

California Health Benefits Review Program

Analysis of California Assembly Bill 1074 Pervasive Developmental Disorder or Autism

A Report to the 2017–2018 California State Legislature

April 14, 2017



Key Findings:

Analysis of California Assembly Bill 1074 Autism

Summary to the 2017–2018 California State Legislature, April 14, 2017



AT A GLANCE

Assembly Bill (AB) 1074 would alter the current law that requires coverage of behavioral health treatment (BHT) for autistic spectrum disorder (ASD). AB 1074 would alter definitions that relate to adequate provider networks, define BHT as inclusive of case supervision/clinical case management as, and end the CalPERS health insurance exemption. In 2018, about 24 million enrollees in plans or policies regulated by DMHC or CDI will have health insurance that would be subject to AB 1074.

1. **Benefit coverage.** CHBRP anticipates no change, because all enrollees with health insurance that would be subject to AB 1074 have compliant benefit coverage.
2. **Utilization, expenditures, and public health.** Because no change in benefit coverage is expected, no change in utilization, expenditures, or public health outcomes is projected.
3. **Medical effectiveness.** There is a *preponderance* of evidence that intensive behavioral health therapies are effective in improving outcomes including cognitive functioning, language, social functioning, and adaptive behaviors. There is *limited* evidence that low-intensity behavioral health therapies are more effective in improving outcomes than usual care.
4. **Medi-Cal.** It is unclear how the bill would interact with the Welfare and Institutions Code through the proposed amendments to the Health and Safety Code. Therefore, it is possible that AB 1074 could affect 7.8 million Medi-Cal beneficiaries enrolled in DMHC-regulated plans and an additional 1.5 million Medi-Cal beneficiaries enrolled in COHS managed care and an additional 1.5 million Medi-Cal beneficiaries associated with the FFS program.

CONTEXT

A current benefit mandate in California law,¹ one that AB 1074 would alter, requires coverage of behavioral health treatment (BHT) for autistic spectrum disorder (ASD). The law:

- Requires coverage for BHT for ASD and specifies that BHT is inclusive of evidence-based, intensive behavioral intervention treatments such as applied behavioral analysis (ABA);
- Requires plan/policy networks to include qualified autism service (QAS) providers, supervising/employing QAS professionals, or QAS paraprofessionals, and provides definitions for all three; and
- Exempts from compliance the health insurance of enrollees associated with Medi-Cal or the California Public Employees' Retirement System (CalPERS).

Although AB 1074 would end the current mandate's explicit exemption from compliance for DMHC-regulated plans enrolling persons associated with CalPERS, the impact of changes to the current mandates and CalPERS' enrollees benefit coverage is complex. See further discussion regarding CalPERS on the next page.

Although AB 1074 would not alter the current mandate's explicit exemption from compliance for DMHC-regulated plans enroll in Medi-Cal beneficiaries, the impact of changes to the current mandate and Medi-Cal beneficiaries' benefit coverage is unclear. See further discussion regarding Medi-Cal on the next page.

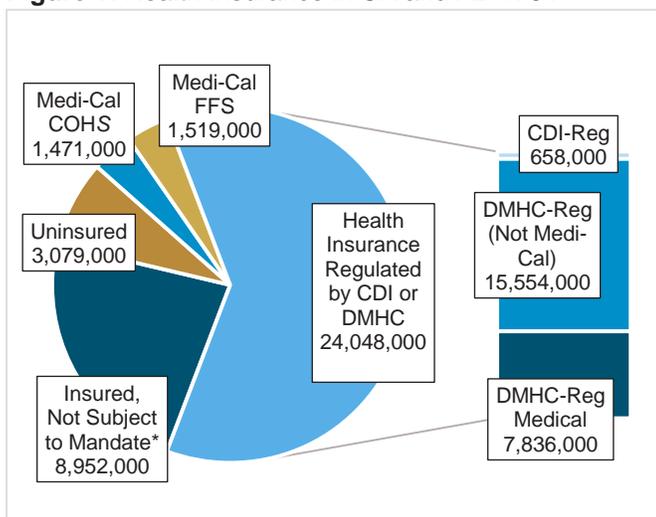
¹ Health and Safety Code 1374.73 and Insurance Code 10144.51.

Bill Summary

AB 1074 would alter the current benefit mandate law (BHT for ASD) in a number of ways. AB 1074 would:

- Make a number of technical alterations to the definitions of QAS providers, QAS professionals, and QAS paraprofessionals;
- Include as aspects of BHT, clinical case management and case supervision; and
- Eliminate the current mandate's exemption for enrollees associated with CalPERS.

Figure 1. Health Insurance in CA and AB 1704



Source: CHBRP, 2017.

Notes: *Includes Medicare beneficiaries and enrollees in self-funded products.

Benefit Coverage, Utilization, Cost, and Public Health Impacts

Currently, 100% of enrollees with health insurance that would be subject to AB 1074 have benefit coverage that complies with the benefit mandate. CHBRP estimates no measurable impact because:

- Case management and care supervision are both reported as currently covered aspects of BHT for ASD.
- Provider networks are reported as compliant with the current mandate and, although AB 1074 would make alterations to QAS provider definitions,

CHBRP does not anticipate measurable change within the first year of implementation.

- The health insurance of enrollees who receive coverage through CalPERS is subject to California's Mental Health Parity law, which also requires coverage for BHT for ASD.

Therefore, CHBRP estimates that AB 1074 will have no measurable impact on benefit coverage.

Medi-Cal

Although AB 1074 would not alter the current benefit mandate's explicit exemption from compliance for DMHC-regulated plans enrolling Medi-Cal beneficiaries, the interaction of the current mandate with the Welfare and Institutions Code is unclear.

The Welfare and Institutions Code references the current mandate as the source of the definition of BHT for ASD. Therefore, changes to the current mandate could impact the benefit coverage of the 7.9 million Medi-Cal beneficiaries enrolled in DMHC-regulated plans as well as the additional 3.0 million Medi-Cal beneficiaries enrolled in either County Organized Health System (COHS) managed care or attached to the fee-for-service (FFS) Program. However, because CHBRP expects no measurable impact from AB 1074 to the benefit coverage of enrollees in privately funded DMHC-regulated plans or CDI-regulated policies, CHBRP would similarly expect no impact related to Medi-Cal beneficiaries.

CalPERS

Although AB 1074 would end the current benefit mandate's explicit exemption for DMHC-regulated plans regarding the benefit coverage of enrollees associated with CalPERS, the interaction of the current benefit mandate, California's separate Mental Health Parity benefit mandate,² and case law³ are complex. For this analysis CHBRP has assumed that removal of CalPERS-related exemption would have no measurable impact. It is possible that the other changes AB 1074 would make could be relevant to the health insurance of the 884,000 CalPERS associated enrollees in DMHC-regulated plans. However, because CHBRP is projecting no impact for those changes in regard to the health insurance of other enrollees in DMHC-regulated

² Health and Safety Code 1374.72 and Insurance Code 10144.5.

³ Consumer Watchdog v. DMHC (2014)

plans, CHBRP has not projected an impact related to CalPERS' enrollees.

Number of Uninsured in California

Because no measurable impacts are anticipated, no change in the number of uninsured Californians is expected.

Medical Effectiveness

There is a *preponderance* of evidence that intensive behavioral health therapies are effective in improving outcomes including cognitive functioning, language, social functioning, and adaptive behaviors.

There is *limited* evidence that low-intensity behavioral health therapies are more effective in improving outcomes than usual care.

There is a *preponderance* of evidence that behavioral health therapies delivered by persons with training similar to QAS professionals and paraprofessionals, as well as a variety of other specialized and nonspecialist types of personnel, are effective when carried out under the training and supervision of a QAS provider.

There is *limited* evidence that the inclusion of clinical management and case supervision in BHT can improve outcomes such as intellectual ability, learning objectives, and overall treatment fidelity.

Essential Health Benefits and the Affordable Care Act

For two reasons, AB 1074 would not trigger financial costs to the state for exceeding essential health benefits (EHBs). First, AB 1074 alters the terms and conditions of an existing benefit mandate, but does not require an additional benefit to be covered. Second, the current law that AB 1074 would alter expressly indicates that it ceases to function if it exceeds EHBs, and AB 1074 does not eliminate this clause of the current law. Thus, neither the current law nor the version AB 1074 would create would function if deemed to exceed EHBs.

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ABOUT CHBRP

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

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

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

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POLICY CONTEXT

The California Assembly Committee on Health has requested that the California Health Benefits Review Program (CHBRP)⁴ conduct an evidence-based assessment of the medical, financial, and public health impacts of AB 1074 Pervasive Developmental Disorder or Autism.

If enacted, AB 1074 could affect the health insurance of approximately 24.1 million Californians who will have health insurance regulated by the California Department of Managed Health Care (DMHC) or the California Department of Insurance (CDI) in 2018. This figure includes 7.8 million Medi-Cal beneficiaries enrolled in DMHC-regulated plans. In addition, AB 1074 could be relevant to the benefit coverage of 1.5 million beneficiaries enrolled in County Organized Health System (COHS) managed care and another 1.5 million beneficiaries engaged in Medi-Cal's fee-for-service (FFS) program. The full 27.1 million represent 69% of Californians.

Bill-Specific Analysis of AB 1074 Autism

A current benefit mandate in California law,⁵ one that AB 1074 would alter, requires coverage of behavioral health treatment (BHT) for autistic spectrum disorder (ASD). The law:

- Requires coverage for BHT for ASD and specifies that BHT is inclusive of evidence-based, intensive behavioral intervention treatments such as applied behavioral analysis (ABA);
- Requires plan/policy networks to include qualified autism service (QAS) providers, supervising/employing QAS professionals, or QAS paraprofessionals and provides definitions for all three; and
- Exempts from compliance the health insurance of enrollees associated with Medi-Cal or the California Public Employees' Retirement System (CalPERS).

The mandate that AB 1074 would alter is referenced in California's Welfare and Institutions Code as the source of the definition of BHT for ASD, in terms of the benefit coverage available to all Medi-Cal beneficiaries.⁶

Bill Language

AB 1074 would alter the current benefit mandate law (BHT for ASD) in a number of ways.

AB 1074 would make a number of technical alterations to the definitions of QAS providers, QAS professionals, and QAS paraprofessionals, including:

- Identification of QAS providers as persons (not entities or groups)
- Elimination of the requirement for QAS professionals to be vendors of regional centers associated with the California Department of Developmental Services
- Specification that QAS paraprofessionals can be supervised by QAS professionals

⁴ CHBRP's authorizing statute is available at <http://chbrp.org/faqs.php>.

⁵ Health & Safety Code 1374.73 and Insurance Code 10144.51.

⁶ Welfare & Institutions Code 14132.56(a)(1).

AB 1074 would also explicitly include clinical case management and case supervision as aspects of BHT

In addition, AB 1074 would eliminate the current mandate's explicit exemption from compliance for DMHC-regulated plans regarding the benefit coverage of enrollees associated with CalPERS.

The full text of AB 1074 can be found in Appendix A .

Analytic Approach and Key Assumptions

Although the current law requires an adequate network that includes QAS providers, it does not require that such networks include QAS professionals or QAS paraprofessionals. Because the law is permissive in regard to exact composition, for this analysis, CHBRP assumes that altering the definitions would not impact choices already made to establish adequate provider networks.

Although AB 1074 would end the current benefit mandate's explicit exemption for DMHC-regulated plans regarding the benefit coverage of enrollees associated with CalPERS, the interaction of the current benefit mandate, California's separate Mental Health Parity benefit mandate,⁷ and case law⁸ are complex. For this analysis CHBRP has assumed that removal of CalPERS-related exemption would have no measurable impact.

Although the current benefit mandate that AB 1074 would amend explicitly exempts from compliance DMHC-regulated plans enrolling Medi-Cal beneficiaries, the interaction of the current mandate with the Welfare and Institutions Code is unclear. The Welfare and Institutions Code references the current mandate as the source of the definition of BHT for ASD. Therefore, changes to the current mandate could impact the benefit coverage of the 7.9 million Medi-Cal beneficiaries enrolled in DMHC-regulated plans as well as the additional 3.0 million Medi-Cal beneficiaries enrolled in either County Organized Health System (COHS) managed care or attached to the fee-for-service (FFS) Program.

General Caveat for All CHBRP Analyses

It is important to note that CHBRP's analysis of proposed benefit mandate bills address the incremental effects — how the proposed legislation would impact benefit coverage, utilization, costs, and public health. CHBRP's estimates of these incremental effects are presented in this report.

Interaction With Existing Requirements

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

State Requirements

California law and regulations

As noted, AB 1074 would amend the current benefit mandate law⁹ that addresses behavioral health treatment for ASD.

⁷ Health and Safety Code 1374.72 and Insurance Code 10144.5.

⁸ Consumer Watchdog v. DMHC (2014)

⁹ Health & Safety Code 1374.73 and Insurance Code 10144.51.

As noted, the current law that AB 1074 would alter, another state-level health insurance benefit mandate, the current California mental health parity law,¹⁰ also requires coverage for BHT for ASD.

Similar requirements in other states

At least 39 states and the District of Columbia (BCBSA, 2016) have passed health insurance benefit mandates related to treatment for ASD. Some states identify treatments for which coverage is specifically required. Over half of the states with health insurance benefit mandates related to autism specifically require coverage for applied behavioral analysis (ABA).

CHBRP is unaware of any state with a mandate that defines QAS providers, QAS professionals, and QAS paraprofessionals.

CHBRP is also unaware of any state with a mandate that references coverage for clinical case management or case supervision.

Federal Requirements

Federal Mental Health Parity and Addiction Equity Act

Although neither the current law nor AB 1074 would interact directly with it, it is worth noting that the federal Mental Health Parity and Addiction Equity Act (MHPAEA) addresses parity for mental health benefits.¹¹ The MHPAEA requires that if mental health or substance use disorder services are covered, cost-sharing terms and treatment limits be no more restrictive than the predominant terms or limits applied to medical/surgical benefits. The MHPAEA applies to large-group coverage, and the ACA requires small-group and individual market plans and policies purchased through a state health insurance marketplace to comply with the MHPAEA. This federal requirement is similar to the California mental health parity law,¹² although the state law applies to some plans and policies not captured in the MHPAEA.

Affordable Care Act

A number of Affordable Care Act (ACA) provisions have the potential to or do interact with state benefit mandates. Below is an analysis of how AB 1074 may interact with requirements of the ACA as it presently exists in federal law, including the requirement for certain health insurance to cover essential health benefits (EHBs).¹³

Any changes at the federal level may impact the analysis or implementation of this bill, were it to pass into law. However, CHBRP analyzes bills in the current environment given current law.

¹⁰ Health and Safety Code HEALTH AND SAFETY CODE HEALTH AND SAFETY CODE HEALTH AND SAFETY CODE 1374.72 and INSURANCE CODE Insurance Code 10144.5.

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

¹² Health and Safety Code 1374.72; Insurance Code 10144.5 and 10123.15.

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

Essential health benefits

State health insurance marketplaces, such as Covered California, are responsible for certifying and selling qualified health plans (QHPs) in the small-group and individual markets. QHPs are required to meet a minimum standard of benefits as defined by the ACA as essential health benefits (EHBs). In California, EHBs are related to the benefit coverage available in the Kaiser Foundation Health Plan Small Group Health Maintenance Organization (HMO) 30 plan, the state's benchmark plan for federal EHBs.^{14,15}

States may require QHPs to offer benefits that exceed EHBs.¹⁶ However, a state that chooses to do so must make payments to defray the cost of those additionally mandated benefits, either by paying the purchaser directly or by paying the QHP.^{17,18} State rules related to provider types, cost sharing, or reimbursement methods would *not meet* the definition of state benefit mandates that could exceed EHBs.¹⁹

For two reasons, AB 1074 would not trigger financial costs to the state for exceeding EHBs. First, AB 1074 alters the terms and conditions of an existing benefit mandate, but does not require an additional benefit to be covered. Second, the current law that AB 1074 would alter expressly indicates that it ceases to function if it exceeds EHBs, and AB 1074 does not eliminate this clause of the current law. Thus, neither the current law nor the version AB 1074 would create would function if deemed to exceed EHBs.

¹⁴ The U.S. Department of Health and Human Services (HHS) has allowed each state to define its own EHBs for 2014 and 2015 by selecting one of a set of specified benchmark plan options. CCIIO, Essential Health Benefits Bulletin. Available at: cciio.cms.gov/resources/files/Files2/12162011/essential_health_benefits_bulletin.pdf.

¹⁵ Helath and Safety Code 1367.005; Insurance Code 10112.27.

¹⁶ ACA Section 1311(d)(3).

¹⁷ State benefit mandates enacted on or before December 31, 2011, may be included in a state's EHBs, according to the U.S. Department of Health and Human Services (HHS). Patient Protection and Affordable Care Act: Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation. Final Rule. Federal Register, Vol. 78, No. 37. February 25, 2013. Available at: www.gpo.gov/fdsys/pkg/FR-2013-02-25/pdf2013-04084.pdf.

¹⁸ However, as laid out in the Final Rule on EHBs HHS released in February 2013, state benefit mandates enacted on or before December 31, 2011, would be included in the state's EHBs and there would be no requirement that the state defray the costs of those state mandated benefits. For state benefit mandates enacted after December 31, 2011, that are identified as exceeding EHBs, the state would be required to defray the cost.

¹⁹ Essential Health Benefits. Final Rule. A state's health insurance marketplace would be responsible for determining when a state benefit mandate exceeds EHBs, and QHP issuers would be responsible for calculating the cost that must be defrayed.

BACKGROUND ON AUTISM SPECTRUM DISORDER

Autism spectrum disorder (ASD)²⁰ is a developmental disability characterized by deficits in social interactions and communication, sensory processing, stereotypic (repetitive) behaviors or interests, and sometimes cognitive function (APA, 2013). As reflected by the phrase “autism spectrum disorder,” the symptoms of ASD fall along a continuum, ranging from mild impairment to profound disability.

To receive an ASD diagnosis, individuals must demonstrate symptoms from early childhood, with children typically becoming symptomatic as early as age 1 year (CDC, 2017a). The CDC supports the Autism and Developmental Disabilities Monitoring (ADDM) Network, an ongoing autism surveillance program of 11 sites across the United States. According to its 2012 findings, about 43% of U.S. children diagnosed with ASD were evaluated for developmental concerns by age 3 years. Those diagnosed with *autistic disorder* tended to be formally diagnosed at an earlier age (3 years, 10 months) than those with *pervasive developmental disorder not-otherwise-specified* and *Asperger’s syndrome* (~4 years and ~6 years, respectively). Note that individuals whose symptoms do not manifest until later in life may receive a retroactive diagnosis, but may not receive critical early interventions (APA, 2013).

The cause (or causes) of ASD is unknown, and research into genetic etiology, as well as environmental factors, continues to be explored. There is no cure for ASD; however, there is some evidence that treatment, including behavioral health treatment, may improve some symptoms (see the *Medical Effectiveness* section).

Prevalence of Autism Spectrum Disorders in California

Ascertaining the true prevalence of ASD in California is challenging without a registry system. Counts of persons diagnosed with ASD may be obtained from a variety of sources such as private insurance claims data, Medi-Cal (including Medi-Cal managed care plans) reports or claims and encounter data, the public school system, and the California Department of Developmental Services (DDS). Counts from these sources likely overlap, but it is unknown to what degree.

CHBRP’s following statewide estimate of ASD prevalence is based on data from the California Department of Developmental Services (DDS). DDS frequently provides the initial ASD diagnosis and treatment referrals for those children meeting certain disability criteria (including ASD), regardless of income level (DDS, 2017a). This estimate may be an undercount since families of children with ASD may access care through private insurance or payment out of pocket; thus, they may not have interacted with DDS.

CHBRP estimates that in 2016, the prevalence of ASD in California children (aged 0 to 9 years) is about 160 in 10,000, which is close to the 2012 national prevalence estimates of 146 in 10,000 children aged 8 years diagnosed with ASD (CDC, 2017b; CHBRP, 2015).

²⁰ Previously referred to as “pervasive developmental disorder / autism (PDD/A),” CHBRP now uses “ASD” to align with the most current clinical diagnostic designation in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and ICD-10 classification systems.

Alternative Sources of Services and Payers for BHT

The use of ASD treatment services in California's commercial insurance market (as noted in the *Benefit Coverage, Utilization, and Cost Impacts* section) appears to be significantly lower than ASD prevalence rates in California. The reason(s) for this difference is unclear; however, we know that California has a comparatively well-developed support system for people with disabilities. For example, Medi-Cal offers waivers through the Home and Community-Based Program and Institutional Deeming; neither program uses household income in its eligibility criteria. It is conceivable that some children with ASD may qualify for Medi-Cal while their parents retain their commercial insurance status. Studies show that parents with private insurance sometimes use Medicaid when their children meet state criteria for assistance due to disabilities (including ASD) (Shimabukuro et al., 2008).

Additionally, other state agencies support families of children with ASD, including DDS Regional Centers and the California Department of Education (CDE). There are 21 regional centers that contract with DDS to provide referrals, coordination, and services for people with specified disabilities, including ASD, regardless of insurance status (however, the centers are now required to collect private insurance information, if available, for billing). Criteria for obtaining regional center services is based on severity of disability and not household income. Furthermore, starting at age 2 years, children become eligible for screening, diagnosis, and treatment for ASD through their public school and CDE). Finally, patients (or their families) may pay directly for care not covered by health insurance, and/or charities may also become involved. Therefore, it is possible that commercially insured enrollees with ASD (or whose parents are commercially insured) do not use their insurance because they receive BHT coverage or services from one or more public or private entities.

Social Determinants of Health²¹ and Disparities²² in Autism Spectrum Disorder

CHBRP includes a discussion of disparities under the broader umbrella of social determinants of health (SDoH). Although SDoH generally occur prior to or outside of the health care system and are highly correlated with downstream events such as avoidable illnesses and premature death, the relationship between SDoH and health status/outcomes is complex, and periodically, health insurance can influence SDoH.²³ In the case of AB 1074, CHBRP found a dearth of literature discussing the effects of gender, race, and income on parent use of BHT.

Differences and Disparities in ASD Prevalence

Gender differences

In 2016, the CDC reported that the ASD prevalence rate among 8-year old males in the 11 ADDM network sites was four and a half times higher than in females (CDC, 2017b), which comports with the

²¹ CHBRP defines social determinants of health as conditions in which people are born, grow, live, work, learn, and age. These social determinants of health (economic factors, social factors, education, physical environment) are shaped by the distribution of money, power, and resources and impacted by policy (adapted from Healthy People 2020, 2015). See SDoH white paper for further information.

²² Several competing definitions of "health disparities" exist. CHBRP relies on the following definition: "Health disparities are potentially avoidable differences in health (or health risks that policy can influence) between groups of people who are more or less advantaged socially; these differences systematically place socially disadvantaged groups" at risk for worse health outcomes (Braveman, 2006).

²³ For more information about SDoH, see CHBRP's publication: *Incorporating Relevant Social Determinants of Health into CHBRP Benefit Mandate Analyses*.

California rate. The California DDS reported in 2016, the same ratio of males to females with autism (4.5:1) (DDS, 2017b). DDS also reported that the male-dominated prevalence crossed all races and geographic regions in California (DDS, 2009). Gender differences in ASD are not attributable to social causes, and so are not considered disparities.

Race/ethnicity differences

Although U.S. surveys report a greater prevalence of ASD among white children than among black children and Hispanic children, these estimates are known to be influenced by disparities in access to health care for diagnosis, data source (e.g., self-report, medical record review, etc.), and patient geographic location (Christensen et al., 2016; Hill et al., 2016). For example, in California, among those with ASD served by DDS (the largest California-specific dataset for ASD), Hispanics outnumbered whites. Specifically, DDS reported that among those receiving DDS services for ASD, Hispanics accounted for 35% of recipients, followed by whites (32%), Asians (9%), and blacks (7%) (DDS, 2017b). The racial/ethnic distribution of children with ASD within the privately insured population is unknown.

Disparities in Access to Behavioral Health Treatment for ASD

Studies of children with ASD consistently show that children from low-income and less educated families are less likely to receive behavioral health treatment than their higher income, better educated counterparts. One study revealed that parents with a lower educational level accessed less intensive therapies compared to parents with higher educational levels who accessed higher intensity services, even when provided in a school setting (Siller et al., 2014). Another study using data from the 2009/2010 National Survey of Children with Special Health Care Needs indicated that parents of Latino and black children with ASD were 45% less likely than whites to report that providers spent adequate time with their children, and were about 40% less likely to feel that their child's special needs provider was sensitive to their values and customs (Magana et al., 2015).

Qualified autism spectrum (QAS) provider shortages are less well documented, but literature suggests that provider shortages create unique barriers to behavioral health treatment for low-income and rural families. For example, interviews with stakeholders in five states with autism insurance mandates, including California, reported that families were better able to access treatment services after the mandates were enacted, but that both consumer advocates and insurance companies reported shortages of licensed providers (Baller et al., 2016). To further complicate matters, stakeholders reported that low insurance reimbursement rates discourage QAS providers from accepting private insurance (Baller et al., 2016). A recent literature review found three of six studies on geographic variation in age of autism diagnosis (the start of autism treatment services) identified barriers for rural compared to urban families (Daniels and Mandell, 2014). Additionally, two qualitative studies (with sample sizes of 96 and 35 respondents, respectively) also found rural families had more difficulty than urban families in accessing ASD providers for timely diagnosis and treatment of ASD (Elder et al., 2016; Murphy and Ruble, 2012).

MEDICAL EFFECTIVENESS

As discussed in the *Policy Context* section, AB 1074 would mandate changes to provider descriptions for behavioral health treatment (BHT) services for pervasive developmental disorder (PDD) or autism spectrum disorder (ASD) and would add clinical case management and case supervision as covered elements of these services. BHT is defined in AB 1074 by current Health and Safety Code Section 1374.73 as “professional services and treatment programs, including applied behavior analysis and evidence-based behavior intervention programs, which develop or restore, to the maximum extent practicable, the functioning of an individual with pervasive developmental disorder or autism.” BHT services are delivered by QAS professionals and paraprofessionals with the goals of improving cognitive, language, and social functioning through interventions including, but not limited to, occupational, speech, and physical therapy. It is evident in the literature that BHT treatment can be described on a spectrum ranging from intensive to less intensive. Intensive is generally characterized by a greater number of treatment hours and focused interventions for specific outcomes such as cognitive, language, and adaptive skills. Models for intensive BHT are largely based upon applied behavioral analysis (ABA), among others. Less intensive interventions involve fewer treatment hours and more generalized therapies to address social functioning deficits, for example the Developmental, Individual Differences, Relationship-Based model (DIR[®]/Floortime[™]).

This medical effectiveness review summarizes findings from literature on intensive and less intensive BHT for ASD. The literature review focused on the impact of the terms and conditions for coverage of BHT with provider description alterations and the requirement for clinical case management and case supervision, rather than the effectiveness of the treatment itself, though effectiveness of the treatment is also evaluated to provide added context.

Research Approach and Methods

Studies were identified through searches of MEDLINE (PubMed), the Cochrane Database of Systematic Reviews, the Cochrane Register of Controlled Clinical Trials, PsycInfo, Web of Science, and EconLit. Because CHBRP's medical effectiveness review had previously conducted thorough literature searches on this topic in 2011, 2013, 2014, 2015, and 2016 for reports on bills relevant to ASDs, the search was limited to studies published from 2015 to present. The more recent literature reviewed reported findings consistent with previous medical effectiveness reviews. Of the 588 articles found in the literature review, 13 were reviewed for potential inclusion in this report, and 5 new studies were included in the medical effectiveness review for this report. The medical effectiveness review also presents findings from the studies that were included in CHBRP's earlier reports on bills relevant to AB 1074. 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.

Methodological Considerations

The literature relevant to AB 1074 is limited. CHBRP identified very few studies that addressed the medical effectiveness of alterations to BHT provider descriptions for treatment of ASD. CHBRP also found limited literature on the effectiveness of clinical case management and case supervision on effectiveness of treatment for ASD. The relevant literature found is presented for consideration.

Outcomes Assessed

The outcomes assessed by studies included in this review included measures of cognitive functioning (such as IQ), as well as language, social functioning, treatment fidelity, and changes in symptomatology.

Study Findings

Effectiveness of Intensive Behavioral Health Therapy for ASD

Intensive behavioral health treatments are usually comprehensive intervention-based programs given for 25 to 40 hours per week for 1 to 3 years (BACB, 2014; Peters-Scheffer et al., 2011). Results from a large number of studies with moderately strong research designs and meta-analyses have shown that intensive behavioral health treatment is effective in improving cognitive, language, academic, and adaptive skills outcomes, and that younger age is typically associated with greater improvements (Peters-Scheffer et al., 2013; Warren et al., 2011; Weitlauf et al., 2014).²⁴ However, the magnitude of effectiveness varies in the literature, and current evidence of which children would gain the most from which intervention is limited, especially for very young and older children (Vivanti et al., 2014). The intensive behavioral health treatments are most often targeted to preschool aged children from three to five years old, but have been shown to be effective across the lifespan (BACB, 2014; Peters-Scheffer et al., 2013). Intensive behavioral health interventions for ASD could include, but are not limited to, ABA-based approaches, discrete trial training, pivotal response training, parent training and Early Start Denver Model approaches.

There is a *preponderance* of evidence that intensive behavioral health therapies are effective in improving outcomes including cognitive functioning, language, social functioning, and adaptive behaviors.²³

Effectiveness of Low-Intensity Behavioral Health Therapy for ASD

Low-intensity treatments are another treatment option for individuals with ASD, which often means fewer hours of any intensive-based therapy or more supplemental or specific deficit-focused treatments. These low intensity treatments may be a beneficial treatment option for higher functioning children or older children who could benefit from a more social skills based service. Studies on the effects of lower-intensity treatment (in terms of hours of one-to-one treatment) suggest that even low-intensity behavioral treatment can be effective in young children with ASD, though gains may be smaller than in studies on intensive treatments (Eldevik et al., 2006; Peters-Scheffer et al., 2013). The Eldevik et al. 2006 non-randomized control study (N = 28) was the first study found to evaluate the effectiveness of low-intensity BHT treatments for ASD and found that children receiving the low-intensity BHT treatment for 12.5 hours per week made significantly greater improvements on cognitive function, language, and communication outcomes. In another example, a nonrandomized pretest-posttest control group design study of a low-intensity (on average 6.5 hours per week) discrete trial training treatment was given to 12 children with ASD, with 12 children in a usual treatment control. Children in the treatment group displayed significantly greater gains in cognitive development and adaptive behaviors compared to the control group (Peters-Scheffer et al., 2010). Some examples of types of less-intensive behavioral health interventions for ASD

²⁴ For more information please see CHBRP's 2015 and 2016 reports on bills related to autism, available at http://chbrp.org/completed_analyses/index.php.

include traditional intensive programs but with fewer hours, Developmental, Individual Differences, Relationship-Based Approach (DIR[®]/Floortime[™]), Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH), Occupational Therapy; Sensory Integration Therapy, Speech Therapy, use of The Picture Exchange Communication System (PECS), social clubs, or inclusion intervention programs.

A variety of low-intensity therapies are often used to supplement or in combination with other therapies and often target specific outcomes. Though there is some evidence that these interventions are effective, there is little high-quality evidence on whether low-intensity therapies alone are effective. There is *limited* evidence from two moderately strong non-randomized control studies (N = 52) that low-intensity behavioral health therapies are more effective in improving outcomes than usual care.

Effectiveness of Clinical Management and Case Supervision

Most BHT, especially ABA-based, treatment programs involve a tiered service model in which an autism service professional designs and supervises a treatment program delivered by assistant service professionals or paraprofessionals. The role of this service professional includes clinical, supervisory, and case management activities. Clinical management and case supervision are often used interchangeably to describe activities such as creating the original treatment program as well as supervising and reviewing a case to make any necessary adjustments to the plan and to ensure that goals are met. It should be noted that the *Medical Effectiveness* section is specifically addressing the clinical management and case supervision that would be provided on individual treatment plans; not general training and supervision of QAS providers, as that is assumed to already be provided by employers to ensure proper fidelity of a given treatment. Clinical management and case supervision is typically provided by a clinician who is required to have knowledge of advanced learning and behavior principles, extensive clinical experience of BHT programs, and certified through a certification board (e.g., the Behavior Analysis Certification Board Examination). Next to treatment intensity and duration of the treatment program, intensity and quality of clinical management and case supervision is thought to be an important element to successful BHT. One relevant correlational study (N = 20) evaluated the effect of intensity of supervision hours on outcomes for children receiving an early intensive behavioral intervention. The intensity, measured in hours, ranged from about 2 to 8 hours per month. Results showed a significant correlation between intensity of supervision and improvement in IQ (Eikeseth et al., 2009). Another retrospective study with data from an archival database (N = 638) on children with ASD receiving community-based ABA treatment found that supervision hours accounted for a slight increase in outcomes, measured as learning objectives; however, this increase was not statistically significant independently of overall treatment hours (Dixon et al., 2016). However, it should be noted that supervision hours are typically provided in correlation with treatment hours, thus making it difficult to isolate the effects of clinical management and/or case supervision alone.

Treatment for autism often requires care from multiple health care and service providers to address different needs, especially for intensive users. Therefore, the need for management and coordination among treatment providers is high in this population (Shattuck et al., 2011). The role of a clinical manager/case supervisor is also to ensure that all of the different treatments that a child may receive overlap properly to improve specific target outcomes. Although clinical management/case supervision

may not impact the effectiveness of any one particular treatment in isolation, it may increase the effectiveness of the overall treatment plan by increasing continuity and efficiency.²⁵

Based on two studies including 658 individuals, there is *limited* evidence that the inclusion of clinical management and case supervision in BHT can improve outcomes such as intellectual ability, learning objectives, and overall treatment fidelity.

Impact of BHT Provider Description Alterations

As described in the *Policy Context* section, AB 1074 would alter the definitions of qualified autism service (QAS) providers, QAS professionals, and QAS paraprofessionals. Studies of behavioral health treatments for patients with ASD have evaluated treatments provided by a wide range of personnel, including: certified applied behavioral therapists, child care workers, counselors, early childhood educators, nurses, occupational therapists, psychologists, speech and language therapists, students, teachers, teachers' aides/paraprofessionals, and parents. A recent systematic review that included 34 articles describing 29 studies (15 randomized controlled trials and 14 prospective non-randomized controlled studies) concluded that behavioral health treatments based on ABA that were delivered by "nonspecialized" personnel (e.g., nurse practitioner, teacher, teacher's aide, parent) who were trained and supervised by persons with expertise in ABA improved IQ, language, daily living skills, and motor skills among lower-functioning children with autism relative to usual care (Reichow et al., 2013). Another recent systematic review summarized the evidence of Train the Trainer (TTT) trials of behavioral interventions for children with ASD. TTT requires that community clinicians experienced in the interventions (e.g., clinic supervisor) train the personnel who deliver the services in the community (e.g., home interventionist). Of the 12 articles included in the review, one was a randomized controlled trial, whereas the others had moderate-to-low quality experimental designs, such as a pre-post design. Overall, the authors report that these treatments delivered by the trained community personnel result in positive outcomes in cognition, language, and autism symptoms, particularly among higher-functioning children (Shire and Kasari, 2014). Most studies included in these systematic reviews have moderate-to-low research designs.

The literature described above has limitations with regard to some specifics that would be impacted by the bill. Persons who did not have graduate degrees in behavior analysis or a related field were typically supervised by personnel with graduate degrees. Descriptions of the credentials of personnel providing behavioral health treatments were inconsistent across studies, which limits the ability to determine which treatments utilized personnel similar to QAS professionals or QAS paraprofessionals. Additionally, CHBRP did not identify any studies of the impact of allowing QAS professionals and QAS paraprofessionals to be supervised by but not necessarily employed by QAS providers.

Based on two systematic reviews describing 41 studies of varying design quality with 2,169 participants, there is a *preponderance* of evidence that behavioral health therapies delivered by persons with training similar to QAS professionals and paraprofessionals, as well as a variety of other specialized and nonspecialist types of personnel is effective when carried out under the training and supervision of a QAS provider.

²⁵ Conversation with Dr. David Mandell, University of Pennsylvania, March 16, 2017.

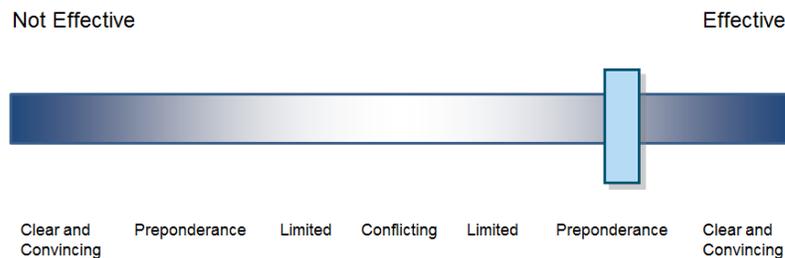
Summary of Findings

The figures in this section summarize CHBRP’s findings regarding the strength of the evidence for the effects of specific tests, treatments, and services addressed by AB 1074. Separate figures are presented for each test, treatment, or service for which the bill would mandate coverage and for each outcome for which evidence of the effectiveness of a treatment is available. The title of the figure indicates the test, treatment, or service for which evidence is summarized. The statement under the heading “Conclusion” presents CHBRP’s conclusion regarding the strength of evidence about the effect of a particular test, treatment, or service on a specific relevant outcome and the number of studies on which CHBRP’s conclusion is based. For tests, treatments, and services for which CHBRP concludes that there is clear and convincing, preponderance, limited, or conflicting evidence, the placement of the vertical bar indicates the strength of the evidence.

Figure 2. Effectiveness of Intensive Behavioral Health Therapy for ASD

Conclusion

There is a preponderance of evidence that intensive behavioral health therapies are effective in improving outcomes including cognitive functioning, language, social functioning, and adaptive behaviors.²⁶



²⁶ For more information, please see previous CHBRP reports (CHBRP, 2015, 2016) that concluded that there is a preponderance of evidence for the effectiveness of BHT for ASD.

Figure 3. Effectiveness of Low-Intensity Behavioral Health Therapy for ASD

Conclusion

There is limited evidence from two moderately strong non-randomized control studies (N = 52) that low-intensity behavioral health therapies are more effective in improving outcomes than usual care.

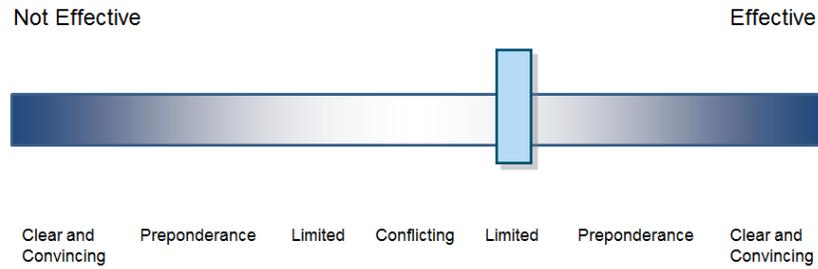


Figure 4. Effectiveness of Clinical Management and Case Supervision

Conclusion

Based on two studies including 658 individuals, there is limited published evidence that the inclusion of clinical management and case supervision in BHT can improve outcomes such as intellectual ability, learning objectives, and overall treatment fidelity.

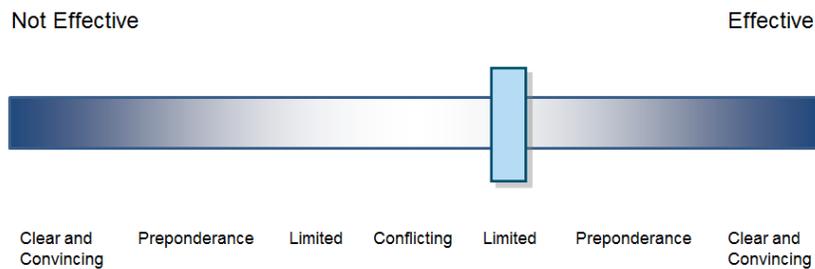
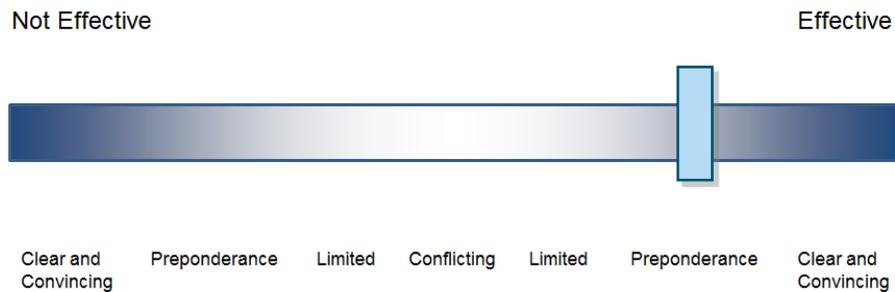


Figure 5. Impact of BHT Provider Description Alterations

Conclusion

Based on two systematic reviews describing 41 studies of varying design quality with 2,169 participants, there is a preponderance of evidence that behavioral health therapies delivered by persons with training similar to QAS professionals and paraprofessionals, as well as a variety of other specialized and nonspecialist types of personnel, are effective when carried out under the training and supervision of a QAS provider.



BENEFIT COVERAGE, UTILIZATION, AND COST IMPACTS

AB 1074 would require DMHC-regulated health plans and CDI-regulated policies to include case management and care supervision under the already existing mandate to cover behavioral health treatment (BHT) for people with autism spectrum disorder (ASD). AB 1074 also alters the definitions of qualified autism services (QAS) providers (see the *Policy Context* section for a full explanation) and would end the exemption from compliance for persons who obtain coverage through CalPERS.

This section reports the potential incremental impacts of AB 1074 on estimated baseline benefit coverage, utilization, and overall cost. For further details on the underlying data sources and methods, please see Appendix C .

Baseline and Postmandate Benefit Coverage, Utilization, and Costs

Currently, 100% of enrollees with health insurance that would be subject to AB 1074 have benefit coverage that complies with the benefit mandate. Current benefit coverage was determined by a survey of the largest (by enrollment) providers of health insurance in California. Responses to this survey represent 54% of enrollees with private market health insurance that can be subject to state mandates. In addition, CHBRP queried the regulators and CalPERS regarding current benefit coverage.

Having considered these responses, CHBRP estimates no measurable change in benefit coverage among enrollees with health insurance that would be subject to AB 1074:

- Case management and care supervision are both currently included as covered aspects of BHT for ASD, so CHBRP anticipates no measurable change in related benefit coverage.
- Provider networks are compliant with the current mandate, and though AB 1074 would make alterations in QAS provider definitions, CHBRP does not anticipate measurable change within the first year of implementation, because the changes in AB 1074 would not alter existing provider networks allowable for reimbursement.
- The health insurance of enrollees who receive coverage through CalPERS is subject to California's Mental Health Parity law, which also requires coverage for BHT for ASD, and so CHBRP anticipates no measurable change in benefit coverage for those enrollees.

Therefore, CHBRP estimates that AB 1074 will have no measureable impact on benefit coverage.

With no measureable change in benefit coverage, CHBRP anticipates no measureable impact utilization, unit cost, premiums, enrollee expenses, or administrative expenses postmandate from AB 1074. Similarly, CHBRP anticipates no measureable cost offsets or savings.

Other Considerations for Policymakers

With no anticipated measureable impact on coverage, utilization, or costs, CHBRP projects no change in the number of uninsured or in the number of enrollees in public plans. Additionally, AB 1074, which would make alterations to an existing mandate, would not seem to exceed EHBs, and seems unlikely to shift costs to other payers.

PUBLIC HEALTH IMPACTS

AB 1074 alters benefit coverage for enrollees diagnosed with autism spectrum disorder (ASD) by:

- Updating definitions of covered qualified autism service (QAS) providers, professionals, and paraprofessionals;
- Adding clinical management and case supervision as covered elements of behavioral health therapy (BHT); and
- Removing the exemption of DMHC-regulated products for CalPERS enrollees.

CHBRP found limited evidence that the inclusion of clinical management and case supervision in BHT can improve outcomes such as intellectual ability and overall treatment fidelity, and a preponderance of evidence that behavioral health therapies delivered by QAS professionals and paraprofessionals, as well as other personnel types, are effective under the training and supervision of a qualified QAS provider. In addition to evidence of effectiveness, CHBRP's insurance carrier survey respondents indicated that QAS provider networks are currently bill-compliant, and clinical case management and case supervision are included under current BHT coverage.

Although clinical case management, case supervision, and AB 1074-defined QAS providers are found to be medically effective, CHBRP concludes that passage of AB 1074 would have no short-term²⁷ or long-term²⁸ public health impact due to no change in coverage. For this reason, CHBRP also concludes that AB 1074 would have no impact on disparities in health outcomes (by gender, race/ethnicity, sexual orientation/gender identity, or other determinants) and no impact on societal economic loss.

²⁷ CHBRP defines short-term impacts as changes occurring within 12 months of bill implementation.

²⁸ CHBRP defines long-term impacts as changes occurring after 12 months of bill implementation.

APPENDIX A TEXT OF BILL ANALYZED

On February 22, 2017, the California Assembly Committee on Health requested that CHBRP analyze AB 1074.

CALIFORNIA LEGISLATURE— 2017–2018 REGULAR SESSION

ASSEMBLY BILL

No. 1074

Introduced by Assembly Member Maienschein

February 16, 2017

An act to amend Section 1374.73 of the Health and Safety Code, and to amend Section 10144.51 of the Insurance Code, relating to health care coverage.

LEGISLATIVE COUNSEL'S DIGEST

AB 1074, as introduced, Maienschein. Health care coverage: pervasive developmental disorder or autism.

Existing law, the Knox-Keene Health Care Service Plan Act of 1975, 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. Existing law requires a health care service plan contract or a health insurance policy to provide coverage for behavioral health treatment for pervasive developmental disorder or autism, and defines “behavioral health treatment” to mean specified services provided by, among others, a qualified autism service professional supervised and employed by a qualified autism service provider.

This bill would revise those provisions, for purposes of health care service plans and health insurers, to require a qualified autism service professional or a qualified autism service paraprofessional to be supervised by a qualified autism service provider for purposes of providing behavioral health treatment. The bill would require a qualified autism service professional and a qualified autism service paraprofessional to be employed by a qualified autism service provider or an entity or group that employs qualified autism service providers. The bill additionally would authorize a qualified autism service professional to supervise a qualified autism service paraprofessional. The bill would revise the definition of a qualified autism service professional to, among other things, specify that the behavioral health treatment provided by the qualified autism service professional may include clinical case management and case supervision under the direction and supervision of a qualified autism service provider.

Because a willful violation of the bill's provisions by a health care service plan would be 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.

DIGEST KEY

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

BILL TEXT

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

SECTION 1.

Section 1374.73 of the Health and Safety Code is amended to read:

1374.73.

(a) (1) Every health care service plan contract that provides hospital, medical, or surgical coverage shall also provide coverage for behavioral health treatment for pervasive developmental disorder or autism no later than July 1, 2012. The coverage shall be provided in the same manner and shall be subject to the same requirements as provided in Section 1374.72.

(2) Notwithstanding paragraph (1), as of the date that proposed final rulemaking for essential health benefits is issued, this section does not require any benefits to be provided that exceed the essential health benefits that all health plans will be required by federal regulations to provide under Section 1302(b) of the federal Patient Protection and Affordable Care Act (Public Law 111-148), as amended by the federal Health Care and Education Reconciliation Act of 2010 (Public Law 111-152).

(3) This section shall not affect services for which an individual is eligible pursuant to Division 4.5 (commencing with Section 4500) of the Welfare and Institutions Code or Title 14 (commencing with Section 95000) of the Government Code.

(4) This section shall not affect or reduce any obligation to provide services under an individualized education program, as defined in Section 56032 of the Education Code, or an individual service plan, as described in Section 5600.4 of the Welfare and Institutions Code, or under the federal Individuals with Disabilities Education Act (20 U.S.C. Sec. 1400 et seq.) and its implementing regulations.

(b) Every health care service plan subject to this section shall maintain an adequate network that includes qualified autism service providers who supervise and employ qualified autism service professionals or paraprofessionals who provide and administer behavioral health treatment. Nothing shall prevent a health care service plan from selectively contracting with providers within these requirements.

(c) For the purposes of this section, the following definitions shall apply:

(1) "Behavioral health treatment" means professional services and treatment programs, including applied behavior analysis and evidence-based behavior intervention programs, that develop or restore, to the maximum extent practicable, the functioning of an individual with pervasive developmental disorder or autism and that meet all of the following criteria:

(A) The treatment is prescribed by a physician and surgeon licensed pursuant to Chapter 5 (commencing with Section 2000) of, or is developed by a psychologist licensed pursuant to

Chapter 6.6 (commencing with Section 2900) of, Division 2 of the Business and Professions Code.

(B) The treatment is provided under a treatment plan prescribed by a qualified autism service provider and is administered by one of the following:

(i) A qualified autism service provider.

(ii) A qualified autism service professional supervised ~~and employed~~ by the qualified autism service provider.

(iii) A qualified autism service paraprofessional supervised ~~and employed~~ by a qualified autism service ~~provider~~ *provider or qualified autism service professional*.

(C) The treatment plan has measurable goals over a specific timeline that is developed and approved by the qualified autism service provider for the specific patient being treated. The treatment plan shall be reviewed no less than once every six months by the qualified autism service provider and modified whenever appropriate, and shall be consistent with Section 4686.2 of the Welfare and Institutions Code pursuant to which the qualified autism service provider does all of the following:

(i) Describes the patient's behavioral health impairments or developmental challenges that are to be treated.

(ii) Designs an intervention plan that includes the service type, number of hours, and parent participation needed to achieve the plan's goal and objectives, and the frequency at which the patient's progress is evaluated and reported.

(iii) Provides intervention plans that utilize evidence-based practices, with demonstrated clinical efficacy in treating pervasive developmental disorder or autism.

(iv) Discontinues intensive behavioral intervention services when the treatment goals and objectives are achieved or no longer appropriate.

(D) The treatment plan is not used for purposes of providing or for the reimbursement of respite, day care, or educational services and is not used to reimburse a parent for participating in the treatment program. The treatment plan shall be made available to the health care service plan upon request.

(2) "Pervasive developmental disorder or autism" shall have the same meaning and interpretation as used in Section 1374.72.

(3) "Qualified autism service provider" means either of the following:

(A) A ~~person, entity, or group that~~ *person who* is certified by a national entity, such as the Behavior Analyst Certification Board, *with a certification* that is accredited by the National Commission for Certifying Agencies, and who designs, supervises, or provides treatment for pervasive developmental disorder or autism, provided the services are within the experience and competence of the ~~person, entity, or group that~~ *person who* is nationally certified.

(B) A person licensed as a physician and surgeon, physical therapist, occupational therapist, psychologist, marriage and family therapist, educational psychologist, clinical social worker, professional clinical counselor, speech-language pathologist, or audiologist pursuant to Division 2 (commencing with Section 500) of the Business and Professions Code, who designs, supervises, or provides treatment for pervasive developmental disorder or autism, provided the services are within the experience and competence of the licensee.

(4) "Qualified autism service professional" means an individual who meets all of the following criteria:

(A) Provides behavioral health ~~treatment~~ *treatment, which may include clinical case management and case supervision under the direction and supervision of a qualified autism service provider*.

(B) Is ~~employed and~~ supervised by a qualified autism service provider.

(C) Provides treatment pursuant to a treatment plan developed and approved by the qualified autism service provider.

(D) Is a behavioral service provider ~~approved as a vendor by a California regional center to provide services as who meets the education and experience qualifications described in Section 54342 of Title 17 of the California Code of Regulations for~~ an Associate Behavior Analyst, Behavior Analyst, Behavior Management Assistant, Behavior Management Consultant, or Behavior Management ~~Program as defined in Section 54342 of Article 3 of Subchapter 2 of Chapter 3 of Division 2 of Title 17 of the California Code of Regulations.~~ *Program.*

(E) Has training and experience in providing services for pervasive developmental disorder or autism pursuant to Division 4.5 (commencing with Section 4500) of the Welfare and Institutions Code or Title 14 (commencing with Section 95000) of the Government Code.

(F) Is employed by a qualified autism service provider or an entity or group that employs qualified autism service providers.

(5) “Qualified autism service paraprofessional” means an unlicensed and uncertified individual who meets all of the following criteria:

(A) Is ~~employed and~~ supervised by a qualified autism service ~~provider.~~ *provider or qualified autism service professional.*

(B) Provides treatment and implements services pursuant to a treatment plan developed and approved by the qualified autism service provider.

~~(C) Meets the criteria set forth in the regulations adopted pursuant to Section 4686.3 of the Welfare and Institutions Code.~~

(C) Meets the education and training qualifications described in Section 54342 of Title 17 of the California Code of Regulations.

(D) Has adequate education, training, and experience, as certified by a qualified autism service ~~provider.~~ *provider or an entity or group that employs qualified autism service providers.*

(E) Is employed by a qualified autism service provider or an entity or group that employs qualified autism service providers.

(d) This section shall not apply to the following:

(1) A specialized health care service plan that does not deliver mental health or behavioral health services to enrollees.

(2) A health care service plan contract in the Medi-Cal program (Chapter 7 (commencing with Section 14000) of Part 3 of Division 9 of the Welfare and Institutions Code).

~~(3) A health care service plan contract in the Healthy Families Program (Part 6.2 (commencing with Section 12693) of Division 2 of the Insurance Code).~~

~~(4) A health care benefit plan or contract entered into with the Board of Administration of the Public Employees’ Retirement System pursuant to the Public Employees’ Medical and Hospital Care Act (Part 5 (commencing with Section 22750) of Division 5 of Title 2 of the Government Code).~~

(e) Nothing in this section shall be construed to limit the obligation to provide services under Section 1374.72.

(f) As provided in Section 1374.72 and in paragraph (1) of subdivision (a), 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.

SEC. 2.

Section 10144.51 of the Insurance Code is amended to read:

10144.51.

(a) (1) Every health insurance policy shall also provide coverage for behavioral health treatment for pervasive developmental disorder or autism no later than July 1, 2012. The coverage shall be provided in the same manner and shall be subject to the same requirements as provided in Section 10144.5.

(2) Notwithstanding paragraph (1), as of the date that proposed final rulemaking for essential health benefits is issued, this section does not require any benefits to be provided that exceed the essential health benefits that all health insurers will be required by federal regulations to provide under Section 1302(b) of the federal Patient Protection and Affordable Care Act (Public Law 111-148), as amended by the federal Health Care and Education Reconciliation Act of 2010 (Public Law 111-152).

(3) This section shall not affect services for which an individual is eligible pursuant to Division 4.5 (commencing with Section 4500) of the Welfare and Institutions Code or Title 14 (commencing with Section 95000) of the Government Code.

(4) This section shall not affect or reduce any obligation to provide services under an individualized education program, as defined in Section 56032 of the Education Code, or an individual service plan, as described in Section 5600.4 of the Welfare and Institutions Code, or under the federal Individuals with Disabilities Education Act (20 U.S.C. Sec. 1400 et seq.) and its implementing regulations.

(b) Pursuant to Article 6 (commencing with Section 2240) of Subchapter 2 of Chapter 5 of Title 10 of the California Code of Regulations, every health insurer subject to this section shall maintain an adequate network that includes qualified autism service providers who supervise and employ qualified autism service professionals or paraprofessionals who provide and administer behavioral health treatment. Nothing shall prevent a health insurer from selectively contracting with providers within these requirements.

(c) For the purposes of this section, the following definitions shall apply:

(1) "Behavioral health treatment" means professional services and treatment programs, including applied behavior analysis and evidence-based behavior intervention programs, that develop or restore, to the maximum extent practicable, the functioning of an individual with pervasive developmental disorder or autism, and that meet all of the following criteria:

(A) The treatment is prescribed by a physician and surgeon licensed pursuant to Chapter 5 (commencing with Section 2000) of, or is developed by a psychologist licensed pursuant to Chapter 6.6 (commencing with Section 2900) of, Division 2 of the Business and Professions Code.

(B) The treatment is provided under a treatment plan prescribed by a qualified autism service provider and is administered by one of the following:

(i) A qualified autism service provider.

(ii) A qualified autism service professional supervised ~~and employed~~ by the qualified autism service provider.

(iii) A qualified autism service paraprofessional supervised ~~and employed~~ by a qualified autism service ~~provider~~ *provider or qualified autism service professional*.

(C) The treatment plan has measurable goals over a specific timeline that is developed and approved by the qualified autism service provider for the specific patient being treated. The treatment plan shall be reviewed no less than once every six months by the qualified autism service provider and modified whenever appropriate, and shall be consistent with Section 4686.2 of the Welfare and Institutions Code pursuant to which the qualified autism service provider does all of the following:

- (i) Describes the patient’s behavioral health impairments or developmental challenges that are to be treated.
- (ii) Designs an intervention plan that includes the service type, number of hours, and parent participation needed to achieve the plan’s goal and objectives, and the frequency at which the patient’s progress is evaluated and reported.
- (iii) Provides intervention plans that utilize evidence-based practices, with demonstrated clinical efficacy in treating pervasive developmental disorder or autism.
- (iv) Discontinues intensive behavioral intervention services when the treatment goals and objectives are achieved or no longer appropriate.
- (D) The treatment plan is not used for purposes of providing or for the reimbursement of respite, day care, or educational services and is not used to reimburse a parent for participating in the treatment program. The treatment plan shall be made available to the insurer upon request.
- (2) “Pervasive developmental disorder or autism” shall have the same meaning and interpretation as used in Section 10144.5.
- (3) “Qualified autism service provider” means either of the following:
 - (A) ~~A person, entity, or group that~~ *person who* is certified by a national entity, such as the Behavior Analyst Certification Board, *with a certification* that is accredited by the National Commission for Certifying Agencies, and who designs, supervises, or provides treatment for pervasive developmental disorder or autism, provided the services are within the experience and competence of the ~~person, entity, or group that~~ *person who* is nationally certified.
 - (B) A person licensed as a physician and surgeon, physical therapist, occupational therapist, psychologist, marriage and family therapist, educational psychologist, clinical social worker, professional clinical counselor, speech-language pathologist, or audiologist pursuant to Division 2 (commencing with Section 500) of the Business and Professions Code, who designs, supervises, or provides treatment for pervasive developmental disorder or autism, provided the services are within the experience and competence of the licensee.
- (4) “Qualified autism service professional” means an individual who meets all of the following criteria:
 - (A) Provides behavioral health ~~treatment.~~ *treatment, which may include clinical case management and case supervision under the direction and supervision of a qualified autism service provider.*
 - (B) Is ~~employed and~~ supervised by a qualified autism service provider.
 - (C) Provides treatment pursuant to a treatment plan developed and approved by the qualified autism service provider.
 - (D) Is a behavioral service provider ~~approved as a vendor by a California regional center to provide services as~~ *who meets the education and experience qualifications described in Section 54342 of Title 17 of the California Code of Regulations for* an Associate Behavior Analyst, Behavior Analyst, Behavior Management Assistant, Behavior Management Consultant, or Behavior Management ~~Program as defined in Section 54342 of Article 3 of Subchapter 2 of Chapter 3 of Division 2 of Title 17 of the California Code of Regulations.~~ *Program.*
 - (E) Has training and experience in providing services for pervasive developmental disorder or autism pursuant to Division 4.5 (commencing with Section 4500) of the Welfare and Institutions Code or Title 14 (commencing with Section 95000) of the Government Code.
 - (F) *Is employed by a qualified autism service provider or an entity or group that employs qualified autism service providers.*
- (5) “Qualified autism service paraprofessional” means an unlicensed and uncertified individual who meets all of the following criteria:

(A) Is ~~employed and~~ supervised by a qualified autism service ~~provider~~. *provider or qualified autism service professional.*

(B) Provides treatment and implements services pursuant to a treatment plan developed and approved by the qualified autism service provider.

~~(C) Meets the criteria set forth in the regulations adopted pursuant to Section 4686.3 of the Welfare and Institutions Code.~~

(C) Meets the education and training qualifications described in Section 54342 of Title 17 of the California Code of Regulations.

(D) Has adequate education, training, and experience, as certified by a qualified autism service ~~provider~~. *provider or an entity or group that employs qualified autism service providers.*

(E) Is employed by a qualified autism service provider or an entity or group that employs qualified autism service providers.

(d) This section shall not apply to the following:

(1) A specialized health insurance policy that does not cover mental health or behavioral health services or an accident only, specified disease, hospital indemnity, or Medicare supplement policy.

(2) A health insurance policy in the Medi-Cal program (Chapter 7 (commencing with Section 14000) of Part 3 of Division 9 of the Welfare and Institutions Code).

~~(3) A health insurance policy in the Healthy Families Program (Part 6.2 (commencing with Section 12693)).~~

~~(4) A health care benefit plan or policy entered into with the Board of Administration of the Public Employees' Retirement System pursuant to the Public Employees' Medical and Hospital Care Act (Part 5 (commencing with Section 22750) of Division 5 of Title 2 of the Government Code).~~

(e) Nothing in this section shall be construed to limit the obligation to provide services under Section 10144.5.

(f) As provided in Section 10144.5 and in paragraph (1) of subdivision (a), in the provision of benefits required by this section, a health insurer may utilize case management, network providers, utilization review techniques, prior authorization, copayments, or other cost sharing.

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 conducted for AB 1074. A discussion of CHBRP's system for grading evidence, as well as lists of MeSH Terms, Publication Types, and Keywords, follows.

The literature search was limited to studies published in English, for which abstracts were available, from 2015 to present.

The following databases of peer-reviewed literature were searched: MEDLINE (PubMed), Business Sources Complete, the Cochrane Library (includes Cochrane Register of Controlled Clinical Trials, Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database, and NHS Economic Evaluation Database, EconLit, Web of Science (includes Science Citation Index Expanded and the Social Science Citation Index), Embase, Cumulative Index of Nursing and Allied Health Literature, Pharmaceuticals – BIOSIS, Pharmaceuticals – International Pharmaceutical Abstracts (if available), and Pharmaceuticals – Micromedex (if available). In addition, websites maintained by the following organizations that index or publish systematic reviews and evidence-based guidelines were searched: National Institutes of Health, Institute for Clinical Systems Improvement, and the World Health Organization. Two reviewers screened the title and abstract of each citation retrieved by the literature search to determine eligibility for inclusion. The reviewers acquired the full text of articles that were deemed eligible for inclusion in the review and reapplied the initial eligibility criteria. Abstracts for 588 articles were identified. Thirteen meta-analyses, systematic reviews, narrative reviews, RCTs, and nonrandomized studies with comparison groups were retrieved and reviewed.

Evidence Grading System

In making a “call” for each outcome measure, the medical effectiveness lead and the content expert consider the number of studies as well the strength of the evidence. Further information about the criteria CHBRP uses to evaluate evidence of medical effectiveness can be found in CHBRP's Medical Effectiveness Analysis Research Approach.²⁹ To grade the evidence for each outcome measured, the team uses a grading system that has the following categories:

- Research design;
- Consistency of findings;
- Generalizability of findings to the population whose coverage would be affected by a mandate; and
- Cumulative impact of evidence.

CHBRP uses a hierarchy to classify studies' research designs by the strength of the evidence they provide regarding a treatment's effects.

CHBRP evaluates consistency of findings across three dimensions: statistical significance, direction of effect, and size of effect.

The grading system also contains an overall conclusion that encompasses findings in these five domains. The conclusion is a statement that captures the strength, consistency, and generalizability of the

²⁹ Available at: http://www.chbrp.org/analysis_methodology/medical_effectiveness_analysis.php

evidence of an intervention's effect on an outcome. The following terms are used to characterize the body of evidence regarding an outcome:

- Clear and convincing evidence;
- Preponderance of evidence;
- Limited evidence;
- Conflicting evidence; and
- Insufficient evidence.

A grade of *clear and convincing* evidence indicates that there are multiple studies of a treatment and that the large majority of studies have strong research designs, consistently find that the treatment is either effective or not effective, and have findings that are highly generalizable to the population whose coverage would be affected. This grade is assigned in cases in which it is unlikely that publication of additional studies would change CHBRP's conclusion about the effectiveness of a treatment.

A grade of *preponderance of evidence* indicates that the majority of the studies reviewed are consistent in their findings that treatment is either effective or not effective and that the findings are generalizable to the population whose coverage would be affected. Bodies of evidence that are graded as preponderance of evidence are further subdivided into three categories based on the strength of their research designs: strong research designs, moderate research designs, and weak research designs.

A grade of *conflicting evidence* indicates that although some studies included in the medical effectiveness review find that a treatment is effective, a similar number of studies with equally strong research designs suggest the treatment is not effective.

A grade of *insufficient evidence* indicates that there is not enough evidence available to know whether or not a treatment is effective, either because there are too few studies of the treatment or because the available studies have weak research designs. It does not indicate that a treatment is not effective.

In addition to grading the strength of evidence regarding a treatment's effect on specific outcomes, CHBRP also assigns an overall grade to the whole body of evidence included in the medical effectiveness review. A statement of the overall grade is included in the *Key Findings* and in the *Medical Effectiveness* section of the text of the report. The statement is accompanied by a graphic to help readers visualize the conclusion.

Search Terms

The search terms used to locate studies relevant to AB 1074 were as follows:

Keywords used to search PubMed, Cochrane Library, Web of Science, EconLit, and other relevant websites:

Keywords:

- Behavioral Health Therapy
- Autism
- Autism Spectrum Disorder
- Autistic
- Asperger
- PDD
- Pervasive Development Disorder
- Rett
- Applied Behavioral Analysis
- Therapies or treatments
- Behavioral health therapy and certification
- Autism service provider
- Autism service professional
- Autism service paraprofessional
- Medical expenditure
- Outpatient
- Health insurance claims
- Access
- Case management
- Supervisor involvement
- All above * treatments listed above
- All above * outcomes plus those listed below

Outcomes:

- Increased function
- Increased access to care

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

The cost analysis in this report was prepared by the members of the cost team, which consists of CHBRP task force members and contributors from the University of California, Los Angeles, and the University of California, Davis, as well as the contracted actuarial firm, PricewaterhouseCoopers (PwC).³⁰

Information on the generally used data sources and estimation methods, as well as caveats and assumptions generally applicable to CHBRP's cost impacts analyses, is available at CHBRP's website.³¹

³⁰ CHBRP's authorizing statute, available at www.chbrp.org/docs/authorizing_statute.pdf, requires that CHBRP use a certified actuary or "other person with relevant knowledge and expertise" to determine financial impact.

³¹ See *2017 Cost Impact Analyses: Data Sources, Caveats, and Assumptions*, available at www.chbrp.org/analysis_methodology/cost_impact_analysis.php.

REFERENCES

- American Psychiatric Association (APA). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. DSM-5. Washington, DC: American Psychiatric Association, 2013.
- Baller JB, Barry CL, Shea K, Walker MM, Ouellette R, Mandell DS. Assessing early implementation of state autism insurance mandates. *Autism*. 2016;20:796-807.
- Behavior Analyst Certification Board (BACB). *Applied Behavior Analysis Treatment of Autism Spectrum Disorder. Practice Guidelines for Healthcare Funders and Managers*. 2nd ed. Littleton, CO: Behavior Analyst Certification Board; 2014.
- Blue Cross and Blue Shield Association (BCBSA). State Legislative Health Care and Insurance Issues: 2015 Survey of Plans. Washington, DC: The Blue Cross and Blue Shield Association, Office of Policy and Representation; 2016.
- Braveman P. Health disparities and health equity: concepts and measurement. *Annual Review of Public Health*. 2006;27:167-194.
- California Department of Developmental Services (DDS 2017a). Who Is Eligible for Services? Available at: <http://www.dds.ca.gov/General/Eligibility.cfm>. Accessed March 15, 2017.
- California Department of Developmental Services (DDS 2017b). Quarterly Client Characteristics Report. Available at: <http://www.dds.ca.gov/FactsStats/QuarterlyReports.cfm>. Accessed March 15, 2017.
- California Department of Developmental Services (DDS). Autistic Spectrum Disorders: Changes in the California Caseload. An Update: June 1987–June 2007. Sacramento, CA: California Department of Developmental Services; 2009. http://www.dds.ca.gov/Autism/docs/AutismReport_2007.pdf. Accessed February 12, 2013.
- California Health Benefits Review Program (CHBRP). Analysis of California Assembly Bill AB 796: Autism and Pervasive Developmental Disorders. Oakland, CA: CHBRP; 2015.
- Centers for Disease Control and Prevention (CDC 2017a). Autism Spectrum Disorder: Data and Statistics. Page Last Reviewed March 10, 2017. Available at: <https://www.cdc.gov/ncbddd/autism/data.html#references>. Accessed March 12, 2017.
- Centers for Disease Control and Prevention (CDC 2017b). Key Findings From the ADDM Network: A Snapshot of Autism Spectrum Disorder. Available at: <https://www.cdc.gov/ncbddd/autism/documents/comm-report-key-findings-addm-network.pdf>. Accessed March 12, 2017.
- Christensen DL, Baio J, Van Naarden Braun K, et al. Prevalence and characteristics of autism spectrum disorder among children aged 8 years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2012. *Morbidity and Mortality Weekly Report. Surveillance Summaries (Washington, D.C.: 2002)*. 2016;65(3):1-23.
- Daniels AM, Mandell DS. Explaining differences in age at autism spectrum disorder diagnosis: a critical review. *Autism*. 2014;18:583-597.

- Dixon DR, Linstead E, Granpeesheh D, et al. An evaluation of the impact of supervision intensity, supervisor qualifications, and caseload on outcomes in the treatment of autism spectrum disorder. *Behavior Analysis in Practice*. 2016;9:339-348.
- Eikeseth S, Hayward D, Gale C, Gitlesen J-P, Eldevik S. Intensity of supervision and outcome for preschool aged children receiving early and intensive behavioral interventions: a preliminary study. *Research in Autism Spectrum Disorders*. 2009;3:67-73.
- Elder JH, Brasher S, Alexander B. Identifying the barriers to early diagnosis and treatment in underserved individuals with autism spectrum disorders (ASD) and their families: a qualitative study. *Issues in Mental Health Nursing*. 2016;37:412-420.
- Eldevik S, Eikeseth S, Jahr E, Smith T. Effects of low-intensity behavioral treatment for children with autism and mental retardation. *Journal of Autism and Developmental Disorders*. 2006;36:211-224.
- Hill AP, Zuckerman K, Fombonne E. Challenges and Options for Estimating the Prevalence of Autism in Population Surveys. National Academy of Sciences. July 6, 2016. Available at: http://sites.nationalacademies.org/cs/groups/dbassessite/documents/webpage/dbasse_173340.pdf. Accessed March 20, 2017.
- Magana S, Parish SL, Son E. Have racial and ethnic disparities in the quality of health care relationships changed for children with developmental disabilities and ASD? *American Journal on Intellectual and Developmental Disabilities*. 2015;120:504-513.
- Murphy MA, Ruble LA. A comparative study of rurality and urbanicity on access to and satisfaction with services for children with autism spectrum disorders. *Rural Special Education Quarterly*. 2012;31(3):3-11.
- Peters-Scheffer N, Didden R, Mulders M, Korzilius H. Low intensity behavioral treatment supplementing preschool services for young children with autism spectrum disorders and severe to mild intellectual disability. *Research in Developmental Disabilities*. 2010;31:1678-1684.
- Peters-Scheffer N, Didden R, Mulders M, Korzilius H. Effectiveness of low intensity behavioral treatment for children with autism spectrum disorder and intellectual disability. *Research in Autism Spectrum Disorders*. 2013;7:1012-1025.
- Peters-Scheffer N, Didden R, Korzilius H, Sturmey P. A meta-analytic study on the effectiveness of comprehensive ABA-based early intervention programs for children with autism spectrum disorders. *Research in Autism Spectrum Disorders*. 2011;5:60-69.
- Reichow B, Servili C, Yasamy MT, Barbui C, Saxena S. Non-specialist psychosocial interventions for children and adolescents with intellectual disability or lower-functioning autism spectrum disorders: A systematic review. *PLoS Med*. 2013;10:e1001572.
- Shattuck PT, Wagner M, Narendorf S, Sterzing P, Hensley M. Post-high school service use among young adults with an autism spectrum disorder. *Archives of Pediatrics and Adolescent Medicine*. 2011;165:141-146.
- Shimabukuro TT, Grosse SD, Rice C. Medical expenditures for children with an autism spectrum disorder in a privately insured population. *Journal of Autism and Developmental Disorders*. 2008;38:546-552.

Shire SY, Kasari C. Train the trainer effectiveness trials of behavioral intervention for individuals with autism: a systematic review. *American Journal on Intellectual and Developmental Disabilities*. 2014;119:436-451.

Siller M, Reyes N, Hotez E, Hutman T, Sigman M. Longitudinal change in the use of services in autism spectrum disorder: understanding the role of child characteristics, family demographics, and parent cognitions. *Autism*. 2014;18:433-446.

Vivanti G, Prior M, Williams K, Dissanayake C. Predictors of outcomes in autism early intervention: why don't we know more? *Frontiers in Pediatrics*. 2014;2:58.

Warren Z, McPheeters ML, Sathe N, Foss-Feig JH, Glasser A, Veenstra-Vanderweele J. A systematic review of early intensive intervention for autism spectrum disorders. *Pediatrics*. 2011;127:e1303-e1311.

Weitlauf AS, McPheeters ML, Peters B, et al. *Therapies for Children With Autism Spectrum Disorder: Behavioral Interventions Update*. Comparative Effectiveness Review, No. 137. Rockville, MD: Agency for Healthcare Research and Quality; 2014.

CALIFORNIA HEALTH BENEFITS REVIEW PROGRAM COMMITTEES AND STAFF

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

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

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The California Health Benefits Review Program is administered by UC Health at the University of California, Office of the President. UC Health is led by John D. Stobo, MD, Executive Vice President.

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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.

CHBRP is also grateful for the valuable assistance of its National Advisory Council, who provide expert reviews of draft analyses and offer general guidance on the program. CHBRP is administered by UC Health at the University of California, Office of the President, led by John D. Stobo, MD, Executive Vice President.

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

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