# California Health Benefits Review Program

## Analysis of California Assembly Bill 1676 Health Care: Mental Health

A Report to the 2019-2020 California State Legislature

April 22, 2019



## Key Findings: Analysis of California Assembly Bill 1676 Health Care: Mental Health

Summary to the 2019–2020 California State Legislature, April 22, 2019



### AT A GLANCE

The version of California Assembly Bill 1676 analyzed by CHBRP would require that health plans and insurers establish a telehealth consultation program by January 1, 2021, "that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist during standard provider hours."

- CHBRP estimates that, in 2021, all 24.5 million Californians enrolled in state-regulated health insurance, including enrollees in Medi-Cal Managed Care Plans, will have insurance subject to AB 1676.
- 2. Benefit coverage. Currently, 74% of enrollees with health insurance that can be subject to state mandates and 38% of enrollees with Medi-Cal MCP coverage subject to AB 1676 are enrolled in plans or policies where providers have access to a telepsychiatry consultation program, known as a psychiatry "eConsult" program.
- 3. **Utilization.** CHBRP did not model utilization changes because the bill relates to a program for providers, not a benefit for enrollees. Estimates of current utilization of psychiatric eConsults are not available given limitations in coding and data sources.
- 4. **Expenditures.** CHBRP assumes there will be increased administrative costs associated with the implementation of AB 1676, as well as an increase in overall utilization of psychiatric services. However, the expenditure impact cannot be estimated.
- 5. **Medical effectiveness.** There is *limited evidence* on the effectiveness of psychiatric eConsults generally and *insufficient evidence* on the effectiveness of psychiatric eConsults specifically for children and pregnant and postpartum persons.

- 6. **Public health.** The public health impact is unknown due to insufficient evidence regarding the effectiveness of psychiatric eConsults for mental health treatment for children and pregnant and postpartum persons.
- 7. **Long-term impacts.** The long-term impacts on cost, utilization, and mental health are unknown.

## CONTEXT

It is estimated that 14%–20% of California's children and 20% of pregnant and postpartum persons may need care for a behavioral health condition.<sup>1</sup> While behavioral health encompasses both mental health and substance use disorders, AB 1676 focuses on mental health disorders. Some of the most common chronic conditions in children are depression/anxiety disorders, autism spectrum disorders, and attention-deficit/hyperactivity disorder (ADHD). Maternal mental health (MMH) disorders include a range of distinct disorders that may arise or become exacerbated during pregnancy or after birth — depression and anxiety are two of the most common MMH disorders.

Primary care providers (PCPs) often assume full responsibility for treating their patient's mental health conditions due to a lack of available resources. Telehealth consultations have been introduced as one way to address this lack of resources.

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

<sup>&</sup>lt;sup>1</sup> Refer to CHBRP's full report for full citations and references.



When a PCP experiences difficulty in treating mental health conditions or referring patients for specialty mental health care for problems that are often first encountered and addressed in a primary care setting, a PCP may request an eConsult with a psychiatrist or mental health provider.

## **BILL SUMMARY**

AB 1676 would require that health plans and insurers establish a telehealth consultation program by January 1, 2021, "that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist during standard provider hours." The stated purpose of the bill is to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness. The bill would also require plans and insurers to:

- Communicate information about the program and its availability to contracting medical providers who treat children and pregnant and postpartum persons at least twice a year in writing; and
- Maintain records and data on the utilization of its telehealth consultation program and the availability of psychiatrists to facilitate ongoing changes and improvements to the program.

Figure A shows how many Californians have health insurance that would be subject to AB 1676.



#### Figure A. Health Insurance in CA and AB 1676

### **IMPACTS**

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

CHBRP did not model benefit changes because the bill does not require coverage of a benefit available to enrollees but rather requires insurers to make a psychiatric eConsult program available to PCPs. Similarly, CHBRP did not model an effect in terms of utilization or expenditures.

#### **Benefit Coverage**

Currently, 74% of enrollees with health insurance that can be subject to state mandates and 38% of enrollees with Medi-Cal MCP coverage subject to AB 1676 are already enrolled in health plans or policies with a psychiatric eConsult program.

Postmandate, CHBRP assumes that health plans and insurers without psychiatric eConsult programs will need to establish one. Health plans and insurers could provide a telepsychiatry consultation program for PCPs through a third-party vendor, in-network psychiatrists, or some other approach.

#### Utilization

Estimates of current utilization of psychiatric eConsults are not available given limitations in coding and data sources. As a result of AB 1676, more enrollees with mental health care needs may have increased access to psychiatric services including medications and psychotherapy through their PCPs as a result of a psychiatric eConsult program, but CHBRP is not able to quantify these impacts.

#### Expenditures

CHBRP estimates AB 1676 would result in increases in administrative costs. As an example, a psychiatry consultation program in Massachusetts that PCPs can access by phone costs the state about \$850,000 per year. The implementation of AB 1676 could create a shift in utilization from in-person patient consultations or providerto-patient telehealth consultation to eConsults. It could also increase the referrals of patients to psychiatrists, which will increase overall utilization of psychiatric services. If that happens, it may impact overall cost; however, the magnitude of the effect is unknown.

Source: California Health Benefits Review Program, 2019. Notes: \*Medicare beneficiaries, enrollees in self-insured products, etc.



CHBRP estimates that AB 1676 would increase providers' access to specialists proportionally more for Medi-Cal beneficiaries compared to commercial plan enrollees, as 74% of commercial and CalPERS enrollees and 38% of Medi-Cal Managed Care enrollees are covered by plans and insurers that already have a psychiatric eConsult program in place.

Mandates such as AB 1676 that impact Medi-Cal more significantly may lead to differences in the coverage and utilization of certain services for these beneficiaries; therefore, it may disproportionately affect the Latino, African American, or Other racial/ethnic population if the mandate-relevant service is found to be medically effective.

#### CalPERS

CHBRP does not expect impacts for CalPERS enrollees to be different from the impacts to enrollees in other commercial plans or policies.

#### Number of Uninsured in California

As described above, CHBRP did not estimate impacts on premiums and is therefore unable to determine whether there would be an impact on the number of uninsured.

#### **Medical Effectiveness**

CHBRP identified no rigorous studies that addressed the use of psychiatric eConsult programs to treat the specific populations specified in AB 1676. An analysis of studies of psychiatric eConsult programs for adults in general is provided, in order to provide some context on effectiveness.

CHBRP found *limited evidence* on the effectiveness of psychiatric eConsults generally and *insufficient evidence* on the effectiveness of psychiatric eConsults specifically for children and pregnant and postpartum persons.

Specifically, there is limited evidence that psychiatric eConsults are effective at improving appropriate treatment of mental health conditions as measured by improvement in the receipt of more appropriate care, mental health outcomes in patients, provider knowledge and skill development for mental health treatment, provider satisfaction, and timeliness of services.

#### **Public Health**

In the first year postmandate, the impacts of AB 1676 on public health and disparities in health outcomes are unknown due to insufficient evidence regarding the effectiveness of psychiatric eConsults for mental health treatment for children and pregnant and postpartum persons. As noted above, there is limited evidence suggesting that psychiatric eConsults for the adult population overall are effective. It stands to reason that the populations specified in AB 1676 would experience the same effectiveness of psychiatric eConsults as the general population.

Incorporating telepsychiatry consultations for PCPs who treat children and pregnant and postpartum persons could potentially increase access and timeliness to appropriate mental health care. It is estimated that this change in access would be greatest for rural beneficiaries who may, directly or through their PCP, otherwise not have had their mental health concerns addressed by a psychiatrist due to shortages of licensed psychiatrists in rural areas.

#### **Long-Term Impacts**

The potential long-term impacts of AB 1676 on cost, utilization, and mental health are unknown. Mental health conditions in the population overall contribute to general economic loss, although it is difficult to estimate losses for these specific populations and conditions.

The literature reviewed for this analysis suggests that there is the potential for PCPs to increase knowledge and skills over time with regard to diagnosis and treatment of mental health conditions. Therefore, it is plausible that over time these providers may be better prepared to advise their patients after obtaining regular access to psychiatrists for consultation, resulting in the potential for more prompt diagnosis and treatment, and improved patient and provider satisfaction. Further, the literature also indicates that after consultation with psychiatrists, a large proportion of mental health diagnoses and treatment plans may be corrected. This has the potential to impact patient mental health outcomes immediately and over time.





## Essential Health Benefits and the Affordable Care Act

AB 1676 would not require coverage for a new state benefit mandate that appears to exceed the definition of essential health benefits (EHBs) in California because it requires plans to establish a telepsychiatry consultation program for providers and is not a benefit for enrollees.

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California Health Benefits Review Program MC 3116; Berkeley, CA 94720-3116 www.chbrp.org



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

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

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

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## **POLICY CONTEXT**

The California Assembly Committee on Health has requested that the California Health Benefits Review Program (CHBRP)<sup>2</sup> conduct an evidence-based assessment of the medical, financial, and public health impacts of Assembly Bill (AB) 1676, Health Care: Mental Health.

### **Bill-Specific Analysis of AB 1676, Health Care: Mental Health**

#### **Bill Language Summary**

AB 1676 would require health plans and insurers to establish a telehealth consultation program by January 1, 2021, "that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist during standard provider hours." The stated purpose of the bill is to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness. The bill would also require plans and insurers to:

- Communicate information about the program and its availability to contracting medical providers who treat children and pregnant and postpartum persons at least twice a year in writing; and
- Maintain records and data on the utilization of its telehealth consultation program and the availability of psychiatrists to facilitate ongoing changes and improvements to the program.

The full text of AB 1676 can be found in Appendix A.

#### **Relevant Populations**

If enacted, AB 1676 would affect the health insurance of approximately 24.5 million enrollees (61.8% of all Californians). This represents 100% of the 24.5 million Californians who will have health insurance regulated by the state that may be subject to any state health benefit mandate law — health insurance regulated by the California Department of Managed Health Care (DMHC) or the California Department of Insurance (CDI). This includes enrollees in Medi-Cal Managed Care Plans (MCPs).

#### **Interaction With Existing Requirements**

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

#### **California Policy Landscape**

#### California law and regulations

#### Mental health-related mandates

There are currently 12 state benefit mandates<sup>3</sup> related to screening, diagnosis, and/or treatment for mental health conditions. AB 1676 requires plans and insurers to establish a telehealth psychiatry (i.e.,

<sup>&</sup>lt;sup>2</sup> CHBRP's authorizing statute is available at <u>http://www.chbrp.org/about\_chbrp/index.php</u>.

<sup>&</sup>lt;sup>3</sup> A list of current health insurance benefit mandates in California state and Federal law is available under "Resources" at <u>http://chbrp.com/other\_publications/index.php</u>.

telepsychiatry) consultation program for *providers* and does not require plans and insurers to provide telehealth services directly to patients; therefore, AB 1676 is not expected to interact with any of the mental health mandates in the immediate future.

#### Recent related mental health legislative activity

**AB 2193 Maternal Mental Health**. AB 2193 (Maienschein. Maternal Mental Health, enacted 2018) required health plans and insurers to develop a maternal mental health (MMH) program designed to promote quality and cost-effective outcomes, and that the program be developed consistent with sound clinical principles and processes.<sup>4</sup> AB 2193 required licensed health care practitioners who provide prenatal or postpartum care for a patient to ensure mothers are appropriately screened for MMH conditions.

**California Task Force on the Status of Maternal Mental Health Care**. In 2014, the California Legislative Women's Caucus introduced Assembly Concurrent Resolution (ACR) 148 to explore untreated MMH disorders and their impacts (CA Task Force, 2017). The resolution passed and initiated a multidisciplinary Task Force representing stakeholders in mental health, medicine, public health, nursing, research, insurance, and hospitals. From 2015 to 2016, the California Task Force on the Status of Maternal Mental Health Care (the Task Force) examined existing barriers to screening and diagnosis, current treatment options, evidence-based treatments, and emerging treatments (CA Task Force, 2017). In December 2016, the Task Force published "California's Strategic Plan: A catalyst for shifting statewide systems to improve care across California and beyond." The report included an overview of the current state and recommendations for California to improve maternal mental health care (CA Task Force, 2017).

**Perinatal Depression Awareness Month**. In 2010, California designated May as Perinatal Depression Awareness Month.<sup>5</sup> The resolution also requested that several stakeholders including the Department of Health Care Services (DHCS), California Department of Public Health, First 5 California, the American College of Obstetricians and Gynecologists (ACOG), and Postpartum Support International work together on several issues. The ACR encouraged these stakeholders to explore ways to improve women's access to mental health care, increase awareness and education about perinatal depression, encourage the use of screening tools, and improve the availability of effective treatment options and community support services.<sup>6</sup>

CHBRP found no proposed legislation in California relevant to the telepsychiatry consultation program for providers.

#### **Other States**

CHBRP is not aware of similar benefit mandates in any other states requiring *plans or insurers* to establish a telepsychiatry consultation program for providers. However, Massachusetts passed legislation that provides *state funding* for a program that includes a psychiatric phone consultation program for providers who treat children and pregnant and postpartum women, as described below.

Funded by a legislative appropriation in the Department of Mental Health budget, the Massachusetts Child Psychiatry Access Project (MCPAP) was established in 2004.<sup>7</sup> MCPAP is a system of regional

<sup>5</sup> California ACR (2010), available online at

<sup>7</sup> Chapter 149 in the Acts of 2004. Available online at

<sup>&</sup>lt;sup>4</sup>California Health and Safety Code 1367.625; California Insurance Code 10123.867.

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=200920100ACR105.

<sup>&</sup>lt;sup>6</sup> California Assembly Concurrent Resolution 105 (Resolution Chapter 9 of the Statutes of 2010).

https://malegislature.gov/Laws/SessionLaws/Acts/2004/Chapter149.

children's psychiatric consultation teams designed to improve access to treatment for children with behavioral health problems. MCPAP seeks to strengthen pediatric primary care providers' (PCPs) ability to screen, diagnose, and treat children with mild to moderate behavioral health problems (e.g., anxiety, depression, ADHD) in primary care. It also supports PCPs in referring children with more serious behavioral health problems to appropriate psychiatric specialty care.

In 2010, Massachusetts passed the Postpartum Depression Act. The law established a Special Legislative Commission on postpartum depression to assess current research and evaluate the state's current practices.<sup>8</sup> The law also established postpartum depression screening regulations and authorized funding to expand the MCPAP to MCPAP for Moms, which uses a multipronged approach to help providers identify and treat postpartum depression, including:

- Training and toolkits about depression screening and assessment informed by evidence-based guidelines;
- Psychiatric phone consultation for health care providers caring for pregnant and postpartum women; and
- Care coordination that links women to psychotherapy and support groups (Byatt et al., 2016).

#### **Federal Policy Landscape**

#### Affordable Care Act

#### 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.<sup>9,10</sup>

States may require QHPs to offer benefits that exceed EHBs.<sup>11</sup> 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.<sup>12,13</sup> State rules related to provider types, cost-sharing, or

<sup>&</sup>lt;sup>8</sup> Massachusetts House bill 4859; Chapter 313 in the Acts of 2010. Available at:

https://malegislature.gov/Laws/SessionLaws/Acts/2010/Chapter313.

<sup>&</sup>lt;sup>9</sup> 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, Information on Essential Health Benefits Benchmark Plans. Available at: <u>https://www.cms.gov/cciio/resources/data-resources/ehb.html.</u> <sup>10</sup> H&SC Section 1367.005; IC Section 10112.27.

<sup>&</sup>lt;sup>11</sup> ACA Section 1311(d)(3).

<sup>&</sup>lt;sup>12</sup> 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: <a href="http://www.gpo.gov/fdsys/pkg/FR-2013-02-25/pdf/2013-04084.pdf">www.gpo.gov/fdsys/pkg/FR-2013-02-25/pdf/2013-04084.pdf</a>.

<sup>&</sup>lt;sup>13</sup> 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.

reimbursement methods would *not meet* the definition of state benefit mandates that could exceed EHBs.<sup>14</sup>

California's health care regulators (CDI and DMHC) agree that AB 1676 would not require coverage for a new state benefit mandate that appears to exceed the definition of EHBs in California. This is because AB 1676 requires plans to establish a telepsychiatry consultation program for providers and is not a benefit for enrollees.

#### **Analytic Approach and Key Assumptions**

For the purposes of this analysis, CHBRP has assumed the following:

- The bill applies to primary care providers who treat: (1) children for all mental health conditions, and (2) pregnant and postpartum persons for all mental health conditions.
- **Mental health conditions**: Mental health conditions for children and pregnant and postpartum persons encompass a range of conditions and levels of severity. However, most research literature identifying mental health conditions for these groups focuses on anxiety and depression in children and adults, as well as autism spectrum disorder (ASD) and attention-deficit/ hyperactivity disorder (ADHD) in children.

For the purposes of this analysis, CHBRP has assumed that AB 1676 would be applicable to all DMHC-regulated plans (including Medi-Cal MCPs) and CDI-regulated policies as of January 1, 2021.

An important note on terminology:

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

<sup>&</sup>lt;sup>14</sup> 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 MENTAL HEALTH AND TELEHEALTH CONSULTATIONS

This section provides context for the potential impacts of AB 1676 by describing telehealth consultations for primary care providers (PCPs) and the mental health disorders in children and pregnant and postpartum persons for which these consultations may be sought. Given the wide range of conditions and the short timeframe for the report, this background only describes the most common mental health conditions for each population AB 1676 specifies. Screening, diagnosis, and psychiatric treatments are described, as well as disparities and social determinants of health for these disorders in California.

#### **Telehealth Consultation for Primary Care Providers**

Often in rural or remote areas, PCPs assume full responsibility for treating their patients' mental health conditions due to a lack of available resources (Fleury et al., 2012; Wright et al., 2005). Telehealth consultations (referred to in this report as electronic consultations or "eConsults") have been introduced as one way to address this lack of resources by enabling consultations between specialists at a distance and PCPs. AB 1676 only addresses consultations between two health care providers (e.g., a psychiatrist and a PCP) and does not include services provided directly to patients. In a review of 27 studies of eConsult programs, commonly used modalities were cited as:

*Asynchronous*: Communication between health care professionals that is not simultaneous and usually occurs within a shared electronic health record (EHR) or other secure platform, including email consultations (Vimalananda et al., 2015). This has been assessed in eConsults more recently to determine reliability of recording a clinical examination and forwarding for review by a psychiatrist later.<sup>15</sup>

*Synchronous*: Exchange of information in real time between health care providers or between a specialist, PCP, and patient simultaneously (e.g., videoconferencing, telephone consultation).

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

Figure 1 illustrates the typical pathway of communication in an eConsult. Emerging technology using mobile applications on cellular devices may provide additional possibilities in telepsychiatry consultations between providers (Mechanic and Kimball, 2019).

<sup>&</sup>lt;sup>15</sup>https://www.aacap.org/AACAP/Clinical\_Practice\_Center/Business\_of\_Practice/Telepsychiatry/Telehealth\_Glossary. aspx





Source: Vimalananda et al., 2015.

#### Massachusetts Child Psychiatry Access Project (MCPAP)

One model for a psychiatric eConsult program is the Massachusetts Child Psychiatry Access Project (MCPAP). MCPAP was implemented in response to an increase in primary care visits involving mental health issues and a shortage of child psychiatric providers (Van Cleave et al., 2015). Provider practices enroll in the MCPAP program and then are able to call psychiatrists as needed. Most often, PCPs remained the primary provider for patients being treated for mental health issues (Van Cleave et al., 2015). PCPs contact MCPAP when they see a patient experiencing mental health issues and are uncertain about an aspect of care, would like referrals for evaluation by a MCPAP clinician, or require advice on interim treatment while awaiting referral (Knutson et al., 2014; Van Cleave et al., 2015).

#### MCPAP for Moms

MCPAP for Moms was established in 2013 and adapted from the model of MCPAP in response to high rates of depression during pregnancy and the postpartum period (Byatt et al., 2016). The program is comprised of one full-time perinatal psychiatrist and two to three care coordinators to serve the state of Massachusetts. Any provider that may have contact with pregnant or postpartum women, including OB-GYNs, adult PCPs, and general psychiatrists, can call to obtain a consultation with a perinatal psychiatrist through MCPAP's hub for any type of mental health concern. In addition to telephone consultations between providers, MCPAP also provides face-to-face consultations with the patient when necessary, training and toolkits for providers to promote education, and care coordination to provide the patient with community resources (Byatt et al., 2016).

#### Access and timeliness of care

The goal of psychiatric eConsults is for PCPs to be able to more quickly diagnose and treat mental health conditions. In health care research, these outcomes may be measured using access to care and time to service indicators. Access to care refers to having use of health care services when they are needed. This may include having resources (e.g., health insurance), having the ability to enter the health care system and having an appropriate provider available, or having physical access (e.g., transportation) (AHRQ, 2014a). Timeliness of care refers to a health care system's capacity to provide care quickly after a need is recognized (AHRQ, 2014b). This may include wait times, time to referral to a specialist, or time to initial appointment. With respect to appropriate care, eConsults can address a significant obstacle to access and service delivery in terms of alignment of patient needs and provider skills related to culture and language (Hilty et al., 2018a; 2018b). eConsults can leverage expertise between interdisciplinary teams and between different models of care, and they can provide PCPs with consulting clinicians whose expertise they can tap. Like patients, PCPs need consultants with broad perspectives, cultural expertise, and experience with a variety of populations to adapt practice (Hilty et al., 2018a; 2018b).

#### Mental Health Disorder Prevalence in California

Mental health disorders encompass a wide range of distinct conditions that are associated with varying levels of impairment. This section describes the most common mental health conditions in children and pregnant and postpartum persons for which an eConsult may be sought by a PCP. Table 1 presents California population estimates and rates of each population the bill specifies that may need care for a behavioral health condition. Behavioral health includes both mental health conditions and substance use disorders (SAMHSA, 2019).

**Table 1.** California Population Estimates for Children and Postpartum and Pregnant Persons and

 Estimates for Those who May Need Care for a Behavioral Health Condition, 2017-18

	Population in CA Subject to AB 1676 <sup>(a)</sup>	Percent Who Might Need Behavioral Health Care	Number Who Might Need Behavioral Health Care <sup>(b)</sup>
Children (≤17)	7,258,480	14-20% <sup>(c)</sup>	1,016,187-1,451,696
Pregnant and Postpartum	407,000	20% <sup>(d)</sup>	81,400

Source: California Health Benefits Review Program, 2019.

(a) CHBRP, 2018.

(b) Population in CA Subject to AB 1676 multiplied by percent who might need behavioral health care.

(c) Tyler et al., 2017.

(d) California Health Care Foundation, 2018.

Key: CA = California

#### Mental Health Disorders and Prevalence in Children

Mental disorders are some of the most common chronic conditions in children (Anderson et al., 2015), with depression/anxiety disorders, autism spectrum disorders, and attention-deficit/hyperactivity disorder (ADHD) among the most common diagnoses (CDC, 2019). Pediatric bipolar disorder is another condition

for which a PCP might seek expert consultation due to a lack of knowledge about this particular diagnosis and treatment.<sup>16</sup>

#### Anxiety and depression and prevalence

In the U.S., prevalence rates of children with diagnosed anxiety or depression rose between 2003 and 2011–2012 (Bitsko et al., 2018). For children aged 3–17, 7.1% have a diagnosis of anxiety, while 3.2% are diagnosed with depression (CDC, 2019). Prevalence of diagnoses may under-represent the true problem; a body of literature exists suggesting that underdiagnosis and undertreatment remain a public health problem (Neavin et al., 2018; Polanczyk et al., 2015). One of the challenges with diagnosing pediatric major depressive disorder (MDD) is differences in presentation of symptoms compared to adults: while most symptoms screened are the same, children may present with irritable mood as opposed to depressed mood, may have a drop in grades rather than noticeable lack of concentration, or other complex interactions with normal developmental changes (Neavin et al., 2018). Prevalence of anxiety and depression diagnoses in youth tend to increase with age (CDC, 2019).

#### Autism spectrum disorder and prevalence

Autism spectrum disorder (ASD) is a developmental disorder that may present with a range of symptoms and severities (NIMH, 2018). Children with ASD may have difficulty with social interaction, communication, repetitive behaviors, sensitivity to sensory input, and other symptoms that may inhibit functionality (NIMH, 2018). ASD is most often identified at a young age (≤6 years) but can be diagnosed in older children and adults.

The Centers for Disease Control and Prevention (CDC) Autism and Developmental Disabilities Monitoring Network (ADDM) estimated that in 2014, 1 in 59 children in the U.S. had ASD, a 15% increase from the previous estimate in 2012 of 1 in 68 children (Baio et al., 2018). CHBRP previously estimated that in 2016 the prevalence of ASD in California for children aged 0–9 years old was about 160 in 10,000 (1 in 63) (CHBRP, 2017).

#### Attention-deficit/hyperactivity disorder and prevalence

According to the CDC, more than 6.1 million children have been diagnosed with the neurodevelopmental disorder ADHD as of 2016 based on the National Survey of Children's Health (NSCH). Developing ADHD is based on multiple factors, such as genetics, perinatal stress, traumatic brain injury, maternal smoking and alcohol use during pregnancy, and other environmental conditions (Tandon and Pergjika, 2017). The CDC also highlights how parents play a pivotal role in the treatment of their children, especially by understanding that seeking out behavior therapy is the first step in supporting their children.

#### Pediatric bipolar disorder and prevalence

Less is known about bipolar disorder in children and adolescents than in the general population. Pediatric bipolar disorder (PBD) can be an impairing disorder that affects mood, self-esteem, hypersexual behavior, sleep, and other daily activities (Washburn et al., 2011). It is estimated that 2.9% of adolescents have a PBD diagnosis, with this rate being slightly higher for females (3.3%) than males (2.6%) (NIMH, 2017). More work is needed regarding the screening and treatment of PBD because bipolar disorder was historically thought to occur following the onset of adolescence, well into adulthood (Renk et al., 2014). The prevalence of PBD has dramatically increased in recent years, raising questions of overdiagnosis and underdiagnosis (Washburn et al., 2011).

<sup>&</sup>lt;sup>16</sup> Personal communication, Donald Hilty, MD, MBA, Northern California Veterans Affairs, UC Davis, March 26, 2019.

#### Screening recommendations and treatment: Children

Mental health conditions in childhood are identified by deviations from developmental and emotional milestones that would be expected for children of a similar age (Perou et al., 2013). The American Academy of Pediatrics has published clinical practice guidelines for the diagnosis, evaluation, and treatment of ADHD, which primarily relies on a PCP screening children for academic, behavioral, or attention problems; hyperactivity; or impulsivity (Subcommittee on Attention-Deficit/Hyperactivity Disorder, 2011). These guidelines involve the PCP intentionally to help address the shortage of mental health professionals for children (Anderson et al., 2015). In 2018, Cheung and colleagues published updated treatment and management guidelines for depression in adolescents, and these also followed the PCP model for routine clinical management (Cheung et al., 2018).

The U.S. Preventive Services Task Force (USPSTF) has published guidance based on reviews of diagnosis and treatment practices for pediatric MDD, and annual screening in all adolescent patients aged 12–17 is recommended in order to reduce underdiagnosis and to provide treatment more quickly (Neavin et al., 2018). Guidance has not been made clear for children younger than age 12 according to the current Guidelines for Adolescent Depression in Primary Care and the USPSTF Guidelines (Zuckerbrot et al., 2018).

The American Academy of Child & Adolescent Psychiatry (AACAP) (AACAP, 2017) has also issued treatment guidelines for psychiatric illness in children. Of the conditions discussed in this review, the only practice parameter currently available is for ASD treatment, although clinical practice guidelines are under development by AACAP for ADHD, anxiety, and depression.<sup>17</sup> Recommendations for ASD include educational and behavioral interventions first, and then pharmacotherapy if indicated for a specific set of symptoms or comorbidities (Volkmar et al., 2014).

#### Mental Health Disorders and Prevalence in Pregnant and Postpartum Persons

Maternal mental health (MMH) disorders include a range of distinct disorders that may arise or become exacerbated during pregnancy or after birth; in this analysis, we focused on the most common MMH disorders (i.e., depression and anxiety) (CA Task Force, 2017). The definition of the postpartum period varies somewhat between sources, beginning at the birth of the child and ending six weeks to one year later (Biebel et al., 2015; CA Task Force, 2017). This description focuses on mental health disorders among pregnant or postpartum women, although research has shown that postpartum mental health conditions can also occur in men and adoptive parents (Foli et al., 2013; Ngai and Ngu, 2015; Wong et al., 2017).

#### Maternal depressive disorders and prevalence

Perinatal depression encompasses both MDD and minor depression (CA Task Force, 2017; Gavin et al., 2005). To receive a diagnosis of MDD, women must exhibit low spirits/mood, persistent sadness, indifference, feelings of inadequacy, and/or anxiety for most of the day for at least 2 weeks; changes in sleep, appetite, energy, and/or concentration; and/or possible suicidal ideation/actions (including psychotic features, though very rare) with varying levels of severity ranging from mild to severe (CA Task Force, 2017). Mild depression is characterized as having similar symptoms as MDD; however, the number and duration of symptoms occur with less frequency (CA Task Force, 2017).

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https://www.aacap.org/AACAP/Resources\_for\_Primary\_Care/Practice\_Parameters\_and\_Resource\_Centers/Practice\_Parameters.aspx

Perinatal depression is a common MMH disorder in the U.S. with an estimated prevalence rate of 13% (Hahn-Holbrook et al., 2018). Specific to California, the overall prevalence of perinatal depressive symptoms was 20.5% in 2013; prevalence rates for prenatal compared to postpartum depression (PPD) were similar, at 14.9% and 12.8% respectively, with 7.2% of California women experiencing both (CA Task Force, 2017; Caldwell and Forquer, 2015).

#### Maternal anxiety disorders and prevalence

With reported rates of up to 20% prevalence among women, perinatal anxiety is the most common MMH disorder (Fairbrother et al., 2016) and includes four distinct conditions: (1) generalized anxiety disorder, (2) panic disorder, (3) obsessive compulsive disorder, and (4) perinatal post-traumatic stress disorder (PTSD) (CA Task Force, 2017). A meta-analysis of maternal anxiety across 34 countries found that the prevalence of clinical diagnoses of any anxiety disorder was 15.2% during pregnancy and 9.9% in the first 6 months after giving birth (Dennis et al., 2017).

To receive a diagnosis of generalized anxiety disorder, an individual must exhibit 6 or more months of excessive worry on a day-to-day basis — on most days — with accompanying physiological symptoms with varying levels of severity ranging from mild to severe (CA Task Force, 2017). Panic disorder is characterized as recurring episodes of panic attacks in which an individual exhibits 10 to 15 minutes of intense anxiety paired with physiological symptoms such as a racing heartbeat, sweaty palms, and shortness of breath that impair regular function (CA Task Force, 2017). Obsessive-compulsive disorder is described as intrusive thoughts leading to anxiety (i.e., obsessions), followed by behaviors — often rigid or ritualistic — aimed to diminish obsessive thoughts (i.e., compulsions) (CA Task Force, 2017). Perinatal PTSD results from perceived traumatic birth experiences and may include flashbacks, nightmares, increased arousal, anxiety, or a feeling of detachment (CA Task Force, 2017).

#### Screening recommendations and treatment: Pregnant and postpartum persons

In January 2016, the USPSTF released an updated recommendation for screening for depression in the general population, including pregnant and postpartum women (Siu et al., 2016). To align benefits and services with expert recommendations, the Centers for Medicaid & Medicare Services (CMS) issued guidance in May 2016 (CMS, 2016), to announce the provision and coverage of maternal depression screening during well-child visits given the lasting impacts untreated maternal depression may have on an infant (Wachino, 2016).

According to the CA Task Force, women should be educated on the various MMH disorders and be assessed for risk prior to pregnancy and several times throughout their reproductive years (CA Task Force, 2017). Furthermore, women should be screened at least once during the perinatal period. During preconception, pregnancy, and/or postpartum, the CA Task Force advises that a woman's health care provider conduct a mental health assessment and screening for depression, anxiety, and bipolar disorders (CA Task Force, 2017). In addition to screening for MMH disorders, a discussion should be held regarding MMH risk factors such as mental health history, family history of MMH disorders, and general health promotion (e.g., healthy diet to support a growing fetus, sufficient sleep, adequate physical activity).

## Disparities<sup>18</sup> and Social Determinants of Health<sup>19</sup> in Mental Health Disorders

Per statute, CHBRP includes discussion of disparities and social determinants of health (SDoH) as it relates to mental health disorders. Disparities are differences between groups that are modifiable. CHBRP found literature identifying disparities by race/ethnicity for children, and by race/ethnicity, gender, and age for pregnant and postpartum persons.

#### **Disparities for Children**

#### Race and ethnicity

Although prevalence studies indicate few racial/ethnic differences in mental health disorders, diagnosis and treatment have been shown to have more of these disparities, particularly in African American and Latino children (Alegria et al., 2011; Liang et al., 2016). These differences are problematic in that potential misdiagnoses in youth mental health conditions could result in unmet needs or inappropriate care. In a review article of 72 studies, African American youth were more likely to be diagnosed with psychotic and disruptive behavioral disorders than with mood or substance abuse disorders, while Hispanic youth were more likely to be diagnosed with disruptive behavior and substance abuse disorders than with ADHD; Asian youth were also less likely to be diagnosed with ADHD (Liang et al., 2016). Additionally, there is some evidence of racial/ethnic disparities with regard to delays in diagnosis, specifically for ASD in African American children (Alegria et al., 2011) and in medication use for ADHD in African American and Latino children (Coker et al., 2016). The disparities in medication use seem to suggest that these differences may be more related to underdiagnosis and undertreatment of minority youth rather than overtreatment of white youth (Coker et al., 2016).

#### **Disparities for Pregnant and Postpartum Women**

#### Race and ethnicity

African American and Hispanic/Latina women are more likely to have symptoms of maternal depression but are also more likely to receive a prenatal depression screening compared to white and Asian women (CA Task Force, 2017; Caldwell and Forquer, 2015; CDPH, 2016). Despite higher rates of symptoms and access to screenings, minority women have lower rates of successful linkages to MMH services.<sup>21</sup> In a U.S.-based study examining utilization of mental health services among publicly insured white and African American pregnant and postpartum women, researchers found that African American women had a 50% lower probability of using available services than white women.

#### *Gender and age*

Across the U.S., perinatal depression is about three times as common among women compared to men, with approximately 11% of women experiencing postpartum depressive symptoms compared to 4% of new fathers experiencing depressive symptoms in the first year of their child's birth (Davé et al., 2010; Ko

<sup>&</sup>lt;sup>18</sup> Several competing definitions of "health disparities" exist. CHBRP relies on the following definition: Health disparity is defined as the differences, whether unjust or not, in health status or outcomes within a population. Wyatt et al., 2016.

<sup>&</sup>lt;sup>19</sup> 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; CDC, 2014). See CHBRP's SDoH white paper for further information: <a href="http://chbrp.com/analysis">http://chbrp.com/analysis</a> methodology/public health impact analysis.php.

et al., 2017). As previously mentioned, pregnancy and postpartum hormonal shifts have also been attributed to the increased risk of MMH disorders in perinatal women (Marcus, 2009; O'Hara and McCabe, 2013). In a study evaluating the relationship between maternal age and depression, researchers found that postpartum women of advanced maternal age (i.e., aged 40 to 44 years) had a significantly higher risk for PPD compared to younger women (aged 30 to 35 years) with an adjusted odds ratio of 3.72 (Muraca and Joseph, 2014). At the other end of the age range for childbearing women, adolescent and young adult mothers with unintended pregnancy may also be at greater risk for MMH issues; one study of nationally representative data from the National Longitudinal Study of Adolescent to Adult Health found they were 1.21 times more likely to have perinatal depressive symptoms compared to those in the same age range who had intended to become pregnant (Hall et al., 2017).

#### **Social Determinants of Health**

Social determinants of health (SDoH) include factors outside of the traditional medical care system that influence health status and health outcomes (e.g., income, education, geography). CHBRP found literature on how socioeconomic status, stigma, and geography may impact prevalence of MMH disorders and access to MMH screening and treatment.

#### Socioeconomic status

Socioeconomic status (SES) may be a significant factor in disparities in maternal depression among women of color compared to white women and among mothers who are younger (i.e., teenage/young adult) or facing an unplanned or first-time pregnancy compared to mothers who are slightly older, have planned pregnancies, or have other children already. These groups of women may face additional life stressors related to lower income or less financial stability, which may heighten symptoms of depression and anxiety (Goyal et al., 2010; Leathers and Kelley, 2000). Compared to women with higher SES, women with low SES may also be more likely to experience domestic violence (Brown et al., 1999; Escribà-Agüir et al., 2013), have significant childhood trauma (Blalock et al., 2013), and have acute/chronic stressors and physical conditions such as a lack of social support, diabetes, or a mental health disorder prior to pregnancy, all of which are linked to higher rates of maternal depression (Song et al., 2004; Walmer et al., 2015).

Barriers to accessing MMH care are also greater for women of low SES compared to those with high SES, which may explain in part why women of color and women with Medi-Cal coverage have higher rates of maternal depression and are less likely to have a postpartum visit compared to white women and women with private insurance (DiBari et al., 2014). A systematic review regarding access to MMH care among low income women in western countries found that a lack of transportation, homelessness or poor housing conditions, and concerns over the cost of MMH care represent significant barriers (Hansotte et al., 2017). Furthermore, women with Medi-Cal coverage due to pregnancy status but who otherwise do not meet eligibility requirements lose coverage 60 days postpartum, presenting additional barriers to MMH care (de Bocanegra et al., 2017). Even among those who had health insurance, concerns or perceptions that mental health care would not be covered hindered access to MMH care for low-income women (Hansotte et al., 2017).

#### Stigma

Mental health stigma is a significant barrier to accessing MMH care, as concerns about being judged for having a mental illness may be compounded by fears of being perceived as being an unfit mother, or in some cases, fears that reaching out to a medical professional for help will lead to involuntary hospitalization or a report to Child Protective Services (CA Task Force, 2017). A survey of 291 women at a community clinic in North Carolina found that beliefs and concerns about talking to their doctor about

potential MMH disorder symptoms would prevent disclosure from taking place for 19% of women surveyed, reflecting the role of internalized stigma (e.g., feeling ashamed or like a bad mother for having mental health issues) and social stigma (e.g., fearing that reporting symptoms will lead to poor regard or treatment, or reports to Child Protective Services) and how they can impact access to care (Prevatt and Desmarais, 2018). These findings were echoed in a systematic review regarding access to MMH care among low income women in western countries, which reported that stigma was a major barrier (Hansotte et al., 2017). The review also indicated that stigma may be especially detrimental to some racial/ethnic and immigrant minorities who may feel pressured by religious beliefs to accept how they feel during pregnancy and not seek help, which presents a significant barrier to accessing care or speaking to a provider about these issues (Hansotte et al., 2017).

#### Health literacy

A lack of knowledge or awareness of how women may be affected by mental health disorders during pregnancy or postpartum may prevent women from recognizing symptoms in themselves or knowing what to do or where to go to access care (Hansotte et al., 2017). Health literacy issues in regard to seeking and obtaining care for MMH conditions are especially prevalent among women with limited English-speaking ability (e.g., recent immigrant women or women from insular immigrant communities) or lower educational attainment (Hansotte et al., 2017).

#### Geography

Geographical isolation due to living in an area with fewer mental health or reproductive health care providers also limits access to care; transportation can be an issue for women living in rural or urban areas, as rural-living women may have further distances to travel to access care, while women living in low-income urban areas may not have providers in an accessible area or face poor public transportation systems (CA Task Force, 2017; Hansotte et al., 2017).

A recent report on behavioral health professionals in California highlights the lack of mental health providers in rural areas of the state. The findings indicate very low per capita ratios of psychiatrists, particularly in the San Joaquin Valley (7.1 per 100,000 population) and Inland Empire (7.7 per 100,000 population) regions. This is well below the statewide average of 14.7 licensed psychiatrists per 100,000 population. The region with the greatest density of psychiatrists for the population is the Greater Bay Area (Coffman et al., 2018). eConsults between a PCP and psychiatrist may play a greater role in diagnosing and treating behavioral health conditions in areas with fewer psychiatrists (Hilty et al., 2007).

#### Societal Impact of Mental Health Disorders in California

The presence of MMH issues in California and the U.S. creates a societal impact. In dollar terms, the societal impact can be indirect (e.g., lost wages, productivity) as well as direct (medical care). The CA Task Force used findings from 2010 to estimate that California's annual indirect costs of untreated maternal depression was approximately \$2.25 billion, based on \$7,200 in productivity loss for the mother and \$15,300 in costs incurred due to poor child developmental and behavioral outcomes and subsequent impacts on the child's education and productivity (CA Task Force, 2017; Diaz and Chase, 2010). Adjusting for inflation, this would be \$8,359 for the mother and \$17,762 for the child in 2019 dollars, for a total of \$26,121 per mother-child pair per year. Please note, the societal impact discussed here is relevant to a broader population than AB 1676 impacts, since it would affect the health insurance of a subset of Californians (see the *Policy Context* section). In addition, the *Benefit Coverage, Utilization, and Cost Impacts* section estimates cost impacts on payers. Such figures represent a subset of the total societal impact related to MMH issues.

Children diagnosed with ASD have a significant economic impact on families in the U.S.; total estimated costs range from \$11.5 billion to \$60.9 billion (2011 US dollars), which includes direct and indirect costs such as medical care, special education, lost parent productivity, and intensive behavioral interventions (Buescher et al., 2014; Lavelle et al., 2014).

## **MEDICAL EFFECTIVENESS**

As discussed in the *Policy Context* section, AB 1676 would require health plans and health insurers, by January 1, 2021, to establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist, as specified, in order to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness. Additional information on telepsychiatry consultation programs for providers treating children and pregnant and postpartum persons for mental health conditions is included in the *Background* section. The medical effectiveness review summarizes findings from evidence<sup>20</sup> on the effectiveness of psychiatric eConsults, both synchronous and asynchronous, and specifically for the treatment of children and pregnant and postpartum persons.

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

#### **Research Approach and Methods**

Studies of psychiatric eConsults were identified through searches of PubMed, the Cochrane Library, Web of Science, the Cumulative Index of Nursing and Allied Health Literature, and PsycINFO. Websites maintained by the following organizations that produce and/or index meta-analyses and systematic reviews were also searched: the Agency for Healthcare Research and Quality (AHRQ), the International Network of Agencies for Health Technology Assessment (INAHTA), the National Health Service (NHS) Centre for Reviews and Dissemination, the National Institute for Health and Clinical Excellence (NICE), and the Scottish Intercollegiate Guideline Network. The Massachusetts Child Psychiatry Access Program (MCPAP) website and available resources were also searched as pertinent to this bill and reviewed.

The search was limited to abstracts of studies published in English. The search was limited to studies published from 2004 to present. Of the 51 articles found in the literature review, 33 were reviewed for potential inclusion in this report on AB 1676, and a total of six studies were included in the medical effectiveness review. The other articles were eliminated because they did not focus on a specific treatment or population, were of poor quality, or did not report findings from clinical research studies. A more thorough description of the methods used to conduct the medical effectiveness review and the process used to grade the evidence for each outcome measure is presented in Appendix B.

The conclusions below are based on the best available evidence from published peer-reviewed and grey literature.

#### **Key Questions**

1. Are psychiatric eConsults effective in the mental health treatment of:

<sup>&</sup>lt;sup>20</sup> Much of the discussion below is focused on reviews of available literature. However, as noted on page 11 of the Medical Effectiveness analysis and research approach document (posted <u>here</u>), in the absence of "fully-applicable to the analysis" peer-reviewed literature on well-designed randomized controlled trials (RCTs), CHBRP's hierarchy of evidence allows for the inclusion of other evidence.

- a. Adults (generally)
- b. Specific populations:
  - i. Children
  - ii. Pregnant or postpartum persons

#### **Methodological Considerations**

The primary focus of this review and analysis will be on psychiatric eConsults, not telehealth services provided directly to patients, as specified in the bill language. Additionally, this bill specifies mental health treatment of children and pregnant and postpartum persons. CHBRP identified no rigorous studies that addressed the use of psychiatric eConsult programs to treat these specific populations. This review includes an analysis of studies of psychiatric eConsult programs for adults in general, in order to provide some context on effectiveness.

#### **Outcomes Assessed**

The primary outcomes of interest are receipt of appropriate care, patient mental health outcomes (e.g., measures of depression and anxiety) and quality of life, provider knowledge and skill development for mental health treatment, provider and patient satisfaction, and timeliness of services.

#### **Study Findings**<sup>21</sup>

This section summarizes CHBRP's findings regarding the strength of evidence for the effectiveness of psychiatric eConsults for mental health treatment, specifically for children and pregnant and postpartum persons as addressed by AB 1676. Separate charts are presented for general population effectiveness and the specific populations for which the bill would mandate coverage — children and pregnant and postpartum persons.

Although there is a larger body of literature on general telehealth services for mental health, CHBRP found *limited evidence* on the effectiveness of psychiatric eConsults generally and *insufficient evidence* on the effectiveness of psychiatric eConsults specifically for children and pregnant and postpartum persons. It should be noted that a grading of *insufficient evidence* is given when there is an absence of robust, high-quality studies available in the literature. This does not mean there is no effect; it means that the effect is unknown.

#### **Effectiveness of Psychiatric eConsults**

Electronic consultation (eConsult) has been shown to improve timely access to care for a number of medical subspecialties (Horner et al., 2011; Liddy et al., 2016). eConsults generally involve a PCP referral for a consultation to discuss questions about a patient's care that is outside of their expertise. eConsults

<sup>&</sup>lt;sup>21</sup> The following figures in this section summarize CHBRP's findings regarding the strength of the evidence for the effects of psychiatric eConsults addressed by AB 1676. For test, treatments, and services for which CHBRP concludes that there is clear and convincing, preponderance, limited, or inconclusive evidence, the placement of the highlighted box indicates the strength of the evidence. If CHBRP concludes that evidence is insufficient, a figure that states "Insufficient Evidence" will be presented.

with psychiatrists and mental health providers have resulted from PCPs experiencing difficulty in treating or referring patients for specialty mental health care for problems that are often first encountered and addressed in a primary care setting (Lowenstein et al., 2017). The scientific literature regarding the effectiveness of psychiatric eConsults on provider and patient outcomes has reported positive findings, although the studies have been predominately descriptive in nature (Hilty et al., 2018). Research in this area is beginning to shift toward randomized controlled trials (RCTs) to better assess these outcomes (Hilty et al., 2018).

A review of telehealth services for mental health reported on the effectiveness of psychiatry and mental health eConsults to PCPs (Hilty et al., 2013). This review included studies that involved a combination of specialists, including psychiatrists, psychologists, and mental health specialists, as well as both specialistto-provider and specialist-to-patient models: therefore, the overall findings may not apply specifically to psychiatric eConsults. The review reported that specialists corrected diagnoses in 91% of cases and adjusted medications in 57% of cases. The authors reported clinical improvement in 56% of cases. Provider knowledge and skills showed improvement over time with this model of care, particularly in ruralbased PCPs. One of the most pertinent studies included in this review was a case series study that reported on data from the Physician Assistance, Consultation, and Training Network (PACT Net), a "warm-line" that provided primarily phone access to a variety of specialists, including psychiatrists, to assist PCPs in the treatment of patients (adults and children) with developmental disabilities in rural California (Hilty, Ingraham, Yang, & Anders, 2004). Data from 30 consultations provided through PACT were reviewed and showed that psychiatry was one of the top three eConsult services requested. PCPs also provided satisfaction ratings on a 7-point Likert scale of the services they received, which indicated that PCPs were not satisfied with pre-existing local services (mean = 3.37) and had overall high satisfaction with the quality and usefulness of the eConsults (mean = 6.2). It should be noted that there are limitations to the generalizability of these findings given that it was a case series study with no comparison group.

In another case series study focused on telepsychiatry to rural areas, 400 patients received an initial telepsychiatry consultation provided primarily by *videoconference* by the University of California Davis Health System's (UCDHS) telemedicine department and used a model of care in which the PCP typically participated during the last 5-10 minutes of the consultation (Hilty et al., 2006). The intervention also included comprehensive educational components for the PCPs. The study assessed improvement in PCPs' knowledge and skills through improvements in medication dosing. The researchers reported that PCPs significantly improved medication dosing over time from 47.4% accuracy among the first 200 consultations to 63.6% accuracy in the second 200 consultations (p<.001). PCPs reported high overall satisfaction with the program and quality of the consultation (4.61 and 4.62, respectively, on average on a 5-point Likert scale). As noted above, there are limitations to the generalizability of findings given that this study was a case series study with no comparison group. Additionally, the PCPs were selected for the study based on being established frequent users of UCDHS's telemedicine services. As noted by the authors, this may not be representative and may have led to more use of the consultation program.

Timeliness of services and providing appropriate care are outcomes that could be expected to be impacted by the use of psychiatric eConsults. Timely delivery of appropriate care is recognized by AHRQ as a key dimension of care to improve health outcomes and quality of life (AHRQ, 2017). A retrospective study conducted by Archibald et al. (2018) in Canada, reviewed 5,597 eConsults directed to psychiatry by PCPs and reported on time to receive services, adjustment of treatment plans, and satisfaction. The majority of the eConsults reviewed in this study were *asynchronous*. The researchers reported the average response time to be approximately 3.2 days and that the consults took less than 15 minutes on average for the psychiatrist to complete. The PCPs noted in the evaluation that the eConsult response time was much shorter than for traditional referrals. The majority of PCPs indicated in post eConsult surveys that the advice they received from the psychiatrist directed them to a new or additional course of

action for the patient's treatment plan (62.1%), and 30.7% of the eConsults eliminated the need for a patient referral to a psychiatrist. Overall, PCPs were highly satisfied and believed that the program was valuable (88.7%).

Lowenstein et al. (2017) performed a case series study of the University of California, San Francisco's eConsult program, which includes psychiatry along with eight other subspecialties. The researchers performed a content analysis of the first 50 eConsults to psychiatry that the program received after implementation and also reported on time to receive services, treatment implementation, and satisfaction. The content of the email question and answer exchange between the providers was included in and retrieved from the *EHR* for review. They reported that the psychiatrists were able to address all requested consults and that the average response time was 1.4 days. For comparison, they report the average wait time for an in-person consult with the hospital's psychiatrist in 76% of consults. The study found that the majority of consults were sufficient to support the patient's care without need for in-person referral (74%) and that this was especially true for patients with depression and anxiety.

**Summary of findings:** There is limited evidence from one review on telehealth services for mental health, one case series study on telepsychiatry, and two case series studies on psychiatric eConsult programs that psychiatric eConsults are effective at improving appropriate treatment of mental health conditions as measured by improvement in the receipt of more appropriate care and mental health outcomes in patients, provider knowledge and skill development for mental health treatment, provider satisfaction, and timeliness of services.

#### Figure 2. Effectiveness of Psychiatric eConsults



#### Effectiveness of Psychiatric eConsults for Children's Mental Health Treatment

CHBRP identified one case study of MCPAP that examined pediatric PCPs' ability to meet the psychiatric needs of their clients (Straus & Sarvet, 2014). MCPAP is a system designed to help PCPs meet the needs of children with any behavioral health problem via remote hubs located at an academic medical center; these hubs consist of child psychiatrists, a licensed therapist, and a care coordinator who are available by phone. This model treats every consultation as an opportunity to educate PCPs. MCPAP also offers face-to-face consultations to clarify any ambiguous diagnoses or to assist with care management for children who are not responding to treatment. MCPAP collects data from encounters between the consultant and the PCP, and through satisfaction surveys completed by the PCPs. The case study of MCPAP showed an increase in provider knowledge as perceived by the consultants, referrals to behavioral health services, and ability to provide appropriate care. Only 8% of providers indicated that they could meet the needs of children with behavioral health problems before they enrolled in MCPAP, and this increased to 64% after enrollment. The providers involved in the program also reported high satisfaction (mean response 4.2 out of 5).

**Summary of findings:** There is insufficient evidence from a single case study of one program with no comparison group to ascertain the effectiveness of psychiatric eConsults for the mental health treatment of children.

#### Figure 3. Effectiveness of Psychiatric eConsults - Children

NOT EFFECTIVE	INSUFFICIENT EVIDENCE					EFFECTIVE
Clear and Convincing	Preponderance	Limited	Inconclusive	Limited	Preponderance	Clear and Convincing

## Effectiveness of Psychiatric eConsults for the Mental Health Treatment of Pregnant or Postpartum Persons

CHBRP did not identify any literature on the effectiveness of the provision of psychiatric eConsults for pregnant or postpartum persons. Two studies were identified that reported on the effectiveness of MCPAP for Moms. One of these studies (Byatt et al. 2018b) reported on implementation of a program that included psychiatric eConsults, along with additional educational components, and was excluded from this review because only utilization outcomes were assessed. The second study is provided for context although it includes programs comprised of multiple components without addressing eConsults alone (Byatt et al., 2018a). This study compared the effectiveness of MCPAP for Moms to the PRogram In Support of Moms (PRISM). These programs both included provider access to perinatal psychiatrists via telephone or face-to-face, along with training, toolkits, and community-based mental health resources and referrals. PRISM included some additional training and implementation and change management support. MCPAP for Moms and PRISM both resulted in significant decreases in depression scores on the Edinburgh Postnatal Depression Scale (p=0.010 and p=.001, respectively).

**Summary of findings:** CHBRP did not identify any literature evaluating the effectiveness of psychiatric eConsults regarding the mental health treatment of pregnant or postpartum persons; therefore, there is insufficient evidence on the effectiveness of psychiatric eConsults for the mental health treatment of pregnant or postpartum persons.

#### Figure 4. Effectiveness of Psychiatric eConsults – Pregnant or Postpartum Persons

NOT EFFECTIVE INSUFFICIENT EVIDENCE					EFFECTIVE	
Clear and Convincing	Preponderance	Limited	Inconclusive	Limited	Preponderance	Clear and Convincing

## **BENEFIT COVERAGE, UTILIZATION, AND COST IMPACTS**

As described in the *Policy Context* section, AB 1676 would require DMHC-regulated health plans and CDI-regulated policies to establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist; notify their providers about the program twice a year; and keep track of the utilization. This section reports the potential incremental impacts of AB 1676 on estimated baseline benefit coverage, utilization, and overall cost.

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

Key assumptions:

- CHBRP assumes that AB 1676 would impact a primary care provider's (PCP's) access to a psychiatrist for inter-professional telehealth consultations ("eConsults").
- The bill requires DMHC-regulated plans and CDI-regulated policies to make a psychiatric eConsult program available to PCPs but is silent regarding payment or coverage requirements. CHBRP interprets that AB 1676 is not a typical mandate bill in that it is not requiring coverage of a specific benefit. Therefore, CHBRP does not model an effect in terms of coverage.
- CHBRP assumes that the administrative costs for establishing and maintaining such a program, including the requirements for written notifications and maintenance of data records on the program, may vary by plans/policies. CHBRP typically estimates that the increase in administrative costs of DMHC-regulated plans and CDI-regulated policies will remain proportional to the increase in premiums.

#### **Baseline and Postmandate Benefit Coverage**

CHBRP conducted a survey of the largest (by enrollment) providers of health insurance in California regarding their provision of a psychiatric eConsult program. The survey asked whether such a program was available and how it is being provided (e.g., contracted out to a vendor, provided by staff). Currently, 74% of enrollees with health insurance that can be subject to state mandates and 38% of enrollees with Medi-Cal Managed Care coverage subject to AB 1676 are already enrolled in health insurance plans or policies where their providers have access to a psychiatric eConsult program.

Seven of the eight largest commercial plans and all five of the largest MCPs responded to the survey. Plans responding to this survey represent 89% of enrollees with private market health insurance that can be subject to state mandates and 59% of enrollees with Medi-Cal Managed Care coverage subject to AB 1676. For those health plans and insurers with psychiatric eConsult programs, psychiatrists are usually available via phone, video-conference, and email consultation to all outpatient providers regardless of specialty. Psychiatrists are also available via phone and/or in person 24/7 to provide consultation to emergency departments and other hospital providers. These telepsychiatry consultation programs can involve provider-to-provider consults with or without a patient present.

Postmandate, CHBRP assumes that health plans and insurers without psychiatric eConsult programs will need to establish one. Health plans and insurers could provide a telepsychiatry consultation program for PCPs through a third-party vendor (e.g., InSight, eVisit), in-network psychiatrists, or some other approach. As mentioned above, the bill is silent regarding payment or coverage requirements for such a program. CHBRP interprets that AB 1676 is not a typical mandate bill, which would require coverage of a specific benefit. Therefore, CHBRP does not anticipate an impact on coverage.

#### Utilization

As stated, CHBRP does not model benefit changes because the bill does not require coverage of a benefit available to enrollees but rather requires health plans and insurers to make a psychiatric eConsult program available to PCPs. Also, current estimates of utilization of psychiatric eConsults is not available given limitations in coding and data sources.

It is possible that the implementation of AB 1676 would create a shift in utilization from patient in-person or provider-to-patient telehealth consultation to eConsults. It is also possible that there could be an indirect effect on the overall utilization of psychiatric services. As a result of AB 1676, more enrollees with mental health care needs may have increased access to psychiatrist services including medications and psychotherapy through their PCPs as a result of a psychiatric eConsult program, but CHBRP is not able to quantify these indirect effects. Results from similar programs in Massachusetts may be illustrative. A published study of MCPAP for MOM found that the program served 3,599 women, which is about 9.9% of women presumed with depression in the first 3.5 years of inception (N. Byatt et al., 2018). For MCPAP (for children), there were 6,526 calls from 993 providers in the first 10 months of the program, with an average of 6.6 calls per provider (Van Cleave, Holifield, & Perrin, 2018).

As mentioned in the *Medical Effectiveness* section, the studies in this emerging field found that psychiatric eConsults were a feasible way to support PCPs in managing complex psychiatric issues in the primary care setting (Archibald et al., 2018). This study found, for the majority of patients, particularly those with depression and anxiety, the consulting psychiatrist supported ongoing management of patients within a primary care setting without requesting an in-person psychiatric evaluation and provided a range of strategies that facilitated ongoing primary care-based treatment. PCPs using the service frequently implemented at least one of the recommendations from the psychiatrist (Lowenstein, 2017). In addition, eConsults provided consultation that circumvented common barriers to mental health treatment, including access to treatment providers and insurance coverage (Lowenstein, 2017). A review of telehealth services for mental health also reported on the effectiveness of psychiatric eConsults for PCPs that showed increased access to psychiatrists' expertise by providers, particularly in rural areas (Hilty et al., 2013). eConsults may lead to more PCPs referring their patients with mental health needs to psychiatrists for care. If that occurs, the overall utilization of psychiatric and other mental health services may increase.

#### Expenditures

As stated above, CHBRP does not model benefit changes because the bill does not require coverage of a benefit available to enrollees but rather requires a psychiatric eConsult program available to PCPs. Based on such a program in Massachusetts discussed earlier, MCPAP for Moms, costs total about \$850,000 per year (Byatt, 2017). As mentioned above, it is possible that the implementation of AB 1676 would create a shift in utilization from patient in-person or provider-to-patient telehealth consultation to eConsults. However, it could also increase referrals of patients to psychiatrists, which will increase overall utilization of psychiatric services. If that happens, it may impact overall cost; however, the effect is unknown.

Generally, CHBRP comments on the effects of the per-unit cost of services affected by the bill. CHBRP estimates that the unit cost for PCP services is unlikely to change following implementation of AB 1676, since a provider will continue to bill according to diagnostic and procedure codes for the corresponding PCP services. Based on responses to the CHBRP carrier survey, psychiatric consultants could be employed by their medical groups, or through a third-party vendor, or some other approach. MCPAP estimates that one full-time equivalent psychiatrist is sufficient for 72,000 live births or 250,000 to 300,000 children.<sup>22</sup> Health plans can also include eConsults in the professional services for which they pay the medical groups on a capitated basis. Some health plans or insurers may also contract out the services or hire an outside vendor and pay the vendor under a fee-for-service arrangement. California payers, providers, and county programs are exploring payment options to reimburse for eConsults. For instance, at LA Care Health Plan, specialists are paid \$45 per consult (Blue Shield of California Foundation, 2016). Based on the American Academy of Pediatrics 2019 Coding and Reimbursement Tip Sheet (AAP, 2019), eConsults can be charged about \$37 to \$73 (see details in Table 2 below).

CPT code	Service Description	Office	Facility	RVUs (Non- Facility/Facility)		
Online Medical Evaluation						
99444	Online E/M service provided by physician or other qualified health care professional who may report E/M services provided to an established patient or guardian, not originating from a related E/M service provided within the previous 7 days, using the Internet or similar electronic communication network.	NA	NA	NA/NA		
Interprofess	ional Telephone/Internet/Electronic Health Reco	rd Consultat	ions			
99446	Interprofessional telephone/internet/electronic health record assessment and management services provided by a consultative physician, including a verbal and written report to the patient's treating/requesting physician or other qualified health care professional; 5-10 minutes of medical consultative discussion and review.	NA	\$18.38	NA/0.51		
99447	11–20 minutes of medical consultative discussion and review	NA	\$36.40	NA/1.01		
99448	21–30 minutes of medical consultative discussion and review	NA	\$54.78	NA/1.52		
99449	31 minutes or more of medical consultative discussion and review	NA	\$73.16	NA/2.03		
Transition-Related Services — 100% Medicare Payment, 2019						
99451	Interprofessional telephone/internet/electronic health record assessment and management service provided by a consultative physician, including a written report to the patient's treating/requesting physician or other medical	\$37.48	\$37.48	1.04/1.04		

<sup>22</sup> Personal email communication – Nancy Byatt, DO, MS, MBA, FAPM, Medical Director, MCPAP for Moms, April 19, 2019.

CPT code	Service Description	Office	Facility	RVUs (Non- Facility/Facility)
	qualified health care professional, 5 minutes or more of medical consultative time			
99452	Interprofessional telephone/internet/electronic health record referral service(s) provided by a treating/requesting physician or other qualified health care professional, >16 minutes.	\$37.48	\$37.48	1.04/1.04

Source: AAP, 2019

*Key:* RVU = relative value unit

#### **Postmandate Administrative Expenses and Other Expenses**

Postmandate, CHBRP assumes that health plans and insurers without telepsychiatry consultation programs will need to establish one, and that for both new and existing programs, plans and insurers will need to notify their providers about the program twice a year and keep track of utilization as specified AB 1676. Thus, there will be increases in administrative costs. However, CHBRP typically estimates that the increase in administrative costs of DMHC-regulated plans and CDI-regulated policies will remain proportional to the increase in premiums. CHBRP assumes that if health care costs increase as a result of increased utilization or changes in unit costs, there is a corresponding proportional increase in administrative costs. All health plans and insurers include a component for administration and profit in their premiums.

## **PUBLIC HEALTH IMPACTS**

As described in the *Policy Context* section, AB 1676 would require health plans and insurers, by January 1, 2021, to establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist, as specified, in order to more quickly diagnose and treat those persons suffering from mental illness.

The public health impact analysis includes estimated impacts in the short term (within 12 months of implementation) and in the long term (beyond the first 12 months postmandate). This section estimates the short-term impact<sup>23</sup> of AB 1676 on psychiatric eConsults for mental health diagnosis and treatment of children and pregnant and postpartum persons. See *Long-Term Impacts* for a discussion of premature death, economic loss, and social determinants of health.

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

#### **Estimated Public Health Outcomes**

As presented in the *Medical Effectiveness* section, there is insufficient evidence to determine whether psychiatric eConsults for mental health treatment of children and pregnant and postpartum persons are medically effective. In addition, as presented in the *Benefit Coverage, Utilization, and Cost Impacts* section, CHBRP was not able to estimate the impact that AB 1676 would have on utilization. For these reasons, CHBRP concludes that AB 1676 would have an unknown impact on short-term and long-term public health impacts and disparities in health outcomes. However, this section discusses some of these outcomes qualitatively.

Incorporating telepsychiatry consultations for PCPs who treat children and pregnant and postpartum persons could potentially increase access and timeliness to appropriate mental health care (Lowenstein et al., 2017). It is estimated that this change in access would be greatest for rural beneficiaries who may, personally or through their PCP, otherwise not have had their mental health concerns addressed by a psychiatrist due to shortages of licensed psychiatrists in rural areas (Coffman et al., 2018).

In the first year postmandate, the public health impact of AB 1676 is unknown due to insufficient evidence regarding the effectiveness of psychiatric eConsults for mental health treatment for children and pregnant and postpartum persons. Limited evidence exists to suggest that psychiatric eConsults for the adult population overall are effective in improving the receipt of more appropriate care and mental health outcomes in patients, provider knowledge and skill development for mental health treatment, provider satisfaction, and timeliness of services (see *Medical Effectiveness* section). Insufficient evidence exists to support effectiveness in children or pregnant and postpartum persons; however, it stands to reason that the populations specified in AB 1676 would experience the same effectiveness of psychiatric eConsults as the general population. Please note that the absence of evidence is not "evidence of no effect." It is possible that an impact — desirable or undesirable — could result, but current evidence is insufficient to inform an estimate. Additionally, CHBRP is unable to estimate a change in utilization; therefore, the public health impact of AB 1676 is unknown.

<sup>&</sup>lt;sup>23</sup> CHBRP defines short-term impacts as changes occurring within 12 months of bill implementation.

#### Impact on Disparities<sup>24</sup>

#### Benefit Mandate Structure and Unequal Racial/Ethnic Health Impacts

As discussed in the *Policy Context* section, AB 1676 would affect the health insurance of all enrollees in health insurance plans regulated by the state that may be subject to any state health benefit mandate (i.e., CDI-regulated policies and DMHC-regulated plans, including Medi-Cal MCPs regulated by DMHC). CHBRP estimates that AB 1676 would increase providers' access to specialists proportionally more for Medi-Cal beneficiaries compared to commercial plan enrollees, as 74% of enrollees with health insurance subject to state mandates and 38% of enrollees with Medi-Cal Managed Care coverage subject to AB 1676 already have a psychiatric eConsult program in place (see the *Benefit Coverage, Utilization, and Cost Impacts* section).

CHBRP has previously identified that the racial/ethnic composition of Medi-Cal beneficiaries differs from that of persons with commercial health insurance (other persons enrolled in DMHC-regulated plans or CDI-regulated policies).<sup>25</sup> Specifically, Latinos, African Americans, and Other race/ethnicities have disproportionately high representation in Medi-Cal as compared to whites and Asians. Mandates such as AB 1676 that impact Medi-Cal more significantly may lead to differences in the coverage and utilization of certain services for these beneficiaries; therefore, it may disproportionately affect the Latino, African American, or Other racial/ethnic population if the mandate-relevant service is found to be medically effective. It is possible that there could be unequal health outcomes for Latino and African American beneficiaries relative to whites and Asians; however, CHBRP has found insufficient evidence on the effectiveness of psychiatric eConsults for mental health treatment specifically for children and pregnant and postpartum persons. In addition, utilization cannot be estimated, so this change cannot be measured.

The racial/ethnic composition of the two health insurance markets — Medi-Cal beneficiaries enrolled in DMHC-regulated plans and commercial enrollees (all other enrollees in DMHC-regulated plans or CDI-regulated policies) — differs. For this reason, a mandate such as AB 1676 that applies to both markets will disproportionately impact Latinos, African Americans, and Other race/ethnicities; however, the specific impact on racial/ethnic disparities is unknown.

 <sup>24</sup> For details about CHBRP's methodological approach to analyzing disparities, see the <u>Benefit Mandate Structure</u> <u>and Unequal Racial/Ethnic Health Impacts</u> document here: <u>http://chbrp.com/analysis\_methodology/public\_health\_impact\_analysis.php</u>.
 <sup>25</sup> Accessible at <u>http://chbrp.com/Bonofit%20Mandate%20Structure%20and%20Ethnicit/%20 pdf</u>

## LONG-TERM IMPACTS

In this section, CHBRP estimates the long-term impacts<sup>26</sup> of AB 1676, which CHBRP defines as impacts occurring beyond the first 12 months after implementation. These estimates are qualitative and based on the existing evidence available in the literature. CHBRP does not provide quantitative estimates of long-term impacts because of unknown improvements in clinical care, changes in prices, implementation of other complementary or conflicting policies, and other unexpected factors.

In this report, **provider-to-provider telehealth consultations are referred to as electronic consultations or "eConsults",** and include **both** synchronous (e.g., phone, videoconference) and asynchronous (e.g., email, electronic health record/EHR) modalities. A patient may or may not be present during an eConsult. A telehealth consultation solely between a provider and a patient is not included in this definition.

#### Long-Term Utilization and Cost Impacts

Little research has been published on the long-term impacts on cost and utilization of psychiatric eConsults related to treating the populations specified in the bill for mental health conditions. As mentioned in the *Benefit Coverage, Utilization, and Cost Impacts* section, the consulting psychiatrist supports ongoing management of patients within a primary care setting without requesting an in-person psychiatric evaluation (Lowenstein, 2017). Alternatively, eConsults may lead to more primary care providers (PCPs) referring their patients with mental health needs to psychiatrists for care. It is possible that the utilization of psychiatric and other mental health services in both primary care and specialty settings may increase over time, but overall health care costs will decrease due to improved access to care.

#### **Long-Term Public Health Impacts**

Some interventions in proposed mandates provide immediate measurable impacts (e.g., maternity service coverage or acute care treatments) while other interventions may take years to make a measurable impact (e.g., coverage for tobacco cessation or vaccinations). When possible, CHBRP estimates the long-term effects (beyond 12 months postmandate) to the public's health that would be attributable to the mandate, including impacts on social determinants of health, premature death, and economic loss.

Insufficient evidence exists on the long-term outcomes of psychiatric eConsults to assist PCPs in treating children and pregnant and postpartum persons for mental health conditions. Mental health conditions in the population contribute to general economic loss, although it is difficult to estimate losses for these specific populations and conditions.

The literature reviewed for this analysis suggests that there is the potential for PCPs to increase knowledge and skills over time with regard to diagnosis and treatment of the mental health conditions discussed (see the *Medical Effectiveness* section). Therefore, it is plausible that over time these providers may be better prepared to advise their patients in these matters after obtaining regular access to psychiatrists for consultation, resulting in the potential for more prompt diagnosis and treatment, and improved patient and provider satisfaction. Further, the literature also indicates that after consultation with

<sup>&</sup>lt;sup>26</sup> See also CHBRP's Criteria and Guidelines for the Analysis of Long-Term Impacts on Healthcare Costs and Public Health, available at http://www.chbrp.org/analysis\_methodology/cost\_impact\_analysis.php.

psychiatrists, a large proportion of mental health diagnoses and treatment plans may be corrected. This has the potential to impact patient mental health outcomes immediately and over time.

#### Impacts on Disparities and the Social Determinants of Health (SDoH)<sup>27</sup>

#### Geography

Periodically, health insurance mandates can influence SDoH, which can mediate health inequities. Evidence presented in the *Background* section indicates that there is increased risk for mental health issues for residents of rural communities (CA Task Force, 2017; Hansotte et al., 2017), and access to inperson psychiatric consultations may be limited for providers in rural regions of the state because they have fewer psychiatrists per capita than in urban areas. PCPs who access psychiatric eConsults could potentially lead to improved outcomes for providers and patients in areas more routinely impacted by transportation and geographical barriers. Telepsychiatry consultation programs for providers may help to overcome some of the disparities in health care by redistributing knowledge and expertise when and where it is needed, including in rural areas of California (Nesbitt, 2012).

Ultimately, it is unknown whether AB 1676 would reduce disparities in access to psychiatric eConsults by ameliorating the effects of certain social determinants of health (e.g., transportation, geography). Barriers to care could be reduced for some.

<sup>27</sup> For more information about SDoH, see CHBRP's publication *Incorporating Relevant Social Determinants of Health into CHBRP Benefit Mandate Analyses* at <u>http://chbrp.com/analysis\_methodology/public\_health\_impact\_analysis.php</u>.

## APPENDIX A TEXT OF BILL ANALYZED

On February 25, 2019, the California Assembly Committee on Health requested that CHBRP analyze AB 1676.

#### **ASSEMBLY BILL**

No. 1676

#### Introduced by Assembly Member Maienschein

February 22, 2019

## An act to add Section 1367.626 to the Health and Safety Code, and to add Section 10123.868 to the Insurance Code, relating to health care.

#### LEGISLATIVE COUNSEL'S DIGEST

AB 1676, as introduced, Maienschein. Health care: mental health.

Existing law, the Knox-Keene Health Care Service Plan Act of 1975, provides for licensure and regulation of health care service plans by the Department of Managed Health Care and makes a willful violation of that act a crime. Existing law also provides for the regulation of health insurers by the Department of Insurance. Existing law requires health care service plan contracts and health insurance policies that provide hospital, medical, or surgical coverage to provide coverage for the diagnosis and medically necessary treatment of severe mental illnesses, as defined, of a person of any age. Existing law also requires health care service plans and health insurers, by July 1, 2019, to develop maternal mental health programs, as specified.

This bill would require health care service plans and health insurers, by January 1, 2021, to establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist, as specified, in order to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness. The bill would require health care service plans and insurers to communicate information relating to the telehealth program at least twice a year in writing. The bill would require health care service plans and data pertaining to the utilization of the program and the availability of psychiatrists in order to facilitate ongoing changes and improvements, as necessary. The bill would exempt certain specialized health care service plans and health insurers from these provisions. Because a willful violation of the bill's requirement by a health care service plan would be a crime, the bill would impose a state-mandated local program.

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

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

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 1367.626 is added to the Health and Safety Code, to read:

**1367.626.** (a) In order to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness, by January 1, 2021, a health care service plan shall establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist during standard provider hours, which may include evenings and weekends.

(b) A health care service plan shall communicate information relating to the telehealth program and its availability to contracting medical providers who treat children and pregnant and postpartum persons, including pediatricians, obstetricians, and primary care providers, at least twice a year in writing.

(c) A health care service plan shall maintain records and data pertaining to the utilization of its telehealth consultation program and the availability of psychiatrists in order to facilitate ongoing changes and improvements to the program, as necessary.

(d) This section shall not apply to specialized health care service plans, except specialized behavioral health-only plans offering professional mental health services.

#### SEC. 2.

Section 10123.868 is added to the Insurance Code, to read:

**10123.868.** (a) In order to more quickly diagnose and treat children and pregnant and postpartum persons suffering from mental illness, by January 1, 2021, a health insurer shall establish a telehealth consultation program that provides providers who treat children and pregnant and postpartum persons with access to a psychiatrist during standard provider hours, which may include evenings and weekends.

(b) A health insurer shall communicate information relating to the telehealth program and its availability to contracting medical providers who treat children and pregnant and postpartum persons, including pediatricians, obstetricians, and primary care providers, at least twice a year in writing.

(c) A health insurer shall maintain records and data pertaining to the utilization of its telehealth consultation program and the availability of psychiatrists in order to facilitate ongoing changes and improvements to the program, as necessary.

(d) This section shall not apply to specialized health insurers, except specialized behavioral health-only insurers offering professional mental health services.

#### SEC. 3.

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

## **APPENDIX B LITERATURE REVIEW METHODS**

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

Studies of the effects of psychiatric eConsults were identified through searches of PubMed, the Cochrane Library, Web of Science, the Cumulative Index of Nursing and Allied Health Literature, and PsycINFO. Websites maintained by the following organizations were also searched: the Agency for Healthcare Research and Quality (AHRQ), the International Network of Agencies for Health Technology Assessment (INAHTA), the National Health Service (NHS) Centre for Reviews and Dissemination, the National Institute for Health and Clinical Excellence (NICE), the Scottish Intercollegiate Guideline Network, and the Massachusetts Child Psychiatry Access Program.

The search was limited to abstracts of studies published in English. The medical effectiveness search was limited to studies published from 2004 to present. The literature on the effectiveness of psychiatric eConsults is limited and did not include any randomized controlled trials. The majority of the articles returned were case studies of psychiatric and mental health telehealth program implementations.

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.

The literature review returned abstracts for 51 articles, of which 33 were reviewed for inclusion in this report. A total of six studies were included in the medical effectiveness review for AB 1676.

#### **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*.<sup>28</sup> To grade the evidence for each outcome measured, the team uses a grading system that has the following categories:

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

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

• Clear and convincing evidence;

<sup>&</sup>lt;sup>28</sup> Available at: http://chbrp.com/analysis\_methodology/medical\_effectiveness\_analysis.php..

- Preponderance of evidence;
- Limited evidence;
- Inconclusive evidence; and
- Insufficient evidence.

A grade of *clear and convincing evidence* indicates that there are multiple studies of a treatment and that the <u>large majority</u> of studies are of high quality and consistently find that the treatment is either effective or not effective.

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

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

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

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

#### Search Terms (\* indicates truncation of word stem)

- 1. Telepsychiatry consult
- 2. E-mental health consult
- 3. Telemental health consult
- 4. Telemedicine\*[1]\*[2]\*[3] above
- 5. Video conferencing\*[1]\*[2]\*[3] above
- 6. Live video\*[1]\*[2]\*[3] above
- 7. Telephone\*[1]\*[2]\*[3] above
- 8. Online consultations \*[1]\*[2]\*[3] above
- 9. Children or pregnant or postpartum persons\*[1]\*[2]\*[3] above
- 10. OBGYN\*[1]\*[2]\*[3] above
- 11. Pediatricians\*[1]\*[2]\*[3] above

### REFERENCES

- Agency for Healthcare Research and Quality (AHRQ). National Healthcare Quality Report, 2013. Chapter 5. *Timeliness*. Content last reviewed May 2014a. Agency for Healthcare Research and Quality, Rockville, MD. Available at: <u>https://archive.ahrq.gov/research/findings/nhqrdr/nhqr13/chap5.html</u>. Accessed April 16, 2019.
- Agency for Healthcare Research and Quality (AHRQ). National Healthcare Quality Report, 2013. Chapter 10. *Access to Health Care*. Content last reviewed May 2014b. Agency for Healthcare Research and Quality, Rockville, MD. Available at: https://archive.ahrq.gov/research/findings/nhqrdr/nhqr13/chap10.html. Accessed April 16, 2019.
- Agency for Healthcare Research and Quality (AHRQ). National Healthcare Quality and Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; 2017.
- Alegria M, Vallas M, Pumariega A. Racial and Ethnic Disparities in Pediatric Mental Health. *Child and Adolescent Psychiatric Clinics of North America*. 2010;19(4): 759–774.
- American Academy of Pediatrics (AAP). 2019 Coding and Reimbursement Tip Sheet for Transition from Pediatric to Adult Health Care. Available at: <a href="https://www.gottransition.org/resourceGet.cfm?id=352">https://www.gottransition.org/resourceGet.cfm?id=352</a>. Accessed March 2019.
- American College of Obstetricians and Gynecologists (ACOG). The American College of Obstetricians and Gynecologists Committee Opinion no. 630. Screening for perinatal depression. *Obstetrics and Gynecology.* 2015;125(5):1268-1271.
- American Psychiatric Association (APA). *What is Telepsychiatry*? 2018. Available at: <u>https://www.psychiatry.org/patients-families/what-is-telepsychiatry</u>. Accessed March 25, 2019.
- American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Telepsychiatry. Clinical update: telepsychiatry with children and adolescents. *Journal of the American Academy of Child* & Adolescent Psychiatry. 2017;56(10):875-893.
- Anderson LE, Chen ML, Perrin JM, et al. Outpatient visits and medication prescribing for US children with mental health conditions. *Pediatrics*. 2015;136(5):e1178-e1185.
- Archibald D, Stratton J, Liddy C, Grant RE, Green D, Keely EJ. Evaluation of an electronic consultation service in psychiatry for primary care providers. *BMC Psychiatry*. 2018;18(1):119.
- Baio J, Wiggins L, Christensen DL, et al. Prevalence of autism spectrum disorder among children aged 8 years—autism and developmental disabilities monitoring network, 11 sites, United States, 2014. MMWR Surveillance Summaries. 2018;67(6):1.
- Biebel K, Byatt N, Ravech M, Straus J. MCPAP for Moms: A Primer for Pediatric Providers. 2015.
- Bitsko RH, Holbrook JR, Ghandour RM, et al. Epidemiology and impact of health care provider– diagnosed anxiety and depression among US children. *Journal of Developmental & Behavioral Pediatrics.* 2018;39(5):395-403.
- Blalock JA, Minnix JA, Mathew AR, Wetter DW, McCullough Jr JP, Cinciripini PM. Relationship of childhood trauma to depression and smoking outcomes in pregnant smokers. *Journal of Consulting and Clinical Psychology*. 2013;81(5):821.

- Blue Shield of California Foundation. Electronic Consult Reimbursement Roadmap, March 2016. Available at: <u>https://blueshieldcafoundation.org/sites/default/files/u19/eConsult%20GPS\_032916.pdf.</u> Accessed April, 11, 2019.
- Brown J, Cohen P, Johnson JG, Smailes EM. Childhood abuse and neglect: specificity of effects on adolescent and young adult depression and suicidality. *Journal of the American Academy of Child* & *Adolescent Psychiatry*. 1999;38(12):1490-1496.
- Buescher AV, Cidav Z, Knapp M, Mandell DS. Costs of autism spectrum disorders in the United Kingdom and the United States. *JAMA Pediatrics*. 2014;168(8):721-728.
- Byatt N. Addressing Perinatal Mental Health & Substance Use Disorders: MCPAP for Moms, Presentation, November 2017.
- Byatt N, Biebel K, Simas TAM, et al. Improving perinatal depression care: the Massachusetts child psychiatry access Project for moms. *General Hospital Psychiatry*. 2016;40:12-17.
- Byatt N, Moore Simas TA, Biebel K, et al. PRogram In Support of Moms (PRISM): a pilot group randomized controlled trial of two approaches to improving depression among perinatal women. *Journal of Psychosomatic Obstetrics & Gynecology*. 2018a;39(4):297-306.
- Byatt N, Straus J, Stopa A, Biebel K, Mittal L, Moore Simas TA. Massachusetts Child Psychiatry Access Program for Moms: Utilization and Quality Assessment. *Obstetrics and Gynecology*. 2018b;132(2), 345-353.

Caldwell R, Forquer H. Maternal, Child and Adolescent Health Program, Center for Family Health. *Maternal Mental Health in California: Data from the California Maternal and Infant Health Assessment Survey (MIHA)*. October 2015. Available at: <u>https://d3n8a8pro7vhmx.cloudfront.net/camaternalmentalhealth/pages/213/attachments/original/1</u> <u>444499645/Revised-Mental\_health\_MCAH\_Action\_2015\_v4.pdf?1444499645</u>. Accessed March 5, 2018.

- California Health Care Foundation. Improving Maternal Mental Health Care. Available at: https:// www.chcf.org/project/improving-treatment-of-maternal-mental-health/. Accessed April 9, 2019.
- California Department of Public Health (CDPH). MIHA Report, 2013-2014. *Data from the Maternal and Infant Health Assessment Survey (MIHA)*. Sacramento, CA: California Department of Public Health; April 2016.
- California Health Benefits Review Program (CHBRP). *Analysis of California Assembly Bill 2193 Maternal Mental Health.* Report to Calif. State Legislature. Berkeley, CA: CHBRP; 2018.
- California Health Benefits Review Program (CHBRP). *Analysis of California Assembly Bill 1074 Pervasive Developmental Disorder or Autism.* Report to Calif. State Legislature. Oakland, CA: CHBRP; 2017.
- California Task Force on the Status of Maternal Mental Health Care (CA Task Force). A Report from the California Task Force on the Status of Maternal Mental Health Care. California Task Force on the Status of Maternal Mental Health/2020 Mom; April 2017.

- Center for Medicaid & Medicaid Services (CMS). Center for Medicaid & CHIP Services (CMCS) Informational Bulletin: *Maternal Depression Screening and Treatment: A Critical Role for Medicaid in the Care of Mothers and Children*; May 2016.
- Centers for Disease Control and Prevention (CDC). NCHHSTP Social Determinants of Health. Frequently Asked Questions. Page last reviewed: March 10, 2014. Available at: <u>http://www.cdc.gov/nchhstp/socialdeterminants/faq.html.</u> Accessed August 27, 2015.
- Centers for Disease Control and Prevention (CDC). Data and Statistics on Children's Mental Health. 2019. Available at: https://www.cdc.gov/childrensmentalhealth/data.html. Accessed April 1, 2019.
- Cheung AH, Zuckerbrot RA, Jensen PS, et al. Guidelines for adolescent depression in primary care (GLAD-PC): II. Treatment and ongoing management. *Pediatrics*. 2018;141(3):e2017-4082.
- Coffman J, Bates T, Geyn I, Spetz J. *California's current and future behavioral health workforce*. San Francisco: The Healthforce Center at UCSF. 2018.
- Coker TR, Elliott MN, Toomey SL, et al. Racial and ethnic disparities in ADHD diagnosis and treatment. *Pediatrics*. 2016;138(3).
- Davé S, Petersen I, Sherr L, Nazareth I. Incidence of maternal and paternal depression in primary care: a cohort study using a primary care database. *Archives of Pediatrics & Adolescent Medicine*. 2010;164(11):1038-1044.
- de Bocanegra HT, Braughton M, Bradsberry M, Howell M, Logan J, Schwarz EB. Racial and ethnic disparities in postpartum care and contraception in California's Medicaid program. *American Journal of Obstetrics & Gynecology.* 2017;217(1):47. e41-47.
- Dennis CL, Falah-Hassani K, Shiri R. Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. *The British Journal of Psychiatry*. 2017;210(5):315-323.
- Diaz JY, Chase R. The cost of untreated maternal depression. St. Paul, MN: Wilder Research. 2010.
- DiBari JN, Yu SM, Chao SM, Lu MC. Use of postpartum care: predictors and barriers. *Journal of Pregnancy*. 2014;2014(530769):1-8.
- Escribà-Agüir V, Royo-Marqués M, Artazcoz L, Romito P, Ruiz-Pérez I. Longitudinal study of depression and health status in pregnant women: incidence, course and predictive factors. *European Archives of Psychiatry and Clinical Neuroscience*. 2013;263(2):143-151.
- Fairbrother N, Janssen P, Antony MM, Tucker E, Young AH. Perinatal anxiety disorder prevalence and incidence. *Journal of Affective Disorders*. 2016;200:148-155.
- Fleury MJ, Imboua A, Aubé D, Farand L, Lambert Y. General practitioners' management of mental disorders: a rewarding practice with considerable obstacles. *BMC Family Practice*. 2012;13(1):19.
- Foli KJ, South SC, Lim E, Hebdon M. Depression in adoptive fathers: An exploratory mixed methods study. *Psychology of Men & Masculinity*. 2013;14(4):411.
- Gavin NI, Gaynes BN, Lohr KN, Meltzer-Brody S, Gartlehner G, Swinson T. Perinatal depression: a systematic review of prevalence and incidence. *Obstetrics & Gynecology*. 2005;106(5):1071-1083.

- Ghandour RM, Sherman LJ, Vladutiu CJ, et al. Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of Pediatrics*. 2019;206:256-267. e253.
- Goyal D, Gay C, Lee KA. How much does low socioeconomic status increase the risk of prenatal and postpartum depressive symptoms in first-time mothers? *Women's Health Issues*. 2010;20(2):96-104.
- Hahn-Holbrook J, Cornwell-Hinrichs T, Anaya I. Economic and health predictors of national postpartum depression prevalence: a systematic review, meta-analysis, and meta-regression of 291 studies from 56 countries. *Frontiers in Psychiatry*. 2018;8:248.
- Hall KS, Richards JL, Harris KM. Social disparities in the relationship between depression and unintended pregnancy during adolescence and young adulthood. *Journal of Adolescent Health*. 2017;60(6):688-697.
- Hansotte E, Payne SI, Babich SM. Positive postpartum depression screening practices and subsequent mental health treatment for low-income women in Western countries: a systematic literature review. *Public Health Reviews*. 2017;38(1):3.
- Hilty DM, Ferrer DC, Parish MB, Johnston B, Callahan EJ, Yellowlees PM. The effectiveness of telemental health: a 2013 review. *Telemedicine and e-Health.* 2013;19(6):444-454.
- Hilty DM, Ingraham RL, Yang SP, Anders TF. Multispecialty telephone and e-mail consultation for patients with developmental disabilities in rural California. *Telemedicine Journal & e-Health*. 2004;10(4):413-421.
- Hilty DM, Rabinowitz T, McCarron RM, et al. An update on telepsychiatry and how it can leverage collaborative, stepped, and integrated services to primary care. *Psychosomatics*. 2018a;59(3):227-250.
- Hilty DM, Evangelatos G, Valasquez A, et al. Telehealth for rural diverse populations: cultural and telebehavioral competencies and practical approaches for clinical services. *Journal of Technology in Behavioral Science*. 2018b.
- Hilty DM, Nesbitt TS, Kuenneth CA, Cruz GM, Hales RE. Rural versus suburban primary care needs, utilization, and satisfaction with telepsychiatric consultation. *The Journal of Rural Health*. 2007;23(2):163-165.
- Hilty DM, Yellowlees PM, Nesbitt TS. Evolution of telepsychiatry to rural sites: changes over time in types of referral and in primary care providers' knowledge, skills and satisfaction. *General Hospital Psychiatry*. 2006;28(5):367-373.
- Hobbs Knutson K, Masek B, Bostic JQ, Straus JH, Stein BD. Clinicians' utilization of child mental health telephone consultation in primary care: findings from Massachusetts. *Psychiatric Services*. 2014;65(3):391-394.
- Horner K, Wagner E, Tufano J. Electronic consultations between primary and specialty care clinicians: early insights. *Issue Brief (Commonwealth Fund).* 2011;23(23):1-14.
- Ko JY, Rockhill KM, Tong VT, Morrow B, Farr SL. Trends in postpartum depressive symptoms—27 states, 2004, 2008, and 2012. *MMWR. Morbidity and Mortality Weekly Report.* 2017;66(6):153.

- Lavelle TA, Weinstein MC, Newhouse JP, Munir K, Kuhlthau KA, Prosser LA. Economic burden of childhood autism spectrum disorders. *Pediatrics*. 2014;133(3):e520-529.
- Leathers SJ, Kelley MA. Unintended pregnancy and depressive symptoms among first-time mothers and fathers. *American Journal of Orthopsychiatry*. 2000;70(4):523-531.
- Liang J, Matheson BE, Douglas JM. Mental Health Diagnostic Considerations in Racial/Ethnic Minority Youth. *Journal of Child and Family Studies*. 2016; 25(6):1926–1940.
- Liddy C, Drosinis P, Keely E. Electronic consultation systems: worldwide prevalence and their impact on patient care—a systematic review. *Family Practice*. 2016;33(3):274-285.
- Lowenstein M, Bamgbose O, Gleason N, Feldman MD. Psychiatric consultation at your fingertips: descriptive analysis of electronic consultation from primary care to psychiatry. *Journal of Medical Internet Research.* 2017;19(8).
- Marcus S. Depression during pregnancy: rates, risks and consequences. *Journal of Population Therapeutics and Clinical Pharmacology*. 2009;16(1).
- Mechanic OJ, Kimball AB. *Telehealth Systems*. StatPearls. Treasure Island (FL): StatPearls Publishing StatPearls Publishing LLC.; 2019.
- Muraca GM, Joseph K. The association between maternal age and depression. *Journal of Obstetrics and Gynaecology Canada*. 2014;36(9):803-810.
- National Institute of Mental Health (NIMH). Bipolar Disorder. November 2017. Available at: <u>https://www.nimh.nih.gov/health/statistics/bipolar-disorder.shtml#part\_155460</u>. Accessed on April, 5, 2019.
- National Institute of Mental Health (NIMH). Autism Spectrum Disorder. 2018. Available at: https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd/index.shtml. Accessed April 1, 2019.
- National Institute of Mental Health (NIMH). Children and Mental Health. 2019. Available at: https://www.nimh.nih.gov/health/publications/children-and-mental-health/index.shtml. Accessed April 1, 2019.
- Ngai FW, Ngu SF. Predictors of maternal and paternal depressive symptoms at postpartum. *Journal of Psychosomatic Research*. 2015;78(2):156-161.
- Neavin D, Joyce J, Swintak C. Treatment of major depressive disorder in pediatric populations. *Diseases*. 2018;6(2):48.
- Nesbitt T. *The evolution of telehealth: Where have we been and where are we going.* Paper presented at: Institute of Medicine (2012). The Role of Telehealth in and Evolving Health Care Environment: Workshop Summary, 2012.
- Office of Disease Prevention and Health Promotion. Healthy People 2020: Social Determinants of Health. Available at: <u>http://www.healthypeople.gov/2020/topics-</u> <u>objectives/topic/socialdeterminantshealth/addressing-determinants</u>. Accessed February 16, 2016.
- O'hara M, McCabe J. Postpartum depression: current status and future directions. *Annual Review of Clinical Psychology.* 2013;9:379-407.

- Perou R, Bitsko RH, Blumberg SJ, et al. Mental health surveillance among children—United States, 2005-2011. MMWR Supplements. 2013;62(2):1-35.
- Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA. Annual Research Review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry*. 2015;56(3):345-365.
- Prevatt B, Desmarais S. Facilitators and barriers to disclosure of postpartum mood disorder symptoms to a healthcare provider. *Maternal and Child Health Journal*. 2018;22(1):120-129.
- Renk K, White R, Lauer BA, McSwiggan M, Puff J, Lowell A. Bipolar disorder in children. *Psychiatry Journal.* 2014;2014.
- Siu AL, Bibbins-Domingo K, Grossman DC, et al. Screening for depression in adults: US Preventive Services Task Force recommendation statement. *JAMA*. 2016;315(4):380-387.
- Song D, Sands RG, Wong Y-LI. Utilization of mental health services by low-income pregnant and postpartum women on medical assistance. *Women & Health*. 2004;39(1):1-24.
- Straus JH, Sarvet B. Behavioral health care for children: The Massachusetts child psychiatry access project. *Health Affairs.* 2014;33(12):2153-2161.
- Subcommittee on Attention-Deficit/Hyperactivity Disorder. ADHD: clinical practice guideline for the diagnosis, evaluation, and treatment of attention-deficit/hyperactivity disorder in children and adolescents. *Pediatrics*. 2011;128(5):1007-22.
- Substance Abuse and Mental Health Services Administration (SAMHSA). Behavioral Health Treatments and Services, January 2019. Available at: <u>https://www.samhsa.gov/find-help/treatment</u>. Accessed on April, 17, 2019.
- Tandon M, Pergjika A. Attention deficit hyperactivity disorder in preschool-age children. *Child and Adolescent Psychiatric Clinics*. 2017;26(3):523-538.
- Tyler ET, Hulkower RL, Kaminski JW. *Behavioral Health Integration in Pediatric Primary Care: Considerations and Opportunities for Policymakers, Planners, and Providers.* Milbank Memorial Fund. March 2017. Available at: <u>https://www.milbank.org/wp-</u> <u>content/uploads/2017/03/MMF\_BHI\_REPORT\_FINAL.pdf.</u> Accessed April 16, 2019.
- Byatt, N., Moore Simas, T. A., Biebel, K., Sankaran, P., Pbert, L., Weinreb, L., . . . Allison, J. (2018). PRogram In Support of Moms (PRISM): a pilot group randomized controlled trial of two approaches to improving depression among perinatal women. *Journal of Psychosomatic Obstetrics & Gynecology, 39*(4), 297-306.
- Byatt, N., Straus, J., Stopa, A., Biebel, K., Mittal, L., & Simas, T. A. M. (2018). Massachusetts Child Psychiatry Access Program for Moms: Utilization and Quality Assessment. *Obstet Gynecol*, 132(2), 345-353. doi:10.1097/AOG.000000000002688
- Hilty, D. M., Ingraham, R. L., Yang, S. P., & Anders, T. F. (2004). Multispecialty telephone and e-mail consultation for patients with developmental disabilities in rural California. *Telemedicine Journal & e-Health*, 10(4), 413-421.
- Nesbitt, T. (2012). *The evolution of telehealth: Where have we been and where are we going.* Paper presented at the Institute of Medicine (2012). The Role of Telehealth in and Evolving Health Care Environment: Workshop Summary.
- Straus, J. H., & Sarvet, B. (2014). Behavioral health care for children: The Massachusetts child psychiatry access project. *Health Affairs*, *33*(12), 2153-2161. doi:10.1377/hlthaff.2014.0896

- Van Cleave, J., Holifield, C., & Perrin, J. M. (2018). Primary Care Providers' Use of a Child Psychiatry Telephone Support Program. *Acad Pediatr, 18*(3), 266-272. doi:https://doi.org/10.1016/j.acap.2017.11.007
- Van Cleave J, Le T-T, Perrin JM. Point-of-care child psychiatry expertise: the Massachusetts Child Psychiatry Access Project. *Pediatrics*. 2015;135(5):834-841.
- Vimalananda VG, Gupte G, Seraj SM, et al. Electronic consultations (e-consults) to improve access to specialty care: a systematic review and narrative synthesis. *Journal of Telemedicine and Telecare*. 2015;21(6):323-330.
- Volkmar F, Siegel M, Woodbury-Smith M, et al. Practice parameter for the assessment and treatment of children and adolescents with autism spectrum disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2014;53(2):237-57.
- Wachino V. Maternal depression screening and treatment: a critical role for Medicaid in the care of mothers and children. CMCS Informational Bulletin, Department of Health and Human Services, Centers for Medicare and Medicaid Services. 2016:1-6.
- Walmer R, Huynh J, Wenger J, et al. Mental health disorders subsequent to gestational diabetes mellitus differ by race/ethnicity. *Depression and Anxiety*. 2015;32(10):774-782.
- Washburn JJ, West AE, Heil JA. Treatment of pediatric bipolar disorder: a review. *Minerva psichiatrica*. 2011;52(1):21.
- Wong YJ, Ho M-HR, Wang S-Y, Miller I. Meta-analyses of the relationship between conformity to masculine norms and mental health-related outcomes. *Journal of Counseling Psychology*. 2017;64(1):80.
- Wright MJ, Harmon KD, Bowman JA, Lewin TJ, Carr VJ. Caring for depressed patients in rural communities: general practitioners' attitudes, needs and relationships with mental health services. *Australian Journal of Rural Health*. 2005;13(1):21-27.
- Wyatt R, Laderman M, Botwinick L, Mate K, Whittington J. *Achieving Health Equity: A Guide for Health Care Organizations*. IHI White Paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2016. (Available at ihi.org)
- Zuckerbrot RA, Cheung A, Jensen PS, Stein RE, Laraque D, GROUP G-PS. Guidelines for adolescent depression in primary care (GLAD-PC): part I. Practice preparation, identification, assessment, and initial management. *Pediatrics*. 2018;141(3):e20174081.

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

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

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CHBRP is an independent program administered and housed by the University of California, Berkeley, in the Office of the Vice Chancellor for Research.

CHBRP gratefully acknowledges the efforts of the team contributing to this analysis:

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

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Please direct any questions concerning this document to: California Health Benefits Review Program; MC 3116; Berkeley, CA 94720-3116, <u>info@chbrp.org</u>, or www.chbrp.org