Review and Evaluation of Proposed Legislation Entitled: An Act Amending the Children's Medical Security Plan House Bill 2177

Provided for
The Joint Committee on Health Care Financing

December 2010

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Executive Summary

This report was prepared by the Division of Health Care Finance and Policy (DHCFP) at the request of the Joint Committee on Health Care Financing, which referred House Bill 2177 (H. 2177) "An Act Amending the Children's Medical Security Plan" to DHCFP for review. Previously, reports of this type have been prepared by DHCPF in response to the request by a legislative committee to review and evaluate the impact of a mandated benefit proposal affecting fully-insured health plans, pursuant to the provisions of M.G.L. c. 3 § 38C.[1] The Children's Medical Security Plan (CMSP) is not a fully-insured health plan, commercial or otherwise. CMSP is a small, publicly-administered program for uninsured children and adolescents; it is entirely funded through state appropriation. As such, the provisions of M.G.L. c. 3 § 38C do not apply to the proposed bill. Nevertheless, DHCFP has reviewed H. 2177 at the request of the referring committee based on the same framework of analysis that DHCFP typically uses to review mandated benefit bills affecting fully-insured commercial health plans.

In Context

Massachusetts has the highest rate of insurance for children and adolescents in the nation. Survey data from 2009 indicate that 98.8 percent are insured.[2] A small percentage of the state's children and adolescents—or 1.2 percent—are uninsured at any one point in time.[3] The Children's Medical Security Plan (CMSP) helps to cover the needs of these children and adolescents.

CMSP provides coverage to about 90 percent of all uninsured children in the state. In 2010, the enrollment was about 16,500. CMSP enrollees do not have insurance coverage from any other sources, including MassHealth (except for MassHealth Limited) often because of their immigrant status. Some children are eligible for services from the Health Safety Net (HSN). CMSP is a very small program that provides insurance coverage for a limited set of benefits and services to the majority of children and adolescents who are uninsured.

H. 2177 would expand coverage for outpatient mental health services under the CMSP program by removing the cap of 20 visits per year. But this expansion of benefits would have very little effect on the budget for the program. DHCFP estimates that the annual effects of the proposed bill on the CMSP program could be about $120,000, reflecting the increase in the number of visits among children/adolescents enrolled in CMSP (see appendix for methodology).

Legislators might turn to medical and policy considerations to review and evaluate H. 2177. On the one hand, DHCFP remains neutral in terms of supporting the redesign of CMSP. CMSP is a safety net for uninsured children. Heavy users of mental health services would be more effectively served by a health plan that offers a comprehensive package of benefits. On the other hand, DHCFP finds strong evidence that treatments for child and adolescent mental health disorders have established efficacy.[4]

About the Children's Medical Security Plan

In this section, DHCFP provides a summary of the three key facts about the Children's Medical Security Plan (CMSP) to provide the reader with sufficient context to review and evaluate the House Bill 2177, An Act Amending the Children's Medical Security Plan.

- Small program for Children and Adolescents.
  The CMSP program is small. The state appropriation for fiscal year 2010 was $14.1 million, entirely funded by the state. About 16,500 (rounded) children and adolescents under the age of 19 are currently enrolled in CMSP.
- Temporary Coverage for the Uninsured, Mostly Immigrants.
  CMSP enrollees are uninsured and not eligible for MassHealth. Close to 75 percent of CMSP enrollees are not eligible for MassHealth due to immigrant status.[5] The turnover rate is as high as 55 percent from year to year. CMSP enrollees represent nearly 90 percent of all children and adolescents who are uninsured in the state
- Limited Benefits.
  CMSP provides a limited benefit package with a focus on primary and preventive care. Inpatient care is excluded from the benefit package. CMSP cannot be compared to a typical health plan offered by a commercial insurer or to MassHealth Standard

Overview of Current Law and Proposed Mandate

The CMSP was officially established in 1993, with a legislative and administrative history that spans over two decades from the enactment of Chapter 495 of the Acts of 1991 to the present.[6] CMSP began with Chapter 495, which addressed the preventive pediatric health care needs for uninsured children up to age 6.

Under current law, CMSP provides coverage for 13 mental health and substance abuse visits, with an additional 7 visits if determined to be clinically necessary. The annual cap on total outpatient mental health visits is 20. The Massachusetts Mental Health Parity law, which would provide for more than 20 visits, does not currently apply to CMSP.

H. 2177 would require that CMSP comply with the state's mental health parity law and provide an unlimited number of outpatient mental health visits for children and adolescents with biologically-based conditions. These biologically-based mental conditions are listed in the Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR (fourth edition, text revision).

Taken together, the two provisions of the bill add up to the requirements that CMSP remove the current annual 20-visit cap on outpatient mental health visits and provide unlimited coverage for outpatient mental health visits to all CMSP enrollees.

It is important to note, here, that DHCFP assumes that CMSP would provide unlimited coverage for children and adolescents whose conditions are not biologically based in adherence to parity requirements that coverage for mental health be comparable to the coverage for physical health.

Methodology for Financial Impact Analysis

The Division prepared this review and evaluation of H. 2177 by conducting interviews with legislative staff, staff from the MassHealth program and the Executive Office of Health and Human Services, reviewing the relevant history about the CMSP, including data and statistics for the program, reviewing the literature about the efficacy of mental health services for children and adolescents, and conducting an actuarial analysis of the fiscal impact of H. 2177 (see Appendix).

DHCFP's analysis focused on how the provisions of H. 2177 would affect the costs and use of outpatient mental-health visits under the CMSP program. The analysis was based on the following information and assumptions: (1) the current design of the CMSP program; (2) the distribution of use among users, and in particular, the level of use among high users of the CMSP program; (3) the average cost per visit for the type of visit; and, (4) the effect of lifting the cap on use. The analysis assumes that the proposed mandate would have no effect on other services provided under the CMSP program.

Three different impact scenarios were developed – low, middle, and high – to present a range of the possible impact of the proposed mandate on the CMSP budget. These impact scenarios were developed drawing on the outpatient mental-health utilization experience from a non-Massachusetts Medicaid population with unlimited coverage for visits.

Results of Financial Analysis

In 2011, the projected increase in spending that would result from H. 2177 ranges from $56,545 to $142,818. That represents an increase of about .4 to 1.0 percent over the state fiscal year 2010 appropriation of $14.1 million for CMSP. However, those same estimates would represent a 1 to 2 percent increase in overall medical claims expenses for the CMSP program.

Over a five-year time horizon, three scenarios – low, middle and high – were modeled resulting in an average estimated increase in claims spending of $60,000, $120,000 and $150,000, respectively. The results reflect the effect of the proposed mandate on the CMSP program. The results are displayed in Exhibit 1. See Appendix 1 for more detail on the results.

Exhibit 1: Estimated Claims Impact of HB2177 for the Children's Medical Security Plan (2011-2015)

	2011	2012	2013	2014	2015	Mean
CMSP Enrollees	16,500	16,500	16,500	16,500	16,500	16,500
Low Scenario						
Annual Impact Claims	$56,545	$58,241	$59,988	$61,788	$63,642	$60,041
PMPM	$0.29	$0.29	$0.30	$0.31	$0.32	$0.30
Middle Scenario						
Annual Impact Claims	$112,957	$116,346	$119,836	$123,431	$127,134	$119,941
PMPM	$0.57	$0.59	$0.61	$0.62	$0.64	$0.61
High Scenario						
Annual Impact Claims	$142,818	$147,102	$151,515	$156,061	$160,743	$151,648
PMPM	$0.72	$0.74	$0.77	$0.79	$0.81	$0.77

Introduction

The purpose of H. 2177 is to establish a law in Massachusetts that would lead to greater coverage for outpatient mental health visits to children and adolescents enrolled in the Children's Medical Security Plan (CMSP). In accordance with current law, CMSP covers up to 20 visits per year per child. That cap works for most children. However, a very small percentage of children require more services. About 2 percent of children and adolescents enrolled in CMSP currently hit up against the 20-visit cap.

H. 2177 would require CMSP to provide coverage for an unlimited number of outpatient mental-health visits to its enrollees. DCHFP anticipates that this change would increase both the use and costs of outpatient mental-health visits for the CMSP program, as enrollees increase their use of therapy visits.

The remainder of this introductory section summarizes the scope of the current law and describes how coverage under CMSP would change under the proposed bill.

Summary of Current Law

In accordance with Chapter 118E, Section 10F, the MassHealth program currently administers the CMSP. The CMSP provides limited coverage for children under the age of 19 who are uninsured. CMSP enrollees must also be ineligible for MassHealth. Current law requires that CMSP provides coverage for up to 20 outpatient-mental health visits.

Current law does not require CMSP to comply with the Massachusetts Mental Health Parity Law. The state's mental health parity law requires insurers who offer mental health benefits to cover the diagnosis and treatment of certain mental disorders to the same extent that coverage is provided for physical disorders. The law provides this benefit parity for "biologically-based" mental health conditions for adults and for any conditions in children (18 and under) that limit functioning and social interaction. The net effect of this law, for this report, means that CMSP is exempt from the requirements to provide unlimited coverage for outpatient mental health visits to enrollees with a biologically-based condition and up to 24 outpatient visits for those with other conditions.

Summary of Proposed Bill

H. 2177 proposes that CMSP comply with the state's mental health parity law and provide an unlimited number of outpatient mental health visits for children and adolescents with biologically-based conditions. Taken together, the two major provisions of the bill add up to removal of the current annual 20-visit cap on outpatient mental health visits and unlimited coverage for outpatient mental health visits to all CMSP enrollees. This proposed mandate would amend Chapter 118E, section 10F, subsection (b) (5), which applies to the CMSP.

Background

In this section, the Division provides: (1) an overview of the prevalence and treatment approach for children and adolescents; and, (2) general information about the CMSP program.

Children and Adolescents: Prevalence and Treatment

According to the American Academy of Pediatricians, uninsured children were found to have the same prevalence of "clinician-identified psychosocial and mental health problems" as insured children.[7]

The National Mental Health Information Center of the U.S. Department of Health and Human Services (HHS) reports that as many as one in five or 20 percent of children and adolescents may have a mental, emotional or behavioral disorder that can be identified and require treatment.[8] A 2004 report from the National Center for Health Statistics of the Centers for Disease Control and Prevention (CDC) suggests that many more children and adolescents could benefit from service than receive services.[9] A report by the Urban Institute in 2004 focuses on the problem that "most children with mental health problems nationwide, from all income and insurance groups, still do not use mental health services. Access to such services is lower than it should be for all children, regardless of income and insurance status.[10]

In some cases a child's mental health problem lessens or disappears over time; in other cases a mental health problem may continue or become more serious in adulthood. The National Institute of Mental Health (NIMH) reports that "nearly half of all lifetime cases of mental illness begin by age 14."[11]

Prevalence rates differ by condition. HHS estimates that as many as 13 in 100 children and adolescents between the ages of 9 and 17 years of age suffer from anxiety disorder. Two of every 100 children and 8 of every 100 adolescents experience major depression, according to the National Institutes of Health (NIH). Other conditions include: bipolar disorder, attention-deficit/hyperactivity disorder, learning disorders, eating disorders, autism, and schizophrenia. According to the NIH, schizophrenia occurs in about five of every 1,000 children.

Early diagnosis and treatment are of paramount importance, since they can sometimes prevent the full onset of the disorder. Treatment options for children and adolescents often include psychotherapy or medication. Many treatment options for children and adolescents involve both the patient and the family. Psychosocial therapy, also called "talk therapy" or "behavioral therapy," can help patients to change their behavior and manage their condition. Therapy can also help children and parents develop "coping strategies." Therapy is often used in combination with medication that is quite prominent in treatment.

It is important to note that outpatient treatment is considered to be part of any comprehensive approach in the context of treating a psychiatric condition in children and adolescents. According to one such study on the trends in mental health care for youth prepared by the RAND Institute,

"outpatient treatment is the most common kind of care given."[12] Outpatient treatments represent about 75 percent of the treatment that children and adolescents receive.[13]

The Children's Medical Security Plan

The CMSP is a health insurance program that provides limited coverage for primary and preventive health care for children under age 19. This program is entirely funded by the state and is administered by MassHealth in accordance with 130 CMR 522.004.

General Information

The fiscal year 2010 appropriation or budget was $14,186,651, funded through line item 4000-0900 of the state budget, for about 16,500 enrollees (rounded). The appropriation covers both claims expense for covered services and the administrative costs of operating the program through UniCare. Administrative costs run about 27 percent of total program costs.

MassHealth administers the program by contracting out with a private entity, UniCare, which provides administrative services such as processing claims and paying providers. UniCare contracts with Magellan Behavioral Health for their behavioral-health network.

CMSP currently provides limited coverage for primary and preventive medical and dental care, with caps and limitations on certain services. See Box 1 for a summary of the CMSP benefit package. CMSP does not cover inpatient care, for example. Participants bear some of the cost for coverage. Premiums and copayments are based on family size and income. Premiums are collected and deposited into the state's General Fund. Copayments are paid directly to the providers of services.

Enrollees are eligible for CMSP if: (1) they are uninsured; (2) under the age of 19; (3) a Massachusetts resident; and, (4) ineligible for MassHealth (except MassHealth Limited). Approximately 75% percent of the children eligible for CMSP do not meet the eligibility requirements for MassHealth due to immigrant status. The rest of the children are not eligible for MassHealth due to income (CMSP has no income requirement).[14]

Some children who are covered by CMSP are also eligible for the Health Safety Net (HSN) at Massachusetts acute hospitals and community health centers for medically necessary services not covered by CMSP.[15] Inpatient mental-health care is considered an eligible HSN service. The HSN provides coverage for children coming from family incomes up to 400% of the federal poverty level. Some children are also eligible for MassHealth Limited, which covers emergency services and care.

Use and Cost Information Relative to Outpatient Mental Health Service

The major finding to report here is that a significant majority of CMSP enrollees do not use any outpatient mental health services. However, 25 percent of CMSP enrollees do use some services, which is higher than the 20 percent reported by HHS for the general population. Approximately 2 to 3 percent of the users might be considered heavy users of mental-health services, and most affected by H. 2177.

Exhibit 2: Number of Outpatient Mental Health Visits for CMSP Enrollees in FY2009

			Summary Distribution of number of Visits Among Users					
Members	**Number**	**Percent**	**1**	**2-10**	**11-15**	**16-19**	**20+**	**Total**
Non Users	12,404	75%						
Users	4,096	25%	2,191	1,688	94	46	77	4,096
All	16,500	100%	53%	41%	2%	1%	2%	100%

Exhibit 2, above, provides the distribution of use for CMSP enrollees, based on the analysis provided in Appendix 1 of this report.

In fiscal year 2009, CMSP spent about $700,000 on outpatient mental-health visits, or less than 5 percent of the total state appropriation. Spending between July 2009 and April 2010 ran about $617,000. The average cost per enrollee is about $40, and the average cost per visit is about $62.

Box 1: CMSP Benefit Package

CMSP-covered services include: pediatric preventive pediatric care (well-child visits and immunizations); office visits (sick visits and follow-up care); urgent care visits (not including emergency care in a hospital outpatient or emergency department); diagnostic laboratory tests and X rays; hearing tests, annual and medically necessary eye exams; outpatient surgery and anesthesia for tympanostomy (ear) tube placement and for inguinal hernias; durable medical equipment, up to $200 per state fiscal year, with an additional $300 per state fiscal year for equipment and supplies related to asthma, diabetes, and seizure disorders only; prescriptions, up to $200 per state fiscal year; dental services, up to $750 per state fiscal year, including preventive dental care; and outpatient mental health services, including substance abuse treatment, not to exceed 20 visits per state fiscal year.

Among the services that CMSP does not cover are: early intervention, inpatient hospital care and any charges related to inpatient hospital care, ambulance and other medical transportation services, emergency room services, and cosmetic or surgical dentistry.

Copayments may apply to prescriptions and dental services depending on family size and income. CMSP premium amounts are also based on income.

Methodological Approach

Overview of Approach

DHCFP engaged a consulting team for this project, including the economics and actuarial firm of Compass Health Analytics, Inc. (Compass) to estimate the financial effects of the passage of H. 2177. Independent consultant Ellen Breslin Davidson of EBD Consulting Services, LLC (EBD) and Tony Dreyfus were hired to write the main report, which included reviewing and evaluating the legislation. DHCFP, Compass, and EBD worked together to evaluate the likely effects of the proposed bill on existing health insurance.

The following steps were taken to prepare the review and evaluation of H. 2177:

1. Conducted Interviews with Stakeholders.

   DHCFP conducted interviews with stakeholders in the Commonwealth to ensure that it was accurately interpreting the proposed change in law, to understand the perceptions about how the law would be interpreted, if enacted, and expectations about its likely impacts. DHCFP completed interviews with legislative staff. Communications and meetings also took place with MassHealth.

2. Reviewed Literature.

   DHCFP reviewed the literature to determine the context of the proposed mandate, including issues relative to insurance coverage in Massachusetts, medical efficacy and the federal and state landscape. This research included identification of parameters for estimating the cost impacts of H. 2177.

3. Developed Baseline for Massachusetts.

   Compass Health Analytics developed a baseline of costs for mental-health services currently covered by CMSP, using data provided by MassHealth for fiscal year 2009.

4. Applied Assumptions and Sensitivity Analysis to Methodology.

   Model parameters were developed to estimate the marginal impact of the proposed expansion of outpatient mental health benefits on the budget for CMSP. Compass Health Analytics relied upon data from a non-Massachusetts Medicaid population in developing the assumptions about how heavy users would respond to coverage for an unlimited number of visits.

Approach for Determining Medical Efficiacy

M.G.L. c. 3 § 38C (d) requires DHCFP to assess "the medical efficacy of mandating the benefit, including the impact of the benefit on the quality of patient care and the health status of the population and the results of any research demonstrating the medical efficacy of the treatment or service compared to alternative treatments or services or not providing the treatment or services."

Though the law does not apply to H. 2177 precisely, DHCPF includes this assessment in this report. To determine the medical efficacy of H. 2177, DHCFP relied upon a review of the literature on mental health treatments and conditions for children.

Approach for Determining the Fiscal Impact of the Mandate

Legal Requirements

M.G.L. c. 3 § 38C (d) requires DHCFP to assess nine different measures in estimating the fiscal impact of a mandated benefit. Though the law does not apply to H. 2177 precisely, DHCPF includes this assessment in this report and answers those questions that are relevant to the review of H. 2177.

1. "financial impact of mandating the benefit, including the extent to which the proposed insurance coverage would increase or decrease the cost of the treatment or the service over the next five years;"
2. "extent to which the proposed coverage might increase the appropriate or inappropriate use of the treatment or service over the next 5 years;"
3. "extent to which the mandated treatment or service might serve as an alternative for more expensive or less expensive treatment or service;"
4. "extent to which the insurance coverage may affect the number and types of providers of the mandated treatment or service over the next 5 years;"
5. "effects of mandating the benefit on the cost of health care, particularly the premium, administrative expenses and indirect costs of large employers, small employers and non-group purchasers;"
6. "potential benefits and savings to large employers, small employers, employees and nongroup purchasers;"
7. "effect of the proposed mandate on cost shifting between private and public payers of health care coverage;"
8. "cost to health care consumers of not mandating the benefit in terms of out of pocket costs for treatment or delayed treatment;" and
9. "effect on the overall cost of the health care delivery system in the commonwealth."

Estimation Process

For more detailed information on the methodological approach used to calculate the impact of H. 2177, refer to the Appendix of this report.

Summary of Findings

Medical Efficacy

A key effect of the proposed legislation is to remove the current annual cap on the number of outpatient mental health visits that a child or adolescent faces, affecting those with and without a biologically-based mental disorder. The children and adolescents affected by the proposed change in the Children's Medical Security Plan are largely immigrants without comprehensive health insurance.

In this section we look at literature that helps us to evaluate whether mental health treatment is effective for children and adolescents with mental illness or emotional disorders. We first consider whether mental health treatment is generally found to be effective, then examine efficacy in different settings for care, and finally look at efficacy of treatment for selected conditions.

The information below is presented to support public discussion of the proposed legislation. Unfortunately, we are not aware of research that specifically examines the effects of the particular extension of outpatient services under consideration. We offer instead more general information about the benefits of mental health services for children and adolescents and more detailed information about care in different settings and for different conditions.

Does Treatment of Mental Illness Work for Children and Adolescents?

There is strong evidence that treatments for child and adolescent mental health disorders have established efficacy.[16] Recent research increasingly supports the claim that psychotherapy is effective for children and superior to no therapy. As Rzepski and Jarasek summarize: "While problems continue to exist with the quantity, strength, and generalizability of research on child psychotherapies, it is increasingly accepted that efficacious treatments do exist for child and adolescent disorders."[17]

Does Treatment Work in Varied Settings for Care?

Common sense and some evidence suggest that children and adolescents with more severe symptoms of mental illness are more often treated in intensive care environments such as day programs or inpatient settings. Psychiatrists appropriately attempt to match the place of a patient's care to their level of impairment and need.[18] Historically, more evidence has been developed for the efficacy of therapies demonstrated in controlled studies on the treatment of child and adolescent mental illness, and much less evidence of the effectiveness of therapies in more typical clinical settings.[19]

Angold and colleagues point out that substantial research now supports the efficacy of varied treatments for child and adolescent psychiatric disorders, but that much of the research focuses on treatment in academic research settings, not on ordinary clinical settings. These researchers tried to identify effectiveness of nonresidential mental health services, looking at data on over 1400

children ages nine to 16. They found that outpatient treatment shows a significant dose-response relationship, with patients receiving greater numbers of treatment sessions tending to have greater improvement of symptoms at follow-up. In their data, a substantial length of treatment—more than eight sessions—was required to create the treatment effect, which the authors interpret as a caution against trying to limit child psychiatric treatment to very short interventions.[20] (Child psychiatry has long used brief therapy with children but research on its effectiveness is limited.)[21] We believe that the evidence from Angold and colleagues is relevant to the impact of the legislation on children who are high utilizers of outpatient therapy visits, providing support to the extension of treatment in order to achieve better outcomes.

Efforts to provide mental health care for children and adolescents in the least restrictive setting have led to the development of a range of services for those at risk of hospitalization, but strong evidence is lacking to show the superiority of care in one setting or another. For example, an English research group examining randomized controlled studies in the literature to assess the effectiveness of mental health services that provide alternative to inpatient hospital care for children with serious mental health condition ages five to 18 identified seven relevant trials, with nearly 800 participants. Patients being treated by outpatient specialists did not show better results than those in inpatient settings. The authors concluded that differences in results across the programs were not large enough to support program design.[22]

Today's mental health system includes care provided in a variety of settings, while the Children's Medical Security Plan offers only outpatient care and the proposed legislative change will only extend outpatient care. Continued research might be pursued to shed light on whether extending outpatient care only is a sensible approach.

Treatment Efficacy for Specific Conditions

This section reports information on several mental illnesses that affect children and adolescents.

Bipolar disorder is being diagnosed in increasing numbers among the young, and early-onset bipolar disorder appears to have greater severity and comorbidity than later-onset illness. According to a recent study, diagnosis of bipolar disorder calls for comprehensive assessment over time; while more rigorous evidence is needed on the efficacy of medication, accompanying psychosocial treatment is judged as important.[23] Recent practice guidelines suggest that mood stabilizers and antipsychotic medications constitute a first line of treatment, sometimes through the use of a single drug and sometimes in treatments combining more than one drug. Behavioral and psychosocial therapies are generally also indicated to address behavior problems associated with bipolar disorder.[24] A recent assessment of the effectiveness and safety of treatment for adolescent depression demonstrates the effectiveness of drug therapy and the improved safety when drug therapy is combined with cognitive behavioral therapy.[25]

A common psychiatric problem among the young is anxiety disorder, which can produce significant academic and social impairment. For pediatric anxiety disorders, substantial evidence supports the use of cognitive behavioral therapy and of the drugs generally known as selective serotonin reuptake inhibitors (SSRIs) despite a small increase in the risk of thoughts about suicide. The use of

SSRIs appears justified in terms of its risks and benefits when appropriate monitoring is provided. While the treatments for anxiety disorders are supported by evidence, their effectiveness in pediatric primary care is not established.[26]

A less common but sometimes severe condition is obsessive-compulsive disorder. Evidence is emerging to support the efficacy of SSRIs and cognitive behavioral therapies.[27]

While evidence-based treatments including the use of drugs and behavioral therapy exist for biologically-based conditions such as bipolar disorder, for harder-to-define conditions such as disruptive behavior also may respond to therapies. A recent review of therapies to help children and adolescents with disruptive behavior, for example, found an increasing number of evidence-based psychosocial therapies.[28]

Trauma, abuse and neglect may also be important issues for immigrant children, whose families may have experienced greater than average degrees of dislocation, poverty and social isolation. Evidence is developing that trauma has significant negative impacts on children and that methods of treating trauma have substantial evidence for their efficacy.[29] Children subject to abuse or neglect often exhibit social and psychiatric problems. Evidence-based methods of treating abused children have shown efficacy in reducing mental health problems for this group.[30]

Financial Impact of Mandate

DHCFP's fiscal impact analyses are typically conducted in the context of evaluating a mandated benefit bill that would apply to fully-insured commercial health plans. CMSP is a publicly-sponsored and funded program. However, to the extent possible, DHCFP answers this standard set of mandate questions with respect to the financial impact of the proposed bill on the CMSP program to the extent applicable.

1. DHCFP is required under M.G.L. c.3, § 38C to assess "the extent to which the proposed coverage would increase or decrease the cost of the treatment or the service over the next five years."

   DHCFP expects the cost of treatment to increase over the next five years in response to the heavier use of non-pharmacological visits relative to pharmacological visits."

2. DHCFP is required to assess "the extent to which the proposed coverage might increase the appropriate or inappropriate use of the treatment or service over the next five years.

   DHCFP expects that H. 2177 would lead to an increase in the use of outpatient mental health visits among users, and in particular, high users of mental-health outpatient visits. DHCFP expects the rate of visits to increase among current users, leading to an increase in the visit rate for some users above 20 visits per year.

3. DHCFP is required to assess "the extent to which the mandated treatment or services might serve as an alternative to a more expensive or less expensive treatment or service."

   It is possible that the increase in coverage for outpatient mental-health visits might serve as an alternative to more expensive inpatient treatment, which is not covered under CMSP.

4. DHCFP is required to assess "the extent to which the insurance coverage may affect the number or types of providers of the mandated treatment or service over the next five years."

   There is no information to indicate that proposed legislation would increase the number or types of providers of the mandated treatment or service over the next five years.

5. DHCFP is required to assess "the effects of mandating the benefit on the cost of health care, particularly the premium, administrative expenses and indirect costs of large employers, small employers and non-group purchasers."

   As written, this question is not applicable due to the fact that CMSP expenditures have no bearing on health insurance premiums or the commercial insurance market.

   Should H. 2177 be enacted, DHCFP expects the cost of providing outpatient mental health services to increase, on average, between $60,000 and $150,000 each year.

Exhibit 3: Estimated Claims Impact of HB.2177 for the Children's Medical Security Plan (2011-2015)

	2011	2012	2013	2014	2015	Mean
CMSP Enrollees	16,500	16,500	16,500	16,500	16,500	16,500
Low Scenario						
Annual Impact Claims	$56,545	$58,241	$59,988	$61,788	$63,642	$60,041
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High Scenario						
Annual Impact Claims	$142,818	$147,102	$151,515	$156,061	$160,743	$151,648
PMPM	$0.72	$0.74	$0.77	$0.79	$0.81	$0.77

6. DHCFP is required to assess "the potential benefits and savings to large employers, small employers, employees and nongroup purchasers."

   CMSP is a very small program, and as such, any impact on employers, employees and non-group purchasers and to society would be negligible yet still important.

7. DHCFP is required to assess "the effect of the proposed mandate on cost shifting between private and public payors of heath care coverage."

It is possible that a cost shift between private and public payers of health-care coverage might occur to the extent that uninsured persons under CMSP must currently pay out of pocket for outpatient treatments that exceed the 20 visit cap per year.

8. DHCFP is required to assess "the cost to health care consumers of not mandating the benefit in terms of out of pocket costs for treatment or delayed treatment."

   Should H. 2177 be enacted, certain people will experience lower out-of-pocket costs for outpatient visits that are covered under the state's mental health parity law and are presently covered at an out of pocket cost to the CMSP member.

9. DHCFP is required to assess "the effect on the overall cost of the health care delivery system in the commonwealth."

   The overall effects on the cost of the health care delivery system would be negligible. However, any changes—however minor—would be beneficial to the extent that outpatient treatments were used as a substitute for more expensive inpatient care and CMSP reliance on the HSN declined.

   Note that the analysis conducted by the Division's actuaries does not estimate the potential beneficial impact on society of increasing coverage for outpatient treatments. In general, expanding coverage to the uninsured would result in both economic and social benefits due to improved health.

Endnotes

[1] Section 38C. http://www.mass.gov/legis/laws/mgl/3/3-38c.htm

[2] Massachusetts Health Insurance Survey, 2009.
http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/09/his_policy_brief_estimates_oct-2009.pdf

[3] Massachusetts Health Insurance Survey, 2009.
http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/09/his_policy_brief_estimates_oct-2009.pdf

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Appendix

Actuarial Assessment of House Bill 2177: An Act Amending the Children's Medical Security Plan

Actuarial Assessment of House Bill 2177: An Act Amending the Children's Medical Security Plan

Prepared for

Commonwealth of Massachusetts
Division of Health Care Finance and Policy

Prepared by

Compass Health Analytics, Inc.

June 30, 2010

Actuarial Assessment of House Bill 2177:
An Act Amending the
Children's Medical Security Plan

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compass
Health Analytics

Actuarial Assessment of House Bill 2177:
An Act Amending the
Children's Medical Security Plan

EXECUTIVE SUMMARY

House Bill 2177, before the 2009-2010 session of the Massachusetts Legislature, modifies the statute governing the Children's Medical Security Plan (CMSP) to require the CMSP to comply with the mandate imposed on commercial insurers to cover mental illness expenses and to remove the existing cap on the number of outpatient visits allowed for children with biologically-based mental health disorders. The Massachusetts Division of Health Care Finance and Policy (the Division) engaged Compass Health Analytics, Inc. to provide an actuarial estimate of the effect that enactment of the bill would have on the cost of health care in Massachusetts.

Analysis

While the bill invokes the existing full mental health parity law,[1] the bill's net effect is to remove the existing 20-visit cap on outpatient visits allowed for children with biologically-based mental disorders.

Compass estimated the impact of the bill using the following steps:

- Drawing on claim data from the CMSP, determine the portion of CMSP children restricted from additional covered visits by the current cap
- Estimate the average number of incremental visits likely to occur for those hitting the cap due to removing the cap
- Estimate the resulting impact on costs

[1] G.L. c. 176B, § 4A requires a medical service corporation to cover services to treat mental illnesses on the same terms that it covers treatment for physical illnesses.

Summary Results

Table ES-1 shows the low, mid, and high estimates for the effect of the bill on outpatient mental health costs for the CMSP.

Table ES-1: Estimate Range for Increases in Mental Health Outpatient Visits and Service Costs

	Low	Mid	High
Change in outpatient mental health visits	6.3%	12.5%	15.9%
Change in outpatient mental health cost	7.5%	15.1%	19.0%

Table ES-2 summarizes the effect on costs for the CMSP. The estimated mean PMPM cost of H.B. 2177 over five years is $0.30 in the low scenario to $0.77 in the high scenario, increasing overall CMSP claim expense by about one to two percent. The comparable range in increased spending is between $60,000 and $152,000 annually.

Table ES-2: Estimated Incremental Impact of H.B. 2177

	-2011 -	-2012 -	-2013 -	-2014 -	-2015 -	- Mean -
Members	16,500	16,500	16,500	16,500	16,500	
Med Exp Low	$ 56,545	$ 58,241	$ 59,988	$ 61,788	$ 63,642	$ 60,041
Med Exp Mid	112,957	116,346	119,836	123,431	127,134	119,941
Med Exp High	142,818	147,102	151,515	156,061	160,743	151,648
Low PMPM	$ 0.29	$ 0.29	$ 0.30	$ 0.31	$ 0.32	$ 0.30
Mid PMPM	0.57	0.59	0.61	0.62	0.64	0.61
High PMPM	0.72	0.74	0.77	0.79	0.81	0.77

Actuarial Assessment of House Bill 2177:
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1. INTRODUCTION

House Bill 2177, before the 2009-2010 session of the Massachusetts Legislature, modifies the statute governing the Children's Medical Security Plan (CMSP) to require the CMSP to comply with the existing mandate requiring commercial insurers to cover mental illness expenses and to remove the existing cap on the number of visits allowed for children with biologically-based disorders. The Massachusetts Division of Health Care Finance and Policy (the Division) engaged Compass Health Analytics, Inc. to provide an actuarial estimate of the effect that enactment of the bill would have on the cost of health care in Massachusetts.

The Division is charged[2] with estimating the cost to commercial health insurance premium payers of health benefit mandate legislation. H.B. 2177 is not a typical mandate bill in that it affects the costs of healthcare not to business and consumer premium payers, but to a taxpayer-funded state program.

Assessing the cost impact entails analyzing the incremental effect of the bill on spending under the CMSP. Section 2 of this analysis outlines the provisions of the bill. Section 3 discusses important considerations in translating H.B. 2177's language into estimates of its incremental impact on costs. Section 4 describes the basic methodology used for the calculations in Section 5, which steps through the analysis and its results.

[2] G.L. c. 3, Section 38C.

2. Provisions of H.B. 2177

Interpreting H.B. 2177 entails identifying the populations it covers and the benefit requirements it adds, beyond existing mandates and coverage already provided. The Division's report, to which this actuarial analysis is attached, contains more detailed descriptions of the provisions and an analysis of the efficacy of the proposed benefit change. This analysis will focus on the financial implications of the bill.

2.1. Population affected by H.B. 2177

H.B. 2177 applies to children covered under the CMSP. The program provides primary and preventive medical and dental coverage to Massachusetts children under 19 at any income level, who do not qualify for MassHealth (except MassHealth Limited), and who are uninsured. Family contribution levels for CMSP coverage depend on family size and income. The CMSP covers approximately 16,500 children.[3]

2.2. Services mandated by H.B. 2177

H.B. 2177 amends G.L. c. 118E, § 10F, the statute governing the CMSP, specifically subsection (b) (5), which allows the CMSP to cover outpatient mental health services. The statute currently limits outpatient mental health service to 20 visits per year.

H.B. 2177 contains language requiring the CMSP to comply with the state's mental health parity statute, G.L. c. 176B, § 4A[4], which in turn requires commercial insurers to cover mental illness expenses in a non-discriminatory fashion. The bill also requires

[3] Phone interview with CMSP and Division staff, June 8, 2010.

[4] The text of the bill requires compliance with Chapter "174B, subsection 4A", but we have been instructed to regard that as an error and to substitute "176B". Furthermore, we assume the bill, in referring to "subsection 4A", intends to refer to "section 4A".

patients with biologically-based disorders, as defined in the parity statute, to be provided with unlimited mental health visits.[5]

2.3. The mental health parity statute

G.L. c. 176B, § 4A, the parity statute, requires a medical service corporation[6] to cover services to treat mental illnesses on the same terms that it covers services to treat physical illnesses. Among other provisions, it requires the insurer to provide:

- Mental health benefits on a nondiscriminatory basis for the diagnosis and treatment of the following biologically-based mental disorders, as described in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association (DSM): (1) schizophrenia; (2) schizoaffective disorder; (3) major depressive disorder; (4) bipolar disorder; (5) paranoia and other psychotic disorders; (6) obsessive-compulsive disorder; (7) panic disorder; (8) delirium and dementia; (9) affective disorders; (10) eating disorders; (11) post traumatic stress disorder; (12) substance abuse disorders; and (13) autism.
- Mental health benefits on a nondiscriminatory basis for the diagnosis and medically necessary and active treatment of any mental disorder, as described in the DSM, which is approved by the commissioner of mental health.
- Benefits on a nondiscriminatory basis to children under age 19 for the diagnosis and treatment of non-biologically-based mental, behavioral, or emotional disorders, as described in the DSM, which substantially limit the functioning and social interactions of such a child.
- Benefits (without reference to a nondiscriminatory basis) for the diagnosis and treatment of all other mental disorders described in the DSM during each 12 month period for a minimum of 60 days of inpatient treatment and for a minimum of 24 outpatient visits.
- A range of inpatient, intermediate, and outpatient services that shall permit treatment under the mandate for mental disorders to take place in the least restrictive clinically appropriate setting.

[5] We assume federal legislation relating to mental health parity does not apply to the CMSP benefits. The law currently in effect, the Mental Health Parity and Addiction Equity Act of 2008, does not apply to the non-employer-based market, and any potential changes to the plans affected by mental health parity, driven by the 2010 Patient Protection and Affordable Care Act, would not take effect until 2014.

[6] Other, analogous statutory sections require the same coverage by other types of health insurance plans, including hospital service corporations, HMOs, and regular insurance companies.

Coverage is deemed nondiscriminatory if the policy does not contain any annual or lifetime dollar or unit of service limitation on coverage for the diagnosis and treatment of mental disorders which is less than any annual or lifetime dollar or unit of service limitation imposed on coverage for the diagnosis and treatment of physical conditions.

Finally, G.L. c. 176B, § 4A (h) provides that "Only licensed mental health professionals shall be allowed to deny services mandated by this section." The language apparently limits the insurer's ability to deny a claim as not medically necessary.

3. FACTORS AFFECTING THE ANALYSIS

Several issues arise in translating the provisions of H.B. 2177 and existing law discussed in Section 2 into an analysis of incremental cost.

3.1. Limit on number of visits

H.B. 2177 provides that the section authorizing outpatient mental health services for children under the CMSP must comply with G.L. c. 176B, § 4A, and provides that patients with biologically-based disorders are to be provided with unlimited mental health visits.[7] While the latter provision (removing any cap) technically applies only to biologically-based disorders, for the purposes of this analysis we can safely assume no cap will apply to any of the outpatient mental health services provided under CMSP.

First, for biologically-based disorders, the bill's unlimited-visit requirement goes further than the mental health parity mandate (c. 176B, § 4A) in that the parity mandate requires only relative parity between physical and mental health services. Under parity, an insurer could limit mental health visits if it also limited physical health visits. In contrast, H.B. 2177's requirement for unlimited visits for biologically-based disorders is absolute.

[7] The services outlined G.L. c. 118E, § 10F, subsection (b) are optional under the statute; i.e., the statute does not require the CMSP to offer these services, but the program directors have the authority to do so. For this analysis, we will assume the directors would continue to offer the services as envisioned by the bill, and we will estimate the cost accordingly.

As noted, however, for non-biologically based disorders the bill does not require unlimited visits. But because CMSP explicitly covers unlimited sick visits to a physician's office, we assume the bill, by invoking mental health parity, would require unlimited mental health visits for any condition for which nondiscriminatory care is required. Therefore this analysis does not need to separate biologically-based conditions from other conditions that substantially limit the functioning and social interactions of a patient – they are all free of the cap. And furthermore we assume the remaining mental health conditions, those not biologically-based nor limiting the child's functioning, constitute an insignificant portion of the important cases in our analysis, the ones that might exceed the limit on visits.[8]

Finally, even with the cap removed, other factors may influence the number of visits used. The CMSP does not cover inpatient mental health care, and with the cap removed, a few individuals may end up receiving a large number of outpatient visits in lieu of inpatient care. Also, in projecting service use after removal of the cap, we use experience in other populations. A large portion of the CMSP population is children from immigrant families, which introduces the potential that its demand for mental health services could differ from that of our comparison population. The potential effects of these types of substitution or cultural effects will be reflected in the estimate ranges.

3.2. Breadth of mental health parity requirement

By providing that the CMSP must comply with the mental health parity statute, H.B. 2177 might require more than simply removing the cap on visits. As outlined above in Section 2, the mental health parity statute requires that services for biologically-based

[8] H.B. 2177 would, for non-biologically-based disorders, create a conflict between the existing 20-visit cap in the CMSP statute and the 24-visit cap in the existing mental health parity statute. But for purposes of this analysis, we will assume that an insignificant portion of mental health services would fall into this capped category, and we therefore do not need to decide which cap value will prevail. Likewise the bill would create a conflict between the requirement in the CMSP statute that the program directors "shall establish cost-containment measures designed to ensure that only medically necessary services are reimbursed" and the parity mandate's requirement that only practitioners can determine medical necessity.

mental disorders, and disorders that affect the functioning of a child, be covered on a nondiscriminatory basis. This opens the possibility that the CMSP would have to expand the range of services it offers beyond outpatient mental health visits, if the program offered a physical health benefit for which there was no comparable mental health benefit. For example, the CMSP provides for urgent care visits to an outpatient emergency facility. Arguably, H.B. 2177 would require that such visits be allowed for mental health emergencies as well.

For the purpose of this analysis, we will assume that even though the mental health parity law refers to a full set of facilities and services that might be available to treat mental disorders, H.B. 2177's reference to the mental health parity statute is specifically in the context of subsection (b) (5) of the CMSP statute, and therefore it does not apply to any services other than outpatient mental health procedures.[9] This is also consistent with the Legislature's concept of the CMSP as a limited program targeted at preventative and primary care.

3.3. Potential indirect effects

Removing the cap on outpatient mental health visits might have a few indirect effects; however, we generally do not have enough information to draw conclusions on their magnitude or even direction. For example, use of the drug benefit, limited as it is, might rise with more exposure to the care system, but generally by the time someone has received twenty visits within a year, the need for medication has already been identified.

It is also possible that a child with a severe condition, once his or her visits are exhausted, might fall into the Massachusetts Health Safety Net program. Removing the cap on

[9] A broader reading of H.B. 2177 would yield a larger estimate for the bill's cost. Using the costs of the Massachusetts Behavioral Health Partnership (the behavioral health carve-out vendor for the MassHealth Primary Care Clinician Plan) for comparison, MassHealth estimated the additional cost of offering a full set of behavioral health services at a million dollars for FY 2007. Memo: "Cost Estimate of providing CMSP members with behavioral health benefits equal to MassHealth coverage types when enrolled in Massachusetts Behavioral Health Partnership" from MassHealth OAAC, EOHHS, October 2008.

outpatient services might prevent this; however, we have no data to allow us to estimate this, and its effect on the cost of the safety net would likely be negligible.

Finally, timely treatment of mental health conditions could lead to reduced future costs for mental and physical heath treatments and to reduced societal loss due to decreased productivity, etc. Estimates of indirect savings or costs of H.B. 2177 are outside the scope of this analysis.

3.4. Time-dependent factors

This analysis provides an estimate of the cost of this mandate for five years, 2011 to 2015. Our analysis will account for cost inflation by assuming an annual per-service cost increase of three percent, measured from 2009 and raising the value for 2011 and on.[10]

Because the coverage mandated by H.B. 2177 generally consists of enhancements to coverage already in place and is not related to new procedures or provider relationships, if the bill is enacted we expect little lag between enactment and when the benefits begin to affect costs.

4. METHODOLOGY

4.1. Analysis steps

Compass estimated the impact of H.B. 2177 with the following steps:

- Measure past use and expenditures for outpatient mental health visits
- Estimate ranges for the additional cost for outpatient mental health visits if the bill passes
- Estimate changes in medical expense over the next 5 years

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[10] Roughly the 3.5 percent trend reported for HMO's in www.mass.gov/Ihqcc/.../2009_04_01_Trends_for_Fully-Insured_HMOs.doc and http://www.mass.gov/Eoca/docs/doi/Consumer/MAHMOTrendReport.pdf

4.2. Data sources

The primary data sources used in the analysis were:

- Interviews with CMSP, legislative, and Division staff
- Claims: CMSP staff provided claim data for 2009 and 2010 (to date). We also used claim data from other programs in other states without limits on visits.

The step-by-step description of the estimation process below addresses limitations in some of these sources.

5. Analysis

5.1. Current claim costs for outpatient mental health visits

The Division and MassHealth provided claim data for the CMSP program for fiscal year 2009 and 2010 (to date), and provided the procedure codes that identify services covered under the outpatient mental health benefit. Appendix A shows a summary of the services. Note the codes include pharmacologic management, which constitutes a large portion of the visits.

Table 1 shows the distribution of members using outpatient mental health services by the number of visits each had over the course of the year. Just over four thousand CMSP members used the outpatient mental health benefit at least once, but very few of those, approximately two percent, hit (or exceeded[11]) the cap. Total visits in this distribution are 11,317. The mean number of visits is only 2.8 per member using outpatient mental health services.

[11] A few members exceed the 20 visit cap. Assuming the claim adjudication system was functioning correctly during the period, some "leakage" is still possible. Members were identified using member- and patient-identifying numbers in the CMSP data. In this distribution, multiple outpatient services on the same date of service counted as one visit.

Table 1: Count of Members by Number of Visits for Service Dates in FY 2009

Number of visits	Members	Cum. Percent
1	2,191	53.5%
2	926	76.1%
3	261	82.5%
4	211	87.6%
5	76	89.5%
6	72	91.2%
7	40	92.2%
8	42	93.2%
9	28	93.9%
10	32	94.7%
11	25	95.3%
12	24	95.9%
13	17	96.3%
14	14	96.7%
15	14	97.0%
16	14	97.3%
17	20	97.8%
18	7	98.0%
19	5	98.1%
20	32	98.9%
21	22	99.4%
22	5	99.6%
23	6	99.7%
24	2	99.8%
25	2	99.8%
26	1	99.8%
27	3	99.9%
29	3	100.0%
30	1	100.0%
Total Members	4,096	

More than half the members had only one visit; more than three quarters had two or fewer. Of the members with only one visit, almost 59 percent received a pharmacologic management service on that visit; of those with two, 38 percent had two pharmacologic management services.

We measured a rough proxy for program turnover by counting unique users of any service (not just behavioral health services) in FY 2009 and determining how many of those used any service in FY 2010 to date. Approximately 55 percent had no service in 2010, to date. This suggests a high turnover ratio, which reduces the chances that many individuals will remain in the program long enough to run up against the visit cap.

For the purposes of this analysis, we allow that high turnover in the population, the inclusion of pharmacologic management services in the visit count, or possibly even system or demographic issues that might create challenges in matching patient records, might contribute to these observations. We assume any such issues will persist into the future and affect in the same way how future visits are counted.

5.2. Effect of removing the cap

Removing the cap on visits will not affect most users of outpatient mental health services, since only a few even approach the cap. However, if the bill passes, the CMSP will be able to reimburse heavy users for an unlimited number of visits, and undoubtedly a few will greatly increase the number of visits they use, raising the overall average number of visits and the cost of the CMSP.

Steps in the analysis

The primary component of the analysis is, for those members at or approaching the cap, to estimate a new distribution of members by number of visits. To do so we take the following steps:

1. Isolate the portion of the members who had the potential to reach the cap. To estimate roughly the size of that group, we identified a pool of members who used mental health services in the first half of FY 2009 and followed them for a year. Approximately three percent of those children exceeded or almost exceeded the annual cap, given a year to do so.[12]
2. Using FY 2009 users and visits, as in Table 1, and the percent likely to exceed the cap from the previous step, determine the number of children likely to exceed the cap. Beginning with the 4,096 children shown in Table 1, approximately 125 might be affected by an annual cap.

[12] A few children exceeded even the two-year cap of 40 visits; as noted above, leakage is possible. Some children, even if they did not hit 40 visits, were no doubt affected by the annual cap as the end of 2009 approached.

3. Use a distribution of visits from a roughly comparable children's population, described below, to estimate how many visits children hitting the cap might have if unconstrained by the cap.
4. Calculate the resulting change in average visit count for the whole CMSP population and the change in cost. We are assuming the incremental visits do not include pharmacologic management, which are somewhat cheaper than other visits. Therefore the percentage increase in cost is somewhat greater than the percentage increase in visits.
5. Recognize the uncertainty introduced by the limitations of the data and the characteristics of the population (discussed in Section 3 above), by defining a range in the portion of the population that might exceed the cap and running the analysis for the high and low ends thereof.

Comparable population

Behavioral health claim data for children from a non-Massachusetts Medicaid population, unbound by a visit cap, reveal a distribution of use, for the same services, different than that found in the CMSP. Paid amount per member per month for outpatient mental health services was $4.16, comparable to $3.57 for the CMSP. Visits per member per month were 0.064 compared to 0.057 for the CMSP. However, the mean number of visits per member who used outpatient mental health services was much higher, close to ten, compared to less than three for the CMSP.[13] (Table 2 illustrates.) Note that approximately 13 percent of the members, who used any mental health outpatient services, used more than 20 visits.

We do not expect the distribution of CMSP members by number of visits to look exactly like that of the sample Medicaid program if the cap were to be removed. The turnover within the CMSP population, noted above, probably contributes to the difference; the portion of users who remain in the CMSP long enough to reach the visit cap is smaller.

While many CMSP users will not accumulate enough visits to come even close to the cap, the presence in Table 2 of users who accumulate high numbers of visits suggests our

[13] The relationship between the values of visits per user is mirrored by that for users per member. Dividing the number of CMSP users by the average enrollment yields approximately 25%; the analogous number for the Medicaid program was only 8%. As noted above, we recognize that population turnover and the role played by pharmacologic management services create some of this difference.

estimate should account for some users who will make intensive use of the service. We will therefore model a distribution that assumes the "tail" of the Medicaid distribution, applied as described in the steps above.

Table 2: Sample Medicaid Program Distribution of Members by Number of Visits for Dates of Service in FY 2009

Number of visits	Cum. Percent of Members
1	19.1%
2	29.9%
3	38.2%
4	45.6%
5	52.2%
6	57.1%
7	61.3%
8	65.0%
9	68.0%
10	70.6%
15	80.7%
20	87.3%
25	91.1%
30	94.0%
40	96.9%
50	98.1%
100	99.3%
192	100.0%

The resulting distribution in Table 3 shows a slightly higher portion of members over the cap than shown in Table 1. But more significantly, the contribution of members with very intensive use comes into play. The resulting total number of visits is approximately 12,740 or 13 percent more than the initial CMSP count. Table 3 illustrates the mid-range estimate.

Table 3: Modified Distribution of Members by Number of Visits (Mid-range estimate)

Number of visits	Cum. Percent of Members
1	53.5%
2	76.1%
3	82.5%
4	87.6%
5	89.5%
6	91.2%
7	92.2%
8	93.2%
9	93.9%
10	94.7%
15	97.0%
20	98.0%
25	98.6%
30	99.1%
40	99.5%
50	99.7%
100	99.9%
192	100.0%

Effect of modified distribution on visits and costs

After applying the sample Medicaid distribution, with its small but influential group of heavy users, to the 125 potential high-level users noted in the description of Step 2 above, that group now contributes 3,880 visits rather than the 2,460 it contributed with the cap in place, for an increase of 1,420, or 12.5 percent of the original 11,317 visits noted in section 5.1 above. This represents our midpoint estimate of the increase in visits.

Because the per-visit cost of pharmacologic management services is cheaper than the cost of the average visit, and because we are assuming that incrementally added visits are not for pharmacologic management, the per-visit cost of the added visits is approximately 20 percent higher than the cost of an average visit (derivable from the data in Appendix A). Therefore, the added visits raise the overall cost of visits by 15.1 percent, or 120 percent of the 12.5 percent increase in visits.

Finally, varying the portion of the population that might exceed the cap to reflect the uncertainties discussed above, Table 4 summarizes the low-, mid-, and high-end increases in visits and dollars due to removing the cap.

Table 4: Estimate Range for Increases in Mental Health Outpatient Visits and Service Costs

	Low	Mid	High
Change in outpatient mental health visits	6.3%	12.5%	15.9%
Change in outpatient mental health cost	7.5%	15.1%	19.0%

5.3. Increase in costs due to bill

Applying the estimated increase in per-member per-month costs displayed in Table 4 total mental health service cost (see Appendix A) for the next five years yields the range of estimates in Table 5. The table reflects an assumption of three percent per year[14] for inflation in service cost (over the 2009 base year).

Table 5: Estimated Cost of Incremental Visits

	-2011 -	-2012 -	-2013 -	-2014 -	-2015 -	- Mean -
Members	16,500	16,500	16,500	16,500	16,500	
Med Exp Low	$ 56,545	$ 58,241	$ 59,988	$ 61,788	$ 63,642	$ 60,041
Med Exp Mid	112,957	116,346	119,836	123,431	127,134	119,941
Med Exp High	142,818	147,102	151,515	156,061	160,743	151,648
Low PMPM	$ 0.29	$ 0.29	$ 0.30	$ 0.31	$ 0.32	$ 0.30
Mid PMPM	0.57	0.59	0.61	0.62	0.64	0.61
High PMPM	0.72	0.74	0.77	0.79	0.81	0.77

[14] Roughly the 3.5 percent trend reported for HMO's in <www.mass.gov/Ihqcc/.../2009_04_01_Trends_for_Fully-Insured_HMOs.doc> and <http://www.mass.gov/Eoca/docs/doi/Consumer/MAHMOTrendReport.pdf>.

According to CMSP claim data provided by MassHealth, the total FY 2009 medical claim paid amount was approximately $6.2 million.[15] The cost of H.B. 2177 adds 0.9 to 2.2 percent to that amount.

The CMSP bears the risk for medical expense. It pays the administrator (Unicare) a capitated rate to administer the program. While passage of the bill, with its potential for slightly increasing claim volume, may have long-term effects on future negotiations dealing with administration rates, it should not affect the administrative component of costs in the short run.

CONCLUSION

The estimated mean PMPM cost of H.B. 2177 over five years is $0.30 in the low scenario to $0.77 in the high scenario, increasing the overall cost of the CMSP by about one to two percent.

[15] This total does not include all funds expended by the CMSP. It excludes CMSP internal administration costs, might not include all dental or pharmacy costs, and probably excludes other components as well. The total 2009 CMSP appropriation was close to $16 million.

APPENDICES

Appendix A: Summary CMSP Behavioral Health Claims for Service Dates in 2009

Appendix A: Summary CMSP Behavioral Health Claims for Service Dates in FY 2009

Code	Description	Sum of units	Sum of paid	Pct of units	Pct of paid
90806	Ind. Psychotherapy	3,328	$ 211,286	28%	30%
99212	Brief Pharmacologic Mgmt.	3,234	109,399	28%	15%
99243	Office consultation	1,124	88,766	10%	13%
99244	Office consultation	699	73,511	6%	10%
90847	Family Therapy	844	53,229	7%	8%
90801	Psychiatric Interview	566	50,056	5%	7%
99245	Office consultation	350	49,455	3%	7%
90862	Pharmacologic Mgmt.	475	18,122	4%	3%
99242	Office consultation	220	12,225	2%	2%
90804	Ind. Psychotherapy	195	8,504	2%	1%
96118	Neuropsych. testing	104	5,902	1%	1%
90846	Family Therapy	60	5,326	1%	1%
99241	Office consultation	116	4,381	1%	1%
90807	Ind. Psychotherapy	55	3,820	0%	1%
90853	Group therapy	189	3,616	2%	1%
90802	Psychiatric Interview	16	2,569	0%	0%
90812	Ind. Psychotherapy	27	1,894	0%	0%
90805	Ind. Psychotherapy	35	1,720	0%	0%
99058	Office emergency services	28	1,499	0%	0%
96101	Psych. testing	26	874	0%	0%
90810	Ind. Psychotherapy	6	314	0%	0%
90808	Ind. Psychotherapy	3	253	0%	0%
90813	Ind. Psychotherapy	1	194	0%	0%
90814	Ind. Psychotherapy	1	116	0%	0%
90811	Ind. Psychotherapy	1	107	0%	0%
96119	Neuropsych. testing	6	100	0%	0%
96120	Neuropsych. testing	1	40	0%	0%
90849	Group therapy	1	21	0%	0%
90826	Ind. Psychotherapy	2	-	0%	0%
Grand Total		**11,713**	**$ 707,300**	100%	100%

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