2005). Childhood adversities are associated with increased risk for psychotic experiences, episodes, and disorders. There is evidence of dose-response relationship between the higher number of traumatic events and the odds of psychotic experiences and developing FEP (McGrath et al., 2017). (See Social Determinants of Health for further discussion).
- *Familial and genetic factors*: Familial history with elevated risk of first-, second-, and third-degree relatives developing schizophrenia (Maier et al., 2002). Among persons with FEP, 17.6% report first-degree relatives with any psychotic disorders and 33.8% report first- or second-degree relatives with any psychotic disorders (Faridi et al, 2009).

Treatment for First-Episode Psychosis

The course and outcomes of psychotic disorders are highly variable; some are long-term disorders (e.g., schizophrenia) that are punctuated by periods of active disease and remission and others that essentially resolve (e.g., brief psychotic disorder) (Heckers, 2009).

Common outpatient treatments (“treatment-as-usual”) for persons with FEP include pharmacotherapy (of which medication management is a component) and sometimes psychotherapy, case management, or family support. FEP treatment may be administered by individual providers or through coordinated, team-based clinics, the CSC model being an example of the latter. There are a variety of early intervention programs that treat people with FEP from psychosis onset throughout the stages of disease progression (Westat, 2017). SB 1337 focuses on a specific model for early intervention as described in the National Institute of Mental Health publication, *Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation* (NIMH, 2014).

Coordinated Specialty Care Model

The CSC model for FEP has been implemented in every state in the United States over the past two decades (Niendam et al., 2019).

CSC is an outpatient early intervention program designed for people experiencing symptoms of psychosis within 2 years of symptom onset. Although the care team composition, services offered, and eligible client population vary among CSC programs across the United States, the characteristics that differentiate it from outpatient “treatment-as-usual” are **small caseloads** (~30 clients) that are assigned to **care teams** to deliver comprehensive and coordinated early intervention services for people with FEP for **1 to 3 years**. These programs also provide outreach and recruitment, education and employment support, and coordinated family education and support, which are not typically covered by insurance and less likely to be provided by many individual providers. CSC programs may have one or more teams that may or may not be co-located. Advantages of co-location include economies of scale in administrative costs and convenience for clients, while advantages of multiple teams and locations include less stigma associated with visiting a county mental health clinic, which some people may want to avoid entirely.

SB 1337 instructs the Department of Managed Health Care, the California Department of Insurance, and the Department of Health Care Services to form a working group to identify a bundled set of services for insurance coverage and to establish eligibility criteria for CSC programs based on the NIMH manual CSC team model. The NIMH manual CSC team model, informed by the Recovery After an Initial Schizophrenia Episode Implementation and Evaluation Study (RAISE) trial (see *Medical Effectiveness* section), is a team-based program, frequently within an existing mental health clinic, that uses a comprehensive coordinated care approach to serve persons who are experiencing emerging psychosis (NIMH, 2014).

The NIMH manual provides resources and tools to help establish new CSC clinics such as program structure description; staff composition, training, and supervision; budgeting; and recommended inclusion/exclusion criteria for clientele (populations and diagnoses) (NIMH, 2014).

As described in the NIMH manual, the following diagnoses are examples used for inclusion/exclusion criteria for the CSC program used in the RAISE trial (NIMH, 2014):

- Inclusion:
 - Schizophrenia-related disorders
 - Psychosis not otherwise specified (NOS)
 - Brief psychotic disorder
- Exclusion:
 - Substance-induced psychotic disorder
 - Psychotic affective disorder (e.g., major depressive or manic episode with psychotic features)
 - Psychotic disorder due to a general medical condition
 - Medical conditions that impair function independent of psychosis
 - Intellectual disability

The NIMH manual further states that programs “may consider expanding to include individuals experiencing mood-or substance-induced psychosis” (NIMH, 2014).

Table 3 describes the basic CSC model used in the RAISE trial that is referenced in SB 1337 (Heinssen et al., 2014; NIMH, 2014). The information provided in the NIMH manual allows for significant flexibility. The NIMH manual states that different CSC team programs may have unique staffing and program needs depending on the location and circumstances of the program (NIMH, 2014). Table 3 is an example of components, services, and staffing as described in the NIMH manual CSC team model.

Table 3. Description of the NIMH CSC Model Used in the RAISE Trial

CSC Model	
Types of providers	<ol style="list-style-type: none"> 1. Team Leader (1 FTE) 2. Team Psychiatrist (0.2 FTE) 3. Supported Educational and Employment Specialist (1.0 FTE) 4. Recovery Coach working with both client and family (0.5 FTE) 5. Outreach and Referral Specialist, (0.5 FTE)
Types of services	<p>Psychiatric visits, medication management and primary care coordination, outpatient psychotherapy (individual, group, and/or family counseling), assertive case management (e.g., suicide prevention planning), coordinated family education and support (psychoeducation, relapse prevention counseling, and crisis intervention services), outreach recruitment and intake (single point-of-entry coordinated by one person to raise awareness and bridge community [e.g., schools, local clinics, churches] to CSC services)</p> <p><i>*Team may provide referrals to services not included in CSC such as cognitive behavioral treatment for depression, anxiety, or PTSD; inpatient substance use disorder treatment; primary care; and lab services.</i></p>
Eligible population	<ul style="list-style-type: none"> • Age range: 15 to 35 years • Diagnosis: schizophrenia, schizoaffective and schizophreniform disorders, delusional disorder, psychosis not otherwise specified (NOS) • Duration of psychotic symptoms: >1 week and <2 years • Anticipated availability to attend the clinic for 1 year <p><i>*RAISE trial exclusions: Substance-induced psychotic disorder; psychotic affective disorder (e.g., major depressive or manic episode with psychotic features); psychotic disorder due to a general medical condition; medical conditions that impair function independent of psychosis; intellectual disability</i></p>
Program caseload and duration	<p>About 30 clients per team</p> <p>Minimum attendance 1 year; 2 years is optimal</p> <p><i>*NIMH states that a population of 550,000 people will have enough FEP cases (of those interested in attending clinic) to fill a client panel for one CSC team.</i></p>
Geographic location	<p>Clients live within 30 minutes of a clinic that offers education and employment services, or within 45 minutes of a clinic without those services</p>

Source: California Health Benefits Review Program, 2022. Based on Heinssen et al., 2014, and NIMH, 2014.

Key: CSC = coordinated specialty care; FEP = first-episode psychosis; FTE = full-time equivalent; NIMH = National Institute of Mental Health; PTSD = post-traumatic stress disorder; RAISE = Recovery After an Initial Schizophrenia Episode Implementation and Evaluation.

Comparison of Outpatient Treatment-as-Usual with CSC Model

Some of the CSC team model services included in the NIMH manual overlap with outpatient treatment-as-usual services. Table 4 compares the basic components of care to outpatient treatment-as-usual, which does not require coordination among providers sought individually by patients. Primary differences between CSC and outpatient treatment-as-usual are that the CSC model offers: (1) services as a collaborative, recovery-oriented team that involves shared decision-making between client, team members, and relatives in the early stages of FEP, (2) a team of several trained providers that share a caseload of clients; (3) has a terminal timeframe of up to 2 to 3 years; and (4) offers outreach and support in pursuit of education/employment and family support (Heinssen et al., 2014); whereas outpatient treatment-as-usual provides fewer service components than CSC, and the services remain predominantly siloed by provider (such as psychiatrist and therapist) who are engaged separately by a patient or their family. Clients engaged with CSC or outpatient treatment-as-usual may access other health services

(e.g., inpatient psychiatric hospitalization, emergency department visits, substance use disorder treatment) in addition to the components described in Table 4.

Table 4. Comparison of the Key Components of Coordinated Specialty Care for FEP and Outpatient Treatment-as-Usual

	Outpatient Treatment-as-Usual	CSC Model
Team leadership	NA	Coordinates team and client treatment plan
Psychiatry and medication management	Diagnoses condition and prescribes/manages psychiatric medication(s)	Diagnoses condition and prescribes/manages psychiatric medication(s) including low-dose antipsychotic medications
Primary care coordination	NA	Coordination with primary medical care
Outpatient psychotherapy	Individual and/or group therapy (may include cognitive behavioral treatment)	Individual and/or group therapy (may include cognitive behavioral treatment) and/or family counseling
Assertive case management	NA	Assertive case management functions in clinic and community settings (e.g., suicide prevention planning)
Coordinated family education and support	NA	Psychoeducation, relapse prevention counseling, and crisis intervention services
Employment and education support	NA	Training, placement, and ongoing employment or educational support
Outreach recruitment and intake	NA	Single point-of-entry coordinated by one person to identify primary psychosis and perform differential diagnoses for symptom profiles; raise awareness and bridge community (e.g., schools, local clinics, churches, primary care clinics, other mental health providers) to CSC services
Recovery coach/therapist	NA (separate substance use disorder counseling may occur)	Provide structured behavioral interventions for learning new skills and supporting behavior change, including social skills training, substance abuse treatment, behavioral activation, coping skills training, and psychoeducation

Source: California Health Benefits Review Program, 2022. Based on NIMH, 2014; NIMH, 2015; Westat, 2017.

Key: CSC = coordinated specialty care; FEP = first-episode psychosis.

Fidelity to the NIMH manual CSC team model varies according to one or more of the following categories: range of treatment services offered, different naming conventions of similar practices, different provider composition within organization and different partnership organizations (e.g., nonprofits, county programs, and community academic partners), and fidelity monitoring processes for quality management and improvement (Niendam et al., 2019). Although CSC models differ, the key characteristics listed in Table 4 should be included in each program to be considered a CSC program (Read and Kohrt, 2021).

Behavioral Health Workforce in California

Behavioral health providers

California faces challenges with maintaining and growing its behavioral health workforce. A study from 2018 estimates that the provider supply will atrophy due to an aging workforce and inadequate and unequal distribution of trainee programs in the state. By 2028, California is projected to have 50% fewer psychiatrists and 28% fewer psychologists, licensed marriage and family therapists, licensed professional clinical counselors and licensed clinical social workers combined than will be needed to a) continue treating current patients and b) treating those with currently unmet demand for behavioral health services (Coffman et al., 2018).

CSC providers

CSC programs need to employ a team of behavioral health care providers, with a range of skillsets, most with advanced training. The number of CSC-like programs in California may be up to 50 statewide today, though concentrated in urban areas. These programs serve primarily Medi-Cal beneficiaries rather than privately insured enrollees.²⁵ These programs have been in development since 2004, when California passed Prop 63, the Mental Health Services Act (MHSA). The MHSA established funds for counties to develop mental health services including prevention and early intervention services. Counties established evidence-based early psychosis care models at their discretion and tailored to the local population (Niendam et al., 2019). CHBRP found two sources citing CSC clinics in California (with varying NIMH CSC fidelity): the Early Psychosis Intervention Network EPINET), shows 18 California clinics associated with the research-based EPI-CAL Regional Hub, and the Early Serious Mental Illness Treatment Locator shows 32 CSC programs across California (inclusive of the EPINET tally) (EPINET, 2022; SAMSHA, 2021).

Niendam et al. (2019) provide a summary of California's early psychosis programs in 2016–2017: 30 active programs identified that provided treatment for early psychosis (29 programs provided complete or partial data for analysis); about half of the programs served clients between ages 12 to 25 years (range 10–40 years); with an average of 24 months of untreated psychosis (range 6–60 months). Services were provided for an average of 2 years (range 1 year to unlimited time). Client intakes per month ranged from 0 to 40 clients, with two-thirds of programs reporting an average of 10 or fewer new clients per month and a median of 35 clients per program receiving services per month. Forty-one percent of counties reported at least one active program for treatment of early psychosis, 21% of counties reported programs under development, and 38% of counties reported no early psychosis program. Twenty programs provided services for FEP clients using five different CSC models and eight programs reported using various aspects of CSC. Eighty percent of the CSC models provided at least half of the study's 30 possible coordinated care services (Niendam et al., 2019).

Barriers to Early Intervention Services

People with FEP often experience long delays in care between the first onset of symptoms of psychosis and receiving mental health services, known as duration of untreated psychosis. There are multiple

²⁵ Personal Communication, R. Loewy, PhD, March 2022.

factors that create barriers for people seeking treatment for FEP; these barriers may occur at the person-level and/or societal level (Birnbaum et al., 2018; dos Santos Martin et al., 2018; Moe et al, 2018).

- Person-level barriers include:
 - Presence of psychotic symptoms (e.g., paranoia related to providers or treatment, lack of insight and acknowledgement of needing treatment)
 - Treatment does not align with personal goals (e.g., side effects from antipsychotic medications)
 - Lack of knowledge of where or how to access treatment
 - Cost of treatment
 - Lack of insurance
 - Prior trauma with healthcare and distrust of providers
 - Desire to avoid stigmatizing diagnosis
 - Misdiagnosis of early symptoms
 - Lack of support from family or peers
- Societal-level barriers include:
 - Low collaboration of groups within organizations
 - Inconsistent use of treatments by organizations
 - Poor coordination between mental health stakeholders and external organizations
 - Lack of mental health policy and funding for services

Barriers such as misdiagnosis, lack of knowledge about where to get treatment, and stigma are addressed by the CSC model of care through services provided by the outreach and referral specialist, and some societal-level barriers are addressed by the CSC model of care by providing comprehensive and organized mental health services as established by the NIMH manual.

Societal Impact of First-Episode Psychosis

Increased Risk of Mortality

The 12-month mortality among people with FEP is 24 times higher than the age-matched general population. People at greatest risk of mortality within 12 months of FEP are those who receive less outpatient treatment and more intermittent hospitalization and emergency care (Schoenbaum et al., 2017).

People with psychotic disorders such as schizophrenia experience higher mortality rates than the general population (Brown, 1997) with a two-to-three-fold increased risk of dying (McGrath et al., 2008; Suvisaari et al., 2013), elevated suicide rates (Palmer et al., 2005), die 10 to 15 years earlier, and increased risk of premature death related to comorbid conditions (Brown, 1997).

Suicide Risk

People with FEP are at increased risk of suicide throughout their illness, but the risk is especially high during the stages before treatment and one year following treatment (Pompili et al., 2011). Between 21.7% and 31.4% of people with FEP report a history of suicidal ideation and 7.3% to 33% report a history of at least one suicide attempt before treatment (Sicotte et al., 2021). Two strong predictors of suicide ideation and attempts for people with FEP are younger age and perceived stress (Vila-Badia et al., 2022).

Caregiver FEP Burden

A high level of caregiver burden during FEP is a predictor of poorer long-term outcomes for people diagnosed with FEP (Addington et al., 2003; Alvaraez-Jimenez et al., 2012). Caregivers experience psychological, emotional, physical, and financial distress with different types of burden experienced associated with the caregiver's own health beliefs, gender, and cultural differences (McCann et al., 2009; Patel et al., 2014).

Societal Cost of FEP and Psychotic Disorders

Psychotic disorders have direct and indirect economic and societal costs: criminal justice involvement, hospitalization, work-days missed, quality of life, premature mortality, suicide in early stages of illness (schizophrenia), and financial costs are disproportionately high compared to other disorders (Desai et al., 2013). They are the most expensive mental illness as cost-per-patient due to higher rates of hospitalization, justice system involvement, suicide risk, mortality, and caregiver burden (Rossler et al., 2005). See the *Benefit Coverage, Utilization, and Cost Impacts* section for estimates of the financial impacts for the commercially insured persons with health insurance subject to SB 1337.

Disparities²⁶ and Social Determinants of Health²⁷ in First-Episode Psychosis

Per statute, CHBRP includes discussion of disparities and social determinants of health (SDOH) as it relates to the FEP. Disparities are noticeable and preventable differences between groups of people.

CHBRP found evidence identifying disparities by race/ethnicity and FEP, as well as evidence of non-modifiable differences in FEP and psychosis onset and symptoms by age and sexual orientation (gender differences discussed in Incidence and Progression of FEP above).

Disparities

Race or ethnicity

Lifetime rates of psychotic symptoms are higher among Black (15.3%) and Hispanic (13.6%) people compared to White (9.7%) and Asian (9.6%) people (Cohen and Marino, 2013). Although rates of psychosis are higher among Black and Hispanic people, there is evidence that racial and ethnic minorities are more likely to experience implicit bias and less likely to have access to mental health services compared to White people (Kohn-Wood and Hooper, 2014).

Further research shows that Black patients with severe mental health illness experience disparities in accessing appropriate mental health care, disproportionately higher rates of diagnosis of schizophrenia and psychotic disorders, less appropriate pharmacologic treatment (e.g., prescribed second-generation antipsychotic drugs less than White patients), and less culturally appropriate early intervention services and community care for severe mental illness (Asonye et al., 2020).

In a large observational cohort study of privately insured enrollees, Black enrollees were more likely and Hispanic enrollees were less likely to receive an FEP diagnosis compared to White enrollees. The year before diagnosis of FEP, Black and Hispanic enrollees were less likely to engage with outpatient services

²⁶ Several competing definitions of "health disparities" exist. CHBRP relies on the following definition: Health disparity is defined as the differences, whether unjust or not, in health status or outcomes within a population (Wyatt et al., 2016).

²⁷ CHBRP defines social determinants of health as conditions in which people are born, grow, live, work, learn, and age. These social determinants of health (economic factors, social factors, education, physical environment) are shaped by the distribution of money, power, and resources and impacted by policy (adapted from: CDC, 2014; Office of Disease Prevention and Health Promotion. 2019).

and antidepressant and antipsychotic prescription fills compared to White enrollees diagnosed with FEP (Heun-Johnson et al., 2021).

Sexual orientation

In a review of the literature, *limited evidence* suggests that persons within the LGBT population are at increased risk of developing severe mental illness compared to the general population due to discrimination, and the mental health services available for the LGBT population are “often inadequate and stigmatizing” (Kidd et al., 2016).

Age

As noted above, there are also differences in age at FEP onset. This may result in some disparities for treatment and outcomes. For example, duration of untreated psychosis for FEP occurring in adolescence (15–18 years of age) is associated with poorer outcomes such as longer delays in treatment of psychosis, worse premorbid functioning during later adolescence, and increased likelihood of presenting with bizarre behavior and primary negative symptoms compared to young adults (19–30 years of age) with FEP (Ballageer et al., 2005).

Social Determinants of Health

Social determinants of health (SDOH) include factors outside of the traditional medical care system that influence health status and health outcomes (e.g., income, education, geography). As discussed earlier in Risk Factors of FEP and Psychosis, there are environmental factors contributing to the increased risk of FEP.

Employment

Sustained employment (or educational pursuit) by people with FEP results in financial independence, social contact, personal meaning in life, and increased self-worth and self-efficacy (Rinaldi et al., 2010). A meta-analysis that included studies of people with FEP who accessed mental health services for the first time, showed that about one-third maintained employment at the end of a nine-year follow-up (Ajnakina et al., 2021). Despite the aforementioned benefits of employment, many people with FEP start to lose employment at the onset of the first symptoms of psychosis with rates of employment declining within the first few years of first contact with mental health services (Rinaldi et al., 2010). Young people who develop FEP face barriers to completing educational and occupational goals during this formative life stage of entering into adulthood (Rinaldi et al., 2010). The loss of employment can lead to loss of employer-based insurance, which can be a barrier to obtaining health care.

Homelessness

In a study with CSC program participants (OnTrackNY²⁸), 5.5% of participants with FEP were homeless at the onset of early intervention services. These participants experiencing homelessness had a lower likelihood of accessing public income resources or financial assistance from family, lower rates of employment and school participation (despite similar attainment), and lower functioning related to social, occupational, and symptom factors compared to housed participants (Lee et al., 2021).

Rural communities

People with FEP living in rural communities experience disparities in accessing CSC services due to lack of programs established in rural areas compared to urban areas as well as workforce limitations (Crisanti

²⁸ “Over 20 OnTrackNY CSC teams provide multidisciplinary, evidence-based psychosocial interventions and medication throughout New York State in urban and nonurban areas”(Lee et al., 2021).

et al., 2015). CSC requires a multidisciplinary team approach across different healthcare services and CSC programs in rural areas may require team members to fill multiple roles. Additionally, weak transportation infrastructure in rural communities compared to urban centers creates challenges for persons with inadequate transportation to stay involved with the CSC program and attend scheduled appointments within the clinic (Crisanti et al., 2015).

Trauma/adverse child events

As discussed in *Risk Factors for FEP and Psychosis*, childhood adversities and trauma are associated with increased risk of psychotic experiences, and there is a dose-response for traumatic experiences and risk of developing FEP (McGrath et al., 2017). The experiences of childhood and adolescent sexual, physical, emotional abuse, and physical and emotional neglect, separation, and institutionalization are all associated with FEP and a greater number of trauma/adverse child events are associated with increased risk of psychosis (every additional adversity is associated with 2.5 times greater risk of psychosis) instead of one specific type of trauma/adverse child event (Trauelsen et al., 2015).

Immigration

Immigration status is associated with increased risk of developing psychotic disorders and “inequitably affects migrants and their descendants in high-income countries” (Jongsma et al., 2021). Greater frequency of psychotic disorders among ethnic minority groups may be associated with markers of social disadvantage (stronger effect among second- and later-generation ethnic minority groups) and linguistic distance (stronger effect among first-generation migrants) (Jongsma et al., 2021). Although there is evidence of disparities among migrant and ethnic minorities related to increased risk of FEP, the majority of research has been conducted outside of the United States.

MEDICAL EFFECTIVENESS

As discussed in the *Policy Context* section, SB 1337 would mandate coverage of coordinated specialty care (CSC) for first-episode psychosis (FEP). CSC is a multidisciplinary care team intervention to treat people who are experiencing, or have experienced, a recent-onset psychosis. CSC services include medication, psychotherapy, psychoeducation, educational and employment support. The medical effectiveness review summarizes findings from evidence²⁹ on how CSC affects the utilization of other mental health services and impacts mental health outcomes. Additional information on CSC for FEP is included in the *Background* section.

Research Approach and Methods

Studies of CSC were identified through searches of PubMed, the Cochrane Library, Web of Science, and PsycINFO. Websites maintained by the following organizations that produce and/or index meta-analyses and systematic reviews were also searched: the Agency for Healthcare Research and Quality (AHRQ), the National Health Service (NHS) Centre for Reviews and Dissemination, the National Institute for Health and Clinical Excellence (NICE), and the Scottish Intercollegiate Guideline Network.

The search was limited to abstracts of studies published in English.

The search was limited to studies published from 2012 to present. Of the 110 articles found in the literature review, 25 were reviewed for potential inclusion in this report on SB 1337 and a total of 15 articles were included in the medical effectiveness review for this report. The other articles were eliminated because they did not focus on treatment that encompasses multiple components of care as described in the bill (e.g., only assessed the effect of medication), were of poor quality, or did not report findings from clinical research studies. A more thorough description of the methods used to conduct the medical effectiveness review and the process used to grade the evidence for each outcome measure is presented in Appendix B.

The conclusions below are based on the best available evidence from peer-reviewed and grey literature.³⁰ Unpublished studies are not reviewed because the results of such studies, if they exist, cannot be obtained within the 60-day timeframe for CHBRP reports.

Key Questions

1. Is there evidence that CSC services increase engagement with outpatient mental health services?
2. Is there evidence that CSC services reduce use of inpatient and emergency psychiatric services?
3. Is there evidence that CSC services improve mental health outcomes?
4. Is there evidence that CSC services improve quality of life (quality-of-life scale)?
5. Is there evidence that engaging with CSC services for a longer period of time improves outcomes?

²⁹ Much of the discussion in this section is focused on reviews of available literature. However, as noted in the section on Implementing the Hierarchy of Evidence on page 11 of the *Medical Effectiveness Analysis and Research Approach* document (posted at http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php), in the absence of fully applicable to the analysis peer-reviewed literature on well-designed randomized controlled trials (RCTs), CHBRP's hierarchy of evidence allows for the inclusion of other evidence.

³⁰ Grey literature consists of material that is not published commercially or indexed systematically in bibliographic databases. For more information on CHBRP's use of grey literature, visit http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php.

The goal of CSC is to improve mental health outcomes and quality of life for people with FEP by providing multidisciplinary care that increases their engagement in treatment and adherence to recommended treatment. If receiving CSC is associated with greater engagement in treatment relative to other interventions for FEP, one would expect that receiving CSC would lead to reductions in hospitalizations and emergency department (ED) visits for acute psychiatric care as well as improvements in mental health outcomes and quality of life.

Methodological Considerations

The majority of findings regarding the effectiveness of CSC are based on a large systematic review of specialized early intervention (SEI) services (Puntis et al., 2020). SEI is an umbrella term that encompasses CSC and refers to a multidisciplinary community mental health team that treats people experiencing, or who have recently experienced, their first episode of a psychotic illness (Fusar-Poli 2017). Studies generally included persons with schizophrenia, schizoaffective disorder, or schizophreniform, or a diagnosis of an unspecified or other psychotic illness and generally did not include persons with psychosis related to a medical condition. The review included three randomized controlled trials (RCTs), one cluster-RCT with a total of 1,145 participants. The mean age in the trials was between 23.1 years (RAISE) and 26.6 years (OPUS). The included participants were 405 females (35.4%) and 740 males (64.6%). All trials took place in community mental healthcare settings. An additional RCT of 444 FEP patients randomized to CSC or usual care was included in the analysis (Ruggeri et al., 2015).

A major methodological limitation of the literature about the effectiveness of CSC is that studies compare CSC to outpatient treatment-as-usual, which can vary substantially across patients, organizations that provide mental health services, and communities. The use of outpatient treatment-as-usual as a comparison limits CHBRP's ability to know how different CSC is from the care people in the comparison group receive. In some cases, outpatient treatment-as-usual may include the delivery of multiple types of services that are similar to CSC services, but in other cases it may only consist of one or two services (e.g., psychiatry and medication management but no psychotherapy or assistance with education or employment).

Outcomes Assessed

Outcomes assessed in this review include:

- Engagement with outpatient mental health services;
- The use of mental health services, including emergency room visits, inpatient hospitalization admissions and number of days, and medication adherence; and
- Mental health outcomes including as recovery and remission from psychosis, psychotic symptoms, depressive and negative symptoms, hallucinations and delusions, and symptoms, mental health status scores, quality-of-life scales, general functioning, and recreational drug use.

The medical effectiveness review also summarizes findings from studies that assessed the impact of differences in duration of engagement with CSC services and studies that examined whether the impact of CSC varies by client socioeconomic status.

Study Findings

The following section summarizes CHBRP's findings regarding the strength of evidence for the effectiveness of CSC services addressed by SB 1337. Each section is accompanied by a corresponding figure. The title of the figure indicates the test, treatment, or service for which evidence is summarized. The statement in the box above the figure presents CHBRP's conclusion regarding the strength of evidence about the effect of a particular test, treatment, or service based on a specific relevant outcome

and the number of studies on which CHBRP's conclusion is based. Definitions of CHBRP's grading scale terms is included in the box below, and more information is included in Appendix B.

The findings from the RCTs differ across outcomes measured. The studies also reported differences between findings at different points in time. Specifically, the strength of treatment effects decreases as length of follow-up increases. In addition, for some outcomes, the uncontrolled observational studies yield findings that favor CSC but the RCTs do not, which suggests that CSC may improve these mental health outcomes but that the level of improvement is similar to that found among people who are engaged with outpatient treatment-as-usual for FEP.

Impact of CSC Relative to Outpatient Treatment-as-Usual

Taken together, the evidence regarding the impact of CSC is variable, depending on the outcome.

- CHBRP found a *preponderance of evidence* that CSC increases treatment adherence, reduces admissions to a psychiatric hospital, and improves positive and negative psychotic symptoms and general functioning compared to outpatient treatment-as-usual.
- CHBRP found *limited evidence* that CSC reduces the mean number of hospital days per year, increases the likelihood that people will recover from psychosis and improves cognitive functioning compared to outpatient treatment-as-usual.
- CHBRP found *limited evidence* that CSC does not affect relapse rates or quality of life compared to outpatient treatment-as-usual.
- CHBRP found *inconclusive evidence* that CSC decreases general psychotic symptoms and depressive symptoms, compared to outpatient treatment-as-usual.
- CHBRP found *insufficient evidence* about the effects of CSC compared to outpatient treatment-as-usual emergency room visits, recreational drug use, and incidence of violence compared to outpatient treatment-as-usual.

Impact of Shorter Versus Longer Duration of CSC

- CHBRP found *limited evidence* that, relative to receiving CSC for an average of 2 years, engaging with CSC services for up to 5 years:
 - Reduces disengagements from mental health treatment services;
 - Does not reduce psychiatric hospital utilization or improve general functioning; and
 - Increases remission rates.

The Impact of Socioeconomic Difference in the Impact of CSC

- There is *limited evidence* that the effects of CSC vary by socioeconomic status.

The following terms are used to characterize the body of evidence regarding an outcome:

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.

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

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.

Inconclusive evidence indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.

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.

More information is available in Appendix B.

Findings on Treatment Engagement

The studies of treatment engagement that CHBRP identified have only analyzed the impact of CSC on disengagement from treatment, which they define as stopping treatment despite need. Three RCTs from a systematic review (Puntis et al., 2020) reported that fewer participants who engaged with CSC/SEI services disengaged from mental health treatment services than participants who engaged with outpatient treatment-as-usual (8% vs. 15%) (risk ratio [RR] = 0.50; 3 studies, 630 participants). Another found no statistically significant difference in disengagement from treatment between participants who engaged with CSC services compared to outpatient treatment-as-usual (Ruggeri et al., 2015; 626 participants).

Summary of findings regarding CSC on treatment engagement: *Preponderance of evidence* suggests that CSC effectively reduced the percentage of participants who stopped treatment despite need compared to outpatient treatment-as-usual, based on three RCTs. An additional RCT reported no statistically significant difference in disengagement from treatment between participants who engaged with CSC services compared to outpatient treatment-as-usual.



Findings on Use of Inpatient Mental Health Services

Admissions to psychiatric hospital

Four RCTs from the Puntis et al. (2020) review reported evidence that CSC may result in fewer admissions to a psychiatric hospital than usual care at the end of treatment (52% vs. 57%; 4 studies, 1,145 participants). An additional RCT found no statistically significant difference in the number of psychiatric hospital admissions for patients engaged with CSC services compared to usual care (Ruggeri et al., 2015; 626 participants).

Summary of findings regarding CSC on the admissions to a psychiatric hospital: There is a *preponderance of evidence* that CSC may result in fewer admissions to a psychiatric hospital than usual care, based on five studies.



Psychiatric hospital days (mean per year)

One RCT from the Puntis et al. (2020) review reported, on average, 27 fewer mean hospital days per year for patients engaged with CSC services compared to treatment-as-usual (1 study, 547 participants). An additional RCT found no statistically significant difference in the mean number of psychiatric hospital days per year for patients engaged with CSC services compared to treatment-as-usual (Ruggeri et al., 2015). An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant decrease in hospitalizations from baseline to 12 months (after CSC implementation) (-54%; p = .009) The lack of a comparison group limits the strength of evidence from the Massachusetts study because one cannot determine whether people with FEP who engaged with CSC services had fewer psychiatric hospitalizations than people with FEP who engaged with other treatments (Kline et al., 2021).

Summary of findings regarding CSC on the use of hospital mental health services: There is *limited evidence* that CSC may result in fewer mean hospital days per year than treatment-as-usual, based on three studies.



Emergency room visits

An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant decrease in emergency room visits at 6 months from baseline (-67%; p = .05) (Kline et al., 2021), but without a comparison one cannot ascertain whether the change in emergency room visits among people who engaged with CSC services was different from that of people who engaged with outpatient treatment-as-usual.

Summary of findings regarding CSC on the use of emergency room visits: There is *insufficient evidence* that CSC may result in fewer emergency room visits than outpatient treatment-as-usual, based on one uncontrolled study.



Findings on Mental Health Outcomes

Recovery from psychosis at the end of treatment

In the Puntis et al. (2020) review, two RCTs reported that CSC resulted in more participants in recovery from psychosis than outpatient treatment-as-usual at the end of treatment (73% vs. 52%; RR = 1.41; LEO and OTP trials, 194 participants).

Summary of findings regarding CSC on recovery from psychosis at end of treatment: CHBRP found *limited evidence* that, compared to outpatient treatment-as-usual, CSC increases the likelihood that people will recover from psychosis, based on two RCTs.



Psychotic Symptoms

Findings from the Puntis et al. (2020) systematic review regarding the impact of CSC on psychotic symptoms were mixed.

General psychotic symptoms

Two RCTs included in the Puntis et al. (2020) systematic review reported no significant difference on mental state scale scores for general psychotic symptoms between people engaged with CSC services and outpatient treatment-as-usual at the end of treatment (2 studies, 304 participants).

Another RCT reported significant improvement in general psychopathology as measured by the Positive and Negative Syndrome Scale (PANSS) and total PANSS scores at end of treatment (9 months) for CSC compared to outpatient treatment-as-usual (Ruggeri et al., 2015; 626 participants).

In a small uncontrolled observational survey study of patients' perceptions while undergoing CSC, 58 of 121 participants (50%) reported improvement in overall psychopathology, and 32 (31%) identified these improved symptoms as the most important part of treatment (Daley et al., 2020). The lack of a comparison group limits the strength of evidence from this study because one cannot determine whether people with FEP who engaged with CSC services had fewer psychotic symptoms than people with FEP who engaged with other treatments.

Summary of findings regarding CSC on general psychotic symptoms: CHBRP found inconclusive evidence regarding the impact of CSC on general psychotic symptoms.



Positive psychotic symptoms (e.g., hallucinations, delusions)

Four trials from Puntis et al. (2020) reported significantly better average scores on specific symptom mental state scales for positive psychotic symptoms for CSC at end of treatment (24 months) compared to outpatient treatment-as-usual (4 studies, 723 participants), and one study in the review reported no significant difference at long-term follow-up (>60 months) (1 study, OPUS trial, 301 participants).

Another RCT reported no statistically significant difference in overall positive psychotic symptoms at end of treatment (9 months) for CSC compared to outpatient treatment-as-usual (Ruggeri et al., 2015; 626 participants), but found a significant reduction in severity and frequency of delusions (emotional and cognitive components) for patients in CSC compared to outpatient treatment-as-usual at 9 months follow-up ($p = 0.001$).

An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant improvement in clinical symptoms including reductions in hallucinations and delusions from baseline to 6 months ($p < .05$). Hallucinations did not show significant changes at 12 months (Kline et al., 2021).

Summary of findings regarding CSC on positive psychotic symptoms: CHBRP found a *preponderance of evidence* that CSC improves positive psychotic symptoms compared to outpatient treatment-as-usual based on two studies.



Negative symptoms (e.g., blunted affect, poor self-care)

Four trials from Puntis et al. (2020) reported significantly better than average scores on specific symptom mental state scales for negative psychotic symptoms at end of treatment (24 months) for CSC compared to outpatient treatment-as-usual (4 studies, 723 participants) and an additional study reported no significant difference for these scores at midpoint follow-up (1–60 months) and long-term follow-up (>60 months) (1 study, OPUS trial, 301 participants).

Another RCT reported no statistically significant difference in negative psychotic symptoms at end of treatment (9 months) for CSC compared to outpatient treatment-as-usual (Ruggeri et al., 2015; 626 participants).

An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant improvement in clinical negative symptoms from baseline to 6 months ($p < .05$) (Kline et al., 2021). Another uncontrolled observational study of CSC in Pennsylvania reported that CSC participants showed significantly decreased feelings of hopelessness and improved self-esteem, self-concept, and perception at 12 months after treatment (Westfall et al., 2021; 297 participants).

Summary of findings regarding CSC on negative psychotic symptoms: CHBRP found a *preponderance of evidence* that CSC improves negative psychotic symptoms compared to outpatient treatment-as-usual based on two studies.



Depressive Symptoms

Puntis et al. (2020) reported no significant difference in CSC compared to outpatient treatment-as-usual for depressive symptoms (1 study; 99 participants). An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant improvement in depression scores from baseline to 6 months ($p < .05$) (Kline et al., 2021). Another uncontrolled observational study conducted in Pennsylvania that assessed people engaged with CSC services at baseline and at 6 and 12 months thereafter reported that CSC participants showed significantly decreased measures of depression at 12 months after treatment (Westfall et al., 2021; 297 participants at 12 months follow-up). As with the Massachusetts study, the lack of a comparison group limits the strength of evidence from this study because one cannot determine whether people with FEP who engaged with CSC services had fewer depressive symptoms than people with FEP who engaged with other treatments.

Summary of findings regarding CSC on depressive symptoms: CHBRP found *inconclusive evidence* that CSC decreased effects on depressive symptoms, compared to outpatient treatment-as-usual, based on three studies,



Relapse Rates

Puntis et al. (2020) reported no significant difference in CSC compared to outpatient treatment-as-usual for relapse rates (RR = 0.71; 2 studies; 194 participants).

Summary of findings regarding CSC on relapse rates: CHBRP found *limited evidence* that CSC compared to outpatient treatment-as-usual does not affect relapse rates, based on two studies.



Quality-of-Life Scales

Two RCTs from Puntis et al. (2020) reported no difference between CSC and outpatient treatment-as-usual on average endpoint scores on quality-of-life scales (2 studies; 300 participants). An uncontrolled observational study of 287 patients in a CSC program in Massachusetts showed significant improvement in quality of life from baseline to 6 months ($p < .05$) (Kline et al., 2021).

Summary of findings regarding CSC on quality of life: CHBRP found *limited evidence* that CSC had *no effect* on quality of life compared to outpatient treatment-as-usual, based on three studies. Two RCTs found no difference in quality of life between people engaged with CSC and outpatient treatment-as-usual. One uncontrolled study found an improvement in quality of life but without a comparison group one cannot ascertain whether this improvement was greater than any improvement people who engaged with outpatient treatment-as-usual may have experienced.



General Functioning

Two RCTs from Puntis et al. (2020) reported greater levels of general functioning for patients engaged with CSC services at study endpoint (24 months) compared to outpatient treatment-as-usual (2 studies, 467 participants). One RCT (OPUS; 547 participants) from this review reported no significant difference on scores on a general functioning scale in long-term follow-up. Ruggeri et al., 2015, reported greater improvement in social functioning and emotional well-being in the CSC group than the control group at 9 months.

An uncontrolled observational study examining CSC in Pennsylvania reported that CSC participants showed significantly higher functioning at 12 months after treatment (Westfall et al., 2021; 297 participants at 12 months follow-up).

Summary of findings regarding CSC on general functioning: CHBRP found a *preponderance of evidence* that CSC improves general functioning compared to outpatient treatment-as-usual, based on four studies.



Cognitive Functioning

An analysis from the RAISE-ETP trial reported that CSC resulted in significantly greater improvement in cognitive functioning in both overall score and for specific components than outpatient treatment-as-usual after 12 and 24 months follow-up ($p < 0.001$ for all subtests) (Schooler et al., 2016; 404 participants).

Summary of findings regarding CSC on cognitive functioning: CHBRP found *limited evidence* that CSC improves cognitive functioning compared to outpatient treatment-as-usual, based on two studies.



Other Outcomes

Incidence of violence

Puntis et al. (2020) reported no significant difference in CSC compared to outpatient treatment-as-usual for occurrence of violent incidences (RR = 0.99; 1 study, 547 participants).

Recreational drug use

Two studies reported that CSC does not decrease recreational drug use compared to outpatient treatment-as-usual. One study, a subset of patients from the RAISE RCT (n=132), found that, despite no statistical group difference in heavy cannabis use at baseline, heavy cannabis use was twice as high among people in the intervention group, after adjusting for cannabis use, age, sex, and race/ethnicity for all subjects at baseline (Alcover et al., 2019; $p = 0.043$). Another study that randomized participants to 2 years of CSC (n = 223) or outpatient treatment-as-usual (n = 181) reported no treatment group by time interaction effect on days of self-reported substance use during the 2-year follow-up (Cather et al., 2018).

Summary of findings regarding CSC for FEP on other outcomes: CHBRP found *Insufficient evidence* that CSC reduces recreational drug use and incidence of violence, based on three studies.



Impact of Shorter versus Longer Duration of CSC

A systematic review of three RCTs (780 participants) examined the impact of longer versus shorter duration of CSC (Puntis et al., 2020). All participants met the criteria for schizophrenia spectrum disorders or affective psychoses. No RCTs compared longer CSC with outpatient treatment-as-usual; all three trials randomly allocated people who had completed 2 years of standard CSC to engage with either extended CSC (up to 5 years) or standard CSC plus outpatient treatment-as-usual thereafter (Puntis et al., 2020).

Treatment Engagement

Puntis et al. (2020) reported fewer disengagements from mental health treatment services (defined as stopping treatment despite need) for CSC patients in care for up to 5 years (15%) compared to patients receiving CSC for an average of 2 years (34%) (RR = 0.45; 2 trials, 380 participants). The authors noted that the two RCTs had methodological weaknesses that limit the strength of evidence regarding effects on disengagement from treatment.

Summary of findings regarding CSC on treatment engagement: CHBRP found *limited evidence*, based on two RCTs, that engaging with CSC services for up to 5 years reduces disengagements from mental health treatment services compared to engaging with CSC services for an average of 2 years.



Hospital Admissions and Psychiatric Hospital Days

Hospital admissions

The systematic review (Puntis et al., 2020) reported no statistically significant difference in rates of psychiatric hospital admission between patients who engaged with CSC services for up to 5 years versus 2 years (RR = 1.55; 1 trial, 160 participants).

Psychiatric hospital days

Puntis et al. (2020) reported no statistically significant evidence that patients in care for longer (up to 5 years) spent fewer days per year in a psychiatric hospital compared to patients who engaged with CSC services for 2 years (1 trial, 400 participants).

Summary of findings regarding receiving CSC for up to 5 years on psychiatric hospital days: CHBRP found *limited evidence*, based on two RCTs, that engaged with CSC services for up to 5 years does not reduce psychiatric hospital utilization compared to engaging with CSC services for an average of 2 years.



General functioning

Puntis et al. (2020) reported no improvement in functioning compared with average treatment length (2 years) compared to treatments lasting up to 5 years (2 studies; 560 people).

Summary of findings regarding engaging with CSC services for up to 5 years on general functioning: CHBRP found *limited evidence*, based on two RCTs, that engaging with CSC services for up to 5 years does not improve general functioning compared to engaging with CSC services for an average of 2 years.



Recovery from Psychosis at the End of Treatment

Puntis et al. (2020) reported a 13% average increase in remission (as a proxy for recovery), for patients who engaged with CSC services for 5 years versus patients who engaged with CSC services for 2 years (RR 1.13; 3 trials, 780 participants). The authors noted that the three RCTs had methodological weaknesses that limit the strength of evidence regarding effects on remission.

Summary of findings regarding the impact of shorter versus longer CSC: There is *limited evidence* that longer CSC treatment can increase remission rates compared to shorter CSC programs. This evidence is based on a systematic review of three RCTs (780 participants).



Socioeconomic Differences in Impact of CSC

One study found that the impact of CSC varies with patients’ socioeconomic status (SES). A secondary analysis of data from the RAISE-ETP trial (Kane et al., 2016) reported that patients from the highest SES quartile — measured based on parental education, parental occupational prestige, and race/ethnicity — experienced more improvement in mental health status scores than patients in lower SES quartiles, who had insignificant changes in mental health status outcomes (Bennett et al., 2021; 404 participants). Participants in the highest SES quartile also improved in quality-of-life scores significantly (P = .03) more than patients in lower SES quartiles, who showed insignificant changes in quality-of-life scores outcomes from CSC programs (Bennett et al., 2021; 404 participants).

Summary of findings regarding the impact of socioeconomic difference in the impact of CSC: There is *limited evidence* that the effects of CSC vary by socioeconomic status. This evidence is based on one RCT study.



Summary of Findings

Taken together, the evidence examining the effectiveness of CSC compared to outpatient treatment-as-usual is variable, depending on the outcome. CHBRP found a *preponderance of evidence* that CSC increases treatment adherence, reduces admissions to a psychiatric hospital, improves positive and negative psychotic symptoms, and general functioning compared to outpatient treatment-as-usual. CHBRP found *limited evidence* that CSC reduces mean number of hospital days per year, increases cognitive functioning and the likelihood that people will recover from psychosis compared to outpatient treatment-as-usual. CHBRP found *limited evidence* that CSC does not affect relapse rates or quality of life compared to outpatient treatment-as-usual. CHBRP found *inconclusive evidence* that CSC decreased effects on general psychotic symptoms and depressive symptoms, compared to outpatient treatment-as-usual. CHBRP found *insufficient evidence* about the effects of CSC compared to outpatient treatment-as-usual on emergency room visits, recreational drug use, and incidence of violence compared to outpatient treatment-as-usual.

Among studies that assess the impact of shorter versus longer duration of CSC, CHBRP found *limited evidence* that engaging with CSC services for up to 5 years reduces disengagements from mental health treatment services, does not reduce psychiatric hospital utilization, does not improve general functioning, and increases remission rates compared to engaging with CSC services for an average of 2 years.

One study that assessed whether the impact of CSC differs by SES found that CSC improves mental health status and quality of life among people in the highest SES quartile but not among people in lower SES quartiles.

BENEFIT COVERAGE, UTILIZATION, AND COST IMPACTS

As discussed in the *Policy Context* section, SB 1337 would require health plans and health policies regulated by DMHC or CDI to cover coordinated specialty care (CSC) services for the treatment of first-episode psychosis (FEP). Outpatient treatment-as-usual for FEP generally includes pharmacotherapy, medication management, and psychotherapy, and may in some cases include case management and family education and support. Enrollees engaged with CSC services receive this care through a team-based service delivery method also include family therapy and group therapy. In addition, CSC services include education and employment support, which is rarely covered by commercial insurance for this population.³¹ In addition, the CSC team conducts outreach and recruitment to increase initial and continuing engagement with treatment.

In addition to commercial enrollees, more than 70% of enrollees associated with the California Public Enrollees' Retirement System (CalPERS) and more than 80% of Medi-Cal beneficiaries are enrolled in DMHC-regulated plans.³² As noted in the *Policy Context* section, SB 1337 would impact these CalPERS enrollees' benefit coverage but not these Medi-Cal beneficiaries' benefit coverage.

This section reports the potential incremental impacts of SB 1337 on estimated baseline benefit coverage, utilization, and overall cost in postmandate year 2024.

Analytic Approach and Key Assumptions

SB 1337 specifies that the covered services and enrollee eligibility will be consistent with the CSC services for FEP described in the National Institute of Mental Health's *Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation* (NIMH, 2014). The NIMH manual specifies the CSC team membership, training, and supervision requirements. In addition, it specifies inclusion and exclusion criteria for CSC clients. These specifications, which inform this analysis, are described in Appendix C.

SB 1337 would require DMHC and CDI, in collaboration with the Department of Health Care Services (DHCS), to create a working group to establish guidelines, including but not limited to inclusion and exclusion criteria for enrollees eligible to engage with CSC services, and caseload and geographic boundary parameters for the CSC team. CHBRP assumes that 2023, the first postmandate year, will be similar to the 2024 baseline presented in Table 1, because DMHC, CDI, DHCS, and the working group would need time to establish guidelines and CSC service arrangements (to be congruent with those described by the NIMH manual specifications), and existing CSC programs would be working to expand capacity. Thus, CHBRP expects no measurable impact in 2023.

Although CSC involves medication management, the NIMH manual does not indicate that pharmacists or pharmacies are parts of the CSC team. Therefore, CHBRP expects that CSC teams would coordinate with the services provided by any pharmacy benefit the enrollee has.

CHBRP has assumed that the diagnoses that would most commonly be associated with engagement with CSC teams would include those reported in the NIMH manual for implementation of CSC teams: schizophrenia, schizoaffective and schizophreniform disorders, delusional disorder, and psychosis not otherwise specified (NOS).³³ This *Benefit Coverage, Utilization, and Cost* section presents the changes in utilization for enrollees with these diagnoses, some of whom postmandate would become engaged with CSC teams.

³¹ Personal Communication, R. Loewy, PhD, March 2022.

³² For more detail, see CHBRP's *Estimates of Sources of Health Insurance in California for 2023*, a resource available at http://chbrp.org/other_publications/index.php.

³³ Personal communication, R. Loewy, PhD, March 2022.

Although substance use disorder (SUD) is common among persons with FEP (see *Background* section), persons with FEPs likely to have been caused by SUDs are generally excluded from CSC team service (see Appendix C). Additionally, more severe SUD (even if not the cause of the FEP) is often an exclusion criterion for CSC programs and therefore is not a common part of treatment-as-usual for persons with FEP who would be eligible for CSC team services.³⁴ For these reasons, this analysis has not included persons for whom SUD was a likely cause of FEP and has not included use of treatment-as-usual outpatient SUD treatment for persons likely to be eligible for CSC team services. For these reasons and because CHBRP found *insufficient evidence* that CSC reduces recreational drug use (see *Medical Effectiveness* section), CHBRP did not include use of inpatient SUD treatment in this analysis.

For further details on the underlying data sources and methods used in this analysis, please see Appendix C.

Baseline and Postmandate Benefit Coverage

Table 1 shows 14,776,000 enrollees have health insurance subject to SB 1337. At baseline, about 0% have benefit coverage compliant with SB 1337. Postmandate, all would have SB 1337–compliant benefit coverage.

Baseline and Postmandate Utilization

As previously noted, completion of the DMHC/CDI/DHCS workgroup’s effort and efforts by CSC teams to expand capacity would consume most of 2023, the first postmandate year. In addition, the current supply of CSC providers is limited to organizations providing care to Medi-Cal beneficiaries and so more time would be needed for supply of providers of CSC to be prepared to provide care to commercial enrollees with FEP. Therefore, CHBRP projects no changes in use and cost in 2023. Instead, CHBRP provided postmandate utilization and expenditures for 2024 in Table 1 and the entire report.

In 2024, CHBRP estimates that 5,010 commercial/CalPERS enrollees would become engaged with a CSC team. This figure is 33% of the 15,029 CSC-eligible commercial/CalPERS enrollees (i.e., those age 15–35 experiencing FEP). This figure aligns with the expectations of a costing exercise for CSC teams (Humensky et al., 2013) and was confirmed as a reasonable estimate for this analysis by content experts.³⁵ This figure also reflects that the expansion of CSC team capacity in California may be limited due to ongoing difficulties in the recruitment of mental health professionals (Coffman et al., 2018).

CHBRP estimates that some eligible enrollees will not use the CSC model of care: postmandate, one-third of enrollees eligible for the mandated benefit (i.e., those aged 15–35 years experiencing FEP) would be estimated to use the mandated benefit. This estimate was reviewed by content experts who found it reasonable, and it also aligns with a costing exercise for CSC teams where they assumed the fraction of incident cases approached by CSC teams would be 33.3% (Humensky et al., 2013). Therefore, CHBRP estimates that one-third of the 15,029 enrollees with FEP would access CSC and the remaining two-thirds would not.

For the 10,019 enrollees who would remain, postmandate, engaged with outpatient treatment-as-usual, there would be no changes in utilization. For the 5,010 enrollees engaging, postmandate, with CSC teams, there would be a 5% reduction in inpatient psychiatric hospitalizations (Puntis et al., 2020). The 5% reduction for this group contributes to an overall 1.67% reduction ($1/3 * 5\%$ reduction + $2/3 * 0\%$ change) for the full set of potentially CSC eligible enrollees (see Table 1).

CHBRP estimated a shift away from outpatient treatment-as-usual to engagement with a CSC team for the 5,010 enrollees receiving CSC team services. Subsequently, enrollees engaged with a CSC team

³⁴ Personal communication, R. Loewy, April 2022.

³⁵ Personal communication, R. Loewy and V Fung, April 2022.

would receive their outpatient mental health care from the CSC team. Consequently, postmandate 5,010 enrollees (33.3%) would have a 100% reduction in outpatient mental health services provided outside a CSC team and 10,019 (66.7%) would have no change in their outpatient mental health services provided outside a CSC team. This corresponds to an overall percentage decrease of 33.3% in use and costs postmandate (see Table 1). The outpatient mental health services include psychiatric treatment by a qualified professional performed on an outpatient basis — including both psychiatric visits and medication management visits in private settings, or psychiatric services provided in hospital outpatient departments or freestanding facilities — and includes related facility fees. The 33.3% reduction shown in Table 1 describes an elimination of outpatient psychotherapy (which includes medication management and may include case management and family education and support) provided by providers outside the CSC team. The change for this group would result in a 33.3% reduction in other providers' outpatient psychotherapy (clinician visits and facility cases) for the full set of potentially CSC eligible enrollees (see Table 1). For this group of 5,010 (not for the other 10,019 CSC eligible enrollees), CSC model monthly services would begin producing a corresponding increase in engagement with CSC team services, which include outpatient psychotherapy (always including medication management, assertive case management, and coordinated family education and support) as well as outreach and recruitment and educational and employment support and recovery coaching. In addition, CHBRP expects some increase in prescription drug adherence and some change as to which drugs are prescribed as well as a reduction in polypharmacy and a reduction in drug dosage, resulting in no measurable changes, at the population level, in total prescriptions filled. Likewise, no measurable change is expected, at the population level, in the use of emergency departments.

CHBRP estimates a total annual amount of 60,116 CSC service months calculated as the product of 15,029 people times 33.3% accessing CSC teams times 12 months over the year. More details about this calculation appear in Appendix C.

Baseline and Postmandate Per-Unit Cost

CHBRP does not estimate an impact on per-unit costs for mental health services or psychiatric hospitalization due to SB 1337 since these services are currently provided at baseline.

SB 1337 would require the use of specified billing procedures for CSC team services. This allows coverage for services that are not currently widely reimbursed (e.g., outreach and recruitment as well as, education and employment support). The postmandate 2024 analysis modifies the pattern of service use observed in the baseline year for the eligible enrollees based on evidence (e.g., reductions in inpatient use) and also includes utilization of CSC teams to provide services described in the NIMH manual (NIMH, 2014). Details about the calculation for the Table 1 row labeled “CSC monthly services” appear in Appendix C.

Postmandate, there would be per-unit costs for CSC team services newly covered under SB 1337 for the FEP enrollees engaged in CSC. These monthly unit costs include such services as support for patients to get or maintain employment. CHBRP estimates a cost of approximately \$18,606 per client per year, which can be written as $\$18,606 / 12 \text{ months} = \$1,551$ per month per client for the CSC team. Step-by-step calculations for this estimate are in Appendix C.

Baseline and Postmandate Expenditures

Table 5 and Table 6 present baseline and postmandate expenditures by market segment for DMHC-regulated plans and CDI-regulated policies. The tables present per member per month (PMPM) premiums, enrollee expenses, and total expenditures (premiums as well as enrollee expenses).

SB 1337 would increase total net annual expenditures by \$69,146,000 or 0.04% in 2024 for commercial/CalPERS enrollees in DMHC-regulated plans and CDI-regulated policies. This change is

composed of increases in total health insurance premiums paid by employers and enrollees for newly covered benefits, adjusted by an increase in enrollee expenses for covered benefits.

Premiums

Changes in premiums as a result of SB 1337 would vary by market segment. Such changes are related to the number of enrollees (see Table 1, Table 5, and Table 6) with health insurance that would be subject to SB 1337.

For DMHC-regulated commercial plans, the postmandate percent changes in insured premiums for large-group, small-group, and individual plans would be 0.0666%, 0.0716%, and 0.0607%, respectively. These changes would be more than the percent change in insured premiums for CalPERS HMOs at 0.0572%. The postmandate percent changes in insured premiums for CDI-regulated commercial plans in large-group, small-group, and individual markets would be 0.0532%, 0.0662%, and 0.0919%, respectively. Overall, the analysis shows a 0.0526% increase in postmandate insured premiums, compared with the overall 0.0720% increase in total expenditures.

The changes in premiums for enrollees associated with nongrandfathered plans associated with Covered California coverage vary by market and regulator. For example, for the commercial DMHC-regulated plans in the small-group market, there would be an increase in insured premiums by 0.0568%, but the increase is 0.0440% in the individual market. For commercial CDI-regulated plans in the small-group market, the percent increase in insured premiums would be 0.0442%, but 0.0554% in the individual market.

As SB 1337 exempts from compliance the benefit coverage of Medi-Cal beneficiaries enrolled in DMHC-regulated plans, there would be no impact on premiums for this market segment.

Enrollee Expenses

SB 1337–related changes in cost sharing for covered benefits (deductibles, copays, etc.) vary by market segment. Such changes are related to the number of enrollees (see Table 1, Table 5, and Table 6) with health insurance that would be subject to SB 1337 expected to use services during the postmandate year. Enrollee contributions toward premiums for group insurance would be estimated to increase by \$17,110,000, or 0.066%. Enrollees with individually purchased insurance would be estimated to see a 0.06% increase.

The impacts of the mandate on enrollee out-of-pocket expenditures show decreases of approximately -\$3,880,000 or a 0.02% reduction for enrollee expenses for covered benefits (deductibles, copays, etc.) across all commercial DMHC-regulated plans and commercial CDI-regulated plans.

In all of these examples, the presence of a deductible not yet met for the year³⁶ could result in the enrollee paying the full unit cost, but hitting the annual out-of-pocket maximum,³⁷ which would result in the enrollee having no further cost sharing.

CHBRP projects no change to out-of-pocket expenses for noncovered benefits. It is possible that some enrollees incur related expenses for which coverage was denied, but CHBRP cannot estimate the frequency with which such situations occur and so cannot offer a calculation of impact.

³⁶ For estimates of enrollees in plans and policies with deductibles, see CHBRP's resource, *Deductibles in State-Regulated Health Insurance*, available at https://chbrp.org/other_publications/index.php.

³⁷ For most enrollees in most plans and policies regulated by DMHC or CDI, applicable copays and coinsurance is limited to \$250, or \$500 for enrollees in the "bronze plans" available from Covered California, the state's ACA marketplace (H&SC 1342.73; IC 10123.1932). Cost sharing could be higher for an enrollee in a plan or policy that includes a deductible.

Potential Cost Offsets or Savings in the First 12 Months After Enactment

For this analysis, CHBRP assumes the first 12 months after enactment would have similar use and cost as the baseline. In the second 12 months, after required guidelines have been established by DMHC and CDI in collaboration with DHCS, the “no measurable impact expected in 2023” will transition into impact estimates. Table 1 shows baseline and postmandate benefit coverage for 2024 projections.

Based on the evidence, CHBRP estimates cost offsets due to reduced FEP psychiatric hospitalizations because of the enactment of provisions in SB 1337. CHBRP did not find sufficient evidence to justify projections of psychiatric-related emergency department visits or medication use. Possible long-term impacts are discussed more fully in the *Long-Term Impacts* section.

Postmandate Administrative Expenses and Other Expenses

CHBRP estimates that the increase in administrative costs of DMHC-regulated plans and/or CDI-regulated policies will remain proportional to the increase in premiums. CHBRP assumes that if health care costs increase as a result of increased utilization or changes in unit costs, there is a corresponding proportional increase in administrative costs. CHBRP assumes that the administrative cost portion of premiums is unchanged. All health plans and insurers include a component for administration and profit in their premiums.

Other Considerations for Policymakers

In addition to the impacts a bill may have on benefit coverage, utilization, and cost, related considerations for policymakers are discussed below.

Postmandate Changes in the Number of Uninsured Persons

Because the change in average premiums does not exceed 1% for any market segment (see Table 1, Table 5, and Table 6), CHBRP would expect no measurable change in the number of uninsured persons due to the enactment of SB 1337.

Changes in Public Program Enrollment

CHBRP estimates that the mandate would produce no measurable impact on enrollment in publicly funded insurance programs due to the enactment of SB 1337.

How Lack of Benefit Coverage Results in Cost Shifts to Other Payers

SB 1337’s mandate affects commercial plans. To the extent that enrollees suffering from FEP leave commercial plans and join noncommercial public plans, there may be a potential for enrollees to seek care from public programs or other payers, including charities, other state departments providing social services.

Table 5. Baseline Per Member Per Month Premiums and Total Expenditures by Market Segment, California, 2024

	DMHC-Regulated						CDI-Regulated			Total
	Commercial Plans (by Market) (a)			Publicly Funded Plans			Commercial Policies (by Market) (a)			
	Large Group	Small Group	Individual	CalPERS HMOs (b)	MCMC (Under 65) (c)(f)	MCMC (65+) (c)(f)	Large Group	Small Group	Individual	
Enrollee counts										
Total enrollees in plans/policies subject to state mandates (d)	8,317,000	2,125,000	2,758,000	881,000	7,158,000	876,000	485,000	44,000	166,000	22,810,000
Total enrollees in plans/policies subject to SB 1337	8,317,000	2,125,000	2,758,000	881,000	0	0	485,000	44,000	166,000	14,776,000
Premiums										
Average portion of premium paid by employer	\$428.40	\$383.90	\$0.00	\$583.79	\$245.85	\$537.59	\$506.08	\$394.49	\$0.00	\$88,639,783,000
Average portion of premium paid by employee	\$175.24	\$212.87	\$704.02	\$118.79	\$0.00	\$0.00	\$248.34	\$256.26	\$583.18	\$50,216,568,000
Total premium	\$603.65	\$596.77	\$704.02	\$0.4019	\$0.0000	\$0.0000	\$754.42	\$650.75	\$583.18	\$138,856,350,000
Enrollee expenses										
Cost sharing for covered benefits (deductibles, copays, etc.)	\$50.98	\$129.41	\$179.04	\$61.52	\$0.00	\$0.00	\$158.88	\$208.67	\$203.75	\$16,404,357,000
Expenses for noncovered benefits (e)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
Total expenditures	\$654.62	\$726.18	\$883.06	\$764.10	\$245.85	\$537.59	\$913.31	\$859.42	\$786.93	\$155,260,708,000

Source: California Health Benefits Review Program, 2022.

Notes: (a) Includes enrollees with grandfathered and nongrandfathered health insurance acquired outside or through Covered California (the state's health insurance marketplace).

(b) Approximately 51.7% of CalPERS enrollees in DMHC-regulated plans are state retirees, state employees, or their dependents.

(c) Medi-Cal Managed Care Plan expenditures for members over 65 include those who are also Medicare beneficiaries. This population does not include enrollees in COHS.

(d) Enrollees in plans and policies regulated by DMHC or CDI aged 0 to 64 years as well as enrollees 65 years or older in employer-sponsored health insurance. This group includes commercial enrollees (including those associated with Covered California or CalPERS) and Medi-Cal beneficiaries enrolled in DMHC-regulated plans.

(e) Includes only those expenses that are paid directly by enrollees or other sources to providers for services related to the mandated benefit that are not covered by insurance at baseline. This only includes those expenses that will be newly covered, postmandate. Other components of expenditures in this table include all health care services covered by insurance.

(f) Includes only Medi-Cal beneficiaries enrolled in DMHC-regulated plans.

Key: CalPERS HMOs = California Public Employees' Retirement System Health Maintenance Organizations; CDI = California Department of Insurance; COHS = County Organized Health Systems; DMHC = Department of Managed Health Care; MCMC = Medi-Cal Managed Care.

Table 6. Postmandate Per Member Per Month Premiums and Total Expenditures by Market Segment, California, 2024

	DMHC-Regulated						CDI-Regulated			Total
	Commercial Plans (by Market) (a)			Publicly Funded Plans			Commercial Policies (by Market) (a)			
	Large Group	Small Group	Individual	CalPERS HMOs (b)	MCMC (Under 65) (c)(f)	MCMC (65+) (c)(f)	Large Group	Small Group	Individual	
Enrollee counts										
Total enrollees in plans/policies subject to state mandates (d)	8,317,000	2,125,000	2,758,000	881,000	7,158,000	876,000	485,000	44,000	166,000	22,810,000
Total enrollees in plans/policies subject to SB 1337	8,317,000	2,125,000	2,758,000	881,000	0	0	485,000	44,000	166,000	14,776,000
Premiums										
Average portion of premium paid by employer	\$0.2853	\$0.2748	\$0.0000	\$0.3339	\$0.0000	\$0.0000	\$0.2694	\$0.2611	\$0.0000	\$40,716,000
Average portion of premium paid by employee	\$0.1167	\$0.1524	\$0.4270	\$0.0679	\$0.0000	\$0.0000	\$0.1322	\$0.1696	\$0.5360	\$32,310,000
Total premium	\$0.4020	\$0.4272	\$0.4270	\$0.4019	\$0.0000	\$0.0000	\$0.4015	\$0.4307	\$0.5360	\$73,026,000
Enrollee expenses										
Cost sharing for covered benefits (deductibles, copays, etc.)	-\$0.0220	-\$0.0220	-\$0.0220	-\$0.0220	\$0.0000	\$0.0000	-\$0.0220	-\$0.0220	-\$0.0113	-\$3,880,000
Expenses for noncovered benefits (e)	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0
Total expenditures	\$0.3800	\$0.4052	\$0.4050	\$0.3799	\$0.0000	\$0.0000	\$0.3795	\$0.4087	\$0.5248	\$69,146,000
Percent change										
Premiums	0.0666%	0.0716%	0.0607%	0.0572%	0.0000%	0.0000%	0.0532%	0.0662%	0.0919%	0.0526%
Total expenditures	0.0580%	0.0558%	0.0459%	0.0497%	0.0000%	0.0000%	0.0416%	0.0476%	0.0667%	0.0445%

Source: California Health Benefits Review Program, 2022.

- Notes: (a) Includes enrollees with grandfathered and nongrandfathered health insurance acquired outside or through Covered California (the state's health insurance marketplace).
- (b) Approximately 51.7% of CalPERS enrollees in DMHC-regulated plans are state retirees, state employees, or their dependents.
- (c) Medi-Cal Managed Care Plan expenditures for members over 65 include those who are also Medicare beneficiaries. This population does not include enrollees in COHS.
- (d) Enrollees in plans and policies regulated by DMHC or CDI aged 0 to 64 years as well as enrollees 65 years or older in employer-sponsored health insurance. This group includes commercial enrollees (including those associated with Covered California or CalPERS) and Medi-Cal beneficiaries enrolled in DMHC-regulated plans.
- (e) Includes only those expenses that are paid directly by enrollees or other sources to providers for services related to the mandated benefit that are not covered by insurance at baseline. This only includes those expenses that will be newly covered, postmandate. Other components of expenditures in this table include all health care services covered by insurance.
- (f) Includes only Medi-Cal beneficiaries enrolled in DMHC-regulated plans.

Key: CalPERS HMOs = California Public Employees' Retirement System Health Maintenance Organizations; CDI = California Department of Insurance; COHS = County Organized Health Systems; DMHC = Department of Managed Health Care; MCMC = Medi-Cal Managed Care.

PUBLIC HEALTH IMPACTS

As discussed in the *Policy Context* section, SB 1337 would mandate coverage of coordinated specialty care (CSC) for people with first-episode psychosis (FEP).

The public health impact analysis includes estimated impacts in the short term (usually within 12 months of implementation but, for reasons discussed in the *Benefits Coverage, Utilization, and Cost*, within 24 months for this analysis). This section estimates the short-term impact³⁸ of SB 1337 on CSC treatment outcomes, potential disparities, and financial burden. See *Long-Term Impacts* for discussion of premature death and economic loss.

Estimated Public Health Outcomes

Health outcomes relevant to SB 1337 include use of outpatient mental health services, inpatient and emergency psychiatric services, treatment adherence and mental health outcomes (i.e., psychosis recovery and remission, and frequency, duration, and severity of psychotic events), general functioning, and quality of life.

As presented in *Medical Effectiveness*, the *preponderance of evidence* suggests that, for people experiencing FEP, CSC improves treatment adherence, reduces psychiatric hospital admissions, and improves general functioning over outpatient treatment-as-usual; there is *limited evidence* that CSC reduces the mean number of hospital days per year, decreases hallucinations and delusions, and increases recovery from psychosis as compared with outpatient treatment-as-usual. However, the evidence is *limited, inconclusive, or insufficient* that CSC is more effective than outpatient treatment-as-usual among outcomes related to quality of life, relapse rates, psychotic and depressive symptoms, emergency room visits, recreational drug use, and incidence of violence.

In addition to clinical health outcomes, social outcomes are also relevant to people experiencing FEP. For example, caregivers of people with FEP experience different levels of psychological, emotional, physical, and financial distress depending on the caregiver's own health beliefs, gender, and social and capital resources. CSC programs generally provide coordinated family education and support, however, CHBRP found few effectiveness studies of this component. Education and employment are also relevant social outcomes related to FEP. There are numerous benefits for enrollees with FEP who maintain employment including financial independence, social contact, personal meaning in life, and increased self-worth and self-efficacy, but it remains challenging for people to maintain employment (or educational pursuit), with about one-third of enrollees with FEP maintaining employment nine years after initiating outpatient treatment-as-usual (Ajnakina et al., 2021). CHBRP found no parallel long-term studies of CSC for this outcome.

As presented in *Benefit Coverage, Utilization, and Cost Impacts*, CHBRP estimates that 5,010 of the 15,029 commercially insured enrollees with FEP, primarily aged 15 to 35 years, would access CSC services by 2024. The number of new CSC program users is limited primarily because a provider supply shortage would limit the availability of open treatment spots particularly in the short term; however, other barriers could continue to contribute to lower participation such as a lack of knowledge of how to access treatment, misdiagnosis of early symptoms, and lack of family support (see *Background* for more details). For those who do engage with a CSC program, CHBRP assumes there would be no enrollee cost sharing (copayment, co-insurance, or deductibles) associated with CSC program attendance due to the SB 1337 requirement that a select bundle of services would be reimbursed via a capitated per member per month payment. This could result in an average annual savings of about \$760 per enrollee using CSC services. The savings are attributable to reductions in enrollee cost sharing from other mental health services that would be substituted with services at a CSC program.

³⁸ CHBRP defines short-term impacts as changes occurring within 12 months of bill implementation.

In the short term, SB 1337 would produce a limited public health impact with 5,010 (of 15,029) eligible enrollees with FEP accessing CSC programs. This projection is supported by evidence that the CSC model is effective in improving some health outcomes (i.e., treatment adherence, psychiatric hospital admissions, reductions in hallucinations and delusions, and recovery from psychosis and general functioning); however, CSC programs do not appear to be more effective than outpatient treatment-as-usual for other outcomes, including relapse rates, psychotic and depressive symptoms, and quality of life. Moreover, although some barriers to care would be removed (insurance coverage/cost, coordinated care, outreach and intake), other barriers to care would remain including limited provider supply, misdiagnosis of symptoms, and patient concerns with stigma.

Impact on Disparities and Social Determinants of Health³⁹

Insurance benefit mandates that bring more state-regulated plans and policies to parity may change an existing disparity. As discussed in the *Background and Medical Effectiveness* sections, socioeconomic status, race/ethnicity, sexual orientation, adverse childhood events, immigration status, and geographic location are associated with disparities in the prevalence, duration of untreated psychosis (known to lead to poorer outcomes), and treatment access for first-episode-psychosis.

SB 1337 exempts Medi-Cal beneficiaries enrolled in DMHC-regulated plans; however, the 30 to 50 CSC programs currently operating in California serve Medi-Cal beneficiaries predominantly. CHBRP is unaware of comparable CSC program availability for those with commercial insurance. As discussed in *Medical Effectiveness*, there is *limited evidence* that those with the highest socioeconomic status scored higher on mental health status and quality-of-life metrics than those in lower SES quartiles (Bennett et al., 2021). Thus, while SB 1337 would bring commercially insured enrollees (i.e., those with higher incomes) into CSC-coverage parity with Medi-Cal beneficiaries, the impact on treatment outcomes according to socioeconomic level is unknown due to *limited evidence*.

CHBRP projects no change in disparities associated with FEP despite new coverage for CSC programs. This projection is due to the limited number of enrollees newly accessing CSC programs coupled with the unknown socioeconomic composition of the new user cohort.

³⁹ For details about CHBRP's methodological approach to analyzing disparities, see the *Benefit Mandate Structure and Unequal Racial/Ethnic Health Impacts* document here: http://chbrp.com/analysis_methodology/public_health_impact_analysis.php.

LONG-TERM IMPACTS

In this section, CHBRP estimates the long-term impact of SB 1337, which CHBRP defines as impacts occurring beyond the first 12 months after implementation. These estimates are qualitative and based on the existing evidence available in the literature. CHBRP does not provide quantitative estimates of long-term impacts because of unknown improvements in clinical care, changes in prices, implementation of other complementary or conflicting policies, and other unexpected factors. When possible, CHBRP also estimates the long-term effects to the public's health that would be attributable to the mandate, including impacts on social determinants of health, premature death, and economic loss.

In the case of SB 1337, CHBRP estimates that enrollee utilization of coordinated specialty care (CSC) services would remain static until the provider supply caught up with potential demand for CSC services. As discussed in the *Background* section, California faces challenges with maintaining and growing its behavioral health workforce. A study from 2018 estimates that provider supply will atrophy due to an aging workforce and inadequate and unequal distribution of trainee programs in the state. By 2028, California will have 50% fewer psychiatrists and 28% fewer psychologists, licensed marriage and family therapists, licensed professional clinical counselors, and licensed clinical social workers combined than will be needed to meet current patient use and unmet demand for behavioral health services (Coffman et al., 2018). In addition to somewhat minor delays to train teams in the CSC model, educating (Master's, PhD, and MD) and hiring additional mental health providers that meet the standards required in SB 1337 will take years.

As noted in the *Medical Effectiveness* section, there is *limited evidence* that recipients of long-term CSC services (3–5 years) disengage less often from mental health treatment services, and experience increased remission rates; however, CSC does not appear to reduce psychiatric hospital utilization or improve general functioning.

Due to provider supply constraints, CHBRP concludes that the long-term public health impacts from SB 1337 would remain limited, similar to the short-term impacts due to persistent provider supply limitations and other barriers (e.g., stigma, misdiagnosis of symptoms). CHBRP estimates about 5,000 enrollees per year would receive treatment through a CSC program. If the average CSC treatment duration is 2 years, this would reduce the number of incoming clients who could be accommodated in any given year.

Impacts on Premature Death and Economic Loss

Premature death

Premature death is often defined as death occurring before the age of 75 years (NCI, 2019).⁴⁰ In California, it is estimated that there were nearly 5,300 years of potential life lost (YPLL) per 100,000 population each year between 2015 and 2017 (CDPH, 2019; County Health Rankings, 2019).⁴¹

Risk of premature death is 24 times higher among enrollees with first-episode psychosis (FEP) than the age-matched general population due to comorbid conditions and suicide. Suicide ideation is exceptionally high at stages before treatment and 1 year following treatment with up to one-third of the population reporting suicide ideation and 7% to 30% reporting at least one suicide attempt before entering treatment (see *Background*). Because FEP affects people at young ages, YPLL can be particularly significant in this cohort.

⁴⁰ For more information about CHBRP's public health methodology, see http://chbrp.com/analysis_methodology/public_health_impact_analysis.php.

⁴¹ The overall impact of premature death due to a particular disease can be measured in years of potential life lost prior to age 75 and summed for the population (generally referred to as "YPLL") (Gardner and Sanborn, 1990).

Economic loss

Economic loss associated with disease is generally presented in the literature as an estimation of the value of the YPLL in dollar amounts (i.e., valuation of a population's lost years of work over a lifetime). In addition, morbidity associated with the disease or condition of interest can also result in lost productivity by causing a worker to miss days of work due to illness or acting as a caregiver for someone else who is ill.

As discussed in *Background*, FEP and subsequent mental health diagnoses lead to significant economic costs and are disproportionately high compared with other disorders. Hospitalizations and criminal justice involvement are examples of direct costs while lost wages by caregivers or patients, premature mortality, and low quality of life/social function are examples of indirect costs.

CHBRP projects no measurable change in premature mortality or economic loss associated among Californians with FEP in the long term; however, at the person level, some enrollees and their families may see reductions in premature death, caregiver burden, and financial distress.

APPENDIX A TEXT OF BILL ANALYZED

On February 24, 2022, the California Senate Committee on Health requested that CHBRP analyze SB 1337.

SENATE BILL

NO. 1337

Introduced by Senator McGuire

February 18, 2022

An act to add Section 1368.3 to the Health and Safety Code, and to add Section 10125.3 to the Insurance Code, relating to health care coverage.

LEGISLATIVE COUNSEL'S DIGEST

SB 1337, as introduced, McGuire. Coordinated specialty care for first-episode psychosis.

Existing law, the Knox-Keene Health Care Service Plan Act of 1975 (Knox-Keene), provides for the licensure and regulation of health care service plans by the Department of Managed Health Care and makes a willful violation of the act a crime. Existing law provides for the regulation of health insurers by the Department of Insurance. Existing law requires health care service plan contracts and health insurance policies that provide hospital, medical, or surgical coverage to provide coverage for the diagnosis and medically necessary treatment of severe mental illnesses, as defined, of a person of any age.

This bill would require a health care service plan contract or health insurance policy issued, amended, or renewed on and after January 1, 2023, to provide coverage for coordinated specialty care (CSC) services for the treatment of first-episode psychosis, which is described by the bill as a team-based service delivery method composed of specified treatment modalities and affiliated activities including, but not limited to, case management, pharmacotherapy and medication management, psychotherapy, and outreach and recruitment activities. The bill would require the CSC services provided to be consistent with the Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation, developed by the National Institute of Mental Health. The bill would specify the membership of the CSC team and applicable training and supervision requirements. The bill would require the health care service plan or health insurer to use specified billing procedures for the services provided by the CSC team.

The bill would require the Department of Managed Health Care and the Department of Insurance, as appropriate, in collaboration with the State Department of Health Care Services, to create a working group to establish guidelines, including, but not limited to, inclusion and exclusion criteria for individuals eligible to receive CSC services, and caseload and geographic boundary parameters for the treatment team. The bill would provide that its requirements would not apply to a

nongrandfathered individual health care service plan contract or health insurance policy, or group health care service plan contract or health insurance policy covering 50 or fewer employees, if the appropriate department determines that compliance with any or all of those requirements would require the state to assume the cost and provide payments to enrollees or insureds to defray the cost of providing services described in the bill, pursuant to specified federal law.

Because a violation of the bill’s requirements by a health care service plan would be a crime, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 1368.3 is added to the Health and Safety Code, to read:

1368.3. (a) The following definitions apply for purposes of this section:

- (1) “CSC” means coordinated specialty care.
- (2) “CSC manual” or “manual” means the Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation (CSC manual) developed by the National Institute of Mental Health.
- (3) “Department” means the Department of Managed Health Care.
- (4) “FEP” means first-episode psychosis.
- (5) “HCPCS” means the Healthcare Common Procedure Coding System.
- (6) “SEE” means supported education and employment.

(b) A health care service plan contract issued, amended, or renewed on and after January 1, 2023, shall provide coverage for coordinated specialty care services for the treatment of first-episode psychosis, which is a team-based service delivery method composed of the following treatment modalities and affiliated activities:

- (1) Case management. Case management assists individuals with problem solving, offering solutions to address practical problems, and coordinating social services across multiple areas of need. Case management involves frequent in-person contact between the clinician and the individual and their family, with sessions occurring in clinic, community, and home settings.

(2) Family support and education. Family education and support teaches relatives or others providing support about psychosis and its treatment and strengthens their capacity to aid in the individual's recovery. To the greatest extent possible, and consistent with decision-making. For individuals less than 18 years of age, participation of a family member or guardian is strongly recommended.

(3) Pharmacotherapy and medication management. Pharmacotherapy and medication management approaches that are evidence-based guide medication selection and dosing for individuals with FEP. Pharmacotherapy typically begins with a low dose of a single antipsychotic medication and involves monitoring for psychopathology, side effects, and attitudes towards medication at every visit. Special emphasis should be given to cardiometabolic risk factors such as smoking, weight gain, hypertension, dyslipidemia, and prediabetes.

(4) Individual and group psychotherapy. Psychotherapy for FEP is based upon cognitive and behavioral treatment principles and emphasizes resilience training, illness and wellness management, and general coping skills. Treatment consists of core and supplemental modules and is tailored to each individual's needs. Individuals and psychotherapists work one-on-one, and in groups, meeting weekly or biweekly, with the duration and frequency of sessions personalized for each individual.

(5) Supported education and employment. Supported education and employment services facilitate the individual's return to work or school, as well as attainment of expected vocational and educational milestones. SEE emphasizes rapid placement in the individual's desired work or school setting and provides active and sustained coaching and support to ensure the individual's success. An SEE specialist strives to integrate vocational and mental health services, is the CSC team liaison with outside educators and employers, and frequently works with the individual in the community to enhance school or job performance.

(6) Coordination with primary care. Coordination with primary care means that team members maintain close contact with primary care providers to ensure optimal medical treatment for risk factors related to comorbid medical conditions.

(7) Outreach and recruitment activities. Outreach and recruitment activities are designed to facilitate the outreach and referral process and are responsible for initial assessments of an enrollee's potential eligibility for the program. This process should identify potential referring entities, including, but not limited to, mental health facilities, health systems, emergency departments, primary care practitioners, educational institutions, professional organizations, family organizations, consumer organizations, social service programs, substance use disorder programs, criminal justice systems, and places of worship. The outreach and referral process should implement and maintain systems to track all the outreach activities and referrals.

(c) The treatment modalities and affiliated activities described in subdivision (b) shall be performed by a team that consists of the following members, provided that there may be flexibility in the actual composition of the team members, as the team structure is described in the CSC manual:

- (1) A team leader who is a licensed clinician.
 - (2) An individualized placement and support specialist.
 - (3) A skills trainer who is a licensed clinician.
 - (4) A psychiatrist.
 - (5) A certified peer support specialist with lived experience with a mental illness.
 - (6) An outreach and referral specialist.
 - (7) Other team members, as appropriate, based on the team structure of existing CSC programs throughout the country that adhere to appropriate fidelity measures and have demonstrated sustained positive outcomes using an alternative or supplemented team structure.
- (d) The treatment modalities and affiliated activities described in subdivision (b), as performed by the team members described in subdivision (c), shall be consistent with the performance and fidelity measures identified in Appendix 12: Resources for Fidelity, described in the CSC manual, provided that there shall be flexibility in determining adherence to Appendix 12.
- (e) The team members described in subdivision (c) shall undergo training consistent with the recommendations of Section III and Appendices 4 to 9, inclusive, of the of the CSC manual, provided that the team may incorporate supplemental training methods identified by the scientific and research communities developed subsequent to the release of the manual.
- (f) The team members described in subdivision (c) shall undergo supervision consistent with the recommendations of Section IV and Appendices 10 and 11 of the of the CSC manual, provided that the team may incorporate supplemental supervision methods identified by the scientific and research communities developed subsequent to the release of the manual.
- (g) (1) The department, in collaboration with the Department of Insurance and the State Department of Health Care Services, shall create a working group to establish guidelines regarding the all of the following:
- (A) The inclusion and exclusion criteria for individuals to be eligible for the treatment modalities and affiliated activities identified and described in subdivision (b), as performed by the team described in subdivision (c), provided that the working group shall take into consideration the criteria identified in Appendix 2 of the CSC manual but disregard the stipulation of Appendix 2 that requires an individual receiving CSC to have the ability to understand and speak English.
 - (B) The caseload and geographic boundary parameters for the team described in subdivision (c), which shall take into account the ideal recommended caseload and geographic boundaries identified in the CSC manual along with population density and other factors that may make the recommended caseloads and geographic boundaries impractical.

(C) The benchmarks, including time parameters, for individuals receiving CSC services, that will determine when it is appropriate for those individuals to transition to alternative treatment regimens.

(D) The possibility of utilizing telehealth beyond what is currently required or permitted by statute or regulation, solely for use in delivering CSC services.

(2) The working group described in paragraph (1) shall have the following membership:

(A) A staff representative of the department.

(B) A staff representative of the State Department of Health Care Services.

(C) A psychiatrist with knowledge of FEP and CSC, provided that a psychiatrist with experience in participating in CSC shall be given precedence over psychiatrists without experience in participating in CSC.

(D) A mental health clinician with knowledge of FEP and CSC, provided that a mental health clinician with experience in participating in CSC shall be given precedence over clinicians without experience in participating in CSC.

(E) A professional with experience in providing supportive services, particularly supported education and supported employment.

(F) A representative appointed by a state, regional, or local mental health advocacy group or appointed by a collection of state, regional, or local mental health advocacy groups.

(G) An individual who has lived experience with psychosis, or a family member of an individual who has lived experience with psychosis.

(H) Three representatives appointed by health care service plans that issue individual or group health care service plan contracts in this state.

(3) The working group described in paragraph (1) and (2) shall convene no later than March 1, 2023, and shall convene at least once per month until the guidelines identified in paragraph (1) are finalized; however, the guidelines shall be completed within one year the workgroup first convenes.

(4) Within 60 days after the guidelines identified in paragraph (1) are finalized pursuant to paragraph (3), the department shall adopt implementing regulations.

(h) The department, by regulation, may update the treatment modalities and affiliated activities identified and described in subdivision (a) and (b), the team structure described in subdivision (c), the outcome and fidelity measures described in subdivision (d), the training requirements described

in subdivision (e), and the supervision requirements described in subdivision (f) in a manner consistent with the objectives of this part.

(i) A health care service plan shall use a single, monthly case rate paid as a monthly per-member-per-month rate that reimburses the team described in subdivision (c) for the full range of CSC services described in subdivision (a) and (b) for any individual meeting the target criteria who is receiving services for the full CSC model that month.

(1) The health care service plan shall bill services under this subdivision using the Healthcare Common Procedure Coding System (HCPCS) T1024 billing code for team management, with the HK modifier code for specialized mental health programs for high-risk populations, provided that the minimum monthly services shall include all of the following:

(A) At least two face-to-face visits or telehealth contacts from a team member.

(B) One collateral contact via an electronic modality, including, but not limited to, telephone, email, a phone-based application, or telehealth.

(C) One team staff meeting discussion with the full team, including the licensed professionals on the team;

(D) Provision of additional services during early stages of treatment as well as any time an individual experiences periods of destabilization, as medically necessary.

(E) The team shall continue providing medically necessary services beyond the minimum monthly service requirements, as needed.

(2) A daily encounter rate, which shall be billed under the HCPCS T1024 billing code for team management, for each encounter that the patient receives the treatment modalities and affiliated activities described in subdivisions (a) and (b) through the team described in subdivision (c) for less intensive service delivery, provided that the health care service plan may require that the team described in subdivision (c) provide documentation that the billable activity occurred and that no other additional services were medically necessary due to the individual being hospitalized or being stabilized and not requiring the minimum service provision, or there was another reason, as documented in the medical record, so long as the request for the documentation and the review of the documentation complies with this section and the nonquantitative treatment limitation requirements for the federal Mental Health Parity and Addiction Equity Act, in 45 C.F.R. 146.136(c)(4).

(3) The department shall adopt regulations that update the billing and reimbursement methodology described in this subdivision, as necessary.

(j) (1) An individual or group health care service plan contract issued renewed, or amended on or after January 1, 2023, shall provide coverage of the supported education and employment services identified in paragraph (5) of subdivision (a) and described in paragraph (5) of subdivision (b) for individuals who have transitioned to an alternate treatment regimen that no longer meets the

specifications of CSC, and those services shall be billed and reimbursed separately and distinctly from the payment structures identified in subdivision (i).

(2) The department, in collaboration with the State Department of Health Care Services, shall adopt regulations that establish a billing and reimbursement methodology for coverage of the supported education and employment services described in paragraph (1).

(k) This section does not apply to a nongrandfathered individual health care service plan contract or a nongrandfathered group health care service plan contract covering 50 or fewer employees, if the department determines that compliance with the section, in whole or part, will require the state to assume the cost and provide payments to enrollees to defray the cost of the services, pursuant to 42 U.S.C. SEC. 18031(d)(3)(B)(ii).

SEC. 2. Section 10125.3 is added to the Insurance Code, to read:

10125.3. (a) The following definitions apply for purposes of this section:

(1) “CSC” means coordinated specialty care.

(2) “CSC manual” or “manual” means the Coordinated Specialty Care for First Episode Psychosis Manual II: Implementation (CSC manual) developed by the National Institute of Mental Health.

(3) “Department” means the Department of Insurance.

(4) “FEP” means first-episode psychosis.

(5) “HCPCS” means the Healthcare Common Procedure Coding System.

(6) “SEE” means supported education and employment.

(b) A health insurance policy issued, amended, or renewed on and after January 1, 2023, shall provide coverage for coordinated specialty care services for the treatment of first-episode psychosis, which is a team-based service delivery method composed of the following treatment modalities and affiliated activities:

(1) Case management. Case management assists individuals with problem solving, offering solutions to address practical problems, and coordinating social services across multiple areas of need. Case management involves frequent in-person contact between the clinician and the individual and their family, with sessions occurring in clinic, community, and home settings.

(2) Family support and education. Family education and support teaches relatives or others providing support about psychosis and its treatment and strengthens their capacity to aid in the individual’s recovery. To the greatest extent possible, and consistent with the individual’s preferences, supportive persons are included in all phases of treatment planning and decisionmaking. For individuals less than 18 years of age, participation of a family member or guardian is strongly recommended.

(3) Pharmacotherapy and medication management. Pharmacotherapy and medication management approaches that are evidence-based guide medication selection and dosing for individuals with FEP. Pharmacotherapy typically begins with a low dose of a single antipsychotic medication and involves monitoring for psychopathology, side effects, and attitudes towards medication at every visit. Special emphasis should be given to cardiometabolic risk factors such as smoking, weight gain, hypertension, dyslipidemia, and prediabetes.

(4) Individual and group psychotherapy. Psychotherapy for FEP is based upon cognitive and behavioral treatment principles and emphasizes resilience training, illness and wellness management, and general coping skills. Treatment consists of core and supplemental modules and is tailored to each individual's needs. Individuals and psychotherapists work one-on-one, and in groups, meeting weekly or biweekly, with the duration and frequency of sessions personalized for each individual.

(5) Supported education and employment. Supported education and employment services facilitate the individual's return to work or school, as well as attainment of expected vocational and educational milestones. SEE emphasizes rapid placement in the individual's desired work or school setting and provides active and sustained coaching and support to ensure the individual's success. An SEE specialist strives to integrate vocational and mental health services, is the CSC team liaison with outside educators and employers, and frequently works with the individual in the community to enhance school or job performance.

(6) Coordination with primary care. Coordination with primary care means that team members maintain close contact with primary care providers to ensure optimal medical treatment for risk factors related to comorbid medical conditions.

(7) Outreach and recruitment activities. Outreach and recruitment activities are designed to facilitate the outreach and referral process and are responsible for initial assessments of an insured's potential eligibility for the program. This process should identify potential referring entities, including, but not limited to, mental health facilities, health systems, emergency departments, primary care practitioners, educational institutions, professional organizations, family organizations, consumer organizations, social service programs, substance use disorder programs, criminal justice systems, and places of worship. The outreach and referral process should implement and maintain systems to track all the outreach activities and referrals.

(c) The treatment modalities and affiliated activities described in subdivision (a) shall be performed by a team that consists of the following members, provided that there may be flexibility in the actual composition of the team members, as the team structure is described in the CSC manual:

- (1) A team leader who is a licensed clinician.
- (2) An individualized placement and support specialist.
- (3) A skills trainer who is a licensed clinician.

(4) A psychiatrist.

(5) A certified peer support specialist with lived experience with a mental illness.

(6) An outreach and referral specialist.

(7) Other team members, as appropriate, based on the team structure of existing CSC programs throughout the country that adhere to appropriate fidelity measures and have demonstrated sustained positive outcomes using an alternative or supplemented team structure.

(d) The treatment modalities and affiliated activities described in subdivision (b), as performed by the team members described in subdivision (c), shall be consistent with the performance and fidelity measures identified in Appendix 12: Resources for Fidelity, described in the CSC manual, provided that there shall be flexibility in determining adherence to Appendix 12.

(e) The team members described in subdivision (c) shall undergo training consistent with the recommendations of Section III and Appendices 4 to 9, inclusive, of the of the CSC manual, provided that the team may incorporate supplemental training methods identified by the scientific and research communities developed subsequent to the release of the manual.

(f) The team members described in subdivision (c) shall undergo supervision consistent with the recommendations of Section IV and Appendices 10 and 11 of the of the CSC manual, provided that the team may incorporate supplemental supervision methods identified by the scientific and research communities developed subsequent to the release of the manual.

(g) (1) The department, in collaboration with the Department of Managed Health Care and the State Department of Health Care Services, shall create a working group to establish guidelines regarding the all of the following:

(A) The inclusion and exclusion criteria for individuals to be eligible for the treatment modalities and affiliated activities identified and described in subdivision (a) and (b), as performed by the team described in subdivision (c), provided that the working group shall take into consideration the criteria identified in Appendix 2 of the CSC manual but disregard the stipulation of Appendix 2 that requires an individual receiving CSC to have the ability to understand and speak English.

(B) The caseload and geographic boundary parameters for the team described in subdivision (c), which shall take into account the ideal recommended caseload and geographic boundaries identified in the CSC manual along with population density and other factors that may make the recommended caseloads and geographic boundaries impractical.

(C) The benchmarks, including time parameters, for individuals receiving CSC services, that will determine when it is appropriate for those individuals to transition to alternative treatment regimens.

(D) The possibility of utilizing telehealth beyond what is currently required or permitted by statute or regulation, solely for use in delivering CSC services.

(2) The working group described in paragraph (1) shall have the following membership:

(A) A staff representative of the department.

(B) A staff representative of the State Department of Health Care Services.

(C) A psychiatrist with knowledge of FEP and CSC, provided that a psychiatrist with experience in participating in CSC shall be given precedence over psychiatrists without experience in participating in CSC.

(D) A mental health clinician with knowledge of FEP and CSC, provided that a mental health clinician with experience in participating in CSC shall be given precedence over clinicians without experience in participating in CSC.

(E) A professional with experience in providing supportive services, particularly supported education and supported employment.

(F) A representative appointed by a state, regional, or local mental health advocacy group or appointed by a collection of state, regional, or local mental health advocacy groups.

(G) An individual who has lived experience with psychosis, or a family member of an individual who has lived experience with psychosis.

(H) Three representatives appointed by health insurers that issue individual or group health insurance policies in this state.

(3) The working group described in paragraph (1) paragraph (2) shall convene no later than March 1, 2023, and shall convene at least once per month until the guidelines identified in paragraph (1) are finalized; however, the guidelines shall be completed within one year the workgroup first convenes.

(4) Within 60 days after the guidelines identified in paragraph (1) are finalized pursuant to paragraph (3), the department shall adopt implementing regulations.

(h) The department, by regulation, may update the treatment modalities and affiliated activities identified and described in subdivision (a) and (b), the team structure described in subdivision (c), the outcome and fidelity measures described in subdivision (d), the training requirements described in subdivision (e), and the supervision requirements described in subdivision (f) in a manner consistent with the objectives of this part.

(i) A health insurer shall use a single, monthly case rate paid as a monthly per-member-per-month rate that reimburses the team described in subdivision (c) for the full range of CSC services

described in subdivision (a) and (b) for any individual meeting the target criteria who is receiving services for the full CSC model that month.

(1) The health insurer shall bill services under this subdivision using the Healthcare Common Procedure Coding System (HCPCS) T1024 billing code for team management, with the HK modifier code for specialized mental health programs for high-risk populations, provided that the minimum monthly services shall include all of the following:

(A) At least two face-to-face visits or telehealth contacts from a team member.

(B) One collateral contact via an electronic modality, including, but not limited to, telephone, email, a phone-based application, or telehealth.

(C) One team staff meeting discussion with the full team, including the licensed professionals on the team;

(D) Provision of additional services during early stages of treatment as well as any time an individual experiences periods of destabilization, as medically necessary.

(E) The team shall continue providing medically necessary services beyond the minimum monthly service requirements, as needed.

(2) A daily encounter rate, which shall be billed under the HCPCS T1024 billing code for team management, for each encounter that the patient receives the treatment modalities and affiliated activities described in subdivisions (a) and (b) through the team described in subdivision (c) for less intensive service delivery, provided that the insurer may require that the team described in subdivision (c) provide documentation that the billable activity occurred and that no other additional services were medically necessary due to the individual being hospitalized or being stabilized and not requiring the minimum service provision, or there was another reason, as documented in the medical record, so long as the request for the documentation and the review of the documentation complies with this section and the nonquantitative treatment limitation requirements for the federal Mental Health Parity and Addiction Equity Act, in 45 C.F.R. 146.136(c)(4).

(3) The department shall adopt regulations that update the billing and reimbursement methodology described in this subdivision, as necessary.

(j) (1) An individual or group health insurance policy issued renewed, or amended on or after January 1, 2023, shall provide coverage of the supported education and employment services identified in paragraph (2) of subdivision (a) and described in paragraph (5) of subdivision (b) for individuals who have transitioned to an alternate treatment regimen that no longer meets the specifications of CSC, and those services shall be billed and reimbursed separately and distinctly from the payment structures identified in subdivision (i).

(2) The department, in collaboration with the State Department of Health Care Services, shall adopt regulations that establish a billing and reimbursement methodology for coverage of the supported education and employment services described in paragraph (1).

(k) This section does not apply to a nongrandfathered individual health insurance policy or a nongrandfathered group health insurance policy covering 50 or fewer employees, if the department determines that compliance with the section, in whole or part, will require the state to assume the cost and provide payments to insureds to defray the cost of the services, pursuant to 42 U.S.C. Sec. 18031(d)(3)(B)(ii).

SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

APPENDIX B LITERATURE REVIEW METHODS

This appendix describes methods used in the literature review conducted for this report. A discussion of CHBRP's system for medical effectiveness grading evidence, as well as lists of MeSH Terms, publication types, and keywords, follows.

Studies of the effects of treatment, test, service, etc. that bill addresses/subject of literature review were identified through searches of [Librarians will transmit this list to the bill lead]. Websites maintained by the following organizations were also searched: [Librarians will transmit this list to the bill lead]. The search was limited to abstracts of studies published in English (mention any other limits of review, e.g., studies in the United States, etc.). The search was limited to studies published from 20XX to present, because CHBRP had previously reviewed this literature using the same search terms in 20XX for the AB/SB ## analysis (if a repeat analysis). Comment on literature if possible (e.g., The literature on the medical effectiveness of XX treatments did not include any randomized controlled trials. The majority of the papers returned were case reports or systematic reviews).

Medical Effectiveness Review

The medical effectiveness literature review returned abstracts for 110 articles, of which 25 were reviewed for potential inclusion in this report on SB 1337 and a total of 13 studies were included in the medical effectiveness review for this report.

Medical Effectiveness Evidence Grading System

In making a "call" for each outcome measure, the medical effectiveness lead and the content expert consider the number of studies as well the strength of the evidence. Further information about the criteria CHBRP uses to evaluate evidence of medical effectiveness can be found in CHBRP's *Medical Effectiveness Analysis Research Approach*.⁴² To grade the evidence for each outcome measured, the team uses a grading system that has the following categories:

- Research design;
- Statistical significance;
- Direction of effect;
- Size of effect; and
- Generalizability of findings.

The grading system also contains an overall conclusion that encompasses findings in these five domains. The conclusion is a statement that captures the strength and consistency of the evidence of an intervention's effect on an outcome. The following terms are used to characterize the body of evidence regarding an outcome:

- *Clear and convincing evidence;*
- *Preponderance of evidence;*
- *Limited evidence;*
- *Inconclusive evidence;* and
- *Insufficient evidence.*

⁴² Available at: http://chbrp.com/analysis_methodology/medical_effectiveness_analysis.php.

A grade of *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.

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

A grade of *limited evidence* indicates that the studies had limited generalizability to the population of interest and/or the studies had a fatal flaw in research design or implementation.

A grade of *inconclusive evidence* indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies of equal quality suggest the treatment is not effective.

A grade of *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.

Search Terms (* indicates truncation of word stem)

Early Psychosis	Outpatients
Emerging Psychosis	Psychiatric Clinics
First-Episode Psychosis	Psychiatric Emergency Clinics
Initial Schizophrenia Episode	Psychiatric Emergency Services
Recent-Onset Psychosis	Cost Of Illness
Comprehensive Integrated Care	Costs
Coordinated Specialty Care	Costs And Cost Analysis
Navigate	Economics
NIMH Raise Early Treatment Program	Health Care Economics
Raise-ETP	Age Factors
Specialized Early Intervention	Cis-Gender
Drug Overdose	Criminal
Overdose	Criminal Behavior
Substance-Related Disorders	Disparities
Substance Abuse	Domestic Violence
Substance Use	Economic Inequality
Substance Use Disorder	Educational Status
Suicide	Employment
Health Outcomes	Employment Status
Outcome Assessment, Health Care	Ethnicity
Outcomes	Exposure To Violence
Remission (Disorders)	Gender
Treatment Outcome	Gender Equity
Facilities And Services Utilization	Gender Identity
Health Care Utilization	Health Disparities
Service Usage	Health Disparity, Minority and Vulnerable
Service Use	Populations
Utilization Review	Health Social Determinants
Community Mental Health Services	Health Status Disparities
Emergency Services	Health Structural Determinants
Emergency Services, Psychiatric	Healthcare Disparities
Inpatients	Homeless
Mental Health Clinics	Homeless Persons
Mental Health Services	Homelessness
Outpatient Clinics, Hospital	Housing
Outpatient Treatment	Housing Instability

Income	Absenteeism
Income Level	Barriers
Inequalities	Economic Burden
Minorities	Economic Loss
Minority Groups	Efficiency
Nonbinary	Employee Absenteeism
Patient Violence	Global Functioning
Physical Abuse	HRQOL
Race Factors	Independent Living
Racial Disparities	Independent Living Programs
School Violence	Long Term
SDOH	Morbidity
Sexism	Mortality
Social Determinants of Health	Mortality Rate
Social Discrimination	Mortality Risk
Socioeconomic Status	Mortality, Premature
Structural Determinants of Health	Premature Death
Transgender	Premature Mortality
Treatment Barriers	Productivity
Unemployment	QOL
Victimization	Quality Of Life
Violence	Quality Of Life Measures
Violence Victims	Remission
Violent Crime	Suicide

APPENDIX C COST IMPACT ANALYSIS: DATA SOURCES, CAVEATS, AND ASSUMPTIONS

With the assistance of CHBRP's contracted actuarial firm, Milliman, Inc, the cost analysis presented in this report was prepared by the faculty and researchers connected to CHBRP's Task Force with expertise in health economics.⁴³ Information on the generally used data sources and estimation methods, as well as caveats and assumptions generally applicable to CHBRP's cost impacts analyses are available at CHBRP's website.⁴⁴

This appendix describes analysis-specific data sources, estimation methods, caveats, and assumptions used in preparing this cost impact analysis.

Analysis-Specific Data Sources

Current coverage of coordinated specialty care (CSC) team services for commercial enrollees was determined by a survey of the largest (by enrollment) providers of health insurance in California.

Analysis-Specific Caveats and Assumptions

The analytic approach and key assumptions are determined by the subject matter and language of the bill being analyzed by CHBRP. As a result, analytic approaches may differ between topically similar analyses, and therefore the approach and findings may not be directly comparable.

Two key issues when analyzing CSC team services for eligible enrollees were the definitions of a CSC team and the inclusion/exclusion criteria that make enrollees with first-episode psychosis (FEP) eligible for CSC services.

Definitions of a CSC Team

The mandate states that CSC teams should be established as described in the National Institute of Mental Health's *Coordination Specialty Care for First Episode Psychosis Manual II: Implementation* (NIMH, 2014). In Appendix 3, the NIMH manual specifies the CSC team membership, training, and supervision requirements as follows:

1. Team Leader, 1.0 full-time equivalent (FTE)

An experienced Master's-level clinician who is trained in working with individuals experiencing FEP. He or she will be the primary contact person for clients and families and will spearhead efforts to engage clients in treatment. The Team Leader's primary goals are to build a positive relationship with participants and assist them in developing their abilities for illness self-management. The Team Leader will work with participants using a shared decision-making process to develop and modify treatment plans. The Team Leader will provide support, education, consultation, and basic services to participants and their families. With younger individuals, work with families will be more prominent since they play a pivotal role in the individuals' lives during adolescence and the first years of adulthood. The Team Leader will monitor, oversee, and supervise the team-based process.

⁴³ CHBRP's authorizing statute, available at https://chbrp.org/about_chbrp/index.php, requires that CHBRP use a certified actuary or "other person with relevant knowledge and expertise" to determine financial impact.

⁴⁴ See method documents posted at http://chbrp.com/analysis_methodology/cost_impact_analysis.php; in particular, see *2022 Cost Analyses: Data Sources, Caveats, and Assumptions*.

2. Supported Education and Employment Specialist, 1.0 FTE

A Bachelor's-level position; someone in this position should ideally have prior experience as a supported education or employment specialist. He or she will focus on assisting participants to continue, resume, or adapt their academic or vocational activities successfully, using the IPS (individual placement and support) model.

3. Recovery Coach, 0.5 FTE

An experienced Master's-level clinician who will help clients clarify goals, cope with stressful situations, interact more effectively with other people, and in general, overcome barriers to their recovery. This is done within a framework that is empowering and cultivates peer support through the use of structured behavioral interventions aimed at learning new skills and supporting behavior change, including social skills training, substance abuse treatment, behavioral activation, coping skills training, and psychoeducation.

4. Outreach and Referral Specialist, 0.5 FTE

The designated individual(s) should be a Master's-level clinician (or possess a higher clinical degree) and the ability to identify primary psychosis and perform differential diagnoses for symptom profiles related to psychosis. A program may choose to identify persons within the clinical team to lead outreach and recruitment activities, or establish a separate team of individuals who will only be responsible for such activities.

5. Psychiatrist, 0.2 FTE

He or she will be responsible for diagnosis, medical care needs, medication management, and acute management of suicidality and safety concerns. Medication management will be guided by a medication algorithm that provides information about evolving best practices. A shared decision-making framework will be used.

Humensky et al. (2013) published a costing tool for a CSC team comprised of:

1. Team Leader, 1.0 FTE
2. Supported Education and Employment Specialist, 1.0 FTE
3. Recovery Coach, 1.0 FTE
4. Outreach and Referral Specialist, 0.1 FTE
5. Psychiatrist, 0.3 FTE

Their cost estimate needed to be modified to (1) align the FTE mix with the NIMH manual's requirements and (2) adjust the costs from 2013 to 2022. For the alignment with the required NIMH manual FTE mix, the following calculations were made:

- Recovery Coach cost was converted to a 0.5 FTE Recovery Coach cost by multiplying by 0.5/1.0 or 1/2.
- Outreach and Referral Specialist cost was converted to a 0.5 FTE Referral Specialist cost by multiplying by 0.5/0.1 or 5.
- 0.3 FTE Psychiatrist cost was converted to a 0.2 FTE Psychiatrist cost by multiplying by 0.2/0.3 or 2/3.

After these adjustments, the total salary for the CSC team is \$246,789 in 2013 dollars. Adding to it fringe benefits of 36% yields a total of \$335,633. Including an additional 15% for indirect costs provides a total cost estimate of \$385,978 in 2013 dollars. With 30 clients as the team's case load limit (as per the NIMH manual), the cost per client is \$12,866 in 2013 dollars.

Inflating the dollar amounts to 2022 dollars increases estimate to approximately \$18,606 per client per year. Alternatively, the estimate can be written as $\$18,606 / 12 \text{ months} = \$1,551$ per month per client for the CSC team.

In determining the additional cost of CSC services, one must separate the outpatient treatment-as-usual services and how they differ from those provided in CSC for each part of the CSC team:

- Individual psychotherapy: Same providers as outpatient treatment-as-usual, but more of it in CSC.
- Medication management: Same providers, but meetings are frequent in CSC.
- Family therapy, groups, psychoeducation: Rare in outpatient treatment-as-usual, common in CSC, same providers.
- Supported employment/education: Not currently covered by commercial insurance in usual care, common in CSC.
- Care coordination: Not much done typically in outpatient treatment-as-usual but very common in CSC. Coordinating within the team, with inpatient units, family, additional services, etc. Usually conducted by the therapist/recovery coach.

Based on this, the analysis does not assume a reduced per-unit cost (replacing expensive service providers with lower-cost alternatives for the same service) and also assumes the entire cost of the CSC team is a new cost (from providing more/enhanced services than what was provided through outpatient treatment-as-usual).

To get the number of CSC teams needed as well as the total CSC team cost, one must determine the number of eligible enrollees with FEP.

Eligible enrollee inclusion/exclusion criteria

The mandate states that the CSC services for FEP should be as described in NIMH manual (NIMH, 2014). In Appendix 2, the NIMH manual states inclusion and exclusion criteria used in the Recovery After an Initial Schizophrenia Episode (RAISE) Connection program. The criteria that were used this analysis are below.

Inclusion criteria

1. Age range: 15 to 35 years
2. Diagnosis: schizophrenia, schizoaffective and schizophreniform disorders, delusional disorder, psychosis not otherwise specified (NOS)

Exclusion criteria

1. Other diagnoses associated with psychosis:
 - Substance-induced psychotic disorder
 - Psychotic affective disorder (e.g., major depressive or manic episode with psychotic features)
 - Psychotic disorder due to a general medical condition
2. Medical conditions that impair function independent of psychosis
3. Intellectual disability

For this analysis, CHBRP has used inclusion criteria #1 and #2 as well as exclusion criteria #1 and #3. It is possible that not being able to apply all of the criteria may provide a slight overestimate of the number of eligible enrollees. However, given the stigma associated with FEP, it is possible that the number of eligible commercial/CalPERS enrollees in plans and policies regulated by DMHC and CDI that CHBRP has identified through claims data are an underestimate. Therefore, the figures presented in this analysis seem reasonable.

Enrollees using CSC team services, postmandate

Humensky et al.'s (2013) costing exercise for CSC teams, considers a variety of scenarios involving different values for the (1) fraction of persons with FEP approached, and (2) the fraction of those approached who agree to engage with CSC team services. Humensky et al. (2013) consider scenarios that range from 10% to 38% engagement. Their "Medium Estimate #1" scenario features a fraction of enrollees with FEP approached equal to one-third or 33.3%. CHBRP's analysis uses this estimate and assumes that all cases approached will agree to engage with CSC team services. To the extent that some enrollees do not agree to enter services, estimates of the benefits and the costs may both be somewhat smaller.

Derivation of the 60,116 months of CSC team use

Table 1 shows 60,116 months of CSC team use. This estimate is arrived at by assuming one-third of the 15,029 enrollees utilizing psychotic episode treatments will access a CSC team. As per the NIMH manual, there should be one CSC team for every 30 enrollees (NIMH, 2014).

Over a year, 12 months of a CSC team for each 30 enrollees is required (i.e., 12 months x 30 enrollees = 360 months of CSC per team). Given there are 5,010 enrollees assumed to use the CSC teams, a total of 167 teams are required (5,010 enrollees / 30 enrollees per team ≈ 167 teams required). Thus, the total amount of months of CSC team use for 5,010 enrollees over a year is 60,116 (i.e., 360 x 167 = 60,120 ≈ 60,116 due to rounding).

Derivation of the 15,029 enrollees with FEP

CHBRP's contracted actuarial firm, Milliman, Inc, analyzed claims data to determine an estimate of CSC-eligible commercial/CalPERS enrollees with FEP eligible for CSC team services. The analysis was guided by specifications in the NIMH manual (NIMH, 2014). For example, CSC-eligible commercial/CalPERS enrollees were limited to those aged 15 to 35 years experiencing FEP. FEP was defined using data for 2017–2019. CHBRP included persons with the following diagnoses for psychosis based on the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes:

<u>ICD 10 Code</u>	<u>Description</u>
F200	Paranoid Schizophrenia
F201	Disorganized Schizophrenia
F202	Catatonic Schizophrenia
F203	Undifferentiated Schizophrenia
F205	Residual Schizophrenia
F2081	Schizophreniform Disorder
F2089	Other Schizophrenia
F209	Schizophrenia, Unspecified
F250	Schizoaffective Disorder, Bipolar Type
F251	Schizoaffective Disorder, Depressive Type
F258	Other Schizoaffective Disorders
F259	Schizoaffective Disorder, Unspecified
F302	Manic Episode, Severe With Psychotic Symptoms

F312	Bipolar Disorder, Current Episode Manic Severe With Psychotic Features
F315	Bipolar Disorder, Current Episode Depressed, Severe, With Psychotic Features
F3164	Bipolar Disorder, Current Episode Mixed, Severe, With Psychotic Features
F323	Major Depressive Disorder, Single Episode, Severe With Psychotic Features
F333	Major Depressive Disorder, Recurrent, Severe With Psychotic Symptoms
F23	Brief Psychotic Disorder
F24	Shared Psychotic Disorder
F28	Other Psychotic Disorder Not Due To A Substance Or Known Physiological Condition
F29	Unspecified Psychosis Not Due To A Substance Or Known Physiological Condition

CHBRP excluded persons with intellectual disabilities using these ICD-10 Codes:

<u>ICD 10 Code</u>	<u>Description</u>
F70	Mild intellectual disability
F71	Moderate intellectual disabilities
F72	Severe intellectual disabilities
F73	Profound intellectual disabilities
F78	Other intellectual disabilities
F78A1	SYNGAP1-related intellectual disability
F78A9	Other genetic related intellectual disability
F79	Unspecified intellectual disabilities

For the year 2018, claims in 2017 were reviewed to ensure that a diagnosis for psychosis was a first diagnosis for psychosis. For diagnoses of psychosis in 2019, the year 2018 was used as the “1-year look back.” In this way, persons whose first diagnosis fell in 2018 or 2019 were used to create baseline estimates of use and cost.

The analysis of 2019 data provides a blended estimate of a year of FEP care. Some data in 2019 come from people with FEP diagnosed in 2018. Some data in 2019 come from people with FEP diagnosed in 2019. This blended average of first year and second year service use and cost reflects the mix of first year and second year client mix expected to engage with CSC services in an average year.

The codes used generally excluded persons for whom SUD was the likely key cause of FEP.

Determining Public Demand for the Proposed Mandate

CHBRP reviews public demand for benefits relevant to a proposed mandate in two ways. CHBRP:

- Considers the bargaining history of organized labor; and
- Compares the benefits provided by self-insured health plans or policies (which are not regulated by DMHC or CDI and therefore not subject to state-level mandates) with the benefits that are provided by plans or policies that would be subject to the mandate.

On the basis of conversations with the largest collective bargaining agents in California, CHBRP concluded that in general, unions negotiate for broader contract provisions such as coverage for dependents, premiums, deductibles, and broad coinsurance levels.

Among publicly funded self-insured health insurance policies, the preferred provider organization (PPO) plans offered by CalPERS have the largest number of enrollees. The CalPERS PPOs currently provide benefit coverage similar to what is available through group health insurance plans and policies that would be subject to the mandate.

To further investigate public demand, CHBRP used the bill-specific coverage survey to ask carriers who act as third-party administrators for (non-CalPERS) self-insured group health insurance programs

whether the relevant benefit coverage differed from what is offered in group market plans or policies that would be subject to the mandate. The responses indicated that there were no substantive differences.

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A group of faculty, researchers, and staff complete the analysis that informs California Health Benefits Review Program (CHBRP) reports. The CHBRP **Faculty Task Force** comprises rotating senior faculty from University of California (UC) campuses. In addition to these representatives, there are other ongoing researchers and analysts who are **Task Force Contributors** to CHBRP from UC that conduct much of the analysis. The **CHBRP staff** coordinates the efforts of the Faculty Task Force, works with Task Force members in preparing parts of the analysis, and manages all external communications, including those with the California Legislature. As required by CHBRP's authorizing legislation, UC contracts with a certified actuary, **Milliman**, to assist in assessing the financial impact of each legislative proposal mandating or repealing a health insurance benefit.

The **National Advisory Council** provides expert reviews of draft analyses and offers general guidance on the program to CHBRP staff and the Faculty Task Force. CHBRP is grateful for the valuable assistance of its National Advisory Council. CHBRP assumes full responsibility for the report and the accuracy of its contents.

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CHBRP assumes full responsibility for the report and the accuracy of its contents. All CHBRP bill analyses and other publications are available at www.chbrp.org.

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