



**CALIFORNIA**  
HEALTH BENEFITS REVIEW PROGRAM

---

**Executive Summary**  
Analysis of Senate Bill TBD 1:  
Autism

---

A Report to the 2011-2012 California Legislature  
March 20, 2011

# **A Report to the 2011-2012 California State Legislature**

## **Analysis of Senate Bill TBD 1 Autism**

**March 20, 2011**

**California Health Benefits Review Program  
1111 Franklin Street, 11<sup>th</sup> Floor  
Oakland, CA 94607  
Tel: 510-287-3876  
Fax: 510-763-4253  
[www.chbrp.org](http://www.chbrp.org)**

Additional free copies of this and other CHBRP bill analyses and publications may be obtained by visiting the CHBRP Web site at [www.chbrp.org](http://www.chbrp.org).

**Suggested Citation:**

California Health Benefits Review Program (CHBRP). (2011). *Analysis of Senate Bill TBD 1: Autism*. Report to California State Legislature. Oakland, CA: CHBRP. 11-04.

## EXECUTIVE SUMMARY

### California Health Benefits Review Program Analysis of Senate Bill TBD 1

Senate President pro Tempore Darrell Steinberg requested on January 19, 2011, that the California Health Benefits Review Program (CHBRP) conduct an evidence-based assessment of the medical, financial, and public health impacts of Senate Bill (SB) TBD 1 Autism, a bill that would impose a health benefit mandate. The full text of SB TBD 1 is available on CHBRP's Web site.<sup>1</sup> In response to this request, CHBRP undertook this analysis pursuant to the provisions of the program's authorizing statute.<sup>2</sup>

#### *State-level health insurance benefit mandates*

Approximately 21.9 million Californians (59%) have health insurance that may be subject to a health benefit mandate law passed at the state level.<sup>3</sup> Of the rest of the state's population, a portion is uninsured (and so has no health insurance subject to any benefit mandate) and another portion has health insurance subject to other state laws or only to federal laws.

Uniquely, California has a bifurcated system of regulation for health insurance subject to state-level benefit mandates. The California Department of Managed Health Care (DMHC)<sup>4</sup> regulates health care service plans, which offer benefit coverage to their enrollees through health plan contracts. The California Department of Insurance (CDI) regulates health insurers<sup>5</sup>, which offer benefit coverage to their enrollees through health insurance policies.

DMHC-regulated plans and CDI-regulated policies would be subject to SB TBD 1. However, SB TBD 1 is amending current mental health parity law in California<sup>6</sup> that exempts health insurance provided to Medi-Cal beneficiaries through contracts with the California Department of Health Care Services (DHCS). Therefore, CHBRP assumes, even though the exemption in language of the bill is not perfectly clear,<sup>7</sup> that current mental health parity law in California SB TBD 1 would not apply to the benefit coverage provided to enrollees in Medi-Cal Managed Care. For this reason, the mandate would affect the health insurance of approximately 18.1 million Californians (48%).<sup>8</sup>

---

<sup>1</sup> [www.chbrp.org](http://www.chbrp.org).

<sup>2</sup> CHBRP's authorizing statute is available at: [www.chbrp.org/documents/authorizing\\_statute.pdf](http://www.chbrp.org/documents/authorizing_statute.pdf).

<sup>3</sup> CHBRP's estimates are available at [www.chbrp.org/documents/insur\\_source\\_est\\_2011.pdf](http://www.chbrp.org/documents/insur_source_est_2011.pdf).

<sup>4</sup> DMHC was established in 2000 to enforce the Knox-Keene Health Care Service Plan of 1975; see Health and Safety Code, Section 1340.

<sup>5</sup> CDI licenses "disability insurers." Disability insurers may offer forms of insurance that are not health insurance. This report considers only the impact of the benefit mandate on health insurance policies, as defined in Insurance Code, Section 106(b) or subdivision (a) of Section 10198.6.

<sup>6</sup> California Health & Safety Code Section 1374.72 and California Insurance Code Section 10144.5 (also known as AB 88).

<sup>7</sup> Personal communication, T. Le Bas, Department of Managed Health Care, February 2011.

<sup>8</sup> Although CHBRP has no further information, it is possible that SB TBD 1 could have impacts beyond this population, because mental health only plans regulated by DMHC or CDI may be subject to SB TBD1.

### *Existing state and federal requirements relevant to SB TBD 1*

Current California mental health parity law<sup>9</sup> (referenced by SB TBD 1) requires coverage for diagnosis and medically necessary treatment of severe mental illnesses (including pervasive developmental disorders or autism [PDD/A]) for persons of any age. It does not, however, specify intensive behavioral intervention therapy as a treatment for PDD/A for which benefit coverage is mandated. Applicable federal law<sup>10</sup> also addresses parity for mental health benefits.

### *Background on disorders relevant to SB TBD 1*

PDD/A includes neurodevelopmental disorders that typically become symptomatic in children aged 2 to 3 years, but may not be diagnosed until age 5 or older. PDD/A is a chronic condition characterized by impairments in social interactions, communication, sensory processing, stereotypic (repetitive) behaviors or interest, and sometimes cognitive function. Symptoms of PDD/A range from mild to severe. The cause of PDD/A is unknown, and there is no cure. PDD/A is associated with other comorbidities such as epilepsy and mental retardation.

### Analysis of SB TBD 1

SB TBD 1 would require coverage of intensive behavioral intervention therapy for PDD/A. The bill defines intensive behavioral intervention therapy as including but not being limited to applied behavioral analysis (ABA). Although current mental health parity law in California requires that coverage be provided for medically necessary treatment of PDD/A, including outpatient services, it does not specify that coverage is required for intensive behavioral intervention therapy. Therefore, SB TBD 1 would alter the current mandate.

This report uses the term PDD/A in an effort to make clear that all five disorders are relevant to current mental health parity law in California and to SB TBD 1. The terms autism, Autistic Disorder, or autism spectrum disorders (ASD) are commonly used, but may be used as a synonym for “autism,” not necessarily intending inclusion or exclusion of the two generally less severe disorders (Asperger’s Disorder and Pervasive Developmental Disorder Not Otherwise Specified [PDD-NOS]) and/or the two less common disorders (Rett’s Disorder and Childhood Disintegrative Disorder) that are technically part of PDD/A. In this report, use of the term PDD/A intends inclusion of all five disorders.

SB TBD 1 defines intensive behavioral intervention therapy as inclusive of the following: “design, implementation, and evaluation of environmental modifications, such as ABA, using behavioral stimuli and consequences to produce significant improvement in human health functions and behaviors, including the use of direct observation, measurement, and functional analysis of the relationship between environment and behavior; and professional services or treatment programs that have been scientifically validated and have demonstrated clinical efficacy; professional services or treatment programs that have measurable treatment outcomes.” In this report, interventions based on ABA and/or other theories of behavior are referred to as intensive behavioral intervention therapy.

---

<sup>9</sup> California Health & Safety Code Section 1374.72 and California Insurance Code Section 10144.5 (also known as AB 88).

<sup>10</sup> Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA); any relevant State Children’s Health Insurance Law (SCHIP), as Healthy Families Program would be subject to SB TBD 1.

SB TBD 1 would also require that the mandated benefits be provided in the “same manner and shall be subject to the same requirements as provided in” current mental health parity law in California, which mandates parity with other benefits in terms of lifetime maximums, copayments, and deductibles.

#### *Payors other than health plans and insurers*

Payment for intensive behavioral intervention therapy for PDD/A for persons enrolled in DMHC-regulated plans or CDI-regulated policies may come from other sources – a situation that may be more common than is the case for persons with other disorders. Patients (or their families) often pay directly for care not covered by health insurance. Charities may also become involved. In addition, for PDD/A-related intensive behavioral intervention therapy, regional centers contracting with the California Department of Developmental Services (DDS)<sup>11</sup> may pay, as may schools affiliated with the California Department of Education (CDE).<sup>12</sup> However, while the population served by DDS and/or CDE would be expected to overlap with enrollees whose health insurance would be subject to SB TBD 1, the populations would not be identical. DDS does not collect<sup>13</sup> information about the sources of health insurance that would allow clients to be identified as having health insurance subject to SB TBD 1 and regional centers may serve persons without health insurance. Similarly, CDE-affiliated schools may serve persons without health insurance, but CDE does not collect information on the health insurance status of public school students.<sup>14</sup> To further complicate matters, some enrollees with health insurance subject to SB TBD 1 may not seek assistance from a regional center or school or may not meet the severity thresholds to qualify for assistance per these programs’ eligibility rules. Therefore, the overlap between the populations with PDD/A—persons served by DDS and/or CDE and enrollees with health insurance that would be subject to SB TBD 1—is not clear.

#### *Requirement in other states*

At least 26 states and the District of Columbia have passed health insurance benefit mandates related to autism.

### **Medical Effectiveness**

Many children with PDD/A are treated with intensive (e.g., 25 or more hours per week) interventions based on applied behavioral analysis (ABA) and/or other theories of behavior (hereafter referred to as intensive behavioral intervention therapy) that are aimed at improving behavior and reducing deficits in cognitive function, language, and social skills. The medical

---

<sup>11</sup> Services provided by regional centers are related to the Federal Lanterman Developmental Disabilities Services Act (1969) and Part C of the Federal Individuals with Disabilities Education Act (2004).

<sup>12</sup> Services provided by public schools are related to Part B of the Federal Individuals with Disabilities Education Act (2004).

<sup>13</sup> Personal communication, J Mullen, California Department of Developmental Services, March 2011.

<sup>14</sup> Personal communication, P Skelton, California Department of Education, March 2011.

effectiveness review focuses on intensive behavioral therapies because SB TBD 1 would specifically require coverage for these and other behavioral intervention therapies.

### Methodological Considerations

The literature on the effectiveness of intensive behavioral intervention therapies for PDD/A is difficult to synthesize. ***Most studies compared intensive behavioral intervention therapies of differing duration and intensity or compared interventions based on different theories of behavior.*** Thus, most studies of intensive behavioral intervention therapy cannot answer the question of whether behavioral intervention therapy improves outcomes relative to no treatment. They can only answer the question of whether some behavioral intervention therapies are more effective than others. Even this question is difficult to answer because the characteristics of treatments provided to both intervention and comparison groups vary widely across studies. The outcomes examined by studies of intensive behavioral intervention therapies also differ considerably across studies. Only four outcomes, which are described in greater depth in the *Medical Effectiveness* section of the report, have been measured by a plurality of studies: adaptive behavior, intelligence quotient, language, and academic placement. Findings for these outcomes cannot be easily combined across studies because authors have used different instruments to collect information on these outcomes.

An important limitation of the literature on the effectiveness of intensive behavioral intervention therapies for PDD/A is that most studies do not randomize participants to intervention and comparison groups. In nonrandomized studies, it is possible that differences between groups are due to differences in the characteristics of persons in the two groups rather than differences in the interventions studied.

Many studies of intensive behavioral intervention therapies do not assess outcomes over sufficiently long periods of time to determine whether use of these therapies is associated with long-term benefits.

### Study Findings

- Six recent meta-analyses and one individual randomized controlled trial (RCT) have assessed the effectiveness of intensive behavioral intervention therapies. Most children enrolled in these studies were treated for 1 to 2 years.
- Studies of intensive behavioral intervention therapies have enrolled children who ranged in age from 18 months to 9 years. Most of the children enrolled had Autistic Disorder or PDD-NOS and had intelligence quotients (IQs) within the ranges for Mild or Moderate Mental Retardation.
- CHBRP identified no studies regarding effectiveness of intensive behavioral intervention therapy in children younger than 18 months and persons older than 9 years, nor was there direct evidence about this therapy's effectiveness for persons diagnosed with Asperger's Disorder, Rett's Disorder, or Childhood Disintegrative Disorder. *The absence of evidence is not evidence of no effect.* These therapies or less intensive behavioral therapies may be appropriate for some persons with PDD/A who fall outside the study populations.

- Outcomes for individual children enrolled in studies of intensive behavioral therapies varied widely. Several meta-analyses have attempted to identify the characteristics of children with who are most likely to benefit from early intensive behavioral therapies. Findings from these studies suggest that children who are younger at initiation of treatment and who have higher IQs and greater adaptive behavior skills (e.g., communication, daily living, motor, and social skills) derive greater benefit from treatment.

#### *Adaptive behavior*

- The preponderance of evidence from six meta-analyses of RCTs and nonrandomized studies suggests that intensive behavioral intervention therapy on ABA, is more effective than therapies based on other theories of behavior or less intensive ABA-based therapies in improving adaptive behavior (e.g., communication, daily living, motor, and social skills). However, two RCTs that compared two different types of intensive behavioral intervention therapies based on ABA found no differences in effects on adaptive behavior in the intervention and control groups.
- A single RCT of the Early Start Denver Model, an intensive behavioral intervention therapy that integrates ABA-based and developmental and relationship-based approaches to treating PDD/A found that the Early Start Denver Model was associated with greater improvement in adaptive behavior relative to other interventions available in the community.
- One meta-analysis found that the intensive behavioral intervention therapies of longer duration had more impact on adaptive behavior.

#### *Intelligence quotient*

- The preponderance of evidence from six meta-analyses suggests that intensive behavioral intervention therapies based on ABA are more effective than therapies based on other theories of behavior or less intensive ABA-based therapies in increasing intelligence quotient (IQ). Two randomized controlled trials (RCTs) of intensive behavioral intervention therapies based on ABA reached opposite conclusions regarding the impact of these interventions on IQ. The discrepancy between the conclusions of these RCTs may be due to differences in the intensity and duration of the interventions provided to the control groups.
- A single RCT of the Early Start Denver Model found that receipt of this intensive behavioral intervention therapy was associated with greater improvement in IQ relative to other interventions available in the community.
- ***Most studies found that the changes in intelligence were not sufficiently large to enable children to achieve levels of intellectual and educational functioning similar to peers without PDD/A.***

### *Language*

- Findings from four meta-analyses that included studies that compared the effects of intensive behavioral intervention therapies based on ABA to therapies based on other theories of behavior or less intensive ABA-based therapies on general language skills and receptive language (i.e., ability to respond to requests from others) are ambiguous.
- The preponderance of evidence from three meta-analyses suggests that intensive behavioral intervention therapies based on ABA are no more effective than therapies based on other theories of behavior or less intensive ABA-based interventions for improving expressive language (i.e., ability to verbally express one's needs and wishes).
- One meta-analysis found that intensive behavioral intervention therapies that provided more total hours of treatment had larger effects on language skills.

### *Academic placement*

- Findings from a systematic review that assessed studies that compared the effects of intensive behavioral intervention therapies based on ABA to therapies based on other theories of behavior or less intensive ABA-based interventions on academic placement are ambiguous.

## **Benefit Coverage, Utilization, and Cost Impacts**

Approximately 77,000 enrollees in DMHC-regulated plans and/or CDI-regulated policies subject to SB TBD 1 are diagnosed with PDD/A. Table 1 summarizes the expected benefit coverage, cost, and utilization impacts for SB TBD 1.

### Critical Caveats, Estimates, and Assumptions

- Although studies on the effectiveness of intensive behavioral intervention therapies is focused on Autistic Disorder and PDD-NOS in pre-school- and elementary-aged children, as evaluated in the *Medical Effectiveness* section, this analysis models benefit coverage, utilization and cost impacts for all five PDD/A subtypes and for all ages. The cost model makes weighted adjustments for age-specific and PDD/A subtype utilization: for example, literature reviewed in the *Medical Effectiveness* section and expert opinion indicate that intensive behavioral intervention utilization is rare for children under age 2, less common for adults, and less common for some PDD/A subtypes, for example Asperger's Disorder.
- Due to variations in severity of PDD/A, circumstances, and/or preferences, not all would get intensive behavioral intervention therapies, even if diagnosed and enrolled in a plan or policy

that covers intensive behavioral intervention therapies. Also, treatment, which typically spans 1 to 3 years,<sup>15</sup> may be discontinued if shown to be ineffective for that person.

- In California, intensive behavioral intervention therapies not covered by health plans or insurers may be purchased by other payors, including families, charities, the California Department of Developmental Services (DDS), the California Department of Education (CDE), or other payors.
- CHBRP estimates that the mandate would affect intensive behavioral intervention therapy utilization in two ways: it would add new users of intensive behavioral intervention therapies, and, among newly-covered users, intensive behavioral intervention therapy hours per week would increase.
  - CHBRP estimates that the mandate would add new users of intensive behavioral intervention therapies in the under 3 age group, but for all other age groups, the number of users of intensive behavioral intervention therapies are assumed to be the same pre- and postmandate. This is because some children under the age of 3 years may not qualify for services paid for by DDS (because they have milder forms of PDD/A) and would be too young to receive school-based services paid by CDE. School-aged children and young adults who may not qualify for DDS services (because they have milder forms of PDD/A) could still access services paid for by CDE. Therefore, families of children under age 3 years could may not be using services since they would have to find another payor or self-pay. CHBRP assumes that utilization in this group would be sensitive to coverage as a result of SB TBD 1.
  - CHBRP also estimates that, premandate, enrollees without benefit coverage currently utilizing intensive behavioral intervention therapies are not receiving the full-recommended hours per week. Postmandate, CHBRP estimates that these users would increase their number of hours per week up to the typical recommended hours per week for the user's age and PDD/A disease subtype.

---

<sup>15</sup> Personal communication, report content expert N Akshoomoff, February 2011. Additionally, as reviewed in the *Medical Effectiveness* section, of the 28 studies that reported the duration of intervention studied, the duration ranged from 3 months to 4 years, with a median of 15 months and a mode of 2 years.

### Benefit Coverage Impacts

- CHBRP estimates that 19.5% of enrollees with health plans and policies that would be subject to SB TBD 1 have coverage for intensive behavioral intervention therapies.
- If SB TBD 1 were enacted, 100% of enrollees with health plans and policies that would be subject to SB TBD 1 would have coverage for intensive behavioral intervention therapies, increasing the number of enrollees covered for this benefit from 3.5 million to 18.1 million: a 412% increase.

### Utilization Impacts

- Premandate, of the estimated 77,000 enrollees diagnosed with PDD/A in DMHC- or CDI-regulated plans or policies subject to SB TBD 1, an estimated 1,400 enrollees received intensive behavioral intervention therapies covered through their health insurance and 6,900 enrollees received Intensive Behavioral Intervention therapies paid for by another source.
- The mandate is estimated to increase the number of enrollees receiving intensive behavioral intervention therapies through their insurance from approximately 1,400 premandate to 8,700 postmandate: a 521% increase.
- The mandate is estimated to result in 400 new users of intensive behavioral intervention therapies and would shift 6,900 current noncovered users of intensive behavioral intervention therapies to obtain intensive behavioral intervention therapies through their insurance.

### Cost Impacts

- SB TBD 1 would increase total expenditures by approximately \$93.3 million, or 0.10%, for plans and policies subject to SB TBD 1. This increase in expenditures results from a \$222.4 million increase in health insurance premiums, a \$17.1 million increase in out-of-pocket expenses for enrollees with PDD/A with newly covered benefits, and a \$146.2 million decrease in expenses for noncovered benefits.
  - The premium impact would range from 0.14% to 0.24% for privately funded health insurance.
  - The premium impact would range from 0.26% to 3.54% for publicly funded health insurance.
  - Because SB TBD 1 contains an exemption, there would be no cost impact for plans providing health insurance to beneficiaries of Medi-Cal enrolled in Medi-Cal Managed Care Plans.

- The \$146.2 million reduction in expenses for noncovered benefits would be a reduction in expenditures for payors other than health plans/insurers. It would be partially offset by the increase in \$17.1 million that enrollees with PDD/A would see in out-of-pocket expenses for newly covered benefits.
- SB TBD 1 would be expected to shift costs to DMHC-regulated plans and CDI-regulated insurers. However, as discussed in *Introduction*, the extent of population overlap is unclear and so it is not possible to calculate what portion of such costs that would be shifted from families, charities, DDS, CDE or other payors.

### Impact on Number of Uninsured

As CHBRP estimates premium increases of less than 1% for privately funded health insurance subject to SB TBD 1, no measurable impact on the number of persons who are uninsured would be expected.

### **Public Health Impacts**

As noted in the *Medical Effectiveness* section, the preponderance of evidence on the effectiveness and use of intensive behavioral intervention therapy focuses on children aged 18 months to 9 years who are diagnosed with Autistic Disorder and PDD-NOS, many of whom have IQs within the range of mild or moderate mental retardation. CHBRP found no studies regarding effectiveness of intensive behavioral intervention therapy in children younger than 18 months or persons older than 9 years, nor was there direct evidence about this therapy's effectiveness for persons diagnosed with Asperger's, Rett's, or Childhood Disintegrative Disorder. **The absence of evidence is not evidence of no effect, and these therapies may be appropriate for some persons with PDD/A who fall outside the study populations.**

As noted in the *Benefit Coverage, Cost, and Utilization* section, the use of intensive behavioral intervention therapy varies among the five disorders included in PDD/A. Use of the therapy among enrollees with Asperger's Disorder and Rett's is estimated to be less common. While there may be less use among those with Asperger's Disorder or Rett's Disorder, there still may be *some* use.

The Public Health section addresses the relevant population as PDD/A, understanding that relevance may be limited for some ages and diagnoses.

- CHBRP estimates SB TBD 1 could produce some improvement in IQ scores and adaptive behaviors for children aged 18 months to 9 years with diagnoses of Autistic Disorder and PDD-NOS due to the effectiveness of intensive behavioral intervention therapy and increased coverage and utilization. The public health impact on persons outside of this age range or with other PDDs is unknown (see the *Medical Effectiveness* and *Benefit Coverage, Cost, and Utilization* sections for supporting detail).

- CHBRP found no literature or data regarding the possible differential use or outcomes by gender of intensive behavioral intervention therapies within the insured population; therefore, the public health impact of SB TBD 1 on reducing the disproportionate burden of PDD/A symptoms experienced by males is unknown.
- CHBRP does not have access to the racial/ethnic distribution of enrollees among plans and policies that would be subject to SB TBD 1 nor did CHBRP find literature about differential use or outcomes of intensive behavioral intervention therapies by race; therefore, the public health impact of SB TBD 1 on reducing potential racial and ethnic disparities of PDD/A symptoms is unknown.
- Although an increased risk of premature death is associated with PDD/A, CHBRP found no evidence about intensive behavioral intervention therapy and its affect on premature death for the PDD/A population; therefore, the public health impact of SB TBD 1 on premature death is unknown.
- Due to lack of evidence, CHBRP concludes the public health impact of SB TBD 1 is unknown regarding the effects of intensive behavioral intervention therapy on lost productivity for persons with PDD/A and their caregivers.
- CHBRP estimates that the postmandate, net decrease in noncovered benefit expenses for the estimated 7,300 newly covered enrollees with PDD/A who use intensive behavioral intervention therapies is about \$146 million. The extent of the reduction in financial burden for enrollees with PDD/A and their families is unknown, as some portion of the shift may be from charities, DDS, CDE, or other payors.

### Potential Effects of the Federal Affordable Care Act

The federal “Patient Protection and Affordable Care Act” (P.L.111-148) and the “Health Care and Education Reconciliation Act” (H.R.4872) were enacted in March 2010. These laws (together referred to as the “Affordable Care Act [ACA]”) are expected to dramatically affect the California health insurance market and its regulatory environment, with most changes becoming effective in 2014. How these provisions are implemented in California will largely depend on pending legal actions, funding decisions, regulations to be promulgated by federal agencies, and statutory and regulatory actions to be taken by California state government. The provisions that go into effect during these transitional years would affect the baseline, or current enrollment, expenditures, and premiums. It is important to note that CHBRP’s analysis of specific mandate bills typically address the marginal effects of the mandate bill—specifically, how the proposed mandate would impact benefit coverage, utilization, costs, and public health, holding all other factors constant. CHBRP’s estimates of these marginal effects are presented in this report.

*Essential health benefits for plans sold in the California Exchange and potential interactions with SB TBD 1*

As mentioned, EHBs explicitly include “[m]ental health and substance use disorder services, including behavioral health treatment” and “rehabilitative and habilitative services and devices.”<sup>16</sup> The provisions also require that the scope of the EHBs be equal to the scope of benefits provided under a typical employer plan. The ACA requires in 2014 that states “make payments...to defray the cost of any additional benefits” required of Qualified Health Plans (QHPs) sold in the Exchange.<sup>17</sup> SB TBD 1 states, “this section does not require any benefits to be provided that exceed the essential health benefits required to be provided [by QHPs]” Therefore, because of this provision, SB TBD 1 is not expected to incur a fiscal liability for the state as it relates to the QHPs sold in the Exchange.

Whether or not the benefits required by SB TBD 1 would exceed EHBs depend on three factors:

- differences in the scope of mental health and rehabilitative/habilitative benefits in the final EHB package and the scope of mandated benefits in SB TBD 1:
- the number of enrollees in QHPs; and,
- the methods used to define and calculate the cost of additional benefits.

For example, it is unclear whether there will be differences between the mental health and rehabilitative/habilitative benefits included in the EHBs and the benefits required under SB TBD 1. “Behavioral health treatment” may be considered to include forms of “behavioral intervention treatment,” as specified by SB TBD 1. “Habilitative” services may be determined to include forms of therapy that enhance a child’s ability to function.

---

<sup>16</sup> Affordable Care Act, Section 1302(b)(1)(E) and (G).

<sup>17</sup> Affordable Care Act, 1311(d)(3)(B).

**Table 1. SB TBD 1 Autism Impacts on Benefit Coverage, Utilization, and Cost, 2011**

	Before Mandate	After Mandate	Increase/ Decrease	Change After Mandate
<b>Benefit Coverage</b>				
Total enrollees with health insurance subject to state-level benefit mandates (a)	21,902,000	21,902,000	0	0.00%
Total enrollees with health insurance subject to SB TBD 1	18,078,000	18,078,000	0	0.00%
Number of enrollees with health insurance coverage subject to SB TBD 1 and having PDD/A	77,000	77,000	0	0.00%
Percentage of enrollees with coverage for the mandated benefit	19.54%	100.00%	80.46%	411.69%
Number of enrollees with coverage for the mandated benefit	3,533,000	18,078,000	14,545,000	411.69%
<b>Utilization and cost</b>				
Number of enrollees using intensive behavioral intervention benefit				
Benefit covered (b)	1,400	8,700	7,300	521.43%
No benefit covered	6,900	—	–6,900	–100.00%
Average annual intensive behavioral intervention cost per member receiving intensive behavioral intervention	\$44,000	\$50,000	\$6,000	13.64%
<b>Expenditures</b>				
Premium expenditures by private employers for group insurance	\$52,713,266,000	\$52,839,042,000	\$125,776,000	0.24%
Premium expenditures for individually purchased insurance	\$6,724,851,000	\$6,734,228,000	\$9,377,000	0.14%
Premium expenditures by persons with group insurance, CalPERS HMOs, Healthy Families Program, AIM, or MRMIP (c)	\$15,173,472,000	\$15,214,727,000	\$41,255,000	0.27%
CalPERS HMO employer expenditures (d)	\$3,465,785,000	\$3,474,645,000	\$8,860,000	0.26%
Medi-Cal Managed Care Plan expenditures (e)	\$8,657,688,000	\$8,657,688,000	\$0	0.00%
MRMIB Plan expenditures (f)	\$1,050,631,000	\$1,087,780,000	\$37,149,000	3.54%
Enrollee out-of-pocket expenses for covered benefits (deductibles, copayments, etc.)	\$7,548,415,000	\$7,565,555,000	\$17,140,000	0.23%
Enrollee expenses for noncovered benefits (g)	\$327,343,000	\$181,116,000	(\$146,227,000)	–44.67%
<b>Total Expenditures</b>	<b>\$95,661,451,000</b>	<b>\$95,754,781,000</b>	<b>\$93,330,000</b>	<b>0.10%</b>

Source: California Health Benefits Review Program, 2011.

Notes: (a) This population includes persons with privately funded and publicly funded (e.g., CalPERS HMOs, Medi-Cal Managed Care plans, Healthy Families Program, AIM, MRMIP) health insurance products regulated by DMHC or CDI. Population includes enrollees aged 0 to 64 years and enrollees 65 years or older covered by employment sponsored insurance.

- (b) The postmandate estimate includes three groups of enrollees: users who had premandate benefit coverage (approximately 1,400), new users (approximately 400), and users who had, premandate, accessed the treatment without benefit coverage (approximately 6,900).
- (c) Premium expenditures by enrollees include employee contributions to employer-sponsored health insurance and enrollee contributions for publicly purchased insurance.
- (d) Of the increase in CalPERS employer expenditures, about 58%, or \$5,139,000, would be expenditures for CalPERS members who are state employees or their dependents.
- (e) For this report, CHBRP assumes that SB TBD 1 would exempt Medi-Cal Managed Care from compliance with the mandate.
- (f) MRMIB Plan expenditures include expenditures for 874,000 enrollees of the Healthy Families Program, 8,000 enrollees of MRMIP, and 7,000 enrollees of the AIM program.
- (g) Includes expenses paid by enrollees and by sources other than enrollees' health insurance to for services related to the mandated benefit when the benefit is not covered by health insurance.
- Key:* AIM=Access for Infants and Mothers; CalPERS HMOs=California Public Employees' Retirement System Health Maintenance Organizations; CDI=California Department of Insurance; DMHC=Department of Managed Health Care; MRMIB=Managed Risk Medical Insurance Board; MRMIP=Major Risk Medical Insurance Program.

## Acknowledgments

This report provides an analysis of the medical, financial, and public health impacts of Senate Bill SB TBD 1. In response to a request from the California Senate Committee on Health on January 19, 2011 the California Health Benefits Review Program (CHBRP) undertook this analysis pursuant to the program's authorizing statute.

Edward Yelin, PhD, Janet Coffman, MPP, PhD, and Mi-Kyung (Miki) Hong, MPH, all of the University of California, San Francisco, prepared the medical effectiveness analysis. Penny Coppennoll-Blach, MLIS, of the University of California, San Diego, conducted the literature search. Diana Cassady, ScD, and Dominique Ritley, MPH, of the University of California, Davis, prepared the public health impact analysis. Ninez Ponce, PhD, of the University of California, Los Angeles, prepared the cost impact analysis. Robert Cosway, FSA, MAAA, of Milliman, provided actuarial analysis. Content experts, Natacha Akshoomoff, PhD, of the University of California, San Diego, and Renee C. Wachtel, MD, of Children's Hospital & Research Institute, Oakland, California, provided technical assistance with the literature review and expert input on the analytic approach. John Lewis, MPA, of CHBRP staff, prepared the introduction and synthesized the individual sections into a single report. A subcommittee of CHBRP's National Advisory Council (see final pages of this report) and a member of the CHBRP Faculty Task Force, Susan Ettner, PhD, of the University of California, Los Angeles, 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:

**California Health Benefits Review Program**  
**1111 Franklin Street, 11<sup>th</sup> Floor**  
**Oakland, CA 94607**  
**Tel: 510-287-3876**  
**Fax: 510-763-4253**  
[www.chbrp.org](http://www.chbrp.org)

All CHBRP bill analyses and other publications are available on the CHBRP Web site, [www.chbrp.org](http://www.chbrp.org).

Susan Philip, MPP  
Director

## California Health Benefits Review Program Committees and Staff

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 CHBRP's authorizing legislation, UC contracts with a certified actuary, Milliman Inc., to assist in assessing the financial impact of each legislative proposal mandating or repealing a health insurance benefit. 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.

### Faculty Task Force

**Todd Gilmer, PhD**, *Vice Chair for Cost*, University of California, San Diego  
**Joy Melnikow, MD, MPH**, *Vice Chair for Public Health*, University of California, Davis  
**Ed Yelin, PhD**, *Vice Chair for Medical Effectiveness*, University of California, San Francisco  
**Wayne S. Dysinger, MD, MPH**, Loma Linda University Medical Center  
**Susan L. Ettner, PhD**, University of California, Los Angeles  
**Theodore Ganiats, MD**, University of California, San Diego  
**Sheldon Greenfield, MD**, University of California, Irvine  
**Sylvia Guendelman, PhD, LCSW**, University of California, Berkeley  
**Kathleen Johnson, PharmD, MPH, PhD**, University of Southern California  
**Thomas MaCurdy, PhD**, Stanford University

### Task Force Contributors

**Wade Aubry, MD**, University of California, San Francisco  
**Diana Cassidy, PhD**, University of California, Davis  
**Janet Coffman, MPP, PhD**, University of California, San Francisco  
**Eric Groessl, PhD**, University of California, San Diego  
**Heather J. Hether, PhD**, University of California, Davis  
**Mi-Kyung Hong, MPH**, University of California, San Francisco  
**Matt hew Ingram, MPH, MPP**, University of California, Berkeley  
**Shana Lavarreda, PhD, MPP**, University of California, Los Angeles  
**Jennifer Lewsey, MS**, University of California, San Diego  
**Stephen McCurdy, MD, MPH**, University of California, Davis  
**Sara McMenamin, PhD**, University of California, Berkeley  
**Ying-Ying Meng, DrPH**, University of California, Los Angeles  
**Ninez Ponce, PhD**, University of California, Los Angeles  
**Dominique Ritley, MPH**, University of California, Davis  
**Meghan Soulsby, MPH**, University of California, Davis  
**Chris Tonner, MPH**, University of California, San Francisco  
**Arturo Vargas Bustamante, PhD, MA, MPP**, University of California, Los Angeles

## National Advisory Council

**Lauren LeRoy, PhD**, President and CEO, Grantmakers In Health, Washington, DC, *Chair*

**John Bertko, FSA, MAAA**, Former Vice President and Chief Actuary, Humana, Inc., Flagstaff, AZ

**Deborah Chollet, PhD**, Senior Fellow, Mathematica Policy Research, Washington, DC

**Michael Connelly, JD**, President and CEO, Catholic Healthcare Partners, Cincinnati, OH

**Susan Dentzer**, Editor-in-Chief of Health Affairs, Washington, DC

**Joseph P. Ditré Esq.**, Executive Director, Consumers for Affordable Health Care, Augusta, ME

**Allen D. Feezor**, Deputy Secretary for Health Services, North Carolina Department of Health and Human Services, Raleigh, NC

**Charles “Chip” Kahn, MPH**, President and CEO, Federation of American Hospitals, Washington, DC

**Jeffrey Lerner, PhD**, President and CEO, ECRI Institute Headquarters, Plymouth Meeting, PA

**Trudy Lieberman**, Director, Health and Medicine Reporting Program, Graduate School of Journalism, City University of New York, New York City, NY

**Marilyn Moon, PhD**, Vice President and Director, Health Program, American Institutes for Research, Silver Spring, MD

**Carolyn Pare**, CEO, Buyers Health Care Action Group, Bloomington, MN

**Michael Pollard, JD, MPH**, Senior Fellow, Institute for Health Policy Solutions, Washington, DC

**Christopher Queram**, President and CEO, Wisconsin Collaborative for Healthcare Quality, Madison, WI

**Richard Roberts, MD, JD**, Professor of Family Medicine, University of Wisconsin-Madison, Madison, WI

**Frank Samuel, LLB**, Former Science and Technology Advisor, Governor’s Office, State of Ohio, Columbus, OH

**Patricia Smith**, President and CEO, Alliance of Community Health Plans, Washington, DC

**Prentiss Taylor, MD**, Regional Center Medical Director, Advocate Health Centers, Advocate Health Care, Chicago, IL

**J. Russell Teagarden**, Vice President, Clinical Practices and Therapeutics, Medco Health Solutions, Inc., Brookfield, CT

**Alan Weil, JD, MPP**, Executive Director, National Academy for State Health Policy, Washington, DC

## CHBRP Staff

**Susan Philip, MPP**, Director

**Garen Corbett, MS**, Principal Policy Analyst

**David Guarino**, Policy Analyst

**John Lewis, MPA**, Principal Policy Analyst

**Karla Wood**, Program Specialist

**California Health Benefits Review Program**

**University of California**

**Office of the President**

**1111 Franklin Street, 11<sup>th</sup> Floor**

**Oakland, CA 94607**

**Tel: 510-287-3876 Fax: 510-763-4253**

[chbrpinfo@chbrp.org](mailto:chbrpinfo@chbrp.org)

[www.chbrp.org](http://www.chbrp.org)

The California Health Benefits Review Program is administered by the Division of Health Sciences and Services at the University of California, Office of the President. The Division is led by John D. Stobo, M.D., Senior Vice President.