



CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

**Analysis of Assembly Bill 423:
Health Care Coverage:
Mental Health Services**

A Report to the 2007-2008 California Legislature
April 20, 2007

CHBRP 07-03



The California Health Benefits Review Program (CHBRP) responds to requests from the State Legislature to provide independent analyses of the medical, financial, and public health impacts of proposed health insurance benefit mandates and proposed repeals of health insurance benefit mandates. CHBRP was established in 2002 to implement the provisions of Assembly Bill 1996 (*California Health and Safety Code*, Section 127660, *et seq.*) and was reauthorized by Senate Bill 1704 in 2006 (Chapter 684, Statutes of 2006). The statute defines a health insurance benefit mandate as a requirement that a health insurer or managed care health plan (1) permit covered individuals to obtain health care treatment or services from a particular type of health care provider; (2) offer or provide coverage for the screening, diagnosis, or treatment of a particular disease or condition; or (3) offer or provide coverage of a particular type of health care treatment or service, or of medical equipment, medical supplies, or drugs used in connection with a health care treatment or service.

A small analytic staff in the University of California's Office of the President supports a task force of faculty from several campuses of the University of California, as well as Loma Linda University, the University of Southern California, and Stanford University, to complete each analysis within a 60-day period, usually before the Legislature begins formal consideration of a mandate bill. A certified, independent actuary helps estimate the financial impacts, and a strict conflict-of-interest policy ensures that the analyses are undertaken without financial or other interests that could bias the results. A National Advisory Council, drawn from experts from outside the state of California and designed to provide balanced representation among groups with an interest in health insurance benefit mandates, reviews draft studies to ensure their quality before they are transmitted to the Legislature. Each report summarizes scientific evidence relevant to the proposed mandate, or proposed mandate repeal, but does not make recommendations, deferring policy decision making to the Legislature. The State funds this work through a small annual assessment of health plans and insurers in California. All CHBRP reports and information about current requests from the California Legislature are available at the CHBRP Web site, www.chbrp.org.

A Report to the 2007-2008 California State Legislature

Analysis of Assembly Bill 423: Health Care Coverage: Mental Health Services

April 20, 2007

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PREFACE

This report provides an analysis of the medical, financial, and public health impacts of Assembly Bill 423, a bill mandating health plans and insurers to provide coverage for mental health care that is “equal” to that provided for physical health care. In response to a request from the California Assembly Committee on Health on February 20, 2007, the California Health Benefits Review Program (CHBRP) undertook this analysis pursuant to the provisions of Senate Bill 1704 (Chapter 684, Statutes of 2006) as chaptered in Section 127600, et seq., of the California Health and Safety Code.

Edward Yelin, PhD, Janet Coffman, MPP, PhD, and Patricia Franks, BA, all of the University of California, San Francisco, prepared the medical effectiveness analysis section of this report. Terri Malmgren, MA, of the University of California, Davis, conducted the literature search. M. Audrey Burnam, PhD, Director, Center for Research in Alcohol, Drug Abuse, and Mental Health, RAND Corporation, provided technical assistance with the literature review and expert input on the analytic approach. Helen Halpin, MSPH, PhD, and Nicole Bellows, MPH, PhD, both of the University of California, Berkeley, prepared the public health impact analysis. Susan Ettner, PhD, and Meghan Cameron, MPH, both of the University of California, Los Angeles, prepared the cost impact analysis. Robert Cosway, FSA, MAAA, of Milliman, provided actuarial analysis. Cynthia Robinson, MPP, of CHBRP staff prepared the background section and integrated the individual sections into a single report. Sarah Ordódy, BA, provided editing services. In addition, a subcommittee of CHBRP’s National Advisory Council (see final pages of this report) and a member of the CHBRP Faculty Task Force, Thomas MaCurdy, PhD, of Stanford University, reviewed the analysis for its accuracy, completeness, clarity, and responsiveness to the Legislature’s request.

CHBRP gratefully acknowledges all of these contributions but assumes full responsibility for all of the report and its contents. Please direct any questions concerning this report to:

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Susan Philip
Director

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EXECUTIVE SUMMARY

California Health Benefits Review Program Analysis of Assembly Bill 423

The California Legislature has asked the California Health Benefits Review Program (CHBRP) to conduct an evidence-based assessment of the medical, financial, and public health impacts of Assembly Bill 423, Health Care Coverage: Mental Health Services, as amended on March 22, 2007. AB 423, as amended, would mandate “coverage for the diagnosis and medically necessary treatment of a mental illnesses of a person of any age, and of serious emotional disturbances of a child, under the same terms and conditions applied to other medical conditions...” AB 423 would add Section 1374.73 to California’s Health and Safety Code and Section 10144.7 to the Insurance Code.

Under the proposed mandate, the diagnoses of and medically necessary treatment for all mental health disorders, including substance abuse¹, defined in the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)*² would be covered “on par” with coverage for other medical conditions.

The intent of AB 423, as amended, is twofold:

- 1) To “end discrimination against patients with mental disorders” by providing coverage for mental disorders; and
- 2) To require treatment and coverage of those illnesses that is “equitable to coverage provided for other medical illnesses.”³

Forty-eight states and the District of Columbia have now passed some type of legislation related to mental health parity. Thirty-one states have full parity laws. Twenty-six include coverage for substance abuse, alcohol or drug addiction, or chemical dependency. Some states exclude specific diagnostic codes from coverage. Rhode Island, for example, excludes tobacco and caffeine from its parity law.

California enacted its first mental health law in 1974. Health insurance products regulated by the California Department of Insurance that were offered on a group basis were required to *offer* coverage for expenses incurred as a result of mental or nervous disorders⁴. California enacted its second mental health law in 1999. AB 88, Health Care Coverage: Mental Illness, added Section 1374.72 to California’s Health and Safety Code and Section 10144.5 to the Insurance Code. AB 88 requires that health plans and insurers cover nine specific conditions known as severe mental illnesses (SMIs) for persons of

¹ Throughout this report the term “substance abuse” is used to refer to both “substance abuse” and “substance dependence” disorders as defined in the DSM-IV. The terms are used interchangeably- in this report with “substance use” disorders.

² The DSM-IV is available at www.psych.org/research/dor/dsm/index.cfm. Mental disorders included in subsequent editions of the DSM-IV would be covered.

³ Assembly Member Jim Beall Jr. Mental Health Parity Fact Sheet, January 22, 2007. Communication with Cris Forsyth, Office of Assembly Member Jim Beall, February 27, 2007.

⁴ California Insurance Code §10125.

any age, under the same terms and conditions as other medical conditions. AB 88 also requires coverage for serious emotional disturbances (SEDs) among children.

The proposed mandate is similar to current law in all of the following provisions:

- Conditions eligible for coverage would be based on diagnostic criteria set forth in the DSM-IV.
- The terms and conditions to which parity would apply include, but are not limited to, maximum lifetime benefits, copayments and coinsurance, and individual and family deductibles.
- Services that would be mandated at parity levels include outpatient services, inpatient hospital services, partial hospital services, as well as prescription drug coverage for those plans and policies that include prescription drug coverage.
- AB 423 would apply to health care service plans subject to the requirements of the Knox-Keene Health Care Services Plan Act⁵ and to health insurance policies regulated under the Insurance Code. It would not apply to contracts between the State Department of Health Services and a health care service plan for Medi-Cal beneficiaries.
- The proposed mandate would not prohibit plans and insurers from engaging in their regular utilization and case management functions.

Current law with respect to substance abuse requires health plans and insurers that provide coverage on a group basis to offer coverage for the treatment of alcoholism under such terms and conditions as may be agreed upon between the group subscriber and the health care service plan.⁶

Under AB 423, coverage would be provided at parity levels for all of the following substances: alcohol, amphetamines, caffeine, cannabis, cocaine, hallucinogens, inhalants, nicotine, opioids, phencyclidine, and sedatives.

CHBRP has conducted two previous analyses relevant to this report. The first analysis was of an earlier legislative proposal (SB 572, 2005, Perata) to expand the parity law to all mental health disorders defined in the DSM-IV. The second analysis was of an earlier legislative proposal (SB 101, reintroduced as SB 1192, 2004, Chesbro) to expand the parity law to substance use disorders. Both analyses are available at http://www.chbrp.org/completed_analyses/index.php.

The primary difference between AB 423 and SB 572 is that AB 423 includes codes defining substance abuse disorders (291.0 to 292.9, inclusive, and 303.0 to 305.9, inclusive) and “V” codes. Examples of “V” codes include relational problems, problems

⁵ Health maintenance organizations in California are licensed under the Knox-Keene Health Care Services Plan Act, which is part of the California Health and Safety Code.

⁶ Health & Safety Code § 1367.1; Insurance Code § 10123.6.

related to abuse or neglect, and child or adolescent antisocial behavior. The primary difference between AB 423 and SB 101 is caffeine-related disorders were excluded from coverage in SB 101, whereas there are no exclusions in AB 423.

Medical Effectiveness

Mental illness and substance abuse are among the leading causes of death and disability. There are effective treatments for many of the mental health and substance abuse (MH/SA) conditions to which AB 423 applies. In a traditional CHBRP report, the *Medical Effectiveness* section would examine the effectiveness of the services that a bill would require health plans to cover. However, the literature on all treatments for MH/SA conditions covered by AB 423—more than 400 diagnoses—could not be reviewed during the 60 days allotted for completion of CHBRP reports. Instead, the effectiveness review for this report summarizes the literature on the effects of parity in coverage for MH/SA services on utilization, cost, access, process of care, and health status of persons with MH/SA conditions.

The effects of parity in MH/SA coverage are difficult to separate from the effects of more intensive management of MH/SA services. Many employers that have implemented parity in MH/SA coverage have simultaneously increased the management of MH/SA services. Some employers have contracted with managed behavioral health organizations (MBHOs) to administer MH/SA benefits. Some employers that were already contracting with MBHOs have directed them to implement more stringent utilization management practices, such as preauthorization and concurrent review. In addition, some persons in states that have parity laws are enrolled in health maintenance organizations (HMOs) that tightly manage utilization of both medical and MH/SA services.

The generalizability of studies of MH/SA parity to AB 423 is limited. None of the studies published to date have examined the effects of parity in coverage for treatment of non-severe mental illnesses separately from treatment for severe mental illnesses. In addition, only a few studies have assessed use and/or cost of substance abuse services separately from mental health services. Moreover, in most studies the subjects had some level of coverage for MH/SA services prior to the implementation of parity. The presence of prior coverage constrains increases in utilization and expenditures relative to what they would be for persons in California who have health insurance but do not currently have any coverage for non-severe mental illness or substance abuse.

The methodological quality of studies of MH/SA parity is highly variable. None of the studies are randomized controlled trials (RCTs), because people cannot be randomly assigned to live in states that have parity laws or to work for employers that voluntarily implement parity. The most rigorous studies of MH/SA parity compare data on outcomes before and after implementation of parity, and compare trends in outcomes between persons who have parity in MH/SA coverage and persons who do not.

The impact of MH/SA parity legislation on the health status of persons with MH/SA conditions depends on a chain of events. Parity reduces consumers' out-of-pocket costs for MH/SA services. Lower cost sharing is expected to lead to greater utilization of these

services. If consumers obtain more appropriate and effective MH/SA services, their mental health may improve and they may recover from chemical dependency.

The findings from studies of parity in coverage for MH/SA services suggest that when parity is implemented in combination with intensive management of MH/SA services:

- Consumers' average out-of-pocket costs for MH/SA services decrease.
- There is a small decrease in health plans' expenditures *per user* of MH/SA services.
- Rates of growth in the use and cost of MH/SA services decrease.
- Utilization of mental health services and psychotropic medications does not increase, but utilization of substance abuse services increases slightly.
- Inpatient admissions for MH/SA care per 1,000 members decrease.
- The effect on outpatient MH/SA visits is ambiguous.

The studies also find that persons with mental health needs who reside in states that have implemented MH/SA parity are more likely to perceive that their health insurance and access to care have improved.

Very little research has been conducted on the effects of MH/SA parity on the provision of recommended treatment regimens or on mental health status and recovery from substance abuse. The literature search identified only two studies on these topics.

- One study reported that MH/SA parity is associated with modest improvements in receipt of a recommended amount and duration of treatment for depression.
- One study found that MH/SA parity laws are not associated with suicide rates for adults.

Utilization, Cost, and Coverage Impacts

- CHBRP estimates that 18,033,000 insured individuals would be affected by the mandate. None of these individuals currently have coverage at levels achieving full MH/SA parity with medical care, as would be mandated under AB 423. Therefore, all of them would experience an increase in coverage as a result of the mandate.
- Approximately 92% of insured Californians affected by AB 423 currently have some coverage for non-SMI disorders and 8% have none; 82% of insured Californians have some coverage for substance use disorders and 18% have none. In California, SMI services are already covered under AB 88, so the scope of AB

423 is much narrower, focusing on the incremental effect of extending parity to other non-SMI and substance use disorders.

- CHBRP has estimated that utilization of MH/SA services (including prescription drugs for smoking cessation) would increase modestly as a result of the mandate, e.g., by 24.5 outpatient mental health visits per 1000 members per year. Increased utilization would result from an elimination of benefit limits (e.g., annual limits on the number of hospital days and outpatient visits) and a reduction in cost sharing, because coinsurance rates are currently often higher for MH/SA or behavioral health services than for medical care. Utilization would also increase among insured individuals who previously had no coverage for conditions other than the SMI diagnoses covered under AB 88.
- The estimated increases in utilization are mitigated by two factors. First, direct management of MH/SA services is already substantial (e.g., due to the use of managed behavioral health care organizations or other utilization management processes), attenuating the influence of visit limits and cost-sharing requirements on utilization. Second, prior experience with parity legislation suggests that health plans are likely to respond to the mandate by further increasing utilization management (e.g., shifting patient care from inpatient to outpatient settings). More stringent management of care would partly offset increases due to more generous coverage.
- CHBRP estimates that after accounting for increases in utilization management likely to accompany its passage, AB 423 will increase total health care expenditures by \$109.93 million per year for the population in plans subject to the mandate. This is an increase of approximately 0.16%.
- Total premiums paid by all private employers in California would increase by about \$81.69 million per year, or 0.19%.
- Total premiums for individually purchased insurance would increase by about \$22.83 million, or 0.41%. The share of premiums paid by individuals for group or public insurance would increase by \$20.06 million, or 0.17%.
- The increase in individual premium costs would be partly offset by a decline in individual out-of-pocket expenditures (e.g., deductibles, copayments) of \$18.82 million (-0.37%).
- CHBRP estimates that approximately 1,023 of the 794,000 individuals who currently purchase insurance products regulated by the CDI in the individual market would drop coverage due to the premium increases resulting from the mandate.

Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 423

	Before Mandate	After Mandate	Increase/Decrease	Change After Mandate
Coverage				
<i>Non-SMI Disorders</i>				
Percentage of individuals with coverage				
Coverage with full parity	0%	100%	100%	N/A
Coverage with less than full parity	91.86%	0%	-91.86%	-100%
No coverage	8.14%	0%	-8.14%	-100%
Number of individuals with coverage				
Coverage with full parity	0	18,033,000	18,033,000	N/A
Coverage with less than full parity	16,564,000	0	-16,564,000	-100%
No coverage	1,469,000	0	-1,469,000	-100%
<i>Substance Use Disorders (including nicotine)</i>				
Percentage of individuals with coverage				
Coverage with full parity	0%	100%	100%	N/A
Coverage with less than full parity	81.92%	0%	-81.92%	-100%
No coverage	18.08%	0%	-18.08%	-100%
Number of individuals with coverage				
Coverage with full parity	0	18,033,000	18,033,000	N/A
Coverage with less than full parity	14,772,000	0	-14,772,000	-100%
No coverage	3,261,000	0	-3,261,000	-100%
Utilization				
<i>Non-SMI Disorders</i>				
Annual inpatient days per 1,000 members	2.58	2.70	0.1	4.69%
Annual outpatient visits per 1,000 members	207.25	231.70	24.5	11.80%
<i>Substance Use Disorders (including nicotine)</i>				
Annual inpatient days per 1,000 members	10.24	11.76	1.5	14.88%
Annual outpatient visits per 1,000 members	33.52	42.64	9.1	27.21%
Average Cost Per Service				
<i>Non-SMI Disorders</i>				
Inpatient day	\$911.85	\$912.16	\$0.31	0.03%
Outpatient visit	\$88.74	\$89.75	\$1.01	1.14%
<i>Substance Use Disorders (including nicotine)</i>				
Inpatient day	\$630.51	\$632.42	\$1.91	0.30%
Outpatient visit	\$65.26	\$65.55	\$0.29	0.45%

Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 423 (cont'd)

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
Expenditures				
<i>Non-SMI Disorders</i>				
Premium expenditures by private employers for group insurance	\$43,945,000,000	\$43,996,000,000	\$51,030,000	0.12%
Premium expenditures for individually purchased insurance	\$5,516,000,000	\$5,531,000,000	\$14,855,000	0.27%
CalPERS employer expenditures	\$2,631,000,000	\$2,635,000,000	\$4,200,000	0.16%
Medi-Cal state expenditures*	\$183,152,000	\$183,142,000	-\$10,000	-0.01%
Healthy Families state expenditures	\$627,766,000	\$627,924,000	\$158,000	0.03%
Premium expenditures by individuals with group insurance, CalPERS, or Healthy Families	\$11,516,000,000	\$11,529,000,000	\$12,766,000	0.11%
Individual out-of-pocket expenditures (deductibles, copayments, etc.)	\$5,137,000,000	\$5,117,000,000	-\$19,939,000	-0.39%
Expenditures for non-covered services	\$0	\$0	\$0	N/A
Total annual expenditures	\$69,556,000,000	\$69,619,000,000	\$63,047,000	0.09%
<i>Substance Use Disorders (including nicotine)</i>				
Premium expenditures by private employers for group insurance	\$43,945,000,000	\$43,976,000,000	\$30,657,000	0.07%
Premium expenditures for individually purchased insurance	\$5,516,000,000	\$5,524,000,000	\$7,980,000	0.14%
CalPERS employer expenditures	\$2,631,000,000	\$2,631,000,000	-\$107,000	0.00%
Medi-Cal state expenditures*	\$183,152,000	\$183,141,000	-\$11,000	-0.01%
Healthy Families state expenditures	\$627,766,000	\$627,721,000	-\$45,000	-0.01%
Premium expenditures by individuals with group insurance, CalPERS, or Healthy Families	\$11,516,000,000	\$11,523,000,000	\$7,291,000	0.06%
Individual out-of-pocket expenditures (deductibles, copayments, etc.)	\$5,137,000,000	\$5,138,000,000	\$1,123,000	0.02%
Expenditures for non-covered services	\$0	\$0	\$0	N/A
Total annual expenditures	\$69,556,000,000	\$69,603,000,000	\$46,900,000	0.07%

Table 1. Summary of Coverage, Utilization, and Cost Impacts of AB 423 (cont'd)

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
<i>Non-SMI and Substance Use Disorders</i>				
Premium expenditures by private employers for group insurance	\$43,945,000,000	\$44,027,000,000	\$81,687,000	0.19%
Premium expenditures for individually purchased insurance	\$5,516,000,000	\$5,539,000,000	\$22,834,000	0.41%
CalPERS employer expenditures	\$2,631,000,000	\$2,635,000,000	\$4,080,000	0.16%
Medi-Cal state expenditures*	\$183,152,000	\$183,131,000	-\$21,000	-0.01%
Healthy Families state expenditures	\$627,766,000	\$627,879,000	\$113,000	0.02%
Premium expenditures by individuals with group insurance, CalPERS, or Healthy Families	\$11,516,000,000	\$11,536,000,000	\$20,057,000	0.17%
Individual out-of-pocket expenditures (deductibles, copayments, etc.)	\$5,137,000,000	\$5,118,000,000	-\$18,817,000	-0.37%
Expenditures for non-covered services	\$0	\$0	\$0	N/A
Total annual expenditures	\$69,556,000,000	\$69,666,000,000	\$109,933,000	0.16%

Source: California Health Benefits Review Program, 2007.

Key: CalPERS = California Public Employees' Retirement System.

* Estimates shown are for AIM and MRMIP only; Medi-Cal is not subject to the provisions of AB 423.

Notes: The population includes individuals and dependents covered by employer-sponsored insurance (including CalPERS), individually purchased insurance, or public health insurance provided by a health plan subject to the requirements of the Knox-Keene Health Care Service Plan Act of 1975. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-sponsored insurance. Member contributions to premiums include employee contributions to employer-sponsored health insurance and member contributions to public health insurance. Figures may not add up due to rounding. SMI= serious mental illness

Public Health Impacts

- It is not possible to quantify the anticipated impact of the mandate on the public health of California because (1) the numerous approaches for treating MH/SA disorders and the multiple disorders (covered under AB 423) on which they may be applied renders a medical effectiveness analysis of mental health care treatment outside of the scope of this analysis; and (2) the literature review found an insufficient number of studies in the peer-reviewed scientific literature that specifically address physical and mental health outcomes related to the implementation of mental health parity laws to evaluate whether mental health parity has an impact on health outcomes.
- AB 88 currently covers approximately 12% of the population with an MH/SA disorder to which AB 423 applies. A larger percentage of children with MH/SA disorders are covered compared to adults (38% versus 5%). AB 423 would expand parity to over 4 million estimated individuals with an MH/SA disorder diagnosis.
- The scope of potential outcomes related to mental health treatment includes reduced suicides, reduced inpatient psychiatric care, reduced symptomatic distress, improved quality of life, health improvements for comorbid conditions, and other social outcomes, such as reduced crime. There are numerous potential health outcomes related to treating substance abuse including reduced pregnancy-related complications, reduced injuries, and reduced incidence of diseases.
- Any improvements in outcomes resulting from AB 423 are dependent on changes in access to care, utilization of care, and the appropriateness and effectiveness of treatment. There is not sufficient research to conclude that parity results in improvements in health outcomes.
- Although the lifetime prevalence for mental disorders is similar for males and females, gender differences exist with regard to specific mental disorder diagnoses, with some having a much higher frequency in males and others in females. Adult women are more likely to use mental health services than adult men.
- Race and poverty influence the risk of developing a mental disorder and the chance that treatment will be sought. There is substantial variation both across and within racial groups with respect to the prevalence of and treatment for MH/SA disorders. AB 423 has the potential to reduce racial disparities in *coverage* for mental health treatment. There is no evidence, however, that AB 423 would increase utilization of MH/SA treatment among minorities or that AB 423 would decrease disparities with regard to health outcomes.
- Mental and substance abuse disorders are a substantial cause of mortality and disability in the United States. Substance abuse, in particular, often results in premature death. There are sizeable economic costs associated with mental and

substance abuse disorders with an estimated \$147.8 billion in 1990 associated with mental disorders and \$428.1 billion in 1995 related to substance abuse. While these estimates illuminate the large financial costs of mental and substance abuse disorders, any changes in premature death and indirect costs resulting from AB 423 are dependent on changes in access to care, utilization of care, and the appropriateness and effectiveness of treatment.

INTRODUCTION

The California Legislature has asked the California Health Benefits Review Program (CHBRP) to conduct an evidence-based assessment of the medical, financial, and public health impacts of Assembly Bill 423, Health Care Coverage: Mental Health Services, a bill that would mandate “coverage for the diagnosis and medically necessary treatment of mental illnesses of a person of any age, and of serious emotional disturbances of a child, under the same terms and conditions applied to other medical conditions...” AB 423 would add Section 1374.73 to California’s Health and Safety Code and Section 10144.7 to the Insurance Code.

AB 423 would provide broad coverage for all mental illness at full parity. Under the proposed mandate, the diagnoses of and medically necessary treatment for all mental health and substance abuse⁷ disorders defined in the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition* (DSM-IV)⁸ would be covered on par with coverage for other medical conditions.

The intent of AB 423 is twofold:

- 1) To “end discrimination against patients with mental disorders” by expanding health insurance coverage of mental health conditions from a limited number of conditions to comprehensive coverage for all mental disorders; and
- 2) To ensure that treatment limitations are no more restrictive than those applied to physical illnesses.⁹

California enacted its first mental health law in 1974. Health insurance products regulated by the California Department of Insurance (CDI) that were offered on a group basis were required to *offer* coverage for expenses incurred as a result of mental or nervous disorders.¹⁰ California enacted its second mental health law in 1999. Assembly Bill 88, Health Care Coverage: Mental Illness, added Section 1374.72 to California’s Health and Safety Code and Section 10144.5 to the Insurance Code. AB 88 requires that health plans and insurers cover nine specific conditions known as severe mental illnesses (SMIs), of persons of any age under the same terms and conditions as other medical conditions. AB 88 also requires coverage for serious emotional disturbances (SEDs) among children.

The proposed mandate is similar to current law in all of the following provisions:

- Conditions eligible for coverage would be based on diagnostic criteria set forth in the DSM-IV.

⁷ Throughout this report, the term “substance abuse” is used to refer to both “substance abuse” and “substance dependence” disorders as defined in the DSM-IV.

⁸ Mental disorders included in subsequent editions of the DSM-IV would be covered.

⁹ Assembly member Jim Beall Jr. Mental Health Parity Fact Sheet, January 22, 2007. Communication with Cris Forsyth, Office of Assembly Member Jim Beall, February 27, 2007.

¹⁰ California Insurance Code, section 10125.

- The terms and conditions to which parity would apply include, but are not limited to, maximum lifetime benefits, copayments and coinsurance, and individual and family deductibles.
- Services that would be mandated at parity levels include outpatient services, inpatient hospital services, partial hospital services, as well as prescription drug coverage for those plans and policies that include prescription drug coverage.
- AB 423 would apply to health care service plans subject to the requirements of the Knox-Keene Health Care Services Plan Act¹¹ and to health insurance policies regulated under the California Insurance Code. It would not apply to contracts between the State Department of Health Services and a health care service plan for enrolled Medi-Cal beneficiaries.
- The proposed mandate would not prohibit plans and insurers from engaging in their regular utilization and case management functions. Specifically, plans and insurers would not be prohibited from using case management and utilization review techniques; limiting services to network providers; using cost-sharing techniques such as copayments and coinsurance.

Current law with respect to substance abuse requires health plans and insurers that provide coverage on a group basis to offer coverage for the treatment of alcoholism under such terms and conditions as may be agreed upon between the group subscriber and the health care service plan.¹²

Under AB 423, coverage would be provided at parity levels for all of the following substances: alcohol, amphetamines, caffeine, cannabis, cocaine, hallucinogens, inhalants, nicotine, opioids, phencyclidine, and sedatives.

CHBRP has conducted two previous reports relevant to this analysis. The first report analyzed an earlier legislative proposal (SB 572, 2005, Perata) to expand the parity law to all mental health disorders defined in the DSM-IV. The second report was an analysis of an earlier legislative proposal (SB 101 reintroduced as SB 1192, 2004, Chesbro) to expand the parity law to substance use disorders. Both analyses are available at http://www.chbrp.org/completed_analyses/index.php.

The primary difference between AB 423 and SB 572 is that AB 423 includes codes defining substance abuse disorders (291.0 to 292.9, inclusive, and 303.0 to 305.9, inclusive) and the Life Transition problems, currently referred to as “V” codes. The primary difference between AB 423 and SB 101 is that caffeine-related disorders were excluded from coverage in SB 101, whereas there are no such exclusions in AB 423.

¹¹ Health maintenance organizations in California are licensed under the Knox-Keene Health Care Services Plan Act, which is part of the California Health and Safety Code.

¹² Health and Safety Code § 1367.1; Insurance Code § 10123.6.

Study Limitations

A traditional CHBRP report would assess the medical, financial, and public health impact of coverage for mandated services for specific medical conditions. However, this report will look at the impact of “parity,” that is, the impact of less restrictive cost sharing for those services currently covered under mental health and substance abuse (MH/SA) benefits. It was not feasible for CHBRP to evaluate the medical effectiveness, cost and public health impact of every type of potential intervention for each of the more than 400 distinct diagnoses in the DSM-IV within the 60-day timeframe allotted for CHBRP analyses.

For the purpose of the analysis, CHBRP did not exclude any mental illness disorder defined in the DSM-IV nor did CHBRP exclude any specific condition from treatment. If enacted, there is the potential that plans would have to expand coverage for caffeine-related disorders, nicotine-related disorders, or “V” codes to be compliant with the proposed mandate because these conditions may not currently be treated, or these conditions may be treated in a visit with a primary care physician. For example, most smoking cessation treatment—that is, brief counseling and a prescription for pharmacotherapy—occurs in the physicians’ office with a primary care provider. With the exception of prescription drugs used to treat nicotine use disorders, pharmaceuticals were excluded from the cost analysis because health plans and insurers generally do not restrict coverage of pharmaceuticals to specific diagnoses. This is discussed further in the *Utilization, Cost, and Coverage Impacts* section.

CHBRP took this approach for two reasons:

- 1) Under current law, there is no clear definition of covered services for mental health parity benefits. For plans regulated by the California Department of Managed Health Care (DMHC), health plans are required to provide medically necessary health care services including, but not limited to, basic health care services.¹³ These basic health care services include coverage of crisis intervention and stabilization; psychiatric inpatient services, including voluntary inpatient services; and services from licensed mental health providers including, but not limited to, psychiatrists and psychologists. These are listed as “minimum service.” However, there is no comprehensive description of the full range of services covered under parity.¹⁴ CDI has not promulgated regulations specific to mental health parity for health insurance products under its jurisdiction.
- 2) There is no comprehensive description of the full range of services covered under parity. Health plans are left to decide individually the treatment options for the disorders. There is a lack of treatment protocols or guidelines for many mental health conditions, as well as a lack of consensus among providers about appropriate and effective courses of treatment for some mental health conditions in contrast to many other health conditions.

¹³ Health and Safety Code §§ 1345(b) and 1367(i), and California Code of Regulations, Title 28, § 1300.67.

¹⁴ California Code of Regulations, Title 28, § 1300.74.72.

MH/SA Parity Legislative Activity in California

In California and in other states, as well as on a federal level, mandating mental health benefits has been an ongoing policy process (Bao and Sturm, 2004). California enacted its first mental health law in 1974. Health insurance products regulated by the California Department of Insurance (CDI) that were offered on a group basis were required to *offer* coverage for expenses incurred as a result of mental or nervous disorders¹⁵. In 1989, California legislators developed a bill for the first time that addressed mental disorders by diagnosis (Peck, 2003). In 1997, AB 1100, a predecessor to AB 88, included seven SMI diagnostic disorders and SEDs of children. AB 1100 was vetoed by the Governor. In December 1998, AB 88 was introduced in the legislature. In February 1999, SB 468, a predecessor to SB 572, was introduced proposing to mandate comprehensive coverage of mental health conditions. SB 468 was amended several times in 1999 and was left without action in the Assembly in November 2000. AB 88 was passed by the Senate and Assembly in August 1999 and signed into law in September 1999. A second legislative attempt for comprehensive parity was introduced in 2005 (SB 572). SB 572 did not pass out of the Senate.

Table 2 compares AB 88, or current law, and AB 423 in terms of covered diagnoses. Under current law, nine conditions are considered SMIs—schizophrenia, schizoaffective disorder, bipolar disorder, major depressive disorder, panic disorder, obsessive compulsive disorder, pervasive developmental disorders or autism, anorexia nervosa, and bulimia nervosa. The additional mental health conditions that would be covered under AB 423 can be grouped into five areas.

Table 2. Mental Health Condition Diagnoses Covered Under AB 88 and AB 423

Mental health condition diagnoses covered under AB 88	Additional Mental health condition diagnoses proposed under AB 423
Anorexia Nervosa Autism Bipolar Disorder Bulimia Nervosa Major Depression Panic Disorder Schizoaffective Disorder Obsessive-Compulsive Disorder Schizophrenia Serious Emotional Diseases for Children	Generalized Anxiety Adjustment Disorders Chronic Depression Other Psychiatric Conditions Substance Use Disorders

Source: California Health Benefits Review Program, 2007.

MH/SA Parity Legislative Activity Among Other States

Mental health legislation has been an important point of discussion in health care policy for more than 40 years, and mental health parity legislation continues to remain on the agenda in many state legislatures and in Congress. Parity laws differ across states and

¹⁵ California Insurance Code § 10125.

among federal laws in terms of insurance policies affected by the laws, types of benefit, types of benefit limitations, and types of mental health conditions covered.

Types of MH/SA Parity Laws

Three terms commonly used to describe MH/SA requirements are (1) mandated benefit laws, (2) mandated “offering” laws, and (3) “parity” or equal coverage laws (NCSL, 2007).

Mandated benefits laws

Mandated benefit laws require that some level of coverage be provided for mental illness, serious mental illness, substance abuse, or a combination thereof, but discrepancies are permitted between the level of benefits provided and those for other health conditions. Also, benefit limitations do not have to be equal.

Mandated “offering” laws

Offering laws do not require that any benefits be provided. A mandated offering law can do two things. First, it can require that an option of coverage for mental illness, serious mental illness, substance abuse, or a combination thereof, be provided to the insured. This option of coverage can be accepted or rejected and, if accepted, will usually require an additional or higher premium. Second, a mandated offering law can require that if benefits are offered then they must be equal.

“Parity” or equal coverage laws

Parity, as it relates to mental health, requires insurers to provide the same level of benefits for mental illness, serious mental illness, or substance abuse as for other physical disorders and diseases. These benefits include visit limits, deductibles, copayments, and lifetime and annual limits. Full parity requires there be no disparity between the contractual terms and conditions used for medical versus mental health coverage. Partial parity is limited in some way; limitations may be in the benefits structure, or in the definition of diagnoses that are covered or in the populations that are covered. Parity laws do not require that any benefits be provided.

Parity laws generally do not apply to federal/state funded programs such as Medicaid, or federally funded programs such as Medicare and the Veterans Benefits Administration. Employer self-funded or self-insured health insurance plans, often sponsored by large employers, are also exempt from state parity laws through the federal Employee Retirement Income Security Act (ERISA) of 1974.

State MH/SA Parity Laws

Prior to 1991, 23 states had passed laws mandating some level of coverage for the treatment of substance abuse or mental illness, but no state required that coverage be in parity with coverage for the treatment of mental illness. The first parity laws, although limited in scope, were enacted in North Carolina and Texas in 1991.

Forty-eight states and the District of Columbia have now passed some type of legislation related to mental health parity. Thirty-one states have full parity laws. In these thirty-one states, there are no discrepancies in the level of benefits provided between mental illnesses and physical illnesses. Twenty-six states include coverage for substance abuse, alcohol or drug addiction, or chemical dependency (NCSL, 2007). Mental health parity laws have taken many different forms; statutes have ranged from requiring parity coverage for all mental health conditions listed in the DSM-IV to coverage at parity levels for a certain set of illnesses. Between three and thirteen of these conditions are commonly referred to as either SMI or biologically based mental illness (BBMI). Other states have elected to implement benefit “floors,” or minimum mandated benefit laws. These laws generally indicate a certain number of inpatient hospitalization days and outpatient visits related to mental illness that a health plan must provide (Appendix G).

Five states are considering mental health parity legislation this year: Colorado, Kansas, Vermont, Washington, and West Virginia (HPTS, 2007).

Federal Legislative and Administrative Activity on MH/SA Parity

Federal legislative activity includes:

- The Mental Health Parity Act of 1996 (MHPA) took effect in 1998.¹⁶ The law requires parity of mental health benefits with medical/surgical benefits with respect to the application of aggregate lifetime and annual dollar limits under a group health plan. The law mandates that employers retain discretion regarding the extent and scope of mental health benefits offered to workers and their families (including cost sharing, limits on numbers of visits or days of coverage, and requirements relating to medical necessity). The law does not apply to benefits for substance abuse or chemical dependency. The original sunset provision (providing that the parity requirements would not apply to benefits for services furnished on or after September 30, 2001) has been extended six times. The current extension runs through December 31, 2007.

The law also contains the following two exemptions:

- Small employer exemption. MHPA does not apply to any group health plan or coverage of any employer who employed an average of between 2 and 50 employees on business days during the preceding calendar year, and who employs at least 2 employees on the first day of the plan year
- Increased cost exemption. MHPA does not apply to a group health plan or group health insurance coverage if the application of the parity provisions results in an increase in the cost under the plan or coverage of at least 1% (DOL, 2006).
- The Mental Health Parity Act of 2007 (S. 558) was introduced by Senators Edward Kennedy, Pete Domenici, and Mike Enzi on February 12, 2007. Like the Mental Health Parity Act of 1996, this bill defines the scope of mental health

¹⁶ 42 United States Code. § 300gg-5

benefits to be covered. The bill seeks to ensure equal cost-sharing and treatment limits for benefits currently offered. The bill expands parity of financial requirements to include deductibles, copayments, and annual and lifetime limits, and parity of treatment limitations to include number of covered hospital days and covered outpatient visits. The bill does not apply to group health plans with 50 or fewer employees or the individual insurance market. Plans may elect to be exempt if it is projected that health plan costs will exceed 2% of total plan costs in the first year, or 2% each subsequent year.

- The Paul Wellstone Mental Health and Addiction Equity Act of 2007 (H.R. 1424) was introduced by Congressmen Patrick J. Kennedy and Jim Ramstad on March 7, 2007. This bill would require that any plan that covered mental health provide coverage for, at a minimum, the same wide range of mental and addiction disorders that are currently covered by the health plan with the largest enrollment of federal employees. The Senate bill does not say what conditions must be covered, and focuses simply on ensuring equal cost-sharing and treatment limits.
- On March 27, 2007, Congressman Pete Stark introduced H.R. 1663, a bill that would require parity in mental health services for Medicare beneficiaries.
- Previous bills to enact full parity were introduced in the 107th and 108th Congresses, but failed to pass. In the 109th Congress, Congressmen Patrick J. Kennedy introduced a mental health parity bill in the house (H.R. 1402) that he removed from committee consideration on September 2006.
- Mental health parity in the Federal Employees Health Benefits (FEHB) program was implemented by the federal Office of Personnel Management in 2001 after President Clinton's Executive Order 13124 called for full parity for both mental health and substance abuse benefits. The FEHB program has been described as the largest employer-sponsored health benefits system in the United States.¹⁷ The program offers health insurance coverage to 8.7 million beneficiaries through more than 200 distinct health plans.

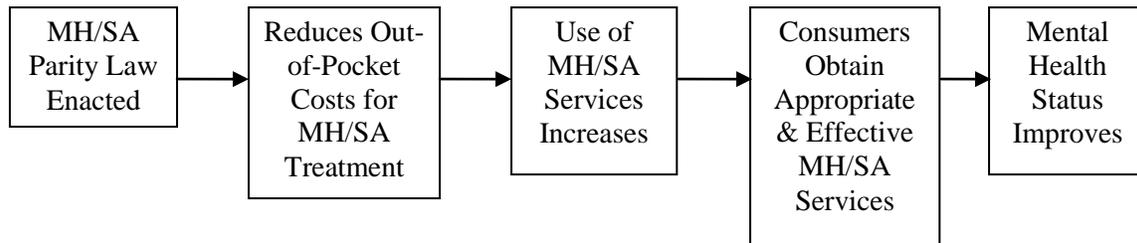
¹⁷ U.S. Department of Health and Human Services, (2002). *Mental Health, United States, 2002*. RW Manderscheid and M Henderson. eds. Section IV. Insurance for Mental Health Care. Chapter 14: Parity in the Federal Employees Health Benefits Program: An Overview. KD Hennessy and CL Barry., DHHS Publication No. (SMA) 04-3938, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Mental Health Information Center. Available at: www.mentalhealth.samhsa.gov/publications/allpubs/SMA04-3938/default.asp. Accessed April 2, 2005.

MEDICAL EFFECTIVENESS

Mental illness and substance abuse are among the leading causes of death and disability (DHHS, 1999; IOM 2006). There are effective treatments for many mental health and substance abuse (MH/SA) conditions, including those to which AB 423 applies (DHHS, 1999; IOM, 2006). However, it is not feasible for CHBRP to review the literature on the more than 400 diagnoses to which AB 423 applies during the 60 days allotted for completion of its reports. Instead, the effectiveness review for this report summarizes the literature on the effects of parity in coverage for MH/SA services on utilization, cost, access, process of care, and the mental health status of persons with MH/SA disorders.

The potential of MH/SA parity legislation to improve consumers' mental health status and recovery from substance abuse depends on a chain of events, as illustrated in Figure 1. MH/SA parity laws reduce consumers' out-of-pocket expenditures for MH/SA services. Proponents of parity legislation expect that lowering out-of-pocket expenditures will increase in consumers' use of MH/SA. If an increase in utilization leads consumers to obtain appropriate and effective MH/SA services, parity could lead to improvements in mental health status and increase the number of persons who recover from substance abuse. However, as discussed below, most studies of MH/SA parity do not find that parity increases utilization of MH/SA services. In addition, few studies have examined the impact of MH/SA parity on receipt of recommended levels of MH/SA care and on mental health status and recovery from chemical dependency.

Figure 1. Hypothesized Linkages Between MH/SA Parity and Improvement in Mental Health Status



Literature Review Methods

Studies of the effects of MH/SA parity were identified through searches of PubMed, PsycInfo, and other databases. The search was limited to abstracts of peer-reviewed research studies that were published in English and conducted in the United States. Seventeen pertinent studies were identified, retrieved, and reviewed. 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: Literature Review Methods. Appendix C includes a table describing the studies that CHBRP reviewed. A table summarizing evidence of effectiveness appears at the end of this section of the report (Table 3).

Methodological Issues

CHBRP confronted three major methodological issues when analyzing the literature on MH/SA parity. First, the generalizability of studies of MH/SA parity to AB 423 is limited. As noted in the *Introduction*, AB 423 applies only to coverage for non-severe mental illnesses (SMIs) and substance abuse, because existing law in California requires parity in coverage for SMIs. None of the studies of MH/SA parity published to date have examined the effects of parity on treatment of non-SMIs separately from effects on treatment for SMIs. In addition, only a few studies have assessed use and/or expenditures for substance abuse services separately from mental health services.

Other generalizability issues concern the populations studied. Some studies of MH/SA parity examined implementation of parity in a single employer-sponsored health plan in a state other than California. The persons enrolled in these plans may not be representative of Californians to whom AB 423 would apply. In addition, some studies assessed persons who were enrolled in fee-for-service (FFS) plans before parity was implemented. The results of these studies may not be generalizable to the many Californians who are enrolled in health maintenance organizations (HMOs). Lastly, in most studies the subjects had some level of coverage for MH/SA services before parity. As discussed in the section *Utilization, Cost, and Coverage Impacts*, 8% of Californians who have health insurance do not have coverage for non-SMIs and 18% do not have coverage for substance abuse.

Moreover, the effects of parity in MH/SA coverage are difficult to separate from the effects of more intensive management of MH/SA services (Barry et al., 2006; Gitterman et al., 2001). Many employers that have implemented parity have simultaneously increased the management of MH/SA services. The purpose of more intensive management of MH/SA services is to monitor and, in some cases, limit utilization of these services. Some employers have contracted with managed behavioral health organizations (MBHOs) to administer MH/SA benefits, an arrangement typically characterized as a “carve out.” Some employers that were already contracting with MBHOs before implementing parity have directed MBHOs to implement more stringent management practices, such as preauthorization and concurrent review. In addition, some persons in states that have implemented MH/SA parity laws are enrolled in HMOs that tightly manage utilization of both medical and MH/SA services. More intensive management is likely to dampen the effects of parity on use of MH/SA services, especially expensive services such as inpatient and residential care.

Finally, the methodological quality of studies of MH/SA parity is highly variable. None of the studies are randomized controlled trials (RCTs), because none are experimental. All studies have evaluated the effects of either state MH/SA parity laws or voluntary implementation of parity by employers because people cannot be randomly assigned to live in states that have parity laws or to work for employers that voluntarily implement parity.

The most rigorous studies of MH/SA parity share three characteristics. First, these studies analyze data on trends in utilization and/or costs over time to ascertain whether use and

cost changed after parity was implemented. Second, they include a comparison group of persons enrolled in health plans that were not subject to MH/SA parity. Including a comparison group enables researchers to determine whether trends over time differ between health plans that were subject to MH/SA parity and those that were not. Third, the intervention groups consist solely of privately insured persons who were enrolled in health plans that were subject to MH/SA parity, and exclude persons who are enrolled in self-insured health plans, participate in public programs (e.g., Medicaid, Medicare), or are uninsured. Such restrictions ensure that intervention groups consist solely of persons directly affected by MH/SA parity.

The only studies of MH/SA parity meeting these criteria are three studies conducted for the evaluation of the implementation of MH/SA parity in the Federal Employees Health Benefits (FEHB) program (Azrin et al., 2007; Goldman et al., 2006; Lichtenstein et al., 2004). Methodological problems that affect interpretation of the results of other studies are discussed throughout this section of the report.

Outcomes Assessed

The literature review examined findings from studies of MH/SA parity with regard to the following outcomes:

- Consumers' out-of-pocket costs for MH/SA services
- Health plans' expenditures for MH/SA services
- Utilization of MH/SA services
- Perceived generosity of health insurance benefits and access to MH/SA care
- Process of MH/SA care
- Mental health status of persons with MH/SA disorders and recovery from chemical dependency

Some analyses examined effects of MH/SA parity on utilization and costs of MH/SA services for all health plan enrollees. Other analyses were limited to persons who are likely to need MH/SA services.

Study Findings

Out-of-Pocket Expenditures for MH/SA Services

Decreasing out-of-pocket expenditures for MH/SA services is one of the primary goals of parity laws. Four studies have evaluated the impact of parity in coverage for MH/SA services on out-of-pocket expenditures per user for these services. Two studies investigated the impact of the implementation of parity in the FEHB program (Azrin et al., 2007; Goldman et al., 2006). Under an Executive Order implemented in 2001, health

plans that participated in the FEHB program were required to provide parity in coverage for MH/SA services. These two studies compared federal employees and dependents enrolled in seven preferred provider organizations (PPOs) that participated in the FEHB program to persons enrolled in seven PPOs sponsored by large employers that did not provide parity in MH/SA coverage.

For most federal employees and their dependents, parity in MH/SA coverage was implemented through MBHOs. In response to the Executive Order mandating parity, 10 health plans serving federal employees contracted with MBHOs to administer MH/SA benefits (Ridgely et al., 2006). These plans included some of the largest carriers participating in the FEHB program and enrolled 46% of persons who obtained health insurance through it. An additional 29% of enrollees were enrolled in health plans that had already “carved out” MH/SA benefits prior to the executive order requiring MH/SA parity (Ridgely et al., 2006). The majority of health plans participating in the FEHB program also used utilization management techniques such as prior authorization, concurrent review, retrospective review, and preferred provider panels (Ridgely et al., 2006).

One of the two FEHB studies assessed effects of MH/SA parity on annual out-of-pocket expenditures per user for MH/SA services for adults and the other assessed effects on expenditures per user for children. In the study of adults, annual out-of-pocket expenditures per user decreased for adults enrolled in six of the seven PPOs studied and did not change in the seventh PPO (Goldman et al., 2006). In the study of children, annual out-of-pocket expenditures per user declined for children in all seven PPOs (Azrin et al., 2007). However, the majority of the differences in out-of-pocket expenditures per user were statistically significant only for adults and not for children. In addition, the mean decreases were small. For adults the average decrease in out-of-pocket expenditures per user ranged from \$9 to \$87. For children, the average decrease ranged from \$16 to \$200 per user.

Two earlier studies reported larger decreases in out-of-pocket expenditures per user for mental health services (Zuvekas et al., 1998; Zuvekas et al., 2001). These studies compared out-of-pocket expenditures per user for mental health services among non-elderly persons with private insurance who participated in a national survey conducted in 1987 to out-of-pocket expenditures these persons would incur under the federal Mental Health Parity Act of 1996 (which requires parity in annual and lifetime benefit limits for mental health and medical services). Both studies examined four hypothetical scenarios ranging from low (\$1,000 or \$2,000) to high (\$35,000 or \$60,000) total expenditures per user for mental health services. In one study, the authors found that implementation of the federal parity law would decrease mean out-of-pocket expenditures per user by \$438 to \$24,860, depending on the scenario (Zuvekas et al., 1998). The second study reached the same conclusion with regard to marginal costs (Zuvekas et al., 2001). These studies may have yielded more dramatic findings than did later studies because many people who had private health insurance in 1987 were enrolled in plans that had stringent annual and lifetime limits on mental health benefits. The federal Mental Health Parity Act, which requires parity in annual and lifetime benefits for mental health services, was already in

force by the time parity was implemented in the FEHB program and in most states. In addition, the authors of these studies did not model the potential effects of more intensive management of mental health services, which may dampen increases in utilization of services despite the financial incentive created by reducing cost sharing.

Overall, the evidence of the impact of MH/SA parity on out-of-pocket expenditures per user suggests that parity reduces out-of-pocket spending for MH/SA services.

Health Plan Expenditures for MH/SA Services

Expenditures per member

Three studies assessed MH/SA expenditures per member for persons enrolled in health plans that had implemented parity (Sturm et al., 1998; Sturm et al., 1999; Zuvekas et al., 2002). One study examined trends in outpatient visits for MH/SA services after the implementation of parity in MH/SA coverage by a state government employer that simultaneously contracted with an MBHO to administer MH/SA benefits (Sturm et al., 1998). The authors found that for persons previously enrolled in an HMO, MH/SA expenditures per 1,000 members increased by 27% during the first year after parity was implemented but returned to the pre-parity level in the second year after parity (Sturm et al., 1998).

A second study assessed the probability of use of MH/SA services by adults aged 18 to 55 years who were enrolled in a large employer-sponsored health plan located in a state that enacted a law mandating parity in coverage for SMIs (Zuvekas et al., 2002). In addition to implementing parity in coverage for SMIs, the employer reduced deductibles and copayments for in-network coverage for treatment of non-SMIs and for outpatient substance abuse services. At the same time, the employer entered into a “carve out” contract with an MBHO to administer all MH/SA benefits. Before parity and the “carve out” were implemented, employees and their dependents were enrolled in an FFS plan that did not intensively manage utilization of MH/SA services. Adults who obtained MH/SA coverage through this employer were compared to adults enrolled in plans sponsored by small- and medium-sized employers that were not subject to parity laws. The authors of this study reported a small decrease in MH/SA expenditures per member for non-elderly adults (-3%) that approached statistical significance ($p < 0.1$) (Zuvekas et al., 2002).

A third study examined the effects of parity in coverage for substance abuse services for persons enrolled in health plans in multiple states that contract with an MBHO to manage substance abuse benefits (Sturm et al., 1999). The authors compared expenditures per member under parity to three hypothetical health plans with annual limits of \$1,000, \$5,000, and \$10,000, respectively, for substance abuse services. They found that parity in substance abuse coverage was associated with very small increases in annual substance abuse expenditures per member of \$0.06 to \$3.39, depending on the annual limit on substance abuse benefits that was in place prior to parity (Sturm et al., 1999).

There are several reasons why the results of these studies are not entirely consistent. Zuvekas and colleagues (2002) examined persons who were previously enrolled in an FFS plan that did not intensively manage MH/SA services. In contrast, persons assessed in Sturm et al. (1998) were previously enrolled in HMOs that probably managed utilization of MH/SA services more intensively than the FFS plan studied by Zuvekas et al. The large increase in per member expenditures among the HMO enrollees in the first year after parity may have been due to pent up demand for MH/SA services that leveled off in subsequent years. Conversely, for the persons studied by Zuvekas et al., parity was accompanied by contracting with an MBHO that managed utilization more intensively than the FFS plan in which they were previously enrolled. The findings of Sturm et al. (1999) of a small increase in annual expenditures per member for substance abuse reflects a comparison between parity and hypothetical plans that had low annual benefit limits for substance abuse. In the other two studies, the benefit limits in place prior to parity were probably more generous.

The results of these three studies suggest that when MH/SA parity is implemented in combination with intensive management of MH/SA services, it does not substantially increase health plans' expenditures *per member* for persons previously enrolled in HMOs over the long-term and slightly decreases expenditures for persons previously enrolled in FFS plans.

Expenditures per user

Findings from the three studies that evaluated health plans' MH/SA expenditures per user were more consistent (Azrin et al., 2007; Goldman et al., 2006; Lichtenstein et al., 2004). These studies investigated the impact of the implementation of parity in the FEHB program. As noted previously, these studies compared federal employees and dependents enrolled in seven PPOs that were required to implement parity in MH/SA benefits to persons enrolled in seven PPOs that did not have parity in coverage. After implementation of parity, six of the seven PPOs that participated in the FEHB program and which were included in the study contracted with MBHOs to administer MH/SA benefits.

One of the FEHB studies assessed effects on health plans' annual MH/SA expenditures per user for adults and another examined effects on annual expenditures per user for children. In six of the seven comparisons of MH/SA expenditures per user for adults, PPOs that implemented parity had lower expenditures per user for MH/SA services than PPOs that did not implement parity (Goldman et al., 2006). However, the differences were statistically significant in only three of the six comparisons. In the single remaining comparison, the PPO that implemented parity reported higher MH/SA expenditures but the difference was not statistically significant. Decreases in annual expenditures per user after parity was implemented ranged from \$5.50 to \$202 per user. Findings from the study of health plans' MH/SA expenditures per user for children were similar, although the decreases were somewhat larger (\$48 to \$320 per user) (Azrin et al., 2007). The final report on the FEHB evaluation analyzed health plans' expenditures per adult user for mental health and substance abuse services separately and also reported similar findings (Lichtenstein et al., 2004).

Overall, the evidence from the FEHB evaluation suggests that parity in MH/SA coverage is associated with a modest decrease in health plans' expenditures *per user* for MH/SA services, when implemented simultaneously with intensive management of these services.

Rate of growth in expenditures for psychotropic medications

One study examined whether MH/SA parity affected the rate of growth in expenditures for psychotropic medications (Zuvekas et al., 2005b). The study assessed health plan expenditures for persons who obtained coverage through an employer that implemented parity and simultaneously contracted with an MBHO. The authors found that administering MH/SA parity through an MBHO was associated with a statistically significant decrease in the rate of growth in health plans' expenditures for psychotropic medications.

Utilization of MH/SA Services

Probability of use among all members

Four studies examined the impact of MH/SA parity on use of MH/SA services by all enrollees. Three of these studies evaluated the implementation of parity in the FEHB program (Azrin et al., 2007; Goldman et al., 2006; Lichtenstein et al., 2004).

One of the FEHB studies assessed effects of MH/SA parity on the probability that adult enrollees would use MH/SA services, and another assessed effects on probability of use by children. For adults, only two of the seven comparisons between individuals enrolled in PPOs subject to MH/SA parity and those enrolled in PPOs that did not provide parity were statistically significant (Goldman et al., 2006). In one case, parity was associated with a very small decrease in use (-1%), and in the other case parity was associated with a very small increase in use (1%). The only PPO subject to parity that experienced a statistically significant increase in use was the only PPO included in the study that chose not to contract with an MBHO to administer MH/SA benefits.

The findings from the study of probability of use among children enrolled in FEHB plans were similar (Azrin et al., 2007). Once again, the only PPO subject to parity that reported a statistically significant increase in the probability of use was the only PPO in the study that did not contract with an MBHO. Consistent with the Goldman et al. (2006) study of adults enrolled in FEHB plans, the increase in the probability that children enrolled in this plan would use MH/SA services was very small (1%). The other six comparisons found no statistically significant differences.

The final report on the FEHB evaluation included findings from separate analyses of the probabilities that adults would use mental health or substance abuse services (Lichtenstein et al., 2004). These results were consistent with the results for MH/SA services combined, except that all health plans reported very small increases in the probability that adults would use substance abuse services.

Overall, the evidence from the FEHB evaluation suggests that parity in MH/SA coverage does not substantially affect the probability that enrollees will use MH/SA services, especially if parity is implemented simultaneously with more intensive management of these services.

The fourth study reported that MH/SA parity was associated with a large (33%) and statistically significant increase in the probability that adult enrollees would use MH/SA services (Zuvekas et al., 2002). The probability of using any MH/SA service rose from 6% to 8%. The authors also found that the increase was greater than that experienced by the comparison group composed of persons who obtained health insurance from employers that did not implement MH/SA parity ($p=0.06$). However, the absolute probability of using MH/SA services after parity was small for both groups (2.3% for the health plan subject to an MH/SA parity law and 1.8% for health plans not subject to parity).

The reasons the findings of this study differ from the findings of the evaluation of the FEHB program are not clear. One possible explanation is that the MBHOs that managed MH/SA benefits for FEHB enrollees managed utilization more intensively than the MBHO that managed MH/SA benefits for persons in the other study. In addition, the FEHB evaluation used more rigorous analytic methods than the other study.

Number of enrollees using services

One study investigated the effects of parity in substance abuse coverage on trends in the numbers of adolescents who used substance abuse services (Ciemens, 2004). The author reported that there was a statistically significant increase of 3.6 users per month during the first month after the implementation of parity, which represented a 75% increase. However, this increase was not sustained over time.

Numbers of enrollees using services per 1,000 members

Two studies examined the effect of MH/SA parity on the number of outpatient visits for MH/SA care per 1,000 enrollees (Sturm et al., 1998; Zuvekas et al., 2002). Sturm and colleagues (1998) found that outpatient MH/SA visits decreased 55% for persons who were previously enrolled in an FFS plan under which utilization of MH/SA services was not intensively managed. Conversely, outpatient MH/SA visits increased 49% for persons who were previously enrolled in HMOs that tightly managed utilization of both MH/SA and medical services. In both cases, the differences were statistically significant. A second study found that implementation of parity simultaneously with a “carve out” was associated with a statistically significant increase of 49% in outpatient MH/SA visits per 1,000 enrollees, which was larger than the increase that occurred in a comparison group of health plans that were not subject to parity (Zuvekas et al., 2002).

The lack of consistency in the findings of these two studies suggests that the effect of MH/SA parity on outpatient visits per 1,000 enrollees is ambiguous.

These two studies also evaluated the impact of MH/SA parity on inpatient days for MH/SA care per 1,000 enrollees. Both studies found that implementation of parity was

associated with statistically significant decreases of 90% and 42%, respectively, in inpatient days for persons previously enrolled in FFS plans (Sturm et al., 1998; Zuvekas et al., 2002). In the former study, the decrease was not statistically significant for persons who were previously enrolled in HMOs, perhaps because the HMOs managed inpatient utilization more intensively than fee-for-service plans (Sturm et al., 1998).

The findings of these studies suggest that there is clear and consistent evidence that MH/SA parity is associated with a reduction in inpatient days per 1,000 enrollees when combined with more intensive management of MH/SA services.

Probability of use among persons with mental health needs

Two studies assessed the effects of MH/SA parity on the probability of use of mental health services and medications by persons with private health insurance who were likely to need mental health services (Bao and Sturm, 2004; Harris et al., 2006).¹⁸ One study reported that living in a state that had enacted MH/SA parity laws was not associated with the probability that adults with high levels of emotional distress would use any mental health service or any outpatient mental health service (Harris et al., 2006).¹⁹ This study also found that persons with high levels of distress who lived in states with MH/SA parity laws were no more likely to use psychotropic medications than were persons who lived in states that did not have such laws. The other study found no statistically significant relationship between strong²⁰ state parity laws and the probability that persons with symptoms of any mental illness would have one or more visits for outpatient specialty mental health care (Bao and Sturm, 2004).

The findings from these two studies suggest that MH/SA parity laws do not affect use of mental health services by persons with high levels of need for these services. However, both of these studies have an important limitation that may lead them to underestimate the impact of parity laws. In both cases, the authors analyzed data from national surveys that did not allow them to determine whether a privately insured person was enrolled in a health plan subject to a state MH/SA parity law or enrolled in a self-insured plan. MH/SA parity laws do not directly benefit persons in self-insured plans, because these plans are not required to comply with them. These laws would indirectly affect persons in self-

¹⁸ Likelihood of needing mental health services was determined by analyzing responses to survey questions regarding mental health symptoms and emotional distress.

¹⁹ One limitation of studies that evaluate the impact of MH/SA parity laws by examining cross-state variation in the use of MH/SA services is that there may be differences across states that affect the likelihood that they will implement parity laws. For example, the level of use of MH/SA services and the capacity in the MH/SA services system (e.g., mental health professionals and psychiatric hospital beds per capita) may vary across states. Differences in economic resources and political climate may also influence whether states enact parity laws. The challenge of controlling for state characteristics associated with adoption of state parity laws arises in five of the studies included in this review. Three studies used standard statistical methods to incorporate state characteristics into their analyses (Harris et al., 2006; Klick and Markowitz 2006; Pacula and Sturm 2000). Two studies avoided this methodological problem by looking at changes over time in states that enacted parity laws and those that did not (Bao and Sturm 2004; Sturm 2000).

²⁰ States that have “strong” parity laws require equal cost sharing for physical and mental health services across all types of cost sharing (e.g., deductibles, coinsurance, co-payments, number of visits covered, number of inpatient days covered, annual limits, lifetime limits) (Bao and Sturm, 2004).

insured plans only if employers that offered self-insured plans felt that they needed to implement parity in MH/SA benefits to compete effectively for workers.

Numbers of encounters per person with mental health needs

Two studies assessed the number of outpatient visits for mental health care per user (Bao and Sturm, 2004; Pacula and Sturm, 2000). One study reported that non-elderly adults who had private health insurance and lived in states that had implemented strong MH/SA parity laws had more specialty mental health outpatient visits after parity was implemented than did non-elderly adults with private insurance in states that did not have parity laws (Bao and Sturm, 2004). This difference approached statistical significance ($P < 0.1$). The other study found that adults with poor mental health status who lived in states that had implemented parity laws had more mental health visits, and that this difference was statistically significant (Pacula and Sturm, 2000).

The findings from these two studies suggest that MH/SA parity laws may increase the number of outpatient mental health visits per user, at least for persons who have poor mental health status. However, these studies may underestimate the effect of MH/SA parity, because they assess effects on all persons with private health insurance including persons enrolled in self-insured plans that are not directly affected by parity laws.

Rate of growth in utilization

One study examined the impact of MH/SA parity on the rate of growth in use of MH/SA services (Zuvekas et al., 2005a). The findings from this study suggest that implementation of MH/SA parity reduces the rate of growth in utilization of MH/SA services if parity is coupled with more intensive management of these services.

Access to MH/SA Services

Two studies evaluated whether privately insured persons with mental health needs who lived in states with MH/SA parity laws perceived themselves as having better health insurance and better access to care than privately insured persons with mental health needs who lived in states that did not have parity laws (Bao and Sturm, 2004; Sturm, 2000). The authors found that persons who lived in states with parity laws were more likely to report that their insurance coverage had improved since the enactment of these laws than were persons in states that did not have parity laws. Findings for access to care were similar.

Overall, the evidence suggests that MH/SA parity laws have small effects on perceptions of the adequacy of health insurance and access to care and that these effects are not statistically significant.

Process of Care

Very little research has been conducted to determine whether MH/SA parity increases the likelihood that persons will receive recommended treatment for MH/SA conditions. The literature search identified only one study on this topic. The study examined whether non-

elderly adults with major depressive disorder (MDD) who were enrolled in health plans that had implemented MH/SA parity were more likely to receive the duration and intensity of follow-up care for an acute-phase episode of MDD recommended by the Agency for Healthcare Research and Quality and the American Psychiatric Association (Busch et al., 2006). The authors found a small and statistically significant increase in receipt of four or more months of follow-up care after an acute-phase episode of MDD (consisting of psychotherapy, medication, or both). They also reported that parity did not affect the amount of follow-up care received.

However, the study did not include a comparison group. The authors could not rule out the possibility that the increase in the duration of follow-up care was due to general trends in improvement in the treatment of depression that affected all health plans, regardless of whether they were required to implement parity. Such general improvements are especially plausible for follow-up care for acute-phase episodes of MDD. The Health Plan Employer Data and Information Set (HEDIS)—which is used by the National Committee for Quality Assurance (NCQA) to assess the quality of care provided by health plans—includes a performance measure regarding delivery follow-up care after inpatient admissions for mental illness (NCQA, 2007). All health plans that seek NCQA accreditation have an incentive to provide follow-up care for persons who have inpatient psychiatric admissions, regardless of whether they provide parity in coverage for MH/SA conditions.

The evidence from this study suggests that MH/SA parity laws have at most a small effect on the process of care for major depressive disorder. No studies have addressed the effect of parity on the process of care for other MH/SA disorders.

Mental Health Status

There is a lack of research on the impact of MH/SA parity on mental health status and recovery from chemical dependency. The only published study that specifically examined the effect of MH/SA parity on mental health status evaluated the effect of state parity laws on states' rates of suicide among adults (Klick and Markowitz, 2006). This study included all adults who had committed suicide regardless of whether they had private health insurance. The authors found no relationship between MH/SA parity laws and states' rates of suicide among adults.

The results of the only study of the impact of MH/SA parity on mental health status suggest that parity does not affect suicide rates.

This finding seems counter-intuitive but is consistent with the RAND Health Insurance Experiment (HIE), a landmark study of the effect of cost sharing. The RAND HIE found that variation in cost sharing in FFS plans did not affect mental health status (Newhouse 1993). This finding held even for persons who received free care for all physical and mental health services and those enrolled in plans that are similar to high-deductible plans. If mental health status does not differ for persons who receive free care and

persons in high-deductible plans, it is unlikely to differ for persons for whom parity results in a smaller reduction in cost sharing (e.g., from 50% to 20% coinsurance rate).

In addition, utilization of mental health services by the RAND HIE participants increased substantially and was not managed by the health plans. As stated previously, the studies of MH/SA parity suggest that utilization does not increase substantially when parity is combined with more intensive utilization management. Although more care is not necessarily better care, no studies have demonstrated that the intensive utilization management typically provided by MBHOs improves the quality of MH/SA care.

Summary of Findings

The findings from studies of parity in coverage for MH/SA services suggest that when parity is implemented in combination with intensive management of MH/SA services and provided to persons who already have some level of coverage for these services:

- Consumers' average out-of-pocket costs for MH/SA services decrease.
- There is a small decrease in health plans' expenditures *per user* of MH/SA services.
- Rates of growth in the use and cost of MH/SA services decrease.
- Utilization of mental health services and psychotropic medications does not increase, but utilization of substance abuse services increases slightly.
- Inpatient admissions for MH/SA care per 1,000 members decrease.
- The effect on outpatient MH/SA visits is ambiguous.

The studies also found that persons with mental health needs who reside in states that have implemented MH/SA parity are more likely to perceive that their health insurance and access to care have improved.

Very little research has been conducted on the effects of MH/SA parity on the provision of recommended treatment regimens or on mental health status and recovery from chemical dependency. The literature search identified only two studies on these topics.

- One study reported that MH/SA parity is associated with modest improvements in receipt of a recommended amount and duration of treatment for depression.
- One study found that MH/SA parity laws are not associated with suicide rates for adults.

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws

Outcome	Research Design ^a	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Utilization of MH and/or SA Services						
Probability of use of any MH/SA service—all enrollees (4 studies) ^b	<ul style="list-style-type: none"> Level III: 4 of 4 studies 	<ul style="list-style-type: none"> Approached statistical significance (p=0.06): 1 of 4 studies Not statistically significant: 3 of 4 studies 	<ul style="list-style-type: none"> Increase: 2 of 4 studies No effect: 1 of 4 studies Decrease: 1 of 4 studies 	<ul style="list-style-type: none"> 40% increase: 1 of 4 studies Mean increase of 0.22%: 1 of 4 studies No effect: 1 of 4 studies Mean decrease of 0.41%: 1 of 4 studies 	<ul style="list-style-type: none"> Highly generalizable: 3 of 4 studies Somewhat generalizable: 1 of 4 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage does not increase the probability of use of MH/SA services by all enrollees
Number of persons using outpatient MH/SA services (1 study)	<ul style="list-style-type: none"> Level IV: 1 of 1 study 	<ul style="list-style-type: none"> Statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> Increase: 1 of 1 study 	<ul style="list-style-type: none"> Increase of 3.6 users per month: 1 of 1 study 	<ul style="list-style-type: none"> Highly generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage increases the number of persons using MH/SA services
Number of MH/SA outpatient visits per 1,000 enrollee (2 studies)	<ul style="list-style-type: none"> Level III: 1 of 2 studies Level IV: 1 of 2 studies 	<ul style="list-style-type: none"> Statistically significant: 2 of 2 studies 	<ul style="list-style-type: none"> Increase: 1 of 2 studies Decrease: 1 of 2 studies 	<ul style="list-style-type: none"> Increase of 49%: 1 of 2 studies Decrease of 40%: 1 of 2 studies 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> The evidence of the effect of parity in coverage on the number of outpatient visits per 1,000 enrollees is ambiguous

a. Level I = Well-implemented RCTs and cluster RCTs, Level II = RCTs and cluster RCTs with major weaknesses, Level III = Nonrandomized studies that include an intervention group and one or more comparison groups and time series analyses, Level IV = Case series and case reports, Level V = Clinical/practice guidelines based on consensus or opinion.

b. Two of the studies that assessed probability of use of any MH/SA service reported the results of regression analyses for seven matched pairs of preferred provider organizations (PPOs) (Azrin et al., 2007; Goldman et al., 2006). Each pair consisted of one PPO that was required to implement MH/SA parity and one PPO that was not subject to parity. In this table, the modal result for the seven pairs of PPOs is reported. For example, the results of the study by Goldman and colleagues (2006) are classified as not statistically significant, because the authors found no statistical significance between the PPO subject to parity and the PPO not subject to parity in five of the seven comparisons.

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws (Cont'd)

Outcome	Research Design	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Utilization of MH and/or SA Services (Cont'd)						
Number of MH/SA inpatient days per 1,000 enrollees (2 studies)	<ul style="list-style-type: none"> Level III: 1 of 2 studies Level IV: 1 of 2 studies 	<ul style="list-style-type: none"> Statistically significant: 2 of 2 studies 	<ul style="list-style-type: none"> Decrease: 2 of 2 studies 	<ul style="list-style-type: none"> 42% and 75% decrease 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> Clear and consistent evidence that parity in coverage decreases the number of inpatient days per 1,000 enrollees
Probability of use of any MH/SA outpatient service—persons with MH needs (2 studies)	<ul style="list-style-type: none"> Level III: 2 of 2 studies 	<ul style="list-style-type: none"> Not statistically significant: 2 of 2 studies 	<ul style="list-style-type: none"> Decrease: 2 of 2 studies 	<ul style="list-style-type: none"> 8% decrease: 1 of 2 studies Not reported: 1 of 2 studies 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage does not have a statistically significant effect on probability of use of outpatient MH services by persons with MH needs
Probability of use of psychotropic medication—persons with MH needs (1 study)	<ul style="list-style-type: none"> Level III: 1 of 1 study 	<ul style="list-style-type: none"> Not statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> No effect: 1 of 1 study 	<ul style="list-style-type: none"> No effect: 1 of 1 study 	<ul style="list-style-type: none"> Somewhat generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage does not change the probability of use of psychotropic medications by persons with MH needs
Number of MH/SA outpatient visits per user—persons with MH needs (2 studies)	<ul style="list-style-type: none"> Level III: 2 of 2 studies 	<ul style="list-style-type: none"> Statistically significant: 1 of 2 studies Approached statistical significance ($p < 0.1$): 1 of 2 studies 	<ul style="list-style-type: none"> Increase: 2 of 2 studies 	<ul style="list-style-type: none"> 51% more visits per user: 1 of 2 studies: 80% more visits per user: 1 of 2 studies 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> Clear and consistent evidence that parity in coverage increases the number of MH/SA outpatient visits for persons with MH needs

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws (Cont'd)

Outcome	Research Design	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Utilization of MH and/or SA Services (Cont'd)						
Rate of growth in use of MH/SA services (1 study)	<ul style="list-style-type: none"> Level III: 1 of 1 study 	<ul style="list-style-type: none"> Statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> Decrease: 1 of 1 study 	<ul style="list-style-type: none"> 50% decrease 	<ul style="list-style-type: none"> Somewhat generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage decreases the rate of growth in utilization of MH/SA services
Health Plan Expenditures for MH and/or SA Services						
MH/SA expenditures <i>per member</i> (3 studies)	<ul style="list-style-type: none"> Level III: 2 of 3 studies Level IV: 1 of 3 studies 	<ul style="list-style-type: none"> Approached statistical significance (p<0.1): 1 of 3 studies Not reported: 2 of 3 studies 	<ul style="list-style-type: none"> Decrease: 1 of 2 studies No effect: 1 of 2 studies Increase: 1 of 1 study 	<ul style="list-style-type: none"> 3% decrease: 1 study No effect: 1 of 3 studies Increase from \$0.06 to \$3.39 depending on annual limit on SA expenditures pre-parity: 1 of 3 study 	<ul style="list-style-type: none"> Highly generalizable: 1 of 3 studies Somewhat generalizable: 2 of 3 studies 	<ul style="list-style-type: none"> The evidence of the effect of parity in coverage on MH/SA expenditures <i>per member</i> is ambiguous
MH/SA expenditures <i>per user</i> (3 studies)	<ul style="list-style-type: none"> Level III: 3 of 3 studies 	<ul style="list-style-type: none"> Not statistically significant: 3 of 3 studies 	<ul style="list-style-type: none"> Decrease: 2 of 3 studies No effect: 1 of 3 studies 	<ul style="list-style-type: none"> Mean decreases of \$77, \$142, and \$172 	<ul style="list-style-type: none"> Highly generalizable: 3 of 3 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage does not increase MH/SA expenditures <i>per user</i>
Rate of growth in expenditures for psychotropic medication <i>per member</i> (1 study)	<ul style="list-style-type: none"> Level III: 1 of 1 study 	<ul style="list-style-type: none"> Statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> Decrease: 1 of 1 study 	<ul style="list-style-type: none"> 52% decrease: 1 of 1 study 	<ul style="list-style-type: none"> Somewhat generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage decreases the rate of growth in expenditures for psychotropic medications

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws (Cont'd)

Outcome	Research Design	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Out-of-Pocket Expenditures for MH and/or SA Services						
Average out-of-pocket expenditures for MH/SA services per user (3 studies)	<ul style="list-style-type: none"> Level III: 3 of 3 studies 	<ul style="list-style-type: none"> Statistically significant: 1 of 3 studies Not statistically significant: 1 of 3 studies Not reported: 1 of 3 studies 	<ul style="list-style-type: none"> Decrease: 3 of 3 studies 	<ul style="list-style-type: none"> Mean decreases ranged from \$37 to \$24,860 	<ul style="list-style-type: none"> Somewhat generalizable: 3 of 3 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage decreases mean out-of-pocket expenditures per user for MH/SA services
Marginal MH out-of-pocket costs per user (1 study)	<ul style="list-style-type: none"> Level III: 1 of 1 study 	<ul style="list-style-type: none"> Not reported: 1 of 1 study 	<ul style="list-style-type: none"> Decrease: 1 of 1 study 	<ul style="list-style-type: none"> Decreases from 0.12 to 0.48 depending on scenario 	<ul style="list-style-type: none"> Somewhat generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage decreases marginal out-of-pocket costs per user of MH services
Access to MH and/or SA Services						
Perceive insurance to be better—persons with any MH needs (2 studies)	<ul style="list-style-type: none"> Level III: 2 of 2 studies 	<ul style="list-style-type: none"> Not statistically significant: 2 of 2 studies 	<ul style="list-style-type: none"> More likely: 2 of 2 studies 	<ul style="list-style-type: none"> Increases of 2.5 and 3.3 percentage points 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage is associated with small, non-significant improvement in perception of insurance coverage among persons with MH needs
Perceive access to be better—persons with any MH needs (2 studies)	<ul style="list-style-type: none"> Level III: 2 of 2 studies 	<ul style="list-style-type: none"> Approached statistical significance ($p < 0.01$): 1 of 2 studies Not statistically significant: 1 of 2 studies 	<ul style="list-style-type: none"> More likely: 2 of 2 studies 	<ul style="list-style-type: none"> Increases of 2.1 and 3.1 percentage points 	<ul style="list-style-type: none"> Somewhat generalizable: 2 of 2 studies 	<ul style="list-style-type: none"> Preponderance of evidence suggests that parity in coverage is associated with small, non-significant improvement in perception of access to care among persons with MH needs

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws (Cont'd)

Outcome	Research Design	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Process of Care						
Use of any psychotherapy and/or antidepressant during 1 year—persons with major depressive disorder (1 study)	<ul style="list-style-type: none"> Level IV: 1 of 1 study 	<ul style="list-style-type: none"> Statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> More likely: 1 of 1 study 	<ul style="list-style-type: none"> Increase of 1.9 percentage points: 1 of 1 study 	<ul style="list-style-type: none"> Highly generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage results in a small increase in probability of use of MH services by persons with major depressive disorder
≥ 4 months of follow-up care for acute-phase episode of major depressive disorder (1 study)	<ul style="list-style-type: none"> Level IV: 1 of 1 study 	<ul style="list-style-type: none"> Statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> More likely: 1 of 1 study 	<ul style="list-style-type: none"> Increase of 7.3 percentage points: 1 of 1 study 	<ul style="list-style-type: none"> Highly generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage is associated with an increase in receipt of recommended length of follow-up for major depressive disorder
Amount of follow-up care in first 4 months since acute-phase episode of major depressive disorder (1 study)	<ul style="list-style-type: none"> Level IV: 1 of 1 study 	<ul style="list-style-type: none"> Not statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> More likely: 1 of 1 study 	<ul style="list-style-type: none"> Percentage point increase of 2.5 for the first 2 months and 1.7 for the second 2 months: 1 of 1 study 	<ul style="list-style-type: none"> Highly generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage is associated with a small, non-significant increase in receipt of recommended amount of follow-up care for major depressive disorder

Table 3. Summary of Findings from Studies of the Effects of Mental Health (MH) and Substance Abuse (SA) Parity Laws (Cont'd)

Outcome	Research Design	Statistical Significance	Direction of Effect	Size of Effect	Generalizability	Conclusion
Mental Health Status						
Suicide rate—adults (1 study)	<ul style="list-style-type: none"> Level III: 1 of 1 study 	<ul style="list-style-type: none"> Not statistically significant: 1 of 1 study 	<ul style="list-style-type: none"> Lower: 1 of 1 study 	<ul style="list-style-type: none"> Regression coefficient = -0.2 	<ul style="list-style-type: none"> Somewhat generalizable: 1 of 1 study 	<ul style="list-style-type: none"> Single study suggests that parity in coverage does not affect the rate of suicide among adults

Sources: Azrin et al., 2007; Bao and Sturm 2004; Busch et al., 2006; Ciemens 2004; Goldman et al., 2006; Harris et al., 2006; Klick and Markowitz 2006; Pacula and Sturm 2000; Sturm 2000, Sturm, et al., 1998; Sturm, et al., 1999; Zuvekas et al., 1998; Zuvekas et al., 2001; Zuvekas et al., 2002; Zuvekas et al., 2005a; Zuvekas et al., 2005b.

UTILIZATION, COST, AND COVERAGE IMPACTS

AB 423, as amended, would require health plans and insurers to cover the diagnoses and medically necessary treatment of all mental health disorders, including substance abuse, defined in the DSM-IV²¹ “on par” with coverage for other medical conditions. This would require that mental health and substance abuse (MH/SA) services carry the same copayment, deductible, annual benefit limits, and other terms and conditions as other health care services, although the use of “case management, network providers, utilization review techniques, prior authorization, copayments, or other cost sharing” would be permitted.

AB 423 would apply to health care service plans subject to the requirements of the Knox-Keene Health Care Services Plan Act and to health insurance policies regulated under the California Insurance Code. Health plans subject to the requirements of the Knox-Keene Health Care Service Plan Act include health maintenance organizations (HMOs), a portion of the preferred provider organization market (PPO), managed care plans offered by the California Public Employees’ Retirement System (CalPERS), and plans participating in programs of the Managed Risk Medical Insurance Board (e.g., Healthy Families Program (HPF), Access for Infants and Mothers (AIM), and Managed Risk Medical Insurance Program (MRMIP). The bill would not apply to contracts between the State Department of Health Services and a health care service plan for enrolled Medi-Cal beneficiaries. Enrollees in Medi-Cal currently receive all medically necessary mental health services.²²

First, this section will present the current, or baseline, coverage and costs of services used to treat non-severe mental illness (SMI) and substance use disorders. It will then detail the estimated utilization, cost, and coverage impacts of AB 423. For further details on the underlying data sources and methods, please see Appendix D.

Present Baseline Cost and Coverage

Despite advances in treatment that have been made in recent decades, the use of mental health services remains poorly matched to need. While only 40.5% of adult Americans with a serious mental or substance use disorder (e.g., schizophrenia, bipolar disorder, some types of substance dependence, and other disorders meeting certain criteria for functional impairment) receive any treatment for their conditions, 14.5% of adults without a diagnosable disorder receive some form of mental health care and substance abuse treatment, or behavioral health care (Table 4).

²¹ Mental disorders included in subsequent editions of the DSM-IV would be covered.

²² California Code of Regulations, Title 9, Section 1810.100 et. seq. At the time of publication, there was no information from the Department of Health Services on the use of MH/SA benefits for the Medi-Cal population. State agency analyses of MH/SA benefits in California have focused on the barriers to implementation of AB 88 for publicly and privately insured enrollees rather than the impact on utilization and overall cost. (See the *Impact on Access and Health Service Availability* section).

Table 4. Mismatch Between Use and Need for Mental Health (MH) Services

	Percent of U.S. population with MH diagnosis	Among those with diagnosis, percent who received MH treatment
Serious MH disorder	6.3%	40.5%
Moderate MH disorder	13.5%	37.2%
Mild MH disorder	10.8%	23.0%
None	69.5%	14.5%

Source: Kessler et al., 2005.

Some of the barriers to mental health care that have been identified are cost, stigma associated with seeking mental health care, difficulty finding easily accessible providers, and the failure of health care providers to identify the mental health needs of their patients (DHHS, 1999). Services for most diagnoses covered by AB 423 are generally widely available in California, although access is more limited in rural areas (DMHC, 2007).

Current Coverage of the Mandated Benefit

There are approximately 18,033,000 individuals in California aged 0 to 64 years in plans or policies that would be affected by AB 423 (Table 1). This number does not include enrollees in Medi-Cal or employees or dependents of self-insured firms, as these groups would not be subject to the mandate. As mentioned previously, AB 88 (enacted in 1999) requires health plans and insurers regulated by the Health & Safety Code and the Insurance Code in California to provide parity coverage for SMI disorders. Therefore, this analysis will refer solely to non-SMI and substance use disorders.

CHBRP surveyed the seven largest health plans and insurers in California to determine current levels of coverage for mental health and substance abuse. Five plans responded, representing 73% of enrollees in the privately insured market. Based on these responses, CHBRP determined that no insured Californians currently have full parity coverage for non-SMI or substance use disorders (Table 5); 16,564,000 individuals (92%) have some coverage for non-SMI disorders; and 14,772,000 (82%) have some coverage for substance use disorders, although at less than parity levels. Furthermore, 1,469,000 (8%) have no coverage for non-SMI disorders and 3,261,000 (18%) have no coverage for substance use disorders. Less than full parity coverage means that these benefits are covered but not with the same terms and conditions as their coverage for medical diagnoses. For example, individuals may have higher copayments or benefit limits that do not apply to medical care. Typical examples are that coinsurance rates may be 50% for behavioral health care instead of the 20% commonly required for medical care; coverage of behavioral health care is frequently limited to 30 inpatient days and 20 outpatient visits per year, while inpatient and outpatient medical care typically are not subject to day or visit limits.

The current level of coverage for non-SMI and substance use disorders among California's insured population by market segment is shown in Table 5. Coverage varies by size of employer and type of policy.

- In the private sector, CDI-regulated plans (large group, small group, and individual) have the highest rates of coverage for non-SMI disorders, with nearly 100% of these enrollees having some type of benefit. The lowest rate of coverage is for DMHC-regulated large group plans, with only 88% of enrollees having any coverage for non-SMI disorders.
- In the public sector, 100% of managed care enrollees in CalPERS and MRMIB programs (e.g., HFP, AIM, MRMIP) have limited coverage for non-SMI conditions. Most CalPERS plans cover mental illnesses but limit inpatient care to a 30-day annual limit on non-SMI conditions and limit outpatient visits to 20 days with a higher copayment than for medical services. Similar limitations are placed on enrollees in the MRMIB programs.

Rates of coverage for substance use disorders is generally lower than for non-SMI disorders, with CDI-regulated large group plans (at 97%) and CalPERS, AIM, MRMIP, and HFP (all at 100%) achieving universal or near-universal coverage at some benefit level. The lowest level of coverage was again seen with DMHC-regulated large group plans, with only 78% of enrollees having any coverage for substance use disorders.

Table 5. Current Coverage Levels by Market Segment, California, 2007

	Large Group		Small Group		Individual		CalPERS	Medi-Cal		Healthy Families	Total Annual
	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	HMO	Managed Care 65 and Over	Managed Care Under 65*	Managed Care	
Population Currently Covered	10,354,000	363,000	3,086,000	679,000	1,268,000	794,000	791,000	N/A	17,000	681,000	18,033,000
<i>Non-SMI Disorders</i>											
Coverage at full parity	0%	0%	0%	0%	0%	0%	0%	N/A	0%	0%	0%
Coverage at less than full parity	88%	98%	94%	99%	97%	98%	100%	N/A	100%	100%	92%
No coverage	12%	2%	6%	1%	3%	2%	0%	N/A	0%	0%	8%
<i>Substance Use Disorders (excluding nicotine)</i>											
Coverage at full parity	0%	0%	0%	0%	0%	0%	0%	N/A	0%	0%	0%
Coverage at less than full parity	78%	97%	84%	86%	85%	82%	100%	N/A	100%	100%	82%
No coverage	22%	3%	16%	14%	15%	18%	0%	N/A	0%	0%	18%

Source: California Health Benefits Review Program, 2007.

*Estimates shown are for AIM and MRMIP only; Medi-Cal is not subject to the provisions of AB 423.

Note: The population includes individuals and dependents in California who have private insurance (group and individual) or public insurance (e.g., CalPERS, Medi-Cal, Healthy Families, AIM, MRMIP) under health plans or policies regulated by DMHC or CDI. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage.

Key: CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans.

Current Utilization Levels and Costs of the Mandated Benefit

Outpatient treatment typically involves pharmacotherapy and/or psychotherapy/addiction counseling. Patients are typically treated in any of a number of settings, such as specialty and general hospitals, partial hospitalization programs, clinics, and individual practitioner offices. Services are provided by a variety of behavioral health care specialists, including psychiatrists, doctoral and master's-level psychologists, psychiatric social workers, and substance abuse counselors. In addition, primary care physicians play an important role in prescribing psychotropic drugs, especially for patients who do not obtain services from the specialty sector. Although psychotropic drugs are often used less frequently for non-SMI conditions than SMI diagnoses, medications such as antidepressants and anxiolytics are used to treat a number of the non-SMI and substance use disorders. Prescription drugs are also used for smoking cessation, which could be covered under AB 423 if providers code diagnoses of nicotine dependence or nicotine withdrawal for their patients.

The development of more effective psychotropic medications, the “de-institutionalization” policy that led to the closure of many public psychiatric facilities, and the rise of managed care (including specialty managed behavioral health organizations) have led to sharp reductions in the use of inpatient hospital treatment for MH/SA disorders, as outpatient care and pharmaceutical treatments are substituted for hospitalization. In addition to being cost-moderating, this substitution could be quality-enhancing, depending on the characteristics of the patients who are being moved from inpatient to outpatient settings.

Table 1 shows the per-unit costs and Table 6 provides information about baseline (premandate) utilization and costs of hospital and outpatient services for diagnoses covered under AB 423. These estimates were based on a large dataset of national commercial claims data that includes the inpatient and outpatient utilization and expenditures of 7 million people, with some adjustments made to reflect the California population and market conditions. National datasets were used because their sample size is larger than California data, thus allowing for more precise statistical estimates.

Highlights from Tables 1 and 6 include the following:

- Before the mandate, average annual inpatient utilization is estimated to be 0.39 admissions and 2.58 inpatient days per 1,000 members for non-SMI disorders. Use of inpatient care is much higher for substance use disorders, at 1.09 admissions and 10.24 inpatient days per 1,000 members annually.
- In contrast, outpatient utilization is higher for non-SMI disorders than for substance use disorders, at 207.25 visits vs. 33.52 visits respectively.
- The average per diem cost of hospitalizations is \$911.85 for non-SMI disorders and \$630.51 for substance use disorders. The average cost per outpatient visit is \$88.74 for non-SMI disorders and \$65.26 for substance use disorders.
- Before the mandate, the per member per month (PMPM) claim costs are respectively \$0.20 and \$1.53 for inpatient and outpatient care for non-SMI disorders, and \$0.54 and

\$0.18 for inpatient and outpatient treatment of substance use disorders. PMPM cost sharing in the premandate period is \$0.01 and \$0.40, respectively, for inpatient and outpatient care for non-SMI disorders, and \$0.03 and \$0.06 for inpatient and outpatient treatment of substance use disorders (excluding nicotine). Thus, most of the patient cost sharing at baseline is due to outpatient treatment of mental disorders. These figures understate the true out-of-pocket costs to users, since they are averages across the entire insured population, including individuals who do not use any behavioral health care.

Table 6. Baseline (Premandate) Utilization Rates per 1,000 Insured and Per Member Per Month Costs, California, 2007

	Annual Hospital Admissions Per 1,000 Members	Average Length of Hospital Stay	Annual Days or Visits Per 1,000 Members	Per Member Per Month Claim Cost	Per Member Per Month Cost-Sharing	Per Member Per Month Net Benefit Cost
<i>Non-SMI Disorders</i>						
Inpatient Care						
Premandate	0.39	6.53	2.58	\$0.20	\$0.01	\$0.19
Outpatient Care						
Premandate	N/A	N/A	207.25	\$1.53	\$0.40	\$1.13
<i>Substance Use Disorders (excluding nicotine)</i>						
Inpatient Care						
Premandate	1.09	9.40	10.24	\$0.54	\$0.03	\$0.51
Outpatient Care						
Premandate	N/A	N/A	33.52	\$0.18	\$0.06	\$0.12

Source: California Health Benefits Review Program, 2007.

Note: Based on national claims data from a commercial source, with some adjustments for California population and market conditions. All costs are adjusted to 2007 dollars. Includes services mandated in AB 423. Inpatient services are identified using Diagnosis-Related Groups (DRGs) and outpatient services are identified using CPT and HCPCS procedure codes in conjunction with primary diagnosis. Figures may not add up due to rounding.

Table 7 presents baseline estimates for premiums and expenditures by market segment. To summarize briefly:

- 2007 health insurance premiums for the population affected by AB 423 are projected to total \$64.42 billion. Average premiums PMPM range quite a bit by market segment, from \$82.60 for Healthy Families to \$398.28 for CDI-regulated large group plans.
- Employers pay the majority of these premium costs (\$47.36 billion), with the remainder being paid by the employees.
- In addition to paying a share of insurance premiums, employees also pay out of pocket for services through deductibles and co-payments. PMPM out-of-pocket health care costs ranged from \$2.25 under Healthy Families to \$90.75 for CDI-regulated small group plans.

Total expenditures were \$69.56 billion, with the difference between premiums and expenditures being the \$5.14 billion that consumers paid out of pocket for services.

Table 7. Baseline (Premandate) Per Member Per Month Premium and Expenditures by Insurance Type, California 2007

	Large Group		Small Group		Individual		CalPERS	Medi-Cal		Healthy Families	Total Annual
	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	HMO	Managed Care 65 and Over	Managed Care Under 65*	Managed Care	
Population Currently Covered	10,354,000	363,000	3,086,000	679,000	1,268,000	794,000	791,000	N/A	17,000	681,000	18,033,000
Average Portion of Premium Paid by Employer	\$249.51	\$323.69	\$249.52	\$281.52	\$0.00	\$0.00	\$277.19	N/A	771.59	\$76.82	\$47,361,000,000
Average Portion of Premium Paid by Employee	\$53.66	\$74.60	\$94.73	\$61.82	\$269.42	\$148.66	\$48.92	N/A	\$126.21	\$5.78	\$17,058,000,000
Total Premium	\$303.17	\$398.28	\$344.26	\$343.34	\$269.42	\$148.66	\$326.11	N/A	\$897.80	\$82.60	\$64,419,000,000
Member Share of Expenses for Covered Benefits (deductibles, copayments, etc.)	\$16.35	\$46.30	\$25.58	\$90.75	\$45.45	\$36.35	\$16.82	N/A	\$4.15	\$2.25	\$5,137,000,000
Member Expenses for Benefits Not Covered	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	\$0.00	\$0.00
Total Expenditures	\$319.52	\$444.58	\$369.84	\$434.09	\$314.86	\$185.02	\$342.92	N/A	\$901.95	\$84.85	\$69,556,000,000

Source: California Health Benefits Review Program, 2007.

*Estimates shown are for AIM and MRMIP only; Medi-Cal is not subject to the provisions of AB 423.

Note: The population includes individuals and dependents in California who have private insurance (group and individual) or public insurance under health plans or policies regulated by DMHC or CDI. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage.

Key: CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans. Figures may not add up due to rounding.

The Extent to Which Costs Resulting from Lack of Coverage are Shifted to Other Payers, Including both Public and Private Entities

Two types of cost-shifting to public programs could result from the current restrictions on behavioral healthcare coverage. First, individuals might obtain public coverage (e.g., Medi-Cal) instead of (or possibly in addition to) taking up employer-based insurance. Due to the income and asset tests required for most public programs, however, it seems unlikely that employed individuals would qualify for these programs. Furthermore, in contrast to individuals with SMI, those with non-SMI disorders are unlikely to qualify for public programs on the basis of disability. Thus the amount of cost-shifting through this mechanism is likely to be small. Second, privately insured individuals without behavioral healthcare coverage may choose to obtain MH/SA services from state- and locally-funded providers—such as community mental health centers (CMHCs) or public substance abuse treatment providers—or pay for these services entirely out of pocket, rather than foregoing their use. In the latter case, the CHBRP cost estimates (which do not capture utilization paid exclusively out of pocket) would understate the baseline level of cost sharing. The DMHC has identified deficiencies in the ease of entry for enrollees to the delivery system for the SMIs covered under current law (DMHC, 2007). It is possible that enrollees who experience delays and frustration in accessing services through their private carrier for MH/SA services may turn to CMHCs as the provider of last resort, shifting some cost to public payers.

Public Demand for Coverage

Based on criteria specified under SB 1704 (2006), CHBRP is to report on the extent to which collective bargaining agents negotiate for and the extent to which self-insured plans currently have coverage for the benefits specified under the proposed mandate. Currently, the largest public self-insured plans are CalPERS' PERSCare and PERS Choice PPO plans.

The following limits apply to non-SMI and non-SED conditions provided for by AB 88.

For mental health benefits, CalPERS' PERS Choice covers physician/hospital services for medically necessary hospital stays to treat an acute psychiatric condition up to 20 days per calendar year; with coinsurance at 20% for in-network providers and 40% for out-of-network providers. PERSCare covers medically necessary inpatient stays up to 30 days per calendar year; there is a \$250 hospital admission deductible for each admission, and coinsurance of 10% for in-network providers and 40% for out-of-network providers. For outpatient care, PERS Choice allows up to 24 visits per calendar year with coinsurance of 20% to 40% for in-network and out-of-network providers, respectively. PERSCare covers up to 30 pre-certified visits per calendar year for medically necessary care to stabilize an acute psychiatric condition. The coinsurance is 10% to 40% for in-network and out-of-network providers, respectively.

Under CalPERS PPOs, the following are excluded from psychiatric or psychological care:

1. Treatment of the following conditions:

- a. personality disorders;
 - b. sexual deviations and disorders;
 - c. abuse of drugs, except as provided in the Substance Abuse benefit;
 - d. conduct disorders;
 - e. mental retardation and developmental delays;
 - f. conditions of abnormal behavior, which are not directly attributed to a mental disorder that is the focus of attention or treatment;
 - g. attention deficit disorders.
2. Telephone consultations.
 3. Psychological testing or testing for intelligence or learning disabilities unless medically necessary to assess brain function suspected to be impaired due to trauma, organic dysfunction, a severe mental illness, or serious emotional disturbances of a child.
 4. Inpatient treatment for eating disorders is excluded, unless the inpatient stay is necessary for the treatment of anorexia or bulimia.
 5. Services provided on court order or as a condition of parole or probation unless the services are determined to be medically necessary and appropriate for the condition being treated and otherwise covered.
 6. Marriage and family counseling for the sole purpose of resolving conflicts between a subscriber and his or her spouse, or domestic partner or children.
 7. Nontherapeutic treatment, custodial care, and educational programs.

For substance use disorders, CalPERS PPO's financial and treatment limits are identical to those for mental health disorders; however, there is a \$12,000 lifetime maximum for any combination of inpatient and outpatient benefits.

Based on conversations with the largest collective bargaining agents in California, there is no evidence that unions currently include such detailed provisions during the negotiations of their health insurance policies.²³ In order to determine whether any local unions engage in negotiations at such detail, they would need to be surveyed individually, an undertaking beyond the scope of CHBRP's 60-day analysis.

Impacts of Mandated Coverage

How Will Changes in Coverage Related to the Mandate Affect the Benefit of the Newly Covered Service and the Per-Unit Cost?

As discussed in the *Medical Effectiveness* section of this report, the published academic literature on the effects of parity legislation have generally found modest or no increases (and in some cases decreases) in utilization and overall costs. Additionally, out-of-pocket costs generally declined. Costs to employers varied depending on employer size, benefit design, and employer arrangements with health plans and managed behavioral health organizations (MBHOs) to directly manage care (also known as "carve-outs").

²³ Personal communication with the California Labor Federation and member organizations on January 29, 2007.

Conclusions based on reports of actuarial projections of the impact of proposed parity legislation and evaluations of parity laws in other states are mixed. In most states, parity legislation was generally associated with modest increases or even decreases in certain types of utilization and overall costs (Maine, New Jersey, Minnesota, North Carolina, Washington, Vermont)(Maine Bureau of Insurance, 2006; Campaign for Full Parity in New Jersey/PricewaterhouseCoopers, 2004; Minnesota Department of Health/Mercer, 2005; Lake, 2003; Washington Coalition for Insurance Parity/Milliman, Inc., 2006). In contrast, data from a limited number of plans in one state (Connecticut) suggested that the introduction of parity legislation was temporally associated with large cost increases (Connecticut Legislative Program Review and Investigations Committee, 2005).

It is difficult, however, to generalize any of these findings to the analysis of the likely effects of AB 423. First, none of the analyses attempted to adjust for preexisting time trends, so it is not possible to determine how much of the change from before to after passage of parity legislation is attributable to parity versus other factors influencing healthcare costs that might be changing over time. Second, almost all of the analyses focused on the effects of parity bills covering individuals with SMI (either exclusively, or as part of comprehensive parity for all behavioral health conditions). In California, SMI services are already covered under AB 88, so the scope of AB 423 is much narrower, focusing on the incremental effect of extending parity to other non-SMI and substance use disorders. Finally, health care tends to be much more heavily managed in California than in other parts of the country (KFF, 2005). As explained in the following paragraph, parity legislation has a smaller impact on costs when care is directly managed.

An important reason for the attenuated effects of parity on utilization and costs is the role played by care management, either directly or through contractual arrangements with MBHOs. Mechanisms for managing behavioral healthcare include “carving out” behavioral healthcare to a specialty managed care organization; “gatekeeping” by primary care providers; provider treatment plans; prior authorization; concurrent review; retrospective review; closed or preferred provider panels; and disease management programs (Ridgely et al., 2006). As with HMOs, MBHOs tend to reduce costs by limiting inpatient care and substituting outpatient treatment (Grazier and Eselius, 1999; Zuvekas et al., 2002).

Direct management of behavioral healthcare benefits will attenuate projected increases in costs associated with more generous coverage under parity legislation in two ways. First, lower cost sharing and the elimination of visit limits will lead to a smaller increase in utilization if care is already being managed directly. Second, the passage of parity legislation tends to be accompanied by new or increased use of MBHOs and other forms of utilization management (Ridgely et al., 2006; Feldman et al., 2002; Lake et al., 2002; Frank et al., 2001; Otten, 1998). This increase in medical management and concomitant reduction in utilization and costs partly offsets any cost increases resulting from the increased generosity of coverage.

Although AB 423 differs from the legislation studied by researchers in other states, the cost impact analysis used this research to draw the following general conclusions:

- Health plans and insurers use mechanisms to manage behavioral healthcare utilization and costs.
- As a result, the effects of most parity laws are minimal in terms of cost, utilization, and access.
- Greater management of care has the following effects:
 - There will be fewer hospital admissions and lengths of inpatient stay will be shorter.
 - The probability of receiving outpatient care, and average number of outpatient visits, is likely to increase.
 - Cost sharing for users will fall.

In addition to these principles, it should be noted that pharmaceuticals were excluded from the cost analysis of AB 423, with the exception of prescription drugs used to treat nicotine use disorders. Health plans and insurers generally do not restrict coverage of pharmaceuticals to specific diagnoses. Although drugs may be excluded from formularies, many drugs used to treat non-SMI disorders are the same as those used to treat SMI disorders, which are already covered under parity through AB 88. The exception to this will be a small number of drugs used to treat substance use disorders, but these drugs are infrequently used and substance use disorders account for only a small fraction of behavioral healthcare. It is possible that greater use of mental health specialty providers could lead either to greater psychotropic drug use (if patients are prescribed more drugs by psychiatrists than primary care physicians) or lower psychotropic drug use (if patients substitute psychotherapy for the psychotropic drug treatment they were previously receiving from primary care providers). However, the evidence on provider differences in prescribing patterns (Powers et al., 2002; Harpaz-Rotem and Rosenheck, 2006) and substitution effects (Deb and Holmes, 1998) is extremely limited and earlier studies on whether parity legislation affected psychotropic drug costs were inconclusive (Busch et al., 2006; Zuvekas et al., 2005; Zuvekas et al., 2007).

The CHBRP cost analysis for AB 423 also does not include a medical cost offset factor associated with either mental health or substance abuse services. The evidence base for assuming such an offset is weak given the inconclusive nature of the existing literature on medical cost offset, in part due to study design limitations and conflicting results (Donohue and Pincus, 2007; Polen et al., 2006; Kane et al., 2004; Parthasarathy et al., 2001; Holder, 1998; Jones and Vischi, 1979; Goodman et al., 2000; Chung, 2005; Manning et al., 1986). This assumption is conservative, meaning that if a medical cost offset does exist, the CHBRP model will overestimate the net increase in healthcare costs associated with the mandate.

The assumptions made by CHBRP with regard to psychotropic drug expenditures and medical cost offsets are similar to those used in other prospective analyses of state parity legislation (Washington Coalition for Insurance Parity/Milliman, Inc., 2006; Campaign for Full Parity in New Jersey/ PricewaterhouseCoopers, 2004).

Impact on per-unit cost

Although there is no compelling reason to believe that the increase in demand for behavioral healthcare resulting from the mandate would be large enough to affect the price of services, the anticipated modest increase in the degree of care management may have a small impact on unit costs. For example, MBHOs often increase the “penetration rate,” that is, the probability of receiving any services. At the same time, MBHOs usually reduce inpatient utilization, moving the least seriously ill of the patients currently being hospitalized to outpatient settings. This shift to outpatient care would have the effect of increasing the unit cost of inpatient care, as average severity increases among the remaining hospitalized patients. The likely effect on the cost of outpatient services is unclear, because the population receiving outpatient services will include both formerly hospitalized patients (who tend to be sicker and more costly) as well as new users, who tend to be healthier. As shown in Table 1, the per diem cost of inpatient care increases just slightly for both non-SMI and substance use disorders, while the change in the average cost per outpatient visit varies by diagnosis (mental health vs. substance abuse). In all cases, however, the percentage changes are trivial, ranging between +0.03% and +1.14%.

Postmandate coverage

As explained above, the mandate would increase coverage of non-SMI and substance use disorders to full parity levels for the entire affected population of 18,033,000 individuals with private or public insurance. It must be considered whether increases in premiums resulting from the mandate might induce some individuals to drop coverage, thereby partly offsetting gains in benefits. When estimating the effects of mandates on premiums and cost, CHBRP assumes that the number of insured in each market segment remains stable. However, we consider the secondary impact of increases in premiums on the number of insured dropping coverage when premium increases exceed 1%.

Changes in coverage as a result of premium increases

For most market segments, no measurable change in the number of uninsured is projected to occur as a result of AB 423 because on average, premiums are not estimated to increase by more than 1% (see Impact of the Mandate on Total Health Care Costs below). However, purchasers of CDI-regulated health plans in the individual insurance market are projected to experience premium increases of 1.17%. Using CHBRP’s method for estimating the impact on the uninsured,²⁴ of the 794,000 individuals who currently purchase CDI-regulated insurance plans in the individual market, an estimated 1,023 would drop coverage as a result of the mandate. It is unlikely that any of these newly uninsured would be eligible for Medi-Cal because if they were, it is likely they would

²⁴ See http://www.chbrp.org/analysis_methodology/cost_impact_analysis.php.

have opted for Medi-Cal coverage rather than paying for health insurance in the individual market.

How Will Utilization Change as a Result of the Mandate?

Estimates of changes in utilization as a result of AB 423 were based on an actuarial model that took into account expectations from economic theory regarding how patient cost-sharing and benefit limits influence utilization of services. Parity would generally reduce the copayments required of patients and eliminate any inpatient day and outpatient visit limits. If patients pay less money out-of-pocket, they will be more likely to use services, and this demand response is larger for behavioral healthcare than for medical care (Newhouse, 1993). Similarly, removal of limits would increase utilization, albeit only for the relatively small proportion of patients who would otherwise have reached those limits (Peele et al., 1999).

The impact of AB 423 on utilization is expected to vary according to the existing levels of coverage:

- Utilization increases can be attributed to new use among individuals who previously had no coverage of non-SMI and substance use disorders, as well as increased use among individuals whose coverage was limited. The effect of AB 423 will be greatest on benefit plans having the largest differences between parity and non-parity cost sharing.
- For plans that do not cover conditions included under AB 423, it was assumed that utilization would go to the current levels observed when these benefits are covered. If individuals self-select into plans with behavioral healthcare coverage because of their anticipated utilization of these services (“adverse selection”), as has been argued by many, this assumption will overstate the impact of coverage on individuals who previously did not have the benefit. In other words, the actual increase in expenditures associated with AB 423 is likely to be smaller than our estimate.
- Most plans currently cover some services included under AB 423, but with limits and higher cost sharing than for other medical services. It is assumed that this mandate would additionally result in modest increases in utilization for individuals whose previous coverage was limited. The assumed responsiveness of utilization to more generous coverage does take adverse selection into account.
- Estimated utilization increases are adjusted for anticipated increases in care management, among both individuals who previously had limited coverage and those who had no coverage. The assumed increase in the aggressiveness of utilization management will offset a portion of these increases. These assumptions were based on studies showing that parity legislation is associated with increases in care management, that MBHOs and other forms of care management reduce costs, and that the implementation of parity for SMI conditions in the Federal

Employee Health Benefits (FEHB) program resulted in increased costs only for the plan that did not use an MBHO (Goldman et al., 2006).

As shown in Table 8, utilization of both inpatient and outpatient care, and hence claims costs, are projected to increase as a result of the mandate.²⁵

- For non-SMI disorders, the number of inpatient days per 1,000 enrollees is estimated to rise by 0.12, representing a 4.69% increase. The number of outpatient visits per 1,000 enrollees would increase by 24.45, representing an 11.80% increase.
- For substance use disorders, the number of inpatient days per 1,000 enrollees would increase by 1.52, representing a 14.88% increase. The number of outpatient visits per 1,000 enrollees would increase by 9.12, representing a 27.21% increase.
- PMPM claims costs would increase by 4.73% and 13.07% respectively for inpatient and outpatient treatment of non-SMI disorders. The comparable numbers for substance use disorders are 15.23% and 27.79%.

To What Extent Does the Mandate Affect Administrative and other Expenses?

The mandate will likely increase the administrative expenses for health plans because of the increase in behavioral health care claims. CHBRP assumes that the administrative costs *as a proportion of premiums* remain unchanged. Health care plans and insurers include a component for administration and profit in their premiums. The estimated impact of this mandate on premiums includes the assumption that plans and insurers will apply their existing administration and profit loads to the marginal increase in health care costs produced by the mandate. Therefore, to the extent that behavioral health care claims will increase, administrative costs will increase commensurately.

In addition to the increase in administrative costs reflected in the CHBRP model, health plans will have to modify some insurance contracts and member materials to reflect parity coverage of services for non-SMI and substance use disorders. Health plans and insurers may need to decide whether to contract with MBHOs or build service reimbursement arrangements into currently existing contracts. Such arrangements could be built into contracts related to the provision of SMI services as currently mandated by California state law under AB 88.

If the mandate is associated with greater use of MBHOs or other forms of medical management (Ridgely et al., 2006; Feldman et al., 2002; Lake et al., 2002; Frank et al., 2001), administrative costs could increase beyond the cost of the additional claims processing. Although the cost of increased utilization management is difficult to estimate, for plans with new MBHO contracts it might be equivalent to an “administrative services only” fee. However, given the high degree of management of care that already predates

²⁵ Due to rounding, the figures in Table 8 do not correspond precisely to the summary in Table 1.

the mandate, the increase in utilization management and hence related administrative costs is assumed to be modest.

It is also conceivable that administrative costs could decline due to decreased complexity. Mandated parity for SMI services in California posed a challenge for health plans to distinguish between parity and non-parity cases through a claims adjudication system that would account for the different benefit structures for different diagnoses (Lake et al., 2002; DMHC, 2007). For this reason, two of the California plans studied extended some of the parity provisions beyond the AB 88 diagnoses (Lake et al., 2002). Uniform parity for all DSM-IV diagnoses might eliminate some of this administrative burden.

Impact of the Mandate on Total Health Care Costs

CHBRP estimates that as a result of AB 423, total annual health care expenditures (including total premiums and out-of-pocket expenditures) will increase by \$109.93 million, or 0.16% (Table 1). One reason why the estimated increase in expenditures is higher than was found in some other studies of parity legislation (e.g., the FEHB analyses) is because a sizable proportion of affected Californians currently have no behavioral health care coverage at all. Additional analysis suggested that approximately two-thirds of the increase in expenditures among commercially insured and CalPERS enrollees is due to providing at least some behavioral health care coverage to individuals who formerly had none; just over one-third is due to increasing coverage to parity levels for individuals starting with at least limited coverage.

The CHBRP model assumes a small increase in medical management across all plan types, which led to a modest offset in the total expenditure increase associated with AB 423. For example, in the absence of any increase in care management, the total PMPM expenditures on MH/SA services for commercially insured individuals and CalPERS enrollees would have been projected to rise from \$2.71 to \$3.27; after accounting for the likely increase in management, the latter figure drops to \$3.12. Therefore, the reduction in MH/SA expenditures resulting from the assumed increase in care management offsets about 26% of the increase in MH/SA expenditures resulting from parity. This offset is modest compared with the findings in the literature reviewed earlier, which suggest that in some cases the offset has been more than 100%.

Slightly more than half of the total increase in health care expenditures is due to services for non-SMI disorders (\$63.05 million), about one-third is due to treatment of drug and alcohol disorders (\$34.48 million), and about one-eighth is due to prescription drugs for nicotine use disorders (\$12.40 million). The relatively high contribution of substance use disorders to the total cost increase is due to the fact that SMIs are already covered under AB 88 and the mental disorders covered under AB 423 tend to be less costly.

The impact of increases in total net expenditures ranges from -0.02% to +0.80% based on the market segment, as detailed below (Table 9):

- 0.15% for the DMHC-regulated large group market;

- 0.25% for the CDI-regulated large group market;
- 0.08% for the DMHC-regulated small group market;
- 0.29% for the CDI-regulated small group market;
- 0.10% for the DMHC-regulated individual market;
- 0.80% for the CDI-regulated individual market;
- 0.14% for CalPERS HMO, –0.01% for AIM and MRMIP, and –0.02% for Healthy Families.

The modest reduction in expenditures for AIM, MRMIP, and Healthy Families arises because the increase in utilization in going from partial to full coverage is slightly more than offset by the anticipated increase in care management associated with parity.

Costs or Savings for Each Category of Insurer Resulting from the Benefit Mandate

Table 1 provides a summary of the impact of the mandate on premiums paid by private and public employers and employees affected by AB 423. Highlights from this table include the following:

- Total annual premiums paid by CalPERS and the AIM, MRMIP, and Healthy Families programs would increase by \$4,172,000.
- Total annual premiums paid by all private employers in California affected by AB 423 would increase by about \$81.69 million per year. This is an increase of about 0.19% and represents more than the increase in total expenditures because of the reduction in patient cost-sharing.
- Services for non-SMI disorders contribute a greater amount than treatment of substance use disorders (including nicotine) to the total increase in employer-paid premium costs (\$51.03 million vs. \$30.66 million).
- The total premium cost to individuals (including premium costs for individually purchased insurance and the portion of premiums for employment-based insurance that is paid by employees) is estimated to increase by \$42.89 million.
- The increase in individual premium costs is partly offset by a decline in individual out-of-pocket expenditures (e.g., deductibles, copayments) of \$18.82 million. The decrease in patient cost sharing is due to the fact that insurers would be covering a greater proportion of patient expenses if AB 423 were implemented.
- PMPM cost sharing would increase trivially for inpatient care for both non-SMI and substance use disorders and decrease by a negligible amount for outpatient care of substance use disorders (Table 8). For non-SMI disorders, the PMPM

cost-sharing for outpatient care would decline by \$0.09, representing a 23% reduction.

The projected impact of AB 423 on PMPM total premiums (including both the employer and individual shares) by market segment is as follows (Table 9):

- \$0.53 (0.18%) for the DMHC-regulated large group market
- \$1.68 (0.42%) for the CDI-regulated large group market
- \$0.37 (0.11%) for the DMHC-regulated small group market
- \$1.70 (0.50%) for the CDI-regulated small group market
- \$0.41 (0.15%) for the DMHC-regulated individual market
- \$1.74 (1.17%) for the CDI-regulated individual market
- \$0.51 (0.16%) for CalPERS
- -\$0.10 (-0.01%) for AIM and MRMIP
- \$0.01 (0.02%) for Healthy Families

Thus the impact of AB 423 on PMPM premiums varies widely across market segments, with negligible premium increases or even decreases for the public programs, modest increases in the DMHC-regulated insurance markets, and larger increases in the CDI-regulated markets. These patterns are similar for the share of premiums paid by employers and employees (Table 9). The differences between the DMHC- and CDI-regulated insurance products are due to the differing premandate benefit designs. The DMHC-regulated plans are assumed to start with only small copayments and no inpatient day or outpatient visit limits; in contrast, the CDI-regulated plans are assumed to have 50% coinsurance rates, along with 30-day inpatient and 20-visit outpatient limits. Thus parity coverage would affect premiums much more for the CDI-regulated products.

The differences between the effects of AB 423 on premiums among large groups, small groups, and the individual market are due to three factors: (i) differences in the percentages of enrollees who start off premandate with no behavioral health care coverage, (ii) among enrollees who already have limited coverage, differences in the premandate benefit design, and (iii) differences in carrier loads (administrative costs and profit), with large groups having the smallest load factors and individually purchased coverage having the largest load factors. The last factor affects the absolute but not percentage changes in premiums.

Impact on Access and Health Service Availability

Based on the relatively small increases in service utilization estimated by CHBRP, the impact on access to care is anticipated to be equally modest. The conclusion that parity

legislation under AB 423 is likely to have only small effects on utilization and costs is consistent with projections and evaluations of parity legislation in other states, as described above.

Access to prescription drugs used for smoking cessation is likely to increase as a result of AB 423, since these drugs are not always covered by health plan formularies yet are expected to be covered under parity. Although nicotine use disorders are rarely coded as a diagnosis, in the postmandate period these diagnoses are likely to be used more frequently in order to qualify for coverage of pharmacotherapy to treat tobacco dependence.

If management of care becomes more stringent following the mandate, it is likely that there will be some redistribution of costs and benefits across patients, because some patients will have enhanced access as a result of the reduction in coinsurance and elimination of benefit limits, while other patients may experience reduced access due to tighter direct management of their care. For example, MBHOs typically increase the “penetration rate” (percentage of enrollees who receive any treatment), while reducing the costs of the heaviest users, often by substituting outpatient for inpatient treatment. In addition, if some health plans choose to newly contract with MBHOs, disruptions in the continuity of care could result from the change in provider networks, as was seen with SMI parity under AB 88 (Lake et al., 2002).

Access issues have emerged as a problem with the implementation of parity under AB 88. One year after implementation, an evaluation identified provider shortages as a stakeholder concern, especially severe shortage of child psychiatrists and significant shortage of hospital-based eating disorder treatment programs (Lake et al., 2002). More recently, surveys conducted by DMHC to assess health plan compliance with current law identified a shortfall and misdistribution of the behavioral health workforce in California, especially in child and adolescent psychiatry, which would inhibit expanded access. DMHC also identified shortages of pediatric and adolescent mental health practitioners, residential treatment centers, and eating disorder programs. Also, DMHC cited the lack of available and qualified mental health clinicians in all specialties in several rapidly growing areas such as Stockton and Modesto, and in remote rural areas (DMHC, 2007).

DMHC’s HMO Help Center received over 1,800 contacts in 2005 and 2006 regarding overall mental health care issues.²⁶ DMHC can refer patient disputes to the California Independent Medical Review (IMR) process when services are denied because they are not considered medically necessary or they are considered experimental or investigational. Since January 2005, there have been 457 patient disputes referred to the IMR process.

²⁶ Personal communication with S. Lowenstein, DMHC, March 20, 2007.

Table 8. Postmandate Changes in Utilization Rates Per 1,000 Insured and Per Member Per Month Costs, California, 2007

	Annual Hospital Admissions Per 1,000 Members	Average Length of Hospital Stay	Annual Days or Visits Per 1,000 Members	Per Member Per Month Claim Cost	Per Member Per Month Cost-Sharing	Per Member Per Month Net Benefit Cost
<i>Non-SMI Disorders</i>						
Inpatient Care						
Postmandate	0.42	6.38	2.70	\$0.21	\$0.01	\$0.19
Change	0.03	-0.15	0.12	\$0.01	\$0.001	\$0.01
% Change	7.19%	-2.33%	4.69%	4.73%	6.85%	4.61%
Outpatient Care						
Postmandate	N/A	N/A	231.70	\$1.73	\$0.31	\$1.42
Change	N/A	N/A	24.45	\$0.20	-\$0.09	\$0.29
% Change	N/A	N/A	11.80%	13.07%	-22.66%	25.64%
<i>Substance Use Disorders (excluding nicotine)</i>						
Inpatient Care						
Postmandate	1.31	9.01	11.76	\$0.62	\$0.03	\$0.59
Change	0.22	-0.39	1.52	\$0.08	\$0.004	\$0.08
% Change	19.84%	-4.14%	14.88%	15.23%	14.38%	15.28%
Outpatient Care						
Postmandate	N/A	N/A	42.64	\$0.23	\$0.05	\$0.18
Change	N/A	N/A	9.12	\$0.05	-\$0.004	\$0.06
% Change	N/A	N/A	27.21%	27.79%	-7.47%	44.10%

Source: California Health Benefits Review Program, 2007.

Note: Based on national claims data from a commercial source, with some adjustments for California population and market conditions. All costs are adjusted to 2007 dollars. Includes services mandated in AB 423. Inpatient services are identified using Diagnosis-Related Groups (DRGs) and outpatient services are identified using CPT and HCPCS procedure codes in conjunction with primary diagnosis. Percent changes may not correspond exactly to numbers shown, due to rounding.

Table 9. Postmandate Impacts on Per Member Per Month and Total Expenditures by Insurance Plan Type, California, 2007

	Large Group		Small Group		Individual		CalPERS	Medi-Cal		Healthy Families	Total Annual
	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	DMHC-regulated	CDI-regulated	HMO	Managed Care 65 and Over	Managed Care Under 65*	Managed Care	
Population Currently Covered	10,354,000	363,000	3,086,000	679,000	1,268,000	794,000	791,000	N/A	17,000	681,000	18,033,000
Average Portion of Premium Paid by Employer	\$0.44	\$1.37	\$0.27	\$1.39	\$0.00	\$0.00	\$0.43	N/A	-\$0.09	\$0.01	\$85,861,000
Average Portion of Premium Paid by Employee	\$0.09	\$0.32	\$0.10	\$0.31	\$0.41	\$1.74	\$0.08	N/A	-\$0.01	\$0.00	\$42,889,000
Total Premium	\$0.53	\$1.68	\$0.37	\$1.70	\$0.41	\$1.74	\$0.51	N/A	-\$0.10	\$0.01	\$128,750,000
Covered Benefits Paid by Member (deductibles, copayments, etc.)	-\$0.05	-\$0.55	-\$0.05	-\$0.45	-\$0.10	-\$0.27	-\$0.04	N/A	\$0.00	-\$0.03	-\$18,817,000
Member Expenses for Benefits Not Covered	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	\$0.00	\$0
Total Expenditures	\$0.49	\$1.13	\$0.31	\$1.25	\$0.31	\$1.47	\$0.47	N/A	-\$0.10	-\$0.02	\$109,933,000
Percentage Impact of Mandate											
Insured Premiums	0.18%	0.42%	0.11%	0.50%	0.15%	1.17%	0.16%	N/A	-0.01%	0.02%	0.20%
Total Expenditures	0.15%	0.25%	0.08%	0.29%	0.10%	0.80%	0.14%	N/A	-0.01%	-0.02%	0.16%

Source: California Health Benefits Review Program, 2007.

*Estimates shown are for AIM and MRMIP only; Medi-Cal is not subject to the provisions of AB 423.

Note: The population includes individuals and dependents in California who have private insurance (group and individual) or public insurance under health plans or policies regulated by DMHC or CDI. All population figures include enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment-based coverage.

Key: CalPERS = California Public Employees' Retirement System; HMO = health maintenance organization and point of service plans; PPO = preferred provider organization and fee-for-service plans. Figures may not add up due to rounding.

PUBLIC HEALTH IMPACTS

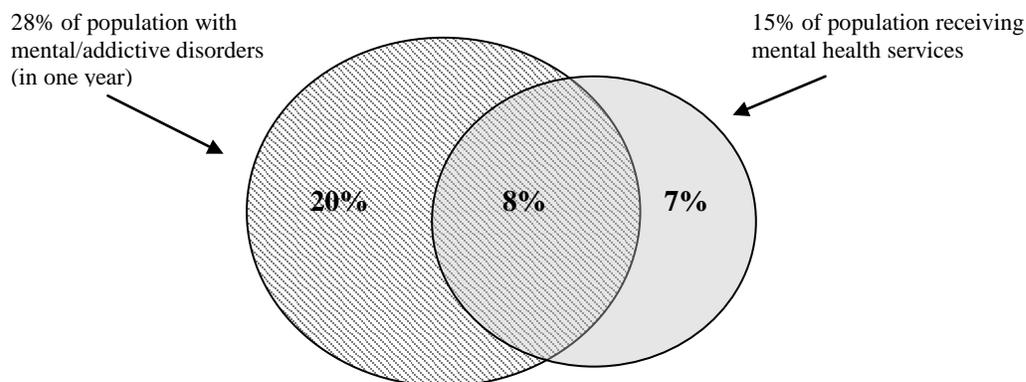
It is not possible to quantify the anticipated impact of AB 423 on the public health of California because (1) the numerous approaches for treating mental and substance abuse (MH/SA) disorders and the multiple disorders (covered under AB 423) on which they may be applied, render a medical effectiveness analysis of mental health care treatment outside of the scope of this analysis; and (2) the literature review found an insufficient number of studies in the peer-reviewed scientific literature that specifically address physical and mental health outcomes related to the implementation of mental health parity laws to evaluate whether mental health parity has an impact on health outcomes.

It is important, however, to identify the population within the state of California that AB 423 affects and to understand the multiple ways in which MH/SA disorders affect the health of the community.

Present Baseline

Estimating the number of Californians targeted by AB 423 is a challenge due to the different ways in which one could measure mental disorders within a population. Wakefield (1999) describes two measures of mental disorders: *clinical prevalence*, which includes the number of people being treated for mental disorders, and *true prevalence*, which is the number of people with mental disorders within the population. Figure 2 details the intersection of clinical prevalence and true prevalence, as described in the Surgeon General's 1999 report on mental health, with 28% of the population having a mental or addictive disorder annually, 15% receiving mental health services, and 8% of the population both having a disorder and receiving treatment. In describing the population affected by AB 423, both true and clinical prevalence are examined.

Figure 2. Annual Prevalence of Mental/Addictive Disorders and Services for Adults



Source: Adapted from 1999 Mental Health: A Report of the Surgeon General. Figure 2-5a.

Population prevalence

AB 423 requires mental health parity for all of the disorders included in DSM-IV. Many of the diagnoses in the DSM are extremely rare, while other disorders such as major depression are more common, with an annual prevalence of approximately 6.5% (DHHS, 1999; Dickey and Blumberg, 2004). Estimates on the prevalence of mental disorders as a whole within the United States are based on two major studies: the Epidemiologic Catchment Area Study and the National Comorbidity Survey. Based on these studies, approximately 26% to 30% of the non-institutionalized U.S. adult population is affected by diagnosable mental disorders or addictive disorders during a given year (DHHS, 1999; Kessler et al., 2005). According to the 1999 Surgeon General's report, 19% of adults have a mental disorder alone, 3% have both a mental and addictive disorder, and 6% have an addictive disorder alone (DHHS, 1999). Another estimate related to addictive disorders found that 9.3% of the Californians over 12 years old reported an alcohol or illicit drug dependence in 2004 to 2005 (Wright et al., 2007).

A subset of the larger population with a mental disorder are those individuals (5.4% of the total population) who are considered to have a serious mental illness, which means that they have a DSM disorder other than a substance abuse disorder that interferes with social functioning (DHHS, 1999; Jans et al., 2004). About half of those designated as having serious mental illness (2.6% of the total population) are further classified as having severe mental illness, which is restricted to disorders with psychotic symptoms and/or were substantially disabling in the last year (DHHS, 1999). Severe mental illness (SMI) disorders are limited to diagnoses of schizophrenia, schizoaffective disorder, bipolar disorder, autism, and severe forms of depression, panic disorder, and obsessive-compulsive disorder (Jans et al., 2004).

Need and utilization of mental health treatment

Another way to examine the status of mental health in California is to look at the reported need for and utilization of mental health services. The California Health Interview Survey (CHIS) asked whether survey respondents needed help for emotional or mental health problems and whether they saw a health professional for emotional/mental problems in the past 12 months. In 2005, 17.6% of privately insured adults under 65 years reported that they needed help for emotional/mental health problems and 9.3% reported that they saw a health provider in the past year for emotional/mental health problems.

Another utilization question refers to the number of people taking prescription medications for mental health problems. According to the 2001 CHIS data, of those who reported that they needed help for emotional/mental health problems, 33.6% reported that they had taken a prescription medication for a mental or emotional problem in the last 12 months. This amounts to approximately 5.3% of all surveyed privately insured Californian adults under 65 years.

It is also important to consider whether insured Californians have coverage for mental health treatment. In 2005, 83.7% of those who reported that they needed help for emotional/mental health problems also reported that mental health treatment was covered by their insurance. However, this does not mean that mental health treatment coverage was at parity with medical treatment (CHIS, 2005).

The need for substance abuse treatment is examined by the Substance Abuse and Mental Health Services Administration (SAMHSA) where 2001 data indicate that 6.4% of insured California adults needed but did not receive substance abuse treatment (Hourani et al., 2005). Additionally, 13% of the privately insured adult population and 7.4% of the privately insured teen population reported they were current smokers in 2005 (CHIS, 2005).

Application of AB 423 to California's population

The current California mental health parity law, under AB 88, requires parity for those who have severe mental illness as defined above, as well as parity for children with serious emotional disturbances. The term "serious emotional disturbances" is not a formal DSM diagnosis but rather indicates that a child has a mental disorder that substantially disrupts their ability to function (DHHS, 1999). In California, the Department of Mental Health estimates that in 2000, approximately 7.5% of youth under the age of 18 had a serious emotional disturbance (DMH, 2000). AB 88 also designates parity for those with diagnoses of anorexia nervosa and bulimia nervosa, which are relatively rare even within high-risk groups, with a prevalence of anorexia nervosa at approximately 0.5% for adolescent girls and the prevalence of bulimia nervosa ranging from 1% to 2% of young women (First and Tasman, 2004).

Appendix F details the assumptions used to estimate the number of new individuals who would be required to have mental health parity if AB 423 were enacted. Approximately 12% of the insured population has a disorder that may be considered a non-SMI or substance use disorder. For this population, current law, (under AB 88) does not require these non-SMI or substance use disorders be covered. AB 423 would broaden parity to over 4 million estimated individuals that currently have a mental or substance abuse disorder diagnosis. Additionally, AB 423 may be applied to more tobacco users who could be officially diagnosed with a tobacco use disorder in the DSM-IV in order to gain access to treatment.

Impacts

Impact on Community Health

Treatments for mental disorders fall into two basic categories: psychosocial therapies (e.g., psychodynamic therapy, behavioral therapy), and pharmacologic therapies (e.g., antidepressants, antipsychotics) (DHHS, 1999). In clinical practice, these two types of treatments are often used together as a combined treatment (Jindal and Thase, 2003). Although there are effective treatments for many MH/SA disorders (IOM, 2006), a review of the medical effectiveness of all the available treatments for mental disorders is outside the scope of this analysis. As a result, the impact of AB 423 on community health cannot be quantified. Nevertheless, it is important to acknowledge the health outcomes associated with mental disorders.

The potential outcomes associated with mental health treatment include:

- *Suicide and inpatient outcomes.* The most acute outcomes measures associated with mental health treatment include reductions in suicides and suicide attempts, psychiatric emergency room visits, and inpatient hospitalizations. These outcomes are most frequently associated with the SMI disorders already covered under AB 88.

- *Mental/emotional health and quality of life outcomes.* Mental and emotional health measures have been examined through individual surveys, for example, the mental health–related quality of life index from the SF-36 Health Survey. Another important outcome in this category is the reduction in the symptomatic distress associated with specific disorders, which can be assessed either by the patient or provider.
- *Health outcomes related to mental disorders.* When mental disorders accompany medical conditions they can influence medical health outcomes for patients with conditions such as diabetes and epilepsy (Gilliam et al., 2003; Lustman and Clouse, 2005).

Treatment for substance abuse disorders also consists of both psychosocial therapy and pharmaceutical treatments. Dependence on and abuse of illicit drugs, alcohol, and tobacco have health implications for nearly every system of the body and can result in disease, permanent disability, and death. Some of the potential outcomes associated with substance abuse treatment include:

- *Pregnancy-related outcomes.* Substance abuse (including tobacco, alcohol, and illicit drug abuse) during pregnancy is associated with multiple pregnancy complications such as ectopic pregnancy, preterm labor, and miscarriage. Substance abuse during pregnancy is also related to numerous health conditions for infants, including low birth weight, fetal alcohol spectrum disorders, and multiple disabilities and birth defects.
- *Health outcomes related to illicit drug abuse.* A myriad of health problems are associated with illicit drug abuse, especially an increased risk for infections such as HIV and Hepatitis B in injection drug users. Illicit drug abuse can also lead to risky sexual behaviors that can result in sexually transmitted diseases. Furthermore, drug abuse is often linked to decreased brain function and cardiovascular complications that can result in overdose and death.
- *Health outcomes related to alcohol abuse.* One of the major health consequences associated with alcohol abuse are fatalities and injuries associated with motor vehicle accidents and other types of accidents. Alcohol poisoning is another immediate risk of alcohol abuse. Additionally, alcohol abuse is associated with long-term health risks such as liver diseases, neurological problems, cardiovascular problems, certain types of cancer, and gastrointestinal problems.
- *Health outcomes related to tobacco use.* In the United States, tobacco use is the leading cause of preventable death and the cause of 1 and 5 deaths each year (CDC, 2007). The largest numbers of smoking-related deaths are from cardiovascular diseases, cancer, and respiratory diseases. In addition to mortality, tobacco use results in a myriad of other health and economic implications such as causing many chronic conditions and increasing related illnesses, complications from chronic conditions, more hospitalizations and complications, decreased fertility, and reduced quality of life. The effects of tobacco use are not limited to smokers and other tobacco users since exposure to secondhand smoke results in increased risk of cancer, cardiovascular diseases, respiratory problems, and reproductive complications.

- *Comorbidity between mental disorders and substance abuse.* Approximately 3% of the adult population has co-occurring mental and addictive disorder (DHHS, 1999). Researchers have found that mental health treatment is positively associated with successful outcomes in substance abuse treatment (Moos et al., 2000) and have argued that treatment for mental and substance abuse disorders should be integrated to achieve the most desirable outcomes (Jane-Llopis and Matytsina, 2006).

Other MH/SA treatment outcomes include social measures such as a reduction in crime and family problems and increases in employment and housing. Employment and productivity measures are discussed in a subsequent section on the economic cost of illness.

Any improvements in outcomes resulting from AB 423 are dependent on changes in access to care, utilization of care, and the appropriateness and effectiveness of treatment. As discussed in the previous sections, MH/SA parity typically coincides with increased management of MH/SA services, thereby minimizing increases in utilization resulting from parity legislation. While the literature indicates that parity is associated with increases in utilization of substance abuse services and outpatient mental health services, there is a lack of research on the effects of mental health parity on health outcomes.

Impact on Community Health Where Gender and Racial Disparities Exist

Gender disparities

While the lifetime prevalence of mental disorders for males and females is similar, certain types of disorders are more common in one gender (Jans et al., 2004). Hartung and Widiger (1998) reviewed the literature on gender differences in diagnoses of mental disorders, and found that males tend to have higher rates of childhood disorders, while adult mental disorders have a more equal distribution across genders.

Table 10 reports the DSM-IV diagnoses that have been found to be at least twice as common in one gender compared to the other. Four of the nine mental disorder diagnoses covered under AB 88 (anorexia nervosa, bulimia nervosa, major depression, and panic disorder) are at least twice as common in females as compared to males. The eating disorders, in particular, have a much higher prevalence rates in females, between 10 to 20 times that of males (First and Tasman, 2004).

Table 10. Gender Differences in Diagnosis of DSM-IV Mental Disorders

Male to Female Ratio > 2	Female to Male Ratio > 2
Attention deficit hyperactive disorder	Anorexia nervosa
Autistic disorder	Borderline personality disorder
Breathing-related sleep disorder	Bulimia nervosa
Compulsive personality disorder	Conversion disorder
Gender identity disorder	Dissociative identity disorder
Language disorders (stuttering)	Dysthymic disorder
Pathological gambling disorder	Generalized anxiety
Primary hypersomnia	Major depressive disorder
Sexual masochism	Nightmare disorder
	Panic disorder (with and without agoraphobia)
	Rett's disorder

Source: Hartung and Widiger, 1998.

For substance abuse disorders, males in California have almost twice the rate of alcohol or illicit drug dependence or abuse compared to women (10.8% versus 5.0%) (Hourani et al., 2005). Additionally, more of the privately insured males are smokers (14.5%) compared to females (9.9%) (CHIS, 2005).

When looking at the utilization of mental health services, females use more outpatient services compared to males (Rhodes et al., 2002). The CHIS data for 2005 reflect this finding (CHIS, 2005). Table 11 details the percentage of privately insured adult Californians who reported that they needed help for emotional/mental health problems, and saw a health professional for emotional or mental problems in the last 12 months. Females were significantly more likely than males to respond that they needed help and had seen a health professional in the past year. Additionally, in 2001, more females reported taking prescription medications for emotional or mental health problems (CHIS, 2001).

Table 11. Gender Differences in Adult Use of Services for Emotional/Mental Health Problems

Gender	Needed Help for Emotional/Mental Health Problems	Saw Health Professional for Emotional/Mental Problems
Male	12.5% (11.6 – 13.4)	6.9% (6.2 – 7.6)
Female	22.7% (21.7 – 23.7)	11.7% (10.9 – 12.4)

Source: California Health Interview Survey (2001).

Notes: Utilization of services within the last 12 months. Includes currently insured adults aged 18 to 64 years with employment-based or privately purchased health insurance.

Of those who reported needing help for emotional/mental health problems, there were no major differences by gender regarding who reported having mental health coverage (CHIS, 2005). Additionally, there were no gender differences in reported difficulties or delays in receiving care (CHIS, 2005).

Racial and Ethnic Disparities

The 2001 supplement to the Surgeon General's report (DHHS, 2001) on mental health details the many ways in which culture and race interact with the diagnosis and treatment of mental disorders, from the influence of racism on symptoms, to the lack of minorities in clinical trials, to the effect of provider ethnicity on the utilization of services. Additionally, other factors found to have an association with race—such as poverty and education—influence the risk of developing a mental disorder and the chance that treatment will be sought. While there is substantial variation in prevalence and treatment patterns within the broad racial categories used in typical analyses, some of the summary findings from the Surgeon General's report include:

- While blacks appear to have overall mental distress symptoms similar to whites, blacks are less likely to receive treatment and more likely to be incorrectly diagnosed. Disparities in utilization of treatment have been at least partially attributed to financial barriers and the lack of culturally appropriate providers.
- Compared to whites, Latinos are less likely to receive treatment according to evidence-based guidelines. Of particular concern within the Latino community are immigrants who use very few mental health services and Latino youth who are at increased risk for mental health problems.
- Of all the racial groups, Asians have the lowest rate of mental health services utilization. The few studies that examine Asians as a group suggest that the overall prevalence for mental disorders is not significantly different from other racial groups; however, prevalence rates often differ for specific diagnoses. For immigrant communities, acculturation is an important factor in the types of mental health problems that appear where the more acculturated the individual is, the more they resemble the broader “westernized” population in terms of mental disorders.
- While there is a lack of good epidemiologic data on American Indian groups, the studies that have examined this population show that American Indians suffer a disproportionate burden of mental health problems compared to other racial groups. In particular, American Indians have high rates of suicide and comorbidities associated with mental health and substance abuse disorders.

Looking specifically at substance abuse disorders, California data from 2001 indicate that blacks and Latinos have lower rates of alcohol or illicit drug dependence or abuse compared to whites. Galea and Rudenstine (2005), however, note that racial differences in substance abuse are complex with patterns of substance abuse varying by substance and subpopulation.

Since racial disparities are often linked to insurance status, it is important to consider if racial disparities are evident in the insured population. Ojeda and McGuire (2006) looked at the insured population and found that Latinos and blacks with major depression or dysthymia used fewer

outpatient MH/SA services compared to whites. Additionally, the 2005 CHIS data reveal racial differences in the utilization of mental health services. Table 12 details the percentage of privately insured adult respondents who reported needing help with emotional/ mental health problems and the percentage of those who saw a health professional for emotional/mental health problems. Additionally, among those who reported needing help, Table 12 reports the percentage that had insurance coverage for mental health treatment.

Table 12. Racial/Ethnic Differences in Adult Use of Services for Emotional/Mental Health Problems and Mental Health Treatment Insurance Coverage

Race Category	Needed Help for Emotional/Mental Health Problem	Saw Health Professional for Emotional/Mental Problems	Mental Health Treatment Covered by Insurance
All races	17.6% (16.9–18.3)	9.3% (8.8–9.8)	83.7% (82.2–85.2)
White	18.6% (17.8 – 19.4)	11.8% (11.2–12.5)	85.1% (83.5–86.7)
Black	14.3% (11.1–17.6)	8.6% (6.5–10.6)	84.1% (74.2–95.5)
Latino	17.5% (15.7–19.3)	5.7% (4.6–6.7)	76.8% (72.2–81.4)
Asian	15.1% (13.1–17.1)	3.8% (2.7–4.8)	84.0% (79.4–88.6)
Native American	19.2% (12.6–25.8)	12.0% (5.9–18.1)	95.3% (87.4–100)
Other single or 2 or more races	16.8% (13.0–20.7)	8.8% (6.2–11.5)	91.1% (85.0–97.2)

Source: California Health Interview Survey (2005).

Notes: Utilization of services within the last 12 months. Includes currently insured adults aged 18 to 64 years with employment-based or privately purchased health insurance.

While blacks and Asians reported lower levels of needing and seeking help for emotional/mental health problems, this is likely due to increased social stigma of mental illness in these communities (Anglin et al., 2006; Wynaden et al., 2005). Latinos reported lower levels of utilization of mental health services in spite of not having significantly different levels of need, compared to whites. Additionally, fewer Latinos reported that mental health treatment was covered by insurance.

AB 423 would require MH/SA coverage parity for all individuals with a DSM-IV diagnosis insured by plans subject to the mandate. As such, AB 423 has the potential to reduce racial disparities in coverage for mental health treatment. However, increased coverage may not yield improvements in racial disparities since other barriers such as stigma, language, and acculturation issues would not be addressed by AB 423 (Anez et al., 2005). As such, there is no evidence that AB 423 would increase utilization of MH/SA treatment among minorities or that AB 423 would decrease disparities with regard to health outcomes.

Reduction of Premature Death and the Economic Loss Associated with Disease

Mental disorders are a substantial cause of disability in the United States, ranking as the second highest cause of activity limitation among those aged 18 to 44 years and third among those aged 45 to 64 years (Jans et al., 2004). The World Health Organization Report 2001 examines the leading causes of disability-adjusted life years (DALYs) worldwide and finds that mental disorders have a large impact on disability among people aged 15 to 44 years, with unipolar depressive disorders ranking as the second leading cause of DALYs, after HIV/AIDS. Other mental disorders in the top 20 worldwide leading causes of DALYs among 15- to 44-year-olds include alcohol disorders, schizophrenia, bipolar affective disorder, and panic disorder (WHO, 2001).

In addition to individual effects, the disability related to mental disorders has societal impacts, such as indirect costs associated with lost productivity. Indirect costs include the loss of the ability to work and reduced productivity at work, as well as the value of services from unpaid caregivers and premature mortality (DHHS, 2000). Marcotte and Wilcox-Gok (2001) estimate that each year between 5 and 6 million workers either lose or do not obtain employment as a result of mental illness. In addition, those with mental illness that do work have lower annual incomes by \$3,500 to \$6,000 than those without mental illness.

Substance abuse, in particular, can result in premature death. McGinnis and Foege (1999) estimate that addictive substances cause approximately a quarter of all deaths in the United States. The leading cause of premature death is tobacco use, which results in more than 438,000 deaths each year (CDC, 2007). Alcohol and drug abuse also result in premature death, with alcohol abuse estimated to be the cause of more than 75,000 deaths in 2001 (CDC, 2004).

There are various approaches to estimating the costs of illness and each approach relies on numerous assumptions, making it difficult to compare cost of illness estimates across diseases and disease categories (Bloom et al., 2001). However, numerous studies have examined the indirect costs of mental illness (Rice et al., 1992; DuPont et al., 1995; DuPont et al., 1996; Wyatt and Henter, 1995; Rice and Miller, 1998). Some studies focus on specific disorders or groups of disorders such as obsessive-compulsive disorder (DuPont et al., 1995), bipolar disorder (Wyatt and Henter, 1995), and anxiety disorders (DuPont et al., 1996), while others examine the costs of mental illness more broadly (Rice et al., 1992; Rice and Miller, 1998). Rice and Miller (1998) report that the total economic cost of mental disorders was \$147.8 billion in 1990. A 1992 estimate reports \$94 billion in indirect costs due to mental disorders (DHHS, 2000).

As with mental illness, estimates on the economic cost associated with substance abuse vary widely. The Office of National Drug Control Policy estimates that illicit drug abuse in the United States cost society over \$160 billion in 2000 (ONDCP, 2001). Rice (1999) estimated that the total economic costs of substance abuse in 1995 was \$428.1 billion, including alcohol abuse (\$175.9 billion), drug abuse (\$114.2 billion), and smoking (\$138 billion).

While these estimates illuminate the large financial costs of MH/SA disorders, any changes in premature death and indirect costs resulting from AB 423 are dependent on changes in access to care, utilization of care, and the appropriateness and effectiveness of treatment. Therefore, the

impact of AB 423 on premature death and indirect costs cannot be estimated due to the lack of information on the appropriateness and effectiveness of various mental health treatments.

APPENDICES

Appendix A: Text of Bill Analyzed

AB 423 Amended Bill Text, amended in assembly March 22, 2007.
Introduced by Assembly Member Beall, February 16, 2007.

An act to add Section 1374.73 to the Health and Safety Code and to add Section 10144.7 to the Insurance Code, relating to health care coverage.

LEGISLATIVE COUNSEL'S DIGEST

AB 423, as amended, Beall. Health care coverage: mental health services.

Existing law, the Knox-Keene Health Care Service Plan Act of 1975 (Knox-Keene Act), 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 also provides for the regulation of health insurers by the Department of Insurance. Under existing law, a health care service plan contract and a health insurance policy are required to provide coverage for the diagnosis and treatment of severe mental illnesses of a person of any age. Existing law does not define "severe mental illnesses" for this purpose but describes it as including several conditions.

This bill would expand this coverage requirement for a health care service plan contract and a health insurance policy issued, amended, or renewed on or after January 1, 2008, to include the diagnosis and treatment of a mental illness of a person of any age and would define mental illness for this purpose ~~with certain exceptions,~~ as a mental disorder defined in the Diagnostic and Statistical Manual IV.

Because the bill would expand coverage requirements under the Knox-Keene Act, the willful violation of which is a crime, it 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.
State-mandated local program: yes.

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

SECTION 1. Section 1374.73 is added to the Health and Safety Code, to read:

1374.73. (a) A health care service plan contract issued, amended, or renewed on or after January 1, 2008, that provides hospital, medical, or surgical coverage shall provide coverage for the diagnosis and medically necessary treatment of a mental illness of a person of any age, including a child, under the same terms and conditions applied to other medical conditions as specified in subdivision (c) of Section 1374.72. The benefits provided under this section shall include all those set forth in subdivision (b) of Section 1374.72. "Mental illness" for the purposes of this section means a mental disorder defined in the Diagnostic and Statistical Manual IV, or subsequent editions, published by the American Psychiatric Association, ~~except those codes defining substance abuse disorders (291.0 to 292.9, inclusive, and 303.0 to 305.9, inclusive) and the "V" codes.~~ *Psychiatric Association, and includes substance abuse.*

(b) This section shall not apply to contracts entered into pursuant to Chapter 7 (commencing with Section 14000) or Chapter 8 (commencing with Section 14200) of Part 3 of Division 9 of the Welfare and Institutions Code, between the State Department of Health Care Services and a health care service plan for enrolled Medi-Cal beneficiaries.

(c) (1) For the purpose of compliance with this section, a plan may provide coverage for all or part of the mental health services required by this section through a separate specialized health care service plan or mental health plan, and shall not be required to obtain an additional or specialized license for this purpose.

(2) A plan shall provide the mental health coverage required by this section in its entire service area and in emergency situations as may be required by applicable laws and regulations. For purposes of this section, health care service plan contracts that provide benefits to enrollees through preferred provider contracting arrangements are not precluded from requiring enrollees who reside or work in geographic areas served by specialized health care service plans or mental health plans to secure all or part of their mental health services within those geographic areas served by specialized health care service plans or mental health plans.

(3) Notwithstanding any other provision of law, in the provision of benefits required by this section, a health care service plan may utilize case management, network providers, utilization review techniques, prior authorization, copayments, or other cost sharing.

(d) Nothing in this section shall be construed to deny or restrict in any way the department's authority to ensure plan compliance with this chapter when a plan provides coverage for prescription drugs.

SEC. 2. Section 10144.7 is added to the Insurance Code, to read:

10144.7. (a) A policy of health insurance that covers hospital, medical, or surgical expenses in this state that is issued, amended, or renewed on or after January 1, 2008, shall provide coverage for the diagnosis and medically necessary treatment of a mental illness of a person of any age, including a child, under the same terms and conditions applied to other medical conditions as specified in subdivision (c) of Section 10144.5. The benefits provided under this section shall include all those set forth in subdivision (b) of Section 10144.5. "Mental illness" for the purposes of this section means a mental disorder defined in the Diagnostic and Statistical Manual IV, or subsequent editions, published by the American Psychiatric Association, ~~except those codes defining substance abuse disorders (291.0 to 292.9, inclusive, and 303.0 to 305.9, inclusive) and the "V" codes.~~ *Psychiatric Association, and includes substance abuse.*

(b) (1) For the purpose of compliance with this section, a health insurer may provide coverage for all or part of the mental health services required by this section through a separate specialized health care service plan or mental health plan, and shall not be required to obtain an additional or specialized license for this purpose.

(2) A health insurer shall provide the mental health coverage required by this section in its entire in-state service area and in emergency situations as may be required by applicable laws and regulations. For purposes of this section, health insurers are not precluded from requiring insureds who reside or work in geographic areas served by specialized health care service plans or mental health plans to secure all or part of their mental health services within those geographic areas served by specialized health care service plans or mental health plans.

(3) Notwithstanding any other provision of law, in the provision of benefits required by this section, a health insurer may utilize case management, managed care, or utilization review.

(4) Any action that a health insurer takes to implement this section, including, but not limited to, contracting with preferred provider organizations, shall not be deemed to be an action that would otherwise require licensure as a health care service plan under the Knox-Keene Health Care Service Plan Act of 1975 (Chapter 2.2 (commencing with Section 1340) of Division 2 of the Health and Safety Code).

(c) This section shall not apply to accident-only, specified disease, hospital indemnity, Medicare supplement, dental-only, or vision-only insurance policies.

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

Appendix B describes methods used in the medical effectiveness literature review for AB 423. This literature review updates the review CHBRP staff conducted for SB 572 in 2005.

This literature search included meta-analyses, systematic reviews, randomized controlled trials, controlled clinical trials, and observational studies. The PubMed and PsycInfo databases were searched. Business Source Premier, the Health Services Project database, and databases identified in the New York Academy of Medicine’s report on gray literature were searched to obtain background materials on the implementation of MH/SA parity. The search was limited to articles that were published from 1980 to present, written in English, and discussed implementation of parity in mental health and substance abuse (MH/SA) coverage in the United States.

The medical effectiveness literature review focused on research studies that evaluated the effects of MH/SA parity laws and policies on utilization, cost, and/or quality of MH/SA services or on MH/SA outcomes. At least two reviewers screened the title and abstract of each citation returned by the literature search to determine eligibility for inclusion. Full text articles were obtained, and reviewers reapplied the initial eligibility criteria.

The literature review for AB 423 included 493 abstracts. A total of 17 studies were included in the current review, consisting of 7 studies from the SB 572 review and 10 additional studies.

The literature review did not uncover any randomized controlled trials of the effects of MH/SA parity. All of the studies used nonrandomized research designs. Most studies included comparison groups, but a few only compared outcomes before and after MH/SA parity was implemented.

In making a “call” for each outcome measure, the medical effectiveness team and the content expert consider the number of studies as well the strength of the evidence. 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
- Generalizability of findings

The grading system also contains an overall conclusion that encompasses findings in the five domains of research design, statistical significance, direction of effect, size of effect, and generalizability of findings. 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
- Ambiguous/conflicting evidence
- Insufficient evidence

The conclusion states that there is “clear and convincing” evidence that an intervention has a favorable effect on an outcome, if most of the studies included in a review have strong research designs and report statistically significant and clinically meaningful findings that favor the intervention.

The conclusion characterizes the evidence as “preponderance of evidence” that an intervention has a favorable effect if most, but not all five, criteria are met. For example, for some interventions the only evidence available is from nonrandomized studies. If most such studies that assess an outcome have statistically and clinically significant findings that are in a favorable direction and enroll populations similar to those covered by a mandate, the evidence would be classified as a “preponderance of evidence favoring the intervention.” In some cases, the preponderance of evidence may indicate that an intervention has no effect or an unfavorable effect.

The evidence is presented as “ambiguous/conflicting” if none of the studies of an outcome have strong research designs and/or if their findings vary widely with regard to the direction, statistical significance, and clinical significance/size of the effect.

The category “insufficient evidence” is used where there is little if any evidence of an intervention's effect.

The search terms used to locate studies relevant to the AB 423 were as follows:

Medical Subject Headings (MeSH) for searching PubMed and Cochrane:

MeSH Terms

Cost sharing (including deductibles, coinsurance, and copayments)
Insurance benefits (AND government regulation/jurisprudence/legislation)
Insurance coverage (AND government regulation/jurisprudence/legislation)
Insurance, health (AND government regulation/jurisprudence/legislation)
Insurance, psychiatric (AND government regulation/jurisprudence/legislation)
Managed care programs

Mental disorders (and terms under this category that address specific mental disorders, e.g., mood disorders)
Mental health
Mental health services
Psychotherapy
Substance abuse
Substance dependence
Substance-related disorders (and terms under this category that address abuse of specific substances, e.g., alcohol-related disorders)
Explode costs and cost analysis

Keywords

Mental health parity (act, mandate* or law* or legislation or regulation*), substance abuse parity (act, mandate* or law* or legislation or regulation*), alcoholism, drug abuse, access, adverse selection, appropriateness of care, benefit structure, carve out, cost*, effect*, employment, evaluation, health effects, health outcomes, impact*, implementation, managed behavioral health organizations, managed care, moral hazard, price elasticity of demand, quality of care, utilization, Federal Employees Health Benefits Program, RAND Health Insurance Experiment

* indicates truncation

Search Terms Used in PsycInfo:

PsycINFO Thesaurus

Government policy making
Health care policy
Health care utilization
Health insurance
Managed care
Mental health services
Substance abuse services

Keywords

Same as PubMed

Search Terms Used in Business Source Premier:

Keywords

Same as PubMed

Appendix C: Summary Findings on the Impact of Parity in Mental Health and Substance Abuse Coverage

Appendix C describes the studies of the effects of parity in coverage of mental health and/or substance abuse services included in this review.

Table C-1. Summary of Published Studies on Effects of Mental Health and/or Substance Abuse Parity

Citation	Type of Trial	Intervention vs. Comparison Group	Population Studied	Location
Azrin et al., 2007	Level III—nonrandomized with comparison group	Health plans that implemented parity in in-network mental health and substance abuse benefits provided to federal employees and their dependents vs. self-insured health plans offered by other employers that did not implement parity	Children aged 0-15 years who were dependents of employees of the federal government and other employers and were continuously enrolled in large PPOs	United States—multiple states
Bao and Sturm, 2004	Level III—nonrandomized with comparison group	States that implemented strong* mental health parity laws in 1999 or 2000 vs. states that did not have parity laws	Adults who were enrolled in employer-sponsored health insurance plans or purchased individual health insurance plans	United States—multiple states
Busch et al., 2006	Level IV—nonrandomized study without comparison group	Implementation of parity in in-network mental health and substance abuse benefits for federal employees and their dependents—no comparison group	Employees of the federal government and other employers and dependents aged 18-64 years who were enrolled in large PPOs for at least 10 of 12 months per year over a four-year period	United States—multiple states
Ciamins 2004	Level IV—nonrandomized study without comparison group	Implementation of parity in substance abuse coverage—no comparison group	Adolescents aged 12-18 years who were dependents of employees of a large state government agency that had a self-insured health plan	United States—state not specified
Goldman et al., 2006	Level III—nonrandomized with comparison group	Health plans that implemented parity in in-network mental health and substance abuse benefits for federal employees and their dependents vs. self-insured health plans offered by other employers that did not implement parity	Employees of the federal government and other employers and dependents aged 18-64 years who were continuously enrolled in large PPOs	United States—multiple states

* States with strong MH/SA parity laws require equal cost sharing for physical and MH/SA services across all types of cost sharing (e.g., deductibles, copayments, coinsurance, numbers of outpatient visits, numbers of inpatient days, annual limits, lifetime limits).

Table C-1. Summary of Published Studies on Effects of Mental Health and/or Substance Abuse Parity (Cont'd)

Citation	Type of Trial	Intervention vs. Comparison Group	Population Studied	Location
Harris et al., 2006	Level III—nonrandomized with comparison group	States that implemented mental health parity laws vs. states that did not implement parity laws	Adults who had individual or employer-sponsored health insurance	United States—multiple states
Klick and Markowitz, 2006	Level III—nonrandomized with comparison group	States that implemented mental health parity laws vs. states that did not implement parity laws	Adults aged 25-64 years	United States—multiple states
Lichtenstein and the Parity Evaluation Research Team, 2004	Level III—nonrandomized with comparison group	Health plans that implemented parity in in-network mental health and substance abuse benefits for federal employees and their dependents vs. self-insured health plans offered by other employers that did not implement parity	Employees of the federal government and other employers and dependents aged 18-64 years who were enrolled in large PPOs	United States—multiple states
Pacula and Sturm, 2000	Level III—nonrandomized with comparison group	States that implemented strong mental health parity laws vs. states that did not implement parity laws	Adults enrolled in commercial health insurance plans	United States—multiple states
Sturm et al., 1998	Level IV—nonrandomized study without comparison group	Implementation of parity in mental health and substance abuse benefits—no comparison group	Employees of the State of Ohio and their dependents enrolled in either a fee-for-service (FFS) plan or a health maintenance organization (HMO)	United States—Ohio
Sturm et al., 1999	Level III—nonrandomized with comparison group	Health plans that have low copayments for substance abuse services and no limits on coverage vs. simulated plans with annual limits of \$1,000, \$5,000, and \$10,000	Persons enrolled in 25 health plans that contracted with a managed behavioral health organization to administer substance abuse benefits	United States—38 states, with most observations from the Midwest and New York

Table C-1. Summary of Published Studies on Effects of Mental Health and/or Substance Abuse Parity (Cont'd)

Citation	Type of Trial	Intervention vs. Comparison Group	Population Studied	Location
Sturm, 2000	Level III—nonrandomized with comparison group	States that implemented mental health parity laws that are more stringent than the federal parity law vs. states that did not implement parity laws	Non-elderly adults—analyzed all non-elderly adults and non-elderly adults who had commercial insurance and had a probable mental illness	United States—multiple states
Zuvekas et al., 1998	Level III—nonrandomized with comparison group	Full mental health parity vs. private health insurance benefits for mental health prior to implementation of federal mental health parity law	Persons under age 65	United States—multiple states
Zuvekas et al., 2001	Level III—nonrandomized with comparison group	Full mental health parity vs. private health insurance benefits for mental health prior to implementation of federal mental health parity law	Persons under age 65	United States—multiple states
Zuvekas et al., 2002	Level III—nonrandomized with comparison group	Implementation of parity in coverage for severe mental health disorders by a very large firm to comply with a state law mandating parity and expansion of coverage for services for non-severe mental illness and outpatient substance abuse services vs. employers that were not required to implement parity	Employees and their dependents less than 55 years old who were continuously enrolled in managed FFS plans	United States—state not specified
Zuvekas et al., 2005a	Level III—nonrandomized with comparison group	Implementation of parity in coverage for severe mental health disorders by a very large firm to comply with a state law mandating parity and expansion of coverage for services for non-severe mental illness and outpatient substance abuse services vs. employers that were not required to implement parity	Employees and their dependents less than 55 years old who were continuously enrolled in managed FFS plans	United States—state not specified
Zuvekas et al., 2005b	Level III—nonrandomized with comparison group	Implementation of parity in coverage for severe mental health disorders by a very large firm to comply with a state law mandating parity and expansion of coverage for services for non-severe mental illness and outpatient substance abuse services vs. employers that were not required to implement parity	Employees and their dependents less than 55 years old who were continuously enrolled in managed FFS plans	United States—state not specified

Source: California Health Benefits Review Program, 2007

Appendix D: Cost Impact Analysis: Data Sources, Caveats, and Assumptions

This appendix describes data sources and general and mandate-specific caveats and assumptions used in conducting the cost impact analysis. For additional information on the cost model and underlying methodology, please refer to the CHBRP Web site, http://www.chbrp.org/analysis_methodology/cost_impact_analysis.php.

The cost analysis in this report was prepared by the Cost Team which consists of CHBRP task force members and staff, specifically from the University of California, Los Angeles, and Milliman Inc. (Milliman). Milliman is an actuarial firm and provides data and analyses per the provisions of CHBRP authorizing legislation.

Data Sources

In preparing cost estimates, the Cost Team relies on a variety of data sources as described below.

Private health insurance

1. The latest (2005) California Health Interview Survey (CHIS), which is utilized to estimate insurance coverage for California's population and distribution by payer (i.e., employment-based, privately purchased, or publicly financed). The biannual CHIS is the largest state health survey conducted in the United States, collecting information from over 40,000 households. More information on CHIS is available at www.chis.ucla.edu.
2. The latest (2006) California Employer Health Benefits Survey is utilized to estimate:
 - Size of firm
 - Percentage of firms that are purchased/underwritten (versus self-insured),
 - Premiums for plans regulated by the Department of Managed Health Care (DMHC) (primarily health maintenance organizations [HMOs]),
 - Premiums for policies regulated by the California Department of Insurance (CDI) (primarily preferred provider organizations [PPOs])
 - Premiums for high deductible health plans (HDHP) for the California population covered under employment-based health insurance.

This annual survey is released by the California Health Care Foundation/Center for Studying Health System Change (CHCF/HSC) and is similar to the national employer survey released annually by the Kaiser Family Foundation and the Center for Studying Health System Change. More information on the CHCF/HSC is available at www.chcf.org/topics/healthinsurance/index.cfm?itemID=127480.

3. Milliman data sources are relied on to estimate the premium impact of mandates. Milliman's projections derive from the Milliman Health Cost Guidelines (HCGs). The HCGs are a health care pricing tool used by many of the major health plans in the United States (see www.milliman.com/tools_products/healthcare/Health_Cost_Guidelines.php).

Most of the data sources underlying the HCGs are claims databases from commercial health insurance plans. The data are supplied by health insurance companies, Blues Cross and Blue Shield plans, HMOs, self-funded employers, and private data vendors. The data are mostly from loosely managed healthcare plans, generally those characterized as preferred provider plans or preferred provider organizations (PPOs). The HCGs currently include claims drawn from plans covering 4.6 million members. In addition to the Milliman HCGs, CHBRP's utilization and cost estimates draw on other data, including the following:

- The MEDSTAT MarketScan Database, which includes demographic information and claim detail data for approximately 13 million members of self-insured and insured group health plans.
 - An annual survey of HMO and PPO pricing and claim experience, the most recent survey (2006 Group Health Insurance Survey) contains data from six major California health plans regarding their 2005 experience.
 - Ingenix MDR Charge Payment System, which includes information about professional fees paid for healthcare services, based upon approximately 800 million claims from commercial insurance companies HMOs and self-insured health plans.
 - These data are reviewed for generalizability by an extended group of experts within Milliman, but are not audited externally.
4. An annual survey by CHBRP of the seven largest providers of health insurance in California (Aetna, Blue Cross of California, Blue Shield of California, CIGNA, Health Net, Kaiser Foundation Health Plan, and PacifiCare) to obtain estimates of baseline enrollment by purchaser (i.e., large and small group and individual) type of plan (i.e., DMHC or CDI-regulated), cost-sharing arrangements with enrollees and average premiums. Enrollment in these seven firms represents 82% of enrollees in full service health plans regulated by DMHC and 85% of lives covered by comprehensive health insurance products regulated by CDI.

Public health insurance

1. Premiums and enrollment in DMHC and CDI-regulated plans by self-insured status and firm size are obtained annually from CalPERS for active state and local government public employees and their family members who receive their benefits through CalPERS. Enrollment information is provided for fully-funded, Knox-Keene–licensed health care service plans—which is about 75% of CalPERS total enrollment. CalPERS self-funded plans—approximately 25% of enrollment—are not subject to state mandates. In addition, CHBRP obtains information on current scope of benefits from health plans' evidence of coverage (EOCs) publicly available at www.calpers.ca.gov.
2. Enrollment in Medi-Cal Managed Care (Knox-Keene–licensed plans regulated by DMHC) is estimated based on CHIS and data maintained by the Department of Health Services (DHS). DHS supplies CHBRP with the statewide average premiums negotiated for the Two-Plan Model, as well as generic contracts which summarize the current scope

of benefits. CHBRP assesses enrollment information online at www.dhs.ca.gov/admin/ffdmb/mcss/RequestedData/Beneficiary%20files.htm.

3. Enrollment data for other public programs—Healthy Families, Access for Infants and Mothers (AIM), and the Major Risk Medical Insurance Program (MRMIP)—are estimated based on CHIS and data maintained by the Major Risk Medical Insurance Board (MRMIB). The basic minimum scope of benefits offered by participating plans under these programs must comply with all requirements of the Knox-Keene Act, and thus these plans are affected by changes in coverage for Knox-Keene licensed plans. CHBRP does not include enrollment in the Post-MRMIP Guaranteed-Issue Coverage Products as these individuals are already included in the enrollment for individual health insurance products offered by private carriers. Enrollment figures for AIM and MRMIP are included with enrollment for Medi-Cal in presentation of premium impacts. The enrollment information is obtained online at www.mrmib.ca.gov. Average statewide premium information is provided to CHBRP by MRMIB staff.

General Caveats and Assumptions

The projected cost estimates are estimates of the costs that would result if a certain set of assumptions were exactly realized. Actual costs will differ from these estimates for a wide variety of reasons, including:

- Prevalence of mandated benefits before and after the mandate may be different from CHBRP assumptions.
- Utilization of mandated services before and after the mandate may be different from CHBRP assumptions.
- Random fluctuations in the utilization and cost of health care services may occur.

Additional assumptions that underlie the cost estimates presented in this report are:

- Cost impacts are shown only for people with insurance.
- The projections do not include people covered under self-insured employer plans because those plans are not subject to state-mandated minimum benefit requirements.
- Employers and employees will share proportionately (on a percentage basis) in premium rate increases resulting from the mandate. In other words, the distribution of premium paid by the subscriber (or employee) and the employer will be unaffected by the mandate.
- For state sponsored programs for the uninsured, the state share will continue to be equal to absolute dollar amount of funds dedicated to the program.
- Estimates reflect the cost impacts for one year. There is some evidence that the utilization increases associated with severe mental illness (SMI) parity under AB 88 were larger in the second year. Potential long-term cost savings or impacts are estimated if existing data and literature sources are available and provide adequate detail for estimating long-term

impacts. For more information on CHBRP's criteria for estimating long-term impacts, please see http://www.chbrp.org/analysis_methodology/cost_impact_analysis.php.

There are other variables that may affect costs, but which CHBRP did not consider in the cost projections presented in this report. Such variables include, but are not limited to:

- **Population shifts by type of health insurance coverage.** If a mandate increases health insurance costs, then some employer groups or individuals may elect to drop their coverage. Employers may also switch to self-funding to avoid having to comply with the mandate. However, most self-insured firms are large employers, who tend to offer generous benefits even in the absence of benefit mandates, which may account for the finding that the coverage offered by self-insured firms mirrors that offered in purchased insurance products (Acs et al., 1996; Jensen and Morrissey, 1999). There is also no evidence that mandates are a significant factor in the decision of firms to self-insure (Jensen et al., 1995; Jensen and Morrissey, 1999); Jensen and Morrissey (1990) found evidence that firms converting to self-insurance actually experienced increases in premiums, suggesting that mandate costs were not driving their decisions. Actuarial analyses of mental health parity legislation in other states have assumed that such switching will not occur (Minnesota Department of Health/Mercer, 2005; Campaign for Full Parity in New Jersey/PricewaterhouseCoopers, 2004).
- **Changes in benefit plans.** To help offset the premium increase resulting from a mandate, members or insured may elect to increase their overall plan deductibles or copayments. Such changes would have a direct impact on the distribution of costs between the health plan and the insured person, and may also result in utilization reductions (i.e., high levels of patient cost sharing result in lower utilization of health care services). CHBRP did not include the effects of such potential benefit changes in its analysis.
- **Adverse Selection.** Theoretically, individuals or employer groups who had previously foregone insurance may now elect to enroll in an insurance plan postmandate because they perceive that it is to their economic benefit to do so.
- **Variation in existing utilization and costs, and in the impact of the mandate, by geographic area and delivery system models.** Even within the plan types CHBRP modeled (HMO, including HMO and POS plans; and non-HMO, including PPO and FFS policies), there are likely variations in utilization and costs by these plan types. Utilization also differs within California due to differences in the health status of the local commercial population, provider practice patterns, and the level of managed care available in each community. The average cost per service would also vary due to different underlying cost levels experienced by providers throughout California and the market dynamic in negotiations between health plans and providers. Both the baseline costs prior to the mandate and the estimated cost impact of the mandate could vary within the state due to geographic and delivery system differences. For the purposes of this analysis, however, CHBRP has estimated the impact on a statewide level.

Bill Analysis-Specific Caveats and Assumptions

The CHBRP cost model for AB 423 assumes the following:

- Individuals who currently have no coverage for the disorders covered under AB 423 would use services at levels comparable to individuals who already have coverage, if they were given coverage as a result of AB 423. This assumption will overstate the cost impact if the individuals who currently have coverage for these disorders had self-selected into plans (or even employers) providing such coverage in the anticipation of needing behavioral health care.
- Significant management of behavioral health benefits was already present prior to the mandate. This assumption is based on Milliman data on the level of actual utilization relative to utilization levels under optimally managed care. It is consistent with the fact that behavioral healthcare tends to be much more heavily managed than medical care (e.g., through managed behavioral healthcare organizations), and that California already experienced an increase in management of these services as a result of AB 88 (Lake et al., 2002). This assumption dampens the impact of the mandate because use of services will not increase as much in response to price subsidies when care is directly managed.
- Health plans will react to the mandate by tightening their management of behavioral healthcare for the non-SMIs slightly further. Although this assumption attenuates the CHBRP cost estimates, the increase in management was assumed to be modest, since the degree of medical management premandate was already high. A greater increase in management would have further reduced the cost impact of the mandate.
- There is no medical cost offset associated with MH/SA treatment within the one-year timeframe. The rationale for this assumption was described in the cost section of this report. In addition, the projected impact of AB 423 on utilization is small, so any associated cost offset would be commensurately small.
- There are no net effects of the mandate on psychotropic drug use, with the exception of prescription drugs for smoking cessation. The rationale for this assumption was described in the *Utilization, Cost, and Coverage Impacts* section of this report.
- The only smoking cessation-related costs that will arise as a result of AB 423 are for prescription drugs, e.g., Zyban (bupropion) and Chantix (varenicline). AB 423 would not apply to over-the-counter smoking cessation aids and very few smokers use counseling by mental health professionals in their efforts to quit.
- In the few cases in which cost-sharing requirements for medical services are not homogeneous, the health plan would use the average medical cost-sharing requirements for behavioral health. If the health plan instead chose the higher levels of cost sharing to apply to behavioral health, the CHBRP estimate of the expenditure and premium increases resulting from AB 423 will be overstated.

- There will be no “spillover” effect onto the utilization of SMI services resulting from any media coverage of AB 423 (Lake et al., 2002). Media coverage and consumer awareness of AB 88 (SMI parity), so it seems unlikely that AB 423 would generate much more publicity.
- The benefit design for the Healthy Families plan was assumed to be similar to the average large group HMO plan. Healthy Families limits annual utilization to 20 outpatient visits and 30 inpatient hospital days. The benefit design for the CalPERS HMO members was based on a blending of the provisions for the two largest CalPERS HMO plans, Kaiser and Blue Shield.

Appendix E: Information Submitted by Outside Parties

In accordance with CHBRP policy to analyze information submitted by outside parties during the first two weeks of the CHBRP review, the following parties chose to submit information:

Robert W. Harris, Legislative Advocate
Harris & Wenbourne LLC

The following information was submitted directly by interested parties for this analysis:

Goldman HH, Frank RG, Burnam MA, et al. Behavioral health insurance parity for federal employees. *New England Journal of Medicine*. 2006r;354(13):1378-86.

Glied S, Cuellar A. Better Behavioral Health Care Coverage for Everyone. *New England Journal of Medicine*. 2006;354(13):1415-1417.

Correspondence between David Pating, MD, President and Denise Greene, MD, Chair of the Committee on Public Policy of the California Society of Addition Medicine (CSAM) and Rob Feckner, President, CalPERS Board of Administration, July 25, 2006.

Sturm R. *The Costs of Covering Mental Health and Substance Abuse Care at the Same Level as Medical Care in Private Insurance Plans*. Testimony presented to the Health Insurance Committee, National Conference of Insurance Legislators. July 2001.

For information on the processes for submitting information to CHBRP for review and consideration please visit http://www.chbrp.org/recent_requests/index.php.

Appendix F: Estimated Privately Insured Californians Affected by AB 423

Table F details the prevalence estimates for individuals covered under AB 423. According to the Surgeon General's report on mental health, an estimated 28% of adults and 20% of children under 18 years have a mental or substance abuse disorder at a given point in time (DHHS, 1999). The prevalence estimates of 28% and 20% are for the entire population and not specifically the privately insured population. However, there is unlikely to be a substantial difference when including all the disorders in the DSM-IV.

Persons with serious and severe mental illness (SMI), on the other hand, have been found to have lower rates of employment compared to those with no mental disorders. Mechanic et al. (2002) found that those with SMI are employed at approximately half the rate of those with no mental illness. Since AB 423 would apply primarily to the privately insured population, the rate of severe mental illness is estimated to be half that of the general population (see row H of Table F).

AB 88 currently covers adults with SMI (approximately 2.6% of the adult population) and children with serious emotional disturbance (7.5% of children under 18 years in California). An additional adjustment is required for those adults with anorexia nervosa and bulimia nervosa diagnoses. While overall and age-specific prevalence estimates were not identified, these disorders are relatively rare, with anorexia nervosa estimated as occurring in 1% of adolescent girls and a bulimia nervosa prevalence of 1% to 2% of young women (First and Tasman, 2004). Adolescents with anorexia will most likely fall under the serious emotional disturbances category. If one assumes that 2% of women aged 18 to 24 years have a diagnosis of bulimia nervosa, then approximately 19,000 additional Californians are already explicitly covered under AB 88. The higher range percentage was chosen in order to capture rare cases of bulimia and anorexia in men and women over 24.

Based on these assumptions, AB 88 currently covers approximately 12% of the population with an MH/SA disorder to which AB 423 applies. For these 12%, insurance carriers are required to cover mental health treatment for their SMI diagnosis and not necessarily for co-occurring disorders not specified in AB 88. A larger percentage of children with mental or substance abuse disorders are covered compared to adults (38% versus 5%). AB 423 would broaden parity to over 4 million estimated individuals with an MH/SA disorder diagnosis. Additionally, AB 423 may be applied to more tobacco users who could be officially diagnosed with a tobacco use disorder in the DSM-IV in order to gain access to treatment.

Table F-1. Population Estimates Related to AB 423

A.	Total California population subject to mandate (see Table 1 of cost model)	18,016,000
B.	California population aged 0-17 years subject to mandate (29% of A)	5,225,000
C.	California population aged 18-64 years subject to mandate (71% of A)	12,791,000
D.	Estimated children aged 0-17 years with mental and/or substance abuse disorder (20% of B)	1,045,000
E.	Estimated adults aged 18-64 years with mental or substance abuse disorder (28% of C)	3,581,000
F.	Total estimated with mental and/or substance abuse disorder (D + E)	4,626,000
G.	Children with severe emotional disturbance already covered by AB 88 (7.5% of B)	392,000
H.	Adults with severe mental illness already covered by AB 88 (2.6% of B * 50% due to employment factor offset)	166,000
I.	Adjust for persons with eating disorders already covered by AB 88 (2% of women aged 18-24 years)	19,000
J.	Estimated total for privately insured already covered by AB 88 (G + H + I)	577,000
K.	Estimated new children with mental and/or substance abuse disorders covered under AB 423 (D - G)	653,000
L.	Estimated new adults with mental and/or substance abuse disorders covered under AB 423 (E - H - I)	3,396,000
M.	Estimated total new population with mental and/or substance abuse disorders covered under AB 423 (K + L)	4,049,000
N.	Percent of children aged 0-17 years with mental and/or substance abuse disorders currently covered under AB 88 (G / D)	38%
O.	Percent of adults aged 18-64 years with mental and/or substance abuse disorders currently covered under AB 88 (H + I) / E	5%
P.	Estimated percent of population with mental or substance abuse disorder already covered by AB 88 (J / F)	12%

*Numbers in this table are rounded to the nearest 1,000 and nearest whole percent.

Source: California Health Benefits Review Program, 2007.

Appendix G: Mandated Benefit, Mandated Offering, and Parity Laws, by State Laws

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
AL	2001: H. 677 of 2000	Individual and group with a small employer exemption of 50 or less	Mental illness	Mandated offering	Must be equal
AL	2002: S. 293	Adds health care service plans and health maintenance organizations (signed 4/26/02)	Mental illness	Mandated offering	Must be equal
AZ	1998: Ariz. Rev. Stat. Ann. 20-2322	Group with small employer exemption 50 or less, or cost increase of 1% or more	Mental illness	Mandate for plans that offer benefits	Can be different
AR	1997: § 23-00-506 [Act 1020 of '97]	Group: small employer exemption 50 or less; cost increase 1.5% or more	Mental illnesses and developmental disorders	Full parity	Must be equal
CA	1974: Cal. Ins. Code § 10125	Group	Mental or nervous disorders	Mandated offering	Not specified
CA	2000: Cal. Ins. Code § 10144.5	Group, individual, and HMO	Severe mental illness	Full parity	Must be equal
CO	1992: Colo. Rev. Stat. § 10-16-104(5)	Group	Mental illness excluding autism	Mandated benefits	Shall not exceed 50% of the payment Deductible shall not differ
CO	1998: § 10-16-104(5.5)	Group	Biologically based mental illness	Full parity	Must be equal
CO	2002: Chapter 208 of 2002	Provide coverage for substance abuse treatment regardless of whether the treatment is voluntary or court-ordered (signed 5/28/02)	Substance abuse	Clarification	
CO	2003: H. 1164	Allows exceptions for barebones policies		Exceptions	
CT	2000: Conn. Gen. Stat. § 38a-488a; § 38a-514a	Group and individual	Mental or nervous conditions; alcoholism and drug addiction	Full parity	Must be equal
DE	1999: Del. Code Ann. Tit. 18 § 3343 Tit. 18 § 3566	Group and individual	Serious mental illnesses	Full parity	Must be equal
FL	1992: Fla. Stat. § 627.668	Group and HMO	Mental and nervous disorders	Mandated offering	May be different after minimum benefits are met
GA	1998: Ga. Code § 33-24-29; § 33-24-28.1	Group and individual	Mental disorders including substance abuse	Mandated offering	Must be equal
HI	1999: Hawaii Rev. Stat. § 431M-5	Group and individual with small employer exemption- 25 or less employees	Serious mental illness	Full parity	Must be equal

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
HI	1988: Hawaii Rev. Stat. § 431M-1 ~7	Individual, group and HMO	Mental illness	Mandated benefits	Must be comparable
HI	2003: S 1321	Makes law permanent, deleting sunset dates	Mental illness	Full parity	
IL	1991: Ill. Rev. Stat. Ch. 215 § 5/370c	Group	Mental, emotional or nervous disorders	Full parity 2005 Mandated offering, 1991- 2004	Insured may be required to pay up to 50% of the expenses incurred
IN	2000: H.1108 of 1999; Ind. Code § 27- 13-7-14.8 Ind. Code § 5- 10-8-9 (state)	Group, individual and state employees with a small employer exemption 50 or less, or cost increase of 4% or more	Mental illness	Mandate for plans that offer benefits; full parity for state employee plans	Must be equal for plans that offer coverage; full parity for state employee plans
IN	2003: H. 1135	Adds substance abuse benefit for those with mental illnesses	Substance abuse	Mandate for those with mental illnesses	
KS	1998: § 40-2,105 2001: H. 2033 of '01 H. 2071 of 2003	Group, individual, HMO and state employee plans H. 2071 extended sunset to Dec. 31, 2003	Alcoholism or drug abuse or mental conditions	Mandated benefits	Not specified
KY	1986: Ky. Rev. Stat. §§ 304.17-318 [group] §§304.38-193 [HMO]	Group	Mental illness	Mandated offering	To the same extent as coverage for physical illness
KY	2000: HB 268	Group with small employer exemption of 50 or less	Mental illness and alcohol and other drug abuse	Mandate for plans that offer benefits	Equal if offered
KY	2002: H. 391 of '02	Small employer exemption raised to 51			
LA	2000: La. Rev. Stat. Ann. § 22:669(1)	Group, HMO and state employee benefit plans	Serious mental illness	Mandated benefits	Must be equal
LA	1982: § 22:669(2)	Group, self-insured and state employee plans	Mental illness	Mandated offering	Must be equal
LA	1982: § 22:215.5	Group	Alcoholism and drug abuse	Mandated offering	Not specified

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
ME	1996: Me. Rev. Stat. Tit. 24 § 2325-A	Group with a small employer exemption for 20 or less	Mental illness	Full parity	Must be equal
ME	1996: Me. Rev. Stat. tit. 24 § 2325- A(5-D)	Individual plans must offer coverage	Mental illness	Mandated offering	Must be equal
ME	2003: H 973	Group of 21 or more, including HMOs, adds substance abuse-related disorders and other illness categories	Substance abuse, etc.	Full parity	
MD	1994: Md. Ins. Code Ann. § 15-802	Individual and group	Mental illness, emotional disorder, drug abuse or alcohol abuse disorder	Full parity	Must be equal except opt. 80% -visits 1- 5; 65% - visits 6-30; 50% visits over 30
MD	2002: Chapter 394 of 2002 (eff. 10/1/02)	Requires individual and group insurers, nonprofit health service plans, and HMOs to provide coverage for medically necessary residential crisis services	Residential crisis services		
MA	1996: Mass. Gen. Laws Ch. 175:47B	Individual, group, and HMO	Mental or nervous conditions	Mandated benefits	Not specified
MA	2001: S. 2036/ Ch. 80 of 2000	Individual, group, and HMO	Biologically- based mental illness	Full Parity for bio- based; mandated benefits of mental illness and substance abuse	Must be equal
MI	2001: S. 1209 of 2000, see § 3501	HMOs only, group and individual contracts, with a cost exemption of 3%	Mental health and substance abuse	Minimum mandated benefits	Charges, conditions for services shall not be less favorable than the maximum for any other comparable service
MN	1995; 2000: Minn. Stat. § 62A.152	Group, individual and HMOs (full parity for HMOs)	Mental health and chemical dependency	Full parity for plans that offer coverage and HMOs	Must be equal

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
MS	1975: Miss. Code Ann. § 83-9- 39 to 41	Group	Alcoholism	Mandated benefit	Not specified
MS	2002: Miss. Code Ann. § 83-9- 41; H. 667 of 2001	Group and individual with a cost exemption of 1%	Mental illness	Mandated offering for small employers of 100 or less; minimum mandated benefits for others	Must be equal for inpatient and partial, however, payment for outpatient visits shall be a minimum of fifty percent (50%) of covered expenses
MO	1997: §§ 376.825; § 376.811	Group, individual and HMO	Mental disorders and chemical dependency	Mandated offering	Must be equal
MO	2000: § 376.825 H.191 of 1999	Group and individual	Mental illness including alcohol and drug abuse	Mandate for plans that offer benefit	Shall not be unreason- able in relation to the cost of services provided for mental illness
MT	2000: Mont. Code Ann. § 33-22- 706	Group and individual	Severe mental illness	Full parity	Must be equal
MT	1997; 2001 Mont. Code Ann. § 33-22- 701 to 705	Group	Mental illness alcoholism and drug addiction	Mandated benefits	No less favorable up to maximums
MT	2003: H. 384	12-month pilot allows exceptions for barebones policies		Exceptions	
NE	2000: §§ 44-791 to 44-795	Group and HMO with a small employer exemption of 15 or less	Serious mental illness	Mandate for plans that offer coverage.	May be different
NV	2000: Nev. Rev. Stat. §§ 689A.0455; 689B.0359; 695B.1938; 695C.1738	Group and individual with a small employer exemption 25 or less, or cost increases of 2% or more	Severe mental illness	Mandated benefits	Not more than 150% of out- of-pocket expenses required for medical and surgical

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
NH	1993: N.H. Rev. Stat. Ann. §§ 415:18-a	Group, individual and HMO. Specifies different benefits for mental illness under major medical and non-major medical plans	Mental or nervous conditions	Mandated benefits	Ratio of benefits shall be substantially the same as benefits for other illnesses
NH	1995: § 417:E-1	Group	Biologically based mental illnesses	Full parity	Must be equal
NH	2002: H. 762; Chapter 204 of 2002	Any policy of group or blanket accident or health insurance	Parity for bio-based illnesses, mandated benefits for other mental illnesses and substance abuse		
NJ	1999: §§ 17:48-6v; 17-48A-7u; 17B:26-2.1s	Group and individual	Biologically based mental illnesses	Full parity	Must be equal
NM	2000: N.M. Stat. Ann. § 59A- 23E-18	Group with different exemptions for small and large employers	Mental health benefits	Full parity	Must be equal
NY	2006: ----- 1998: Ins. Law § 3221(1)(5)(A)	All private insurance policies. See: Timothy's Law Web site at www.timothyslaw.org , 2007 ----- Group	Mental health disorders ----- Mental, nervous, or emotional disorders and alcoholism and substance abuse	Full parity ----- Mandated offering	Must be equal. State to foot the bill for additional costs incurred by businesses with fewer than 50 employees; the Legislature allocated some \$50 million to cover those costs ----- As deemed appropriate and are consistent with those for other benefits

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
NC	1997: N.C. Gen. Stat. § 58-51- 55	State employee plans	Mental illness and chemical dependency	Full parity	Must be equal
ND	1995: N.D. Cent. Code § 26.1- 36-09 [page 431]	Group and HMO	Mental disorders, alcoholism and drug addiction	Mandated benefits	No deductible or copay for first 5 hours not to exceed 20% for remaining hours
ND	2003: H 2210	Adds that inpatient treatment and partial hospitalization, or alternative treatment must be provided by an addiction treatment program licensed under chapter 50-31	Substance abuse	Clarification	
OH	2006: SB 116 ----- 1985: Ohio Rev. Code Ann. § 3923.30	Law signed 12/29/06; effective ----- Group and self-insured	7 “biologically based mental illnesses,” such as schizophrenia and bipolar disorder ----- Mental or nervous disorders and alcoholism.	Full Parity ----- Mandate for plans that offer mental health coverage Mandated benefits for alcoholism.	----- Subject to reasonable deductibles and coinsurance
OK	2000: Okla. Stat. tit. 36 § 6060.11 to § 6060.12	Group with a small employer exemption 50 or less, or cost increase of 2% or more	Severe mental illness	Full parity	Must be equal
OR	2000: Or. Rev. Stat § 743.556 2005: SB 913	Group and HMO.	Mental or nervous conditions including alcoholism and chemical dependency	Mandated benefits 2007: Full parity	Shall be no greater than those for other illnesses
PA	1999 H. 366 of 1998 (see § 634)	Group and HMO-small employer exemption 50 or less	Serious mental illness	Mandated benefits	Must not prohibit access to care
RI	1995 R.I. Gen. Laws § 27-38- 2.1	Individual, group, self-insured and HMO (in effect through 12/31/2001)	Serious mental illness	Full parity	Must be equal
RI	1/1/2002 H.5478/ S.832 of 2001	Expands the state mental health parity law to include coverage for all mental illnesses and substance abuse disorders (replaces § 27-38.2-1 above)	All mental illnesses and substance abuse disorders	Full parity	Must be equal

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
SC	1994 S.C. Code Ann. § 38- 71-737	Group	Psychiatric conditions, including substance abuse	Mandated offering	May be different
SC	1/1/2002	State employee insurance plan with cost increase exemptions	Mental health condition or alcohol or substance abuse	Full parity	Must be equal
SD	1998 § 58-17-98	Group, individual and HMO	Biologically based mental illness	Full parity	Must be equal
TN	2000 § 56-7-2360; § 56-7-2601	Group with a small employer exemption 25 or less, or cost increase of 1% or more	Mental or nervous conditions	Mandated benefits	Must be equal
TX	1991	State employee plans	Biologically based mental illness	Full parity.	Must be equal
TX	1997 Ins. art. 3.51- 14	Group and HMO, with a small employer exemption of 50 or less	Serious mental illness	Mandated benefits with a mandated offering for small groups of 50 or less	Must be equal
TX	2003: S 541	Allows insurers and HMOs to offer policies without mandates for the treatment of mental illness and chemical dependency, with an exception for serious mental illnesses		Exceptions	
UT	2001 Utah Code Ann. 31A- 22-625	Group (as of 7/1/01) and HMOs (as of 1/1/01)	Mental illness as defined by the DSM	Mandated offering	May include a restriction
VT	1998 Vt. Stat. Ann. tit. 8 § 4089b	Group and individual	Mental health condition including alcohol and substance abuse	Full parity	Must be equal
VA	2000 thru 7/1/2004 & indefinitely Va. Code. § 38.2-3412.1	Group and individual with a small group exemption 25 or less (Note: Extended without sunset date by S 44, see below)	Biologically based mental illness including drug and alcohol addiction	Full parity	Must be equal to achieve the same outcome as treatment for any other illness

Table G-1. Mandate Benefit, Mandated Offering, and Parity Laws, by State (Cont'd)

State	Eff Date Law Citation	Insurance Policies Affected by Law	Illnesses Covered	Type of Benefit	Copays and Coinsurance
VA	Effective 7/1/2004 § 38.2- 3412.1	Group, individual and HMO (See 2004 change, below)	Mental health and substance abuse	Mandated benefits	Coinsurance for otpt. can be no more than 50% after 5th visit; all others must be equal
VA	S 44 of 2004	Repeals sunset date of 7/1/04, above (enacted 3/19/04)	Mental health and substance abuse		
VA	S 212 of 2004 §§ 37.1-255	Establishes Inspector General for Mental Health	Mental health and substance abuse		
WA	1987 Wash. Rev. Code § 48.21.240	Group and HMO	Mental health treatment	Mandated offering	Reasonable deductible amounts and copayments
WA	2005 HB 1154 (effective 2006-10)	Health insurance; with small group & individuals exempt	Mental health treatment	Full parity	
WV	1998 § 33-16-3a	Group and individual with a cost increase exemption of 1%	Mental or nervous conditions	Mandated offering	Not specified
WV	2002 H. 4039		Mental illness and substance abuse	Full parity	
WI	Wis. Stat. § 632.89	Group (with “at least specified minimum benefits in every group contract”)	Mental or nervous disorders	Mandated offering	Comparable deductibles and copays

Source: National Conference of State Legislatures, State Laws Mandating or Regulating Mental Health Benefits, January 2007.

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A group of faculty and staff undertakes most of the analysis that informs reports by the California Health Benefits Review Program (CHBRP). The CHBRP **Faculty Task Force** comprises rotating representatives from six University of California (UC) campuses and three private universities in California. In addition to these representatives, there are other ongoing contributors to CHBRP from UC. This larger group provides advice to the CHBRP staff on the overall administration of the program and conducts 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 coordinates all external communications, including those with the California Legislature. The level of involvement of members of the CHBRP Faculty Task Force and staff varies on each report, with individual participants more closely involved in the preparation of some reports and less involved in others.

As required by the CHBRP authorizing legislation, UC contracts with a certified actuary, Milliman Inc. (Milliman), to assist in assessing the financial impact of each benefit mandate bill. Milliman also helped with the initial development of CHBRP methods for assessing that impact.

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 and thoughtful critiques provided by the members of the National Advisory Council. However, the Council does not necessarily approve or disapprove of or endorse this report. CHBRP assumes full responsibility for the report and the accuracy of its contents.

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