



**Review and Evaluation of Proposed
Legislation Entitled:
An Act Relative to Mental Health Parity
House Bill No. 4423**

**Provided for
The Joint Committee on Health Care Financing**

July 2, 2008

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Commonwealth of Massachusetts
Timothy P. Murray
Lieutenant Governor



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Executive Office of
Health and Human Services
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Division of
Health Care Finance and Policy

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EXECUTIVE SUMMARY

This report was prepared by the Division of Health Care Finance and Policy (the Division) pursuant to the provisions of M.G.L. c. 3, § 38C requiring the Division to evaluate the impact of mandated benefits bills referred by a legislative committee for review and to report to the referring committee. The Joint Committee on Health Care Financing referred House Bill 4423, “*An Act Relative to Mental Health Parity*,” to the Division for review on February 13, 2008.

Overview of Current Law and Proposed Bill

House Bill 4423 (H. 4423) would expand the scope of the Massachusetts parity law enacted in 2000 (Chapter 80 of the Acts of 2000). Under the Commonwealth’s current law, benefit parity exists for nine “biologically-based” mental health conditions for adults and for any conditions in children (18 and under) that limit functioning and social interaction. Conditions specified under this law are covered without annual or lifetime benefit limits and are also at parity with regard to cost sharing. Other conditions not included in these requirements must be covered for at least 60 inpatient days and 24 outpatient visits. Currently, benefits for alcoholism and chemical dependency are mandated to include 30 days of inpatient treatment and \$500 for outpatient treatment. H. 4423 extends this partial parity to full parity for both mental health and substance abuse services, requiring non-discriminatory coverage for the diagnosis and medically necessary treatment of mental health and substance abuse disorders as described in the most recent edition of the Diagnostic and Statistical Manual (DSM) of Mental Disorders.

Methodology

To prepare this review and evaluation, the Division:

- conducted interviews with insurers and providers in the Commonwealth,
- reviewed the relevant literature on the effects of mental health and substance abuse parity, and
- conducted an actuarial analysis of the fiscal impact of H. 4423 with input from an Advisory Panel¹ and summary-level data provided by four Massachusetts health insurers.

The Division engaged Compass Health Analytics, Inc. to conduct the actuarial analysis and Colleen Barry, PhD, a faculty member from the Yale School of Medicine and expert in mental health and substance abuse financing, to conduct background research on the relevant literature and help design the analysis. In applying findings from the literature on the cost impact of parity policies enacted in other contexts (e.g., Federal Employee Health Benefits Program parity and other state parity laws), the Division adjusted these findings for factors specific to Massachusetts. Such factors included:

- the level of benefits required by Massachusetts’ existing partial parity mandate, i.e., Massachusetts has a richer baseline of benefits, and therefore spending, compared to some of the contexts included in other studies;

¹ Richard Frank Ph.D. and Alisa Busch M.D. served as Advisory Panel members. Dr. Frank is a health economist on the faculty in the Department of Health Care Policy at Harvard Medical School and a nationally recognized expert in mental health economics and policy. Dr. Busch is an Associate Psychiatrist at McLean Hospital and Psychiatrist-in-Charge at McLean Hospital's Alcohol and Drug Abuse Partial Hospital Treatment Program. She is also an Assistant Professor of Psychiatry and Instructor in Health Care Policy at Harvard Medical School.

- the level of substance abuse benefits health plans are required to cover in Massachusetts, which are of a lower level than those which were covered in some of the contexts included in other studies; and
- the level of care management already in place in Massachusetts, i.e., since Massachusetts health plans have already implemented many managed care techniques in their management of behavioral health benefits, their ability to achieve further managed care savings may be limited.

Three different impact scenarios were developed—low, medium, and high—to present a range for the possible impact. In addition, summary-level data from Massachusetts health plans was used to assess the reasonableness of estimates developed.

Results

The projected increase in spending that would result from H. 4423 ranges from 0.1% to 0.3% of premiums or \$12.9 to \$38.8 million. The per member per month (PMPM) impact ranges from \$0.46 to \$1.39.

The five-year impact results are displayed in Exhibit 1. The results include three sets of estimates based on low, medium, and high impact scenarios corresponding to estimated percent of premium increases of 0.1%, 0.2%, and 0.3%, respectively. In 2008, these three scenarios resulted in estimated increased total spending (including both claims spending and administrative expenses) of \$12.9 million, \$25.8 million and \$38.8 million, respectively. These results were then trended forward five years using an annual trend rate of 6.5%.²

Exhibit 1

Estimated Cost Impact of HB4423 on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims		1.065					
	2008	2009	2010	2011	2012	All 5 Years	
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085		
Low Scenario							
Annual Impact Claims (000,000s)	\$ 11.4	\$ 12.1	\$ 13.0	\$ 13.9	\$ 14.8	\$ 65.2	
Annual Impact Administration (000,000s)	\$ 1.6	\$ 1.7	\$ 1.8	\$ 1.9	\$ 2.0	\$ 8.9	
Annual Impact Total (000,000s)	\$ 12.9	\$ 13.8	\$ 14.7	\$ 15.8	\$ 16.8	\$ 74.0	
Premium Impact (PMPM)	\$ 0.46	\$ 0.49	\$ 0.52	\$ 0.56	\$ 0.59	\$ 0.53	
Mid Scenario							
Annual Impact Claims (000,000s)	\$ 22.7	\$ 24.2	\$ 26.0	\$ 27.8	\$ 29.6	\$ 130.3	
Annual Impact Administration (000,000s)	\$ 3.1	\$ 3.3	\$ 3.5	\$ 3.8	\$ 4.0	\$ 17.8	
Annual Impact Total (000,000s)	\$ 25.8	\$ 27.5	\$ 29.5	\$ 31.6	\$ 33.7	\$ 148.1	
Premium Impact (PMPM)	\$ 0.92	\$ 0.98	\$ 1.05	\$ 1.12	\$ 1.19	\$ 1.05	
High Scenario							
Annual Impact Claims (000,000s)	\$ 34.1	\$ 36.3	\$ 38.9	\$ 41.7	\$ 44.4	\$ 195.5	
Annual Impact Administration (000,000s)	\$ 4.7	\$ 5.0	\$ 5.3	\$ 5.7	\$ 6.1	\$ 26.7	
Annual Impact Total (000,000s)	\$ 38.8	\$ 41.3	\$ 44.2	\$ 47.4	\$ 50.5	\$ 222.1	
Premium Impact (PMPM)	\$ 1.39	\$ 1.48	\$ 1.57	\$ 1.67	\$ 1.78	\$ 1.58	

² The historical growth in behavioral health trend according to a recent CMS study is 6.7%, which is below the 8% average trend in general medical care spending. We have assumed 6.5% annual growth to trend the PMPMs, as the per-person spending would be slightly less than the aggregate trend due to population growth. Mark, T.L., Levit, K.R., et. al. Mental Health Treatment Expenditure Trends, 1986-2003. (2007) Psychiatric Services 58:1041-1048.

INTRODUCTION

The purpose of H. 4423 is to equalize private insurance coverage for mental health and substance abuse with coverage for physical health. H. 4423 would broaden the scope of the mental health parity law enacted in Massachusetts in 2000. Over 40 states have enacted some type of parity mandate, although these laws vary widely in their scope. Some states that initially enacted limited mental health parity laws subsequently passed more expansive legislation as is being proposed in the Commonwealth. This introductory section summarizes the scope of the current Massachusetts law and describes how private insurance coverage for mental health and substance abuse benefits would change under the proposed bill.

Summary of Current Law

The Massachusetts Mental Health Parity Act was enacted as Chapter 80 of the Acts of 2000. It requires insurance carriers, health maintenance organizations, and Blue Cross Blue Shield plans to cover certain mental health services on a “non-discriminatory” basis such that a health plan may not impose any annual or lifetime dollar or unit of service limitations for treatment of mental health services. The mental health services subject to the “non-discrimination” requirement include nine biologically-based mental disorders specified by statute. These are: 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, and 9) affective disorders.

Non-discriminatory coverage extends to non-biologically based mental, behavioral, or emotional disorders for children and adolescents under age 19 that substantially interfere with or limit functioning and social interactions including but not limited to: 1) an inability to attend school as a result of such a disorder, 2) the need to hospitalize the child or adolescent as a result of such a disorder, 3) a pattern of conduct or behavior caused by such a disorder, which poses a serious danger to self or others.

Conditions specified under this law are covered at parity with regard to cost sharing pursuant to DOI Bulletin 2000-10. For other mental health diagnoses, health plans must provide medically necessary annual coverage of up to 60 days of inpatient treatment, 24 outpatient visits, and must cover a range of inpatient, intermediate, and outpatient services that permit medically necessary care to take place in the least restrictive setting. In addition, M.G.L. Chapter 175, Section 110 requires the annual coverage of 30 inpatient days and outpatient benefits of up to \$500 for the treatment of alcoholism.

Summary of Proposed Bill

H. 4423 would broaden the 2000 Massachusetts parity law. It would require insurance carriers, health maintenance organizations, and Blue Cross Blue Shield plans to provide non-discriminatory coverage for the diagnosis and medically necessary and active treatment of mental disorders and alcoholism or other drug abuse or dependence disorders as described in the most recent edition of the Diagnostic and Statistical Manual (DSM) of Mental Disorders. In addition, H. 4423 would require health insurers to provide coverage on a non-discriminatory basis for the diagnosis and treatment of rape-related mental or emotional disorders to victims of a rape or victims of an assault with intent to commit rape, as defined by Sections 22 and 24 of Chapter 265, whenever the costs of such diagnosis and treatment exceed the maximum compensation awarded to such victims. Coverage consists of a range of inpatient, intermediate,

and outpatient services providing non-custodial treatment in the least restrictive, clinically appropriate setting.

Non-discriminatory coverage is described as coverage that does not contain any annual or lifetime dollar or unit of service limitation for the diagnosis and treatment of mental disorders that is less than any annual or lifetime dollar or unit of service limitation imposed for the diagnosis and treatment of physical conditions. As is the case for the 2000 Massachusetts parity law, the Division interprets conditions specified under this proposed legislation as covered at parity with regard to cost sharing pursuant to DOI Bulletin 2000-10. Coverage provided under this section may be denied only by licensed mental health professionals. Psychopharmacological services and neuropsychological assessment services shall be treated as medical benefits and shall be covered in a manner identical to all other medical services.

BACKGROUND

In this section, the Division provides information on coverage of mental health and substance abuse benefits under private insurance, reviews federal activity and legislative activity on parity in other states, and summarizes research evidence on the effects of parity mandates.

Coverage of Mental Health and Substance Abuse Benefits under Private Insurance

Private insurance coverage for mental health and substance abuse tends to be more limited than for physical conditions in the U.S. Data from the U.S. Bureau of Labor Statistics (BLS) indicate that most workers with private insurance have some coverage for mental health and substance abuse services. In 2005, of full-time workers with private health insurance coverage, 93 percent had inpatient mental health coverage, 90 percent had outpatient mental health coverage, 97 percent had inpatient alcohol and drug detoxification coverage, 84 percent had inpatient alcohol and drug abuse rehabilitation coverage, and 83 percent had outpatient alcohol and drug abuse coverage.¹ However, private insurance benefits for mental health and substance abuse commonly include higher cost sharing and deductibles than general medical care and unit of service limits including annual outpatient visit limits, and annual inpatient day limits.² One study reported, for example, that 74 percent of privately insured workers in the U.S. were subject to outpatient visit limits, 64 percent were subject to inpatient day limits, and 22 percent had higher cost sharing for mental health care compared with other services.³ BLS trend data indicate that the use of limits on mental health and substance abuse benefits have increased over time.⁴

Federal Legislative Activity

Federal Mental Health Parity Act of 1996

In 1996, the U.S. Congress enacted a law eliminating the use of special annual or lifetime dollar limits on mental health coverage. This law does not apply to other kinds of benefit limits, such as special annual day or visit limits and higher cost sharing and deductibles. It also does not apply to annual and lifetime dollar limits on substance abuse services.

Federal Employees Health Benefits Program 2001 Parity Directive

In 2001, a presidential directive requiring comprehensive parity was implemented in the Federal Employees Health Benefits (FEHB) Program. The FEHB Program parity directive constitutes the most extensive regulatory mandate of its kind covering all diagnoses listed in the DSM and all

aspects of in-network mental health and substance abuse benefits including cost sharing, deductibles, lifetime and annual dollar, day, and visit limits.

Federal Legislation Pending in the 110th Congress

Attempts have been underway to pass a broader federal parity law bill. Federal parity legislation is currently under consideration in the 110th Congress. The federal House bill (H.R. 1424) sponsored by Congressmen Patrick Kennedy (D-RI) and Jim Ramstad (R-MN) would apply to all medically necessary mental health and substance benefit conditions. This bill, modeled on the FEHB Program parity directive mentioned above, would cover all medically necessary conditions listed in the DSM. The Senate version (S.558), sponsored by Senator Ted Kennedy (D-MA) is similar to the House bill in many respects. Federal parity legislation pending in Congress would not preempt more extensive state parity laws. The most significant difference between the House and Senate versions is that the Senate bill would not specify the diagnoses that must be covered leaving this decision to insurers. President George W. Bush expressed support for equalizing coverage in 2002, and supports the Senate version of the federal parity bill. Efforts by conferees are ongoing to reconcile the differences between these bills.

Legislative Activity in Other States

Over the years, state lawmakers have enacted various regulations to eliminate differences in private insurance coverage for mental health and substance abuse with coverage for physical health conditions. In the 1970s and 1980s, many states, including Massachusetts, passed mandated benefit laws establishing minimum coverage levels for mental health and substance abuse coverage under private insurance. Data from the Blue Cross Blue Shield State Services Office indicate that 34 states passed mental health mandates, 44 states passed alcoholism treatment mandates, and 31 states passed drug abuse mandates during this period.⁵

By the 1990s, state legislative efforts shifted to enactment of parity policies requiring equal coverage rather than minimum benefit levels. While over 40 states have enacted parity laws, these policies vary in scope and most are not comprehensive. State policies vary substantially in terms of the type of benefits covered, diagnoses included, population eligible, and direction regarding use of managed care. Some policies are quite limited in scope. For example, South Carolina's parity law applies to public employees only and North Carolina's policy mirrors the federal parity law of 1996 by prohibiting special annual and lifetime dollar limits while continuing to allow other types of mental health benefit limits. More extensive state laws require equal cost sharing and prohibit the imposition of special inpatient day and outpatient visit limits. State laws also differ in the conditions covered with some applying to only a subset of severe or biologically-based disorders and other applying more broadly to medically necessary treatment of DSM disorders.

Research Evidence on the Effects of Parity Mandates

This section provides a brief summary of existing research evidence on the effects of mental health and substance abuse parity. Caution is warranted due to limitations in the generalization of prior studies of mental health and substance abuse parity with H. 4423. As noted above, H. 4423 would broaden the existing parity law in Massachusetts and affects only coverage for non-biologically-based mental health conditions for adults and coverage for substance abuse conditions. It is important to note that none of the prior studies reviewed below examined the effects of parity on non-biologically-based mental health disorders only, and only one prior study⁶ examined the effects of parity on substance abuse separately from mental health.

However, to the extent that the FEHB Program parity evaluation and other studies evaluated the utilization and cost impact of shifting from no parity to comprehensive parity, these findings may serve as an upper bound for the impact of the less dramatic shift from biologically-based parity for adults (with broader coverage for children) under the 2000 Massachusetts law to more comprehensive parity as proposed under H. 4423.

A second concern relates to substantial variability in the methodological rigor of existing studies on the effects of parity. For the most part, this overview focuses on studies that employ pre-post with comparison group design. Examining changes in utilization and cost before and after implementation of parity, including a comparison group, allows the identification of effects of parity controlling for secular trends in utilization and spending on mental health and substance abuse services.

Concerns related to rigor of research design (e.g., pre-post with comparison group only, exclusion of unaffected groups) are at issue for all but three studies on the effects of parity. These are studies by Goldman and colleagues,⁷ Azrin and colleagues,⁸ and Lichtenstein and colleagues⁹ on the effects of comprehensive parity in the FEHB Program. These studies examined the effects of shifting from no parity to comprehensive parity employing a pre-post with comparison group research design.

Research studies examine the effects of parity on various outcomes including utilization of mental health and substance abuse services, total mental health and substance abuse spending, and consumer out-of-pocket spending for mental health and substance abuse, quality of depression care, and perceived generosity of, and access to, mental health services.

A third concern with prior studies relates to the importance of including only privately insured individuals subject to the parity mandate. For studies examining the effects of state parity laws, excluding individuals enrolled in self-insured health plans not subject to state parity laws is important. The 1974 Employee Retirement and Income Security Act (ERISA) limits the reach of all state health care mandates by exempting employers that self-insure from state insurance regulations. The Kaiser Family Foundation estimated that, in 2000, between 33 and 50 percent of employees in the U.S. were in self-insured plans, and thus not covered by state regulation due to ERISA.¹⁰ Likewise, all parity studies should exclude uninsured individuals and those with public coverage (e.g., Medicare, Medicaid, SCHIP) not subject to a state parity mandate.

Finally, it should be noted that when examining other studies, the applicability of the results should be calibrated to the Massachusetts health insurance marketplace. For example, some would argue that the California marketplace has allowed for more rigorous implementation of managed care and other mechanisms to control costs and therefore the results of that study should be tempered to the unique marketplace conditions in Massachusetts. Also, the Massachusetts Division of Insurance has already interpreted that the current parity law applies to cost sharing and this study assumes that that ruling would apply to H. 4423 as well. Therefore, a key mechanism for containing costs, which has been used in other environments, is unavailable in Massachusetts.

Research on the Effects of the 1996 Federal Parity Law

A 2000 report by the U.S. General Accounting Office found that when the 1996 federal parity law eliminated the use of mental-health-specific dollar limits, 87 percent of employer plans complying with the law had at least one other benefit design feature differentially limiting coverage for mental health in their benefit package.¹¹ In addition, about two-thirds of compliant employers changed at least one other mental health benefit design component to be more restrictive in response to the law. The agency found that 51 percent of plans complying with parity reduced covered annual outpatient office visits and 36 percent reduced inpatient hospital days for mental health services after enactment of the 1996 law.

Research on the Effects of Comprehensive Parity in the FEHB Program

As noted above, the evaluation of parity in the FEHB Program employed a more rigorous before and after with comparison group research design to account for secular trends in the use of mental health and substance abuse services. Goldman and colleagues found that the effect of parity on the probability of use for six of seven health plans was either not significantly different from zero or was significant but negative.¹² In one health plan, a PPO in the Mid-Atlantic, researchers identified a significant effect of parity on the probability of use (of 0.78 percentage points). This health plan was the only FEHB plan studied that did not carve out mental health and substance abuse to a managed care company. Spending in FEHB plans after parity was on a par with or below that of other large privately insured populations indicating no significant increase in total costs attributable to the implementation of parity. Goldman and colleagues also found that parity was associated with a significant reduction in annual out-of-pocket expenditures per user in six of the seven PPO health plans studied.

Goldman and colleagues' analyses of the effects of parity among FEHB Program adult enrollees in health plans located in the Northeast (i.e., Northeastern PPO 1, Northeastern PPO 2) are particularly informative in assessing the likely effects of H. 4423 in Massachusetts. For Northeastern PPO 1, no significant differences in utilization, spending, or out-of-pocket spending attributable to parity were detected. For Northeastern PPO 2, no significant differences in utilization attributable to parity were detected. However, a significant decrease was detected in total spending per user of -\$119.29 (-\$234.46 to -\$4.06) and out-of-pocket spending per user of -\$48.12 (-\$66.85 to -\$29.39) attributable to parity among enrollees in Northeastern PPO 2.

A number of additional results from the FEHB Program parity evaluation are relevant to understanding the possible effects of H. 4423. First, a study examining the effect of the FEHB parity directive on total and out-of-pocket spending among children found similar results as the study described above.¹³ In this study of children, only one PPO health plan experienced a significant increase in the probability of children's mental health and substance abuse service use attributable to parity of 0.73 (0.01-1.46). As with adults, this health plan was the only FEHB plan studied that did not carve out mental health and substance abuse to a managed care company. There was no evidence of spending increases for children's mental health or substance abuse services attributable to parity. Out-of-pocket expenditures per user declined significantly for children in three of the seven PPOs studied, with reductions ranging from \$62 to \$200. Second, separate analyses on the effects of comprehensive parity on utilization, total spending, and out-of-pocket spending for substance abuse only were largely consistent with the aggregated findings for adults and children.¹⁴ Third, federal employee plans were significantly more likely to increase managed care through contracts with managed behavioral health 'carve-out' firms after parity.¹⁵

Last, Busch and colleagues examined the association between the FEHB Program parity directive and changes in major depression treatment quality.¹⁶ After parity, the authors found that several plans showed modest improvement in the likelihood of receiving antidepressant medication. However, this result was also consistent with secular trends in major depression treatment seen in other research¹⁷ and therefore may not be a result of parity. In addition, this study also found that parity did not result in changes in the identification rate of major depressive disorders. In the acute-phase episodes, the greatest improvement was seen in the likelihood of follow up. Few or no other changes were observed in the acute-phase treatment intensity or duration quality measures. A limitation with this study was the lack of a control for secular trends that might affect quality independent of parity.

Research on the Effects of Parity Laws in Other States

Prior research on the effects of state parity laws consists of a report evaluating comprehensive parity in Vermont and five peer-reviewed, multi-state analyses. The Vermont study found that consumers paid a smaller share of the total amount spent on mental health and substance abuse services after implementation of parity.¹⁸ For those with serious mental health conditions, the decrease in out-of-pocket spending following parity was particularly large. Among individuals spending more than \$1,000 annually on mental health and substance abuse services, out-of-pocket spending was reduced by more than half. Within the two Vermont health plans studied, use of outpatient mental health services increased without prompting substantial spending growth after implementation of parity. For the two largest health insurers in the state of Vermont, the level of use increased slightly in one plan and decreased in the other. A key limitation with this report was the lack of a comparison group study design.

Three multi-state studies found little to no impact of parity. One study by Sturm using Community Tracking Study (CTS) detected no statistically significant differences in perceptions of perceived insurance generosity or access among those living in parity and non-parity states.¹⁹ In a subsequent analysis using the HealthCare for Communities (HCC) data, Pacula and Sturm found that state parity laws appear to have a small positive effect on the level of utilization among adults in poor mental health but not for other adults.²⁰ In a recent paper using two waves of HCC data, Bao and Sturm found no statistically significant effects of state parity laws on perceived quality of health insurance coverage, perceived access to needed health care, and use of mental health specialty services among those needing mental health care.²¹

A fourth study found that families living in a parity state had a significantly lower financial burden due to caring for children with mental illness compared with families in non-parity states.²² The likelihood of a child's annual out-of-pocket health care spending exceeding \$1,000 was significantly lower among families of children needing mental health care living in parity states compared with those in non-parity states. Families of children with mental health conditions in parity states were also more likely to view out-of-pocket spending as reasonable compared with those in non-parity states. Living in a parity state significantly lowered the likelihood of a family reporting that a child's health needs caused financial problems. The likelihood of reports that additional income was needed to finance a child's care was also lower among families with mentally ill children living in parity states.

Actuarial Estimates of Parity Costs

The absence of quantity increases due to parity across these studies is consistent with more recent actuarial estimates of the effect of parity on premiums. Actuarial estimates are calculated as the expected change in total premium due to parity. Studies conducted in the early and mid-1990s produced widely disparate estimates ranging from a 1 percent to an 11.4 percent increase in total premiums due to federal parity, with the Congressional Budget Office (CBO) estimating a 4 percent increase in 1996.^{23- 27}

After updating its estimation methods to incorporate managed care effects in 2001, the CBO scored comprehensive parity as increasing group health insurance by an average of 0.9 percent.²⁸ CBO analysts also forecast a net 0.4 percent estimated increase in total premiums after accounting for the offsetting impact of behavioral responses by health plans, employers, and workers.²⁹ Most recently, a March 2007 CBO report on S. 558 pending in the U.S. Congress estimated that, if enacted, the bill would increase premiums for group health insurance by an average of about 0.4 percent before accounting for responses of health plans, employers, and workers.³⁰ CBO expects that those behavioral responses would offset 60 percent of the potential impact of the bill on total health plan costs. A 2007 actuarial study on the effects of legislation proposing to expand California parity from biologically-based conditions only to comprehensive parity (AB423) in 2007 estimated a 0.16 percent increase in total health care expenditures attributable to the bill.

METHODOLOGICAL APPROACH

Overview of Approach

The Division engaged an economics and actuarial firm, Compass Health Analytics, Inc. (Compass), to estimate the financial effect of the passage of H. 4423. A consultant, Colleen Barry Ph.D., a faculty member at Yale University School of Medicine, also worked with Division and Compass to estimate the likely effects of the proposed bill. Dr. Barry is an expert on mental health care and substance abuse financing, has authored 12 peer-reviewed research publications on the effects of mental health and substance abuse parity, and was a member of the research team that evaluated the effects of parity in the FEHB Program. In addition, the Division organized an Advisory Panel to provide consultation on development of the methodology for estimating the impacts of H. 4423. Richard Frank Ph.D. and Alisa Busch M.D. served as Advisory Panel members. Dr. Frank is a health economist on the faculty in the Department of Health Care Policy at Harvard Medical School and a nationally recognized expert in mental health economics and policy. Dr. Busch is an Associate Psychiatrist at McLean Hospital and Psychiatrist-in-Charge at McLean Hospital's Alcohol and Drug Abuse Partial Hospital Treatment Program. She is also an Assistant Professor of Psychiatry and Instructor in Health Care Policy at Harvard Medical School.

A number of steps were involved in preparing this review and evaluation of H. 4423:

- First, the Division conducted interviews with stakeholders in the Commonwealth to ensure that we were accurately interpreting the proposed change in law, and to understand perceptions about how the law would be interpreted, if enacted, and expectations about its likely impacts. The Division completed interviews with the bill's lead sponsor, Representative Ruth Balser, and key contacts with the Massachusetts

Psychological Association, Blue Cross Blue Shield of Massachusetts, and the Massachusetts Association of Health Plans, including representatives of member health plans.

- Second, the Division reviewed existing literature on the costs and quality impacts of parity policies enacted in other contexts (i.e., effects of federal parity, FEHB Program parity, and other state parity laws). This research included identification of appropriate parameters for estimating cost impacts of H. 4423.
- Third, the Division requested summary-level data from health plans in the Commonwealth to establish a Massachusetts-specific baseline to calculate cost impacts. This data request was prepared by Compass in collaboration with Division staff and in consultation with the Advisory Panel. The Division held a conference call with health plans in the Commonwealth to discuss and respond to questions on an initial draft of this data request on May 5, 2008.
- Fourth, after receiving aggregate baseline data from health plans, the Division applied parameters from the literature and actuarial studies to the Massachusetts-specific health plan baseline data collected from health plans to produce a cost estimate.
- Finally, the Division conducted sensitivity analysis to develop a range of likely cost outcomes.

Approach for Determining Medical Efficacy

M.G.L. c. 3, § 38C (d) requires the Division 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. To determine the medical efficacy of H. 4423, we relied on extensive prior research on the efficacy of available treatments for mental health and substance abuse conditions, and limited evidence available on the effects of parity on quality of mental health care.

Approach for Determining Fiscal Impact of the Bill

The steps required to identify the costs implied by this mandate were as follows.

1. estimate the size of the affected insured population
2. estimate the baseline claims costs for the affected benefits
3. estimate the range of potential impact factors on claims costs due to the incremental impact of the mandate's required benefits
4. estimate the impact administrative expenses of the relevant insurers

Following these steps, estimates were done for the entire covered population for a five-year timeframe (2008-2012) for a range of "low case" to "high case" scenarios.

To estimate these effects, we developed the following model parameters.

Model Parameters

In consultation with the Advisory Panel, the Division developed model parameters related to four dimensions instrumental to estimating the fiscal impact of H. 4423. This framework is based in part on an approach recommended in a workshop funded by the Robert Wood Johnson Foundation in 2001 with actuaries, providers, health insurance industry representatives, academics, and public officials on methods for estimating the costs of parity for mental health.³¹ The final report resulting from this workshop, *Estimating the Costs of Parity for Mental Health*, identified guiding principles for four dimensions relevant to estimating the fiscal impact of parity:

1. Baseline estimates of insurance coverage and spending
2. Demand response to changes in benefit design
3. The impact of managed care on parity
4. The cross-sector effects especially related to prescription drugs and medical cost offsets

Massachusetts-specific Baseline Estimate. There are approximately 2.32 million individuals in Massachusetts ages 0 to 64 enrolled in health plans or policies that would be covered by H. 4423. This population does not include privately insured individuals employed by self-insured firms and those with publicly funded coverage. The Division collected survey data from major health plans operating in Massachusetts. The health plans included Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Healthcare, Tufts Health Plan, and Fallon Community Health Plan.³ The plans responding to the cost survey represent approximately 85% of the fully-insured under age 65 market. The plans were asked about behavioral health (mental health and substance abuse) benefit structures, their arrangements and methods for managing behavioral health, behavioral health costs, and the frequencies with which behavioral health benefit limits have been exceeded. In order to promote consistency in responses, the Division provided detailed instructions for the data extraction required to answer the cost and utilization questions.

Demand Response. In estimating the fiscal impact of parity, it is important to take into account demand response to changes in benefits design. The literature shows that the impact of benefit structures on behavioral health costs has evolved over time. The RAND Health Insurance Experiment in the 1970s found that use of mental health services in an unmanaged indemnity insurance environment is more sensitive to the price paid by users of care (determined by cost sharing provisions of the benefits) than other medical care.³² Differential benefit structures with visit limits and higher cost sharing have been one way that this issue was addressed historically.

Managed Care. The minimal effects of parity on utilization and costs identified in prior research have been attributed in part to the role of care management through health plans directly or via contracts with managed behavioral health care organizations (MBHOs). Evidence on the effects of managed care suggests that these mechanisms have been instrumental in reducing inpatient admissions, inpatient lengths of stays, and total spending on inpatient care with a concomitant increase in outpatient visit rates across the health sector.³³ In the mental health context, MBHOs have been shown to reduce costs by limiting inpatient care and substituting outpatient care. Observational studies of contracting with carve-outs have consistently produced evidence of substantial reductions in mental health and substance abuse costs even in the context of benefit

³ A partial submission from Fallon Health Plan was received. This information was not readily combinable with the other submissions but it was reviewed and helped to form judgments about the overall marketplace.

expansion in both the private sector^{34- 37} and public sector.^{38- 44} Enactment of parity legislation tends to be accompanied by increased reliance on MBHOs and other approaches to utilization management.^{45,46} In evaluating mental health and substance abuse benefit expansion by the state employees in Massachusetts, Ma and McGuire estimated a minimum of 30-40 percent overall mental health and substance abuse cost reduction after the simultaneous expansion of benefits and initiation of a carve-out contract.⁴⁷ They found decreases in consumer mental health and substance abuse spending, the probability of outpatient use, outpatient visits per user and inpatient length of stay with no change in inpatient admissions (but some shift to less intensive treatment settings). A key challenge in interpreting the findings from these studies involves disentangling the effects due to initiation of mental health benefit changes from those due to simultaneously occurring shifts in managed mental health care.⁴⁸

Since the intensity of management varies in different markets and regions of the country, and also varies over time, it is important to identify the degree of managed care in the baseline population. This information will inform how much potential exists to alter management in response to parity. To assess baseline information on care management under private insurance in the Commonwealth, the Division asked health plans to characterize current management of behavioral health benefits (either in-house or through a vendor) indicating the use of utilization management techniques including gate keeping by primary care physicians, prior authorization for specialty mental health and substance abuse services, treatment plan requirements, concurrent review, closed or preferred provider panels, disease management, and other approaches.

Cross-sector Effects. The Division considered two types of cross-sector effects related to pharmaceuticals and medical cost offsets. The Division excluded pharmaceutical costs from the estimate of the fiscal impact of H. 4423. Psychotropic drug costs are typically treated as part of the pharmaceutical benefit by health plans. Therefore, prescription drug costs for the treatment of mental health and substance abuse disorders are not typically subject to benefit limits. There is some possibility that if enactment of H. 4423 led to increased utilization of mental health or substance abuse services, increased service use could prompt greater use of psychotropic drugs among the privately insured. However, no evidence is available to support the view that substantial prescription-drug-related cross-sector effects are likely if H. 4423 is enacted. Conversely, psychotropic drug use could potentially decrease if enactment of H. 4423 prompted increased utilization of psychotherapy providing a treatment alternative to medication use. Again, no information is available to estimate the magnitude of such a decrease. The Division made the determination not to request baseline pharmaceutical information from plans since cross-sector effects were uncertain, and in recognition that collecting these baseline data would impose an additional burden on health plans.

Second, the Division did not include a medical cost offset factor in the fiscal impact estimate. The Division concluded that the research evidence on a medical cost offset was inconclusive.⁴⁹ It is worth noting that this decision is conservative to the extent that the Division's fiscal impact estimate is overestimating the increase in spending associated with H. 4423 if a medical offset exists. These assumptions regarding prescription drugs and medical cost offsets are in keeping with the recommendations of our Advisory Panel, and consistent with guidelines from the RWJF workshop on estimating the costs of parity⁵⁰ and prior cost estimates.⁵¹⁻⁵³

SUMMARY OF FINDINGS

Medical Efficacy

Mental Health: A Report of the Surgeon General released in December 1999 summarizes the central findings of a vast body of scientific literature on the prevalence and treatment of mental illness.⁵⁴ The evidence amassed in this report demonstrates that a range of efficacious treatments exist for most mental disorders. Likewise, clinical trial and observational studies have demonstrated a range of pharmacological (e.g., methadone, disulfiram, buprenorphine, naltrexone, acamprosate) and outpatient treatments (e.g., cognitive behavioral therapy, family education and brief interventions) to be efficacious for treating substance abuse problems. Overall, significant gains have been made in advancing the evidence base for treating substance abuse and mental health conditions,⁵⁵ although both sectors face challenges in translating these advances to routine care.⁵⁶

The Surgeon General's report also provided evidence indicating that a large share of those with mental health and substance abuse conditions do not receive treatment at all or receive inadequate care.^{57,58} The report noted that of the 28 percent of the U.S. population with a behavioral health disorder, only 15 percent receive services and only 8 percent of the population have both a diagnosis and receive services.⁵⁹ Rates of services use among those with a substance abuse diagnosis are particularly low. It is estimated that only 10 to 17 percent of those who need substance abuse treatment receive specialty care.⁶⁰ Among adolescents, only about 9 percent of those classified as needing specialty treatment for illicit drug use and 7 percent needing alcohol treatment receive it.⁶¹ The problem of unmet need is attributed in part to stigma and the marginalized role of these groups in society. Many in treatment do not receive appropriate care. McGlynn and colleagues found that those with medical records indicating alcohol dependence received recommended care 10 percent of the time and patients treated for clinical depression received recommended care 58 percent of the time.⁶²

In addition, both mental health and substance abuse disorders impose costs on society.^{63- 67} Psychiatric disorders and alcohol use ranked among the 10 leading causes of disability worldwide in 1990.⁶⁸ Beyond direct treatment costs, mental illness, heavy drinking, or dependence on illicit drugs have been shown to lower earnings and reduce the likelihood of being employed.^{69- 80} In addition, substance abuse in particular confers significant negative externalities including those associated with driving impaired, transmitting communicable diseases through unprotected sex, and crime.^{81- 83}

It is important to note that doubts about the effectiveness of treatments for some mental health and substance abuse disorders may influence the perceptions about the value of parity legislation. Insurer groups in the Commonwealth have raised specific concerns about the evidence base for treating certain disorders included in the DSM such as jetlag disorder. Parity advocates respond that the inclusion of medical necessity criteria in H. 4423 addresses concerns about the provision of low value care under expanded parity.

To the extent that comprehensive parity increases rates of use of appropriate, evidence-based treatments, this policy has the potential to improve mental health and substance abuse status.

Financial Impact of Mandate

1. The Division is required to assess the extent to which the proposed insurance coverage would increase or decrease the cost of the treatment or service over the next five years.

As noted above, the Division's actuarial consultants, Compass, estimated the fiscal impact of the bill (see Appendix I). Estimated impacts of H. 4423 on Massachusetts health care premiums for fully-insured products were calculated as follows:

- i. Based on data from the Division's 2007 Employer Survey, we assumed that the 2007 premium for a fully-insured business is \$434.
- ii. We applied low, medium, and high percent of premium factors of 0.1%, 0.2%, and 0.3% to this premium, producing estimated impacts on the premium of \$0.43, \$0.87, and \$1.30 PMPM. (The rationale behind the 0.1%, 0.2%, and 0.3% premium impact is described below.)
- iii. The PMPM impacts, which consist of behavioral health costs, are trended forward to 2008 through 2012 by applying the historical growth rate in behavioral health care costs. The historical growth in the behavioral health trend according to a recent CMS study is 6.7%, which is below the 8% average trend in general medical care spending.⁸⁴ We have assumed 6.5% annual growth to trend the PMPMs, as the per-person spending would be slightly less than the aggregate trend due to population growth.
- iv. The trended PMPMs are multiplied by the fully-insured population projection for the corresponding year to arrive at estimated annual impact dollars.

The five-year impact results are displayed in Exhibit 2. In 2008, these scenarios result in estimated increased total spending of \$12.9 million, \$25.8 million, and \$38.8 million respectively.

Exhibit 2

Estimated Cost Impact of HB4423 on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims		1.065					
	2008	2009	2010	2011	2012	All 5 Years	
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085		
Low Scenario							
Annual Impact Claims (000,000s)	\$ 11.4	\$ 12.1	\$ 13.0	\$ 13.9	\$ 14.8	\$ 65.2	
Annual Impact Administration (000,000s)	\$ 1.6	\$ 1.7	\$ 1.8	\$ 1.9	\$ 2.0	\$ 8.9	
Annual Impact Total (000,000s)	\$ 12.9	\$ 13.8	\$ 14.7	\$ 15.8	\$ 16.8	\$ 74.0	
Premium Impact (PMPM)	\$ 0.46	\$ 0.49	\$ 0.52	\$ 0.56	\$ 0.59	\$ 0.53	
Mid Scenario							
Annual Impact Claims (000,000s)	\$ 22.7	\$ 24.2	\$ 26.0	\$ 27.8	\$ 29.6	\$ 130.3	
Annual Impact Administration (000,000s)	\$ 3.1	\$ 3.3	\$ 3.5	\$ 3.8	\$ 4.0	\$ 17.8	
Annual Impact Total (000,000s)	\$ 25.8	\$ 27.5	\$ 29.5	\$ 31.6	\$ 33.7	\$ 148.1	
Premium Impact (PMPM)	\$ 0.92	\$ 0.98	\$ 1.05	\$ 1.12	\$ 1.19	\$ 1.05	
High Scenario							
Annual Impact Claims (000,000s)	\$ 34.1	\$ 36.3	\$ 38.9	\$ 41.7	\$ 44.4	\$ 195.5	
Annual Impact Administration (000,000s)	\$ 4.7	\$ 5.0	\$ 5.3	\$ 5.7	\$ 6.1	\$ 26.7	
Annual Impact Total (000,000s)	\$ 38.8	\$ 41.3	\$ 44.2	\$ 47.4	\$ 50.5	\$ 222.1	
Premium Impact (PMPM)	\$ 1.39	\$ 1.48	\$ 1.57	\$ 1.67	\$ 1.78	\$ 1.58	

The low, medium, and high scenarios of 0.1%, 0.2% and 0.3% respectively were developed based on the following information. Research and actuarial studies estimate that the cost impact

of parity implementations, excluding a managed care response by plans, are in the range of 0.4% to 0.6% of overall health care premiums. These percentage estimates were judged too high to be applicable to H. 4423 for the following reasons:

- i. A complete lack of managed care response is not plausible, particularly for non-biologically-based services, for which plans have relied on benefit limits to restrain excessive costs. It is assumed that health plans would employ strategies to manage utilization of these services if H. 4423 were to pass.
- ii. Significant portions of benefits typically affected by parity laws are already covered by Chapter 80 (especially services for biologically-based conditions for adults) and so we would expect the impact to be smaller than when the baseline benefits are further from full parity. Based on 2007 claims data provided by the plans, approximately 29% of current claims spending is for conditions not covered at full parity.

The same sources of information indicate that after allowing for a care management response by the plans, the impact of parity implementation may be slightly above zero (research studies with data from 1997-2002) or may be in the range of 0.1% to 0.16% (more recent actuarial estimates). The lower of these estimates are assessed to be too low to be applicable to H. 4423 for the following reasons:

- i. Outpatient substance abuse benefits in Massachusetts, at a \$500 per person cap, are below the pre-parity levels present in the other contexts in which parity was implemented and evaluated. We would therefore expect a larger response than has been measured in previous studies.
- ii. The managed care response for mental health benefits that contributed to the findings of studies for parity implementations 8-10 years ago may not be fully realizable in today's climate in which the techniques that achieved these reductions have already been applied, at least in part, by application to those benefits affected by Chapter 80 and most possible savings already achieved. An important finding of the survey of Massachusetts health plans is that these plans already use available tools for behavioral health management.

The foregoing discussion asserts that factors near zero are likely to be too low and those in the range of 0.4% to 0.6% are likely to be too high. This would suggest that in the current Massachusetts environment with the existence of Chapter 80, percent of premium factors in the range of 0.1% to 0.3% are more likely.

2. The Division 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.

There is no data available that would permit the Division to quantify the extent to which the proposed coverage might affect the appropriate or inappropriate use of the treatment or service over the next five years. As noted above, if the scope of mental health parity expands beyond the requirements of the 2000 law, insurers would no longer be allowed to limit medically necessary outpatient care to a minimum of 24 outpatient visits or inpatient care to 60 days for mental health. For substance abuse benefits, insurers would no longer be allowed to limit medically necessary alcoholism treatment to 30 inpatient days and \$500 outpatient visits

mandate under current Massachusetts law. Under more comprehensive parity, mental health and substance abuse providers who believe their patients would be better served by a more extensive duration of care or a more intensive care setting, might request additional services. In the absence of limits on the number of services provided, health care expenditures attributed to these patients could increase if their care is deemed medically appropriate and approved by insurers. However, the services requested would be required to be medically necessary and H. 4423 would not affect health plan reliance on managed care to ensure the provision of high quality care.

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

There is no data available that would permit the Division to quantify the extent to which the mandated treatment may result in the establishment of additional inpatient or residential treatment facilities. Should H. 4423 become law, providers may determine that demand for additional intermediate level treatment options may increase and it is possible that additional treatment facilities could be established to provide this specialized care.

4. The Division 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 data available that would permit the Division to quantify the extent to which the mandated treatment would affect the number or types of providers of the mandated treatment.

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

H. 4423 will likely lead to an increase in health plan administrative costs if mental health or substance abuse claims increase. Exhibit 2 above includes the administrative cost estimates. Incremental administrative expenses would be incurred for activities associated with the implementation of the mandate such as modifications to benefit plan materials, claims processing system changes, training/communication material for staff, etc. These costs would be non-zero but less than the administrative costs of an average benefit. The assumption that incremental administrative costs are equal to current average administrative costs should be a conservatively high allowance for any incremental expenses required.

In addition, incremental margin is required in order for the insurer to maintain adequate reserve levels as required by the Massachusetts Division of Insurance. Required reserves are based on the claim levels for the insurer, and since the mandate would increase claims levels, it would increase required reserve levels and therefore incrementally increase the total dollars of margin required to meet those reserve levels.

6. The Division is required to assess the potential benefits and savings to large and small employers, employees and non-group purchasers.

Some clinicians argue that early treatment, using a multidisciplinary approach, offers many patients the best opportunity to improve and many to recover. As noted above, little rigorously conducted evidence is available to suggest that increasing access to mental health services produces a medical cost offset. Some small employers could benefit by increased employee satisfaction if some of their employees or their family members avail themselves of additional treatment options offered by this mandate. This mandate would not affect the many large employers who are self-insured unless they choose to adopt this standard.

7. The Division is required to assess the effect of the proposed mandate on cost-shifting between private and public payers of health care coverage.

The proposed mandate applies only to commercial insurance carriers, health maintenance organizations, and Blue Cross Blue Shield plans. There is no data available that would permit the Division to quantify the extent to which the proposed mandate would result in cost-shifting between private and public payers of health care coverage. It is not expected that H. 4423 would result in substantial cost shifting between public and private payers. Publicly funded coverage programs (e.g., MassHealth and Commonwealth Care) currently have processes in place to ensure that employer-sponsored insurance is accessed as primary coverage where available. Such processes would continue if H. 4423 were enacted. However, under current law privately insured individuals may take advantage of publicly funded health services which would now be covered through the expanded mental health parity requirement (e.g., substance abuse treatment programs funded by the Department of Public Health) or pay for care out of pocket. In addition, health insurers in the state have also raised concern that H. 4423 would result in cost-shifting from school systems and the Department of Education. There is no available research evidence to inform whether such shifts would occur if H. 4423 were enacted.

8. The Division 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.

There is no data available that would permit the Division to quantify the extent to which the mandated treatment might affect out-of-pocket costs or delays in treatment in the Commonwealth. However, prior research on the effects of parity has consistently demonstrated a decrease in consumer out-of-pocket spending on mental health and substance abuse services attributable to parity. As noted above, the FEHB Program evaluation identified a significant decrease in out-of-pocket spending per user on mental health and substance abuse attributable to parity for both adults and children.^{85,86} Another recent study on the effects of state parity laws found that the likelihood of a mentally ill child's annual out-of-pocket health care spending exceeding \$1,000 was significantly lower among families living in parity states compared with those in non-parity states.⁸⁷

9. The Division is required to assess the effects on the overall cost of the health care delivery system in the Commonwealth.

The estimated overall impact on health insurance premiums and spending is included in Exhibit 2 above.

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**Actuarial Assessment of Massachusetts House Bill 4423:
“An Act Relative to Mental Health Parity”**

Prepared for

**Division of Health Care Finance and Policy
Commonwealth of Massachusetts**

Prepared by

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July 2, 2008



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**Actuarial Assessment of Massachusetts House Bill 4423:
“An Act Relative to Mental Health Parity”**

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Actuarial Assessment of Massachusetts House Bill 4423: “An Act Relative to Mental Health Parity”

Executive Summary

Compass Health Analytics, Inc. was engaged by the Division of Health Care Finance and Policy (“the Division”) to estimate the cost impact of HB4423, “An Act Relative to Mental Health Parity” for the period 2008-2012.

Under the Commonwealth’s current law (Chapter 80 of 2000), benefit parity exists for nine “biologically-based” mental health conditions for adults, and for any conditions in children (18 and under) which limit functioning and social interaction. Conditions specified under this law are covered without annual or lifetime benefit limits and are also at parity with regard to cost sharing. Other conditions not included in these requirements must have coverage for at least 60 inpatient days and 24 outpatient visits. Currently benefits for alcoholism and chemical dependency are mandated to include 30 days of inpatient treatment and \$500 for outpatient treatment. HB4423 extends this partial parity to full parity for both mental health and substance abuse services, requiring nondiscriminatory coverage for the diagnosis and medically necessary and active treatment of mental disorders and alcoholism or other drug abuse or dependence disorders as described in the most recent edition of the Diagnostic and Statistical Manual (DSM) of Mental Disorders. No discriminatory lifetime limits, annual limits, or cost sharing would be allowed.

The fully-insured under-65 population to which benefit mandates are applicable was estimated to be an average of 2.32 million members for calendar year 2007, increasing to 2.36 million by 2012. Survey data were collected by the Division from four major health plans operating in Massachusetts representing approximately 85% of the fully-insured under-65 market. The plans were asked about behavioral health (mental health and substance abuse) benefit structures, their arrangements and methods for managing behavioral health, behavioral health costs, and the frequencies with which behavioral health benefit limits have been exceeded. Approximate costs for fully-insured behavioral health services for 2007 were \$239 million, \$272 million with administrative costs included. Two additional key findings were that current inpatient limits for mental health and substance abuse (MH/SA) are not materially binding and that 2 of the surveyed plans apply no limits to services for children under the current law.

Research and actuarial studies estimate that the cost impact of parity implementations, excluding a managed care response by plans, are in the range of 0.4% to 0.6% of overall healthcare premiums. These percentage estimates were judged too high to be applicable to HB4423 for the following reasons:

- (i) A complete lack of managed care response is not plausible. Particularly for non-biologically-based services, for which plans have relied on benefit limits to restrain

excessive costs, it is assumed that health plans would employ strategies manage utilization of these services if HB4423 were to pass.

(ii) Significant portions of benefits typically affected by parity laws are already covered by Chapter 80 (especially services for biologically-based conditions for adults) and so we would expect the impact to be smaller than when the baseline benefits are further from full parity. Based on 2007 claim data provided by the plans, approximately 29% of current claims spending is for conditions not covered at full parity.

The same sources of information indicate that after allowing for a care management response by the plans, the impact of parity implementation may be slightly above zero (research studies with data from 1997-2002) or may be in the range of 0.1% to 0.16% (more recent actuarial estimates). The lower of these estimates are assessed to be too low to be applicable to HB4423 for the following reasons:

(i) Outpatient substance abuse benefits in Massachusetts, at a \$500 per person cap, are below the pre-parity levels present in the other contexts in which parity was implemented and evaluated. We would therefore expect a larger response than has been measured in previous studies.

(ii) The managed care response for mental health benefits that contributed to the findings of studies for parity implementations 8-10 years ago may not be fully realizable in today's climate in which the techniques that achieved these reductions have already been applied at least in part by application to those benefits affected by Chapter 80 and most possible savings already achieved. An important finding of the survey of Massachusetts health plans is that these plans already use available tools for behavioral health management.

The foregoing discussion asserts that factors near zero are likely to be too low and those in the range of 0.4% to 0.6% are likely to be too high. This would suggest that in the current Massachusetts environment with the existence of Chapter 80, percent of premium factors in the range of 0.1% to 0.3% are more likely. Exhibit E-1 presents the estimated health care premium impacts for 2008 to 2012, based on applying the 0.1% to 0.3% percent of premium factors to estimated 2007 fully insured premiums and trending the result forward for 2008 to 2012. The cost estimates are consistent with significant percentage increases in services paid for through insurance for the relatively narrow range of medically necessary benefits not already subject to the parity provisions of Chapter 80.

Exhibit E-1

Estimated Cost Impact of HB4423 on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims	1.065					
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>All 5 Years</u>
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085	
Low Scenario						
Annual Impact Claims (000,000s)	\$ 11.4	\$ 12.1	\$ 13.0	\$ 13.9	\$ 14.8	\$ 65.2
Annual Impact Administration (000,000s)	\$ 1.6	\$ 1.7	\$ 1.8	\$ 1.9	\$ 2.0	\$ 8.9
Annual Impact Total (000,000s)	\$ 12.9	\$ 13.8	\$ 14.7	\$ 15.8	\$ 16.8	\$ 74.0
Premium Impact (PMPM)	\$ 0.46	\$ 0.49	\$ 0.52	\$ 0.56	\$ 0.59	\$ 0.53
Mid Scenario						
Annual Impact Claims (000,000s)	\$ 22.7	\$ 24.2	\$ 26.0	\$ 27.8	\$ 29.6	\$ 130.3
Annual Impact Administration (000,000s)	\$ 3.1	\$ 3.3	\$ 3.5	\$ 3.8	\$ 4.0	\$ 17.8
Annual Impact Total (000,000s)	\$ 25.8	\$ 27.5	\$ 29.5	\$ 31.6	\$ 33.7	\$ 148.1
Premium Impact (PMPM)	\$ 0.92	\$ 0.98	\$ 1.05	\$ 1.12	\$ 1.19	\$ 1.05
High Scenario						
Annual Impact Claims (000,000s)	\$ 34.1	\$ 36.3	\$ 38.9	\$ 41.7	\$ 44.4	\$ 195.5
Annual Impact Administration (000,000s)	\$ 4.7	\$ 5.0	\$ 5.3	\$ 5.7	\$ 6.1	\$ 26.7
Annual Impact Total (000,000s)	\$ 38.8	\$ 41.3	\$ 44.2	\$ 47.4	\$ 50.5	\$ 222.1
Premium Impact (PMPM)	\$ 1.39	\$ 1.48	\$ 1.57	\$ 1.67	\$ 1.78	\$ 1.58

Actuarial Assessment of Massachusetts House Bill 4423: “An Act Relative to Mental Health Parity”

Introduction

Compass Health Analytics, Inc. was engaged by the Division of Health Care Finance and Policy (“the Division”) to estimate the cost impact of HB4423, “An Act Relative to Mental Health Parity” for the period 2008-2012. The term parity refers to a policy in which specified behavioral health (mental health and substance abuse) benefits are covered in a nondiscriminatory manner relative to coverage of benefits for general medical services. This typically includes elimination of annual or lifetime limits that do not apply to general medical services, limiting cost sharing provisions to the levels used for general medical services, and removing annual limits on service use such as annual inpatient day and outpatient visit caps. “Full parity” would require removal from regulated fully-insured health insurance benefit packages all such provisions that are not also applicable to general medical services.

Projecting the cost impact of parity provisions requires taking care about the definition of “parity” and in the use of evidence from other settings where parity laws were introduced, drawing clear distinctions about the varieties of partial parity that exist in practice. Based on legislation passed in 2000 (Chapter 80 of the Acts of 2000), Massachusetts currently has partial parity for mental health services and does not have parity for substance abuse services, though there is a legal minimum substance abuse benefit.

Summary of Current and Proposed Legal Requirement

The requirements of both the current law and HB 4423 specify mandated benefits for the fully-insured, under-65 commercial insurance products subject to regulation by the Commonwealth’s Division of Insurance (DOI). The requirements do not apply to commercial self-insured products, which are not regulated by the DOI.

Under the Commonwealth’s current law (Chapter 80 of 2000), benefit parity exists for nine “biologically-based” mental health conditions for adults (schizophrenia, schizoaffective disorder, major depressive disorder, bipolar disorder, paranoia and other psychotic disorders, obsessive-compulsive disorder, panic disorder, delirium and dementia, and affective disorders), and for any conditions in children (18 and under) which limit functioning and social interaction. Conditions specified under this law are covered without annual or lifetime benefit limits and are also at parity with regard to cost sharing pursuant to DOI Bulletin 2000-10. Other conditions not included in the requirements above must have coverage for at least 60 inpatient days and 24 outpatient

visits. Currently benefits for alcoholism and chemical dependency are mandated to include 30 days of inpatient treatment and \$500 for outpatient treatment, except when treatment is also being provided in conjunction with treatment for mental health disorders.

HB4423 extends this partial parity to full parity for both mental health and substance abuse services, requiring nondiscriminatory coverage for the diagnosis and medically necessary and active treatment of mental disorders and alcoholism or other drug abuse or dependence disorders as described in the most recent edition of the Diagnostic and Statistical Manual (DSM) of Mental Disorders. Coverage consists of a range of inpatient, intermediate, and outpatient services providing non-custodial treatment in the least restrictive, clinically appropriate setting. The key differences between the current law and HB4423 are:

- HB4423 expands parity requirements for adults to medically necessary treatment for diagnoses in the DSM-IV, which would have the effect of eliminating the limits of 60 inpatient days and 24 outpatient visits for “non-biologically based” conditions (those not in the list of nine biologically-based conditions in the current law).
- Nominal change in the standard of care for children from the current limitation in functioning and social interaction to medical necessity.
- Following from the foregoing, medically necessary treatment for alcoholism and chemical dependency must be covered at full parity for both children and adults.
- No discriminatory lifetime limits, annual limits, or cost sharing would be allowed.¹

Overview of Impact Analysis

The steps required to identify the costs implied by this mandate are as follows.

- 1.) Estimate the size of the affected insured population.
- 2.) Estimate the baseline claims costs for the affected benefits.
- 3.) Estimate the range of potential impact factors on claims costs due to the incremental impact of the mandate’s required benefits.
- 4.) Estimate the impact administrative expenses of the relevant insurers.

Following these steps, estimates were done for the entire covered population for a five-year timeframe (2008-2012) for a range of “low case” to “high case” scenarios.

¹ This assumes that the Division of Insurance’s previous ruling related to cost sharing parity in DOI Bulletin 2000-10 would apply to the new law as well.

Analysis/Calculations

Below we describe the basic steps taken to perform the projections.

Affected Population

The objective for this analysis was to develop Massachusetts population projections for purposes of analyzing the impact of HB4423, which required estimation of the number of commercially fully insured individuals under 65 years of age. The fully-insured under-65 population for calendar year 2007 was estimated to be an average of 2.32 million members, increasing to 2.36 million by 2012. To project the Massachusetts population out to 2012, we estimated an annual growth rate of 0.4% per year, based on several population projections on the U.S. Census Bureau web site. Similarly, the growth in the age 65+ population was estimated as 1.5% per year through 2010 and 2.0% in subsequent years, again based on Census projections. The residual growth was allocated between age ranges 0-18 and 19-64.

Baseline Benefits and Costs

Survey data were collected by the Division from major health plans operating in Massachusetts. The health plans included BlueCross BlueShield of Massachusetts, Harvard Pilgrim Healthcare, Tufts Health Plan, and Fallon Community Health Plan². The plans responding to the cost survey represent approximately 85% of the fully-insured under-65 market. The plans were asked about behavioral health (mental health and substance abuse) benefit structures, their arrangements and methods for managing behavioral health, behavioral health costs, and the frequencies with which behavioral health benefit limits have been exceeded. In order to promote consistency in responses, the Division provided detailed instructions for the data extraction required to answer the cost and utilization questions.

Benefit structures were provided in the survey responses for typical and/or predominant products. These responses confirmed that for those services not subject to the existing mental health mandate (e.g., non-biologically-based conditions for adults), the statutory minimum benefit is standard, that is, for mental health a maximum of 60 inpatient days and 24 outpatient visits. Similarly, the standard drug and alcohol benefit in these plans is the statutory minimum of 30 inpatient days and \$500 for outpatient services. With respect to intermediate services for behavioral health (e.g., day treatment, residential treatment, intensive outpatient services), which are required by both the current statute and HB4423, two of the plans apply use of these services to the inpatient benefit limit at a 2:1 ratio, and one plan provides a separate 120 day limit benefit for these services in addition to the inpatient and outpatient benefits. Cost sharing ranges from \$10 to \$25 per visit for in-network outpatient services and \$200 to \$500 per admission for inpatient stays.

² A partial submission from Fallon Health Plan was received. This information was not readily combinable with the other submissions but it was reviewed and helped to form judgments about the overall marketplace.

Cost data on the survey were broken into children and adults (19 and over). It was requested that data on adults be divided into costs associated with biologically-based conditions (as defined in the statute) and other conditions. Similarly, it was requested that data on children be broken into cases in which functional impairment was present (as defined in the statute) and other cases. Each of these sub-categories was also divided into inpatient, intermediate, and outpatient services.

Of the plans responding, two plans provided overall data for children without distinguishing between cases that involved limits in function and social interaction and those that did not. In both cases this distinction was not made because these plans interpret all medically necessary services provided to children as meeting the standard of limiting function and social interaction. A third plan did make this distinction in its cost reporting but did not respond to the question in the survey asking how this distinction was made in practice in their care management and claim operations. Due to the need to aggregate data across plans, and the fact that the reliability of the distinction was not verifiable, the data for children were combined into a single category for the third plan as well.³

The results from these responses were aggregated and adjusted to reflect the full estimated population of fully-insured, under-65 enrollees in Massachusetts, and are presented in the Exhibit 1 below.

Exhibit 1

Estimated Behavioral Health Claim Expenditures for Massachusetts Fully-Insured Under-65 Enrollees
Adjusted to All Fully-Insured Based on Calendar 2007 Claim Extracts From Plans Representing 85% of the Fully-Insured Market Segment

	Costs in Millions of Dollars			
	Age of Recipient on DOS			Overall Total
	0-18	19-64	All Adults	
Ave Enrollment	598,137	1,726,488	1,726,488	2,324,624
Service Category	Bio Based?			Overall Total
	All Children	Yes	No	
Inpatient MH	\$ 8.4	\$ 19.8	\$ 1.6	\$ 21.4
Outpatient MH	\$ 41.4	\$ 103.8	\$ 38.5	\$ 142.3
Intermediate MH	\$ 2.1	\$ 5.3	\$ 0.5	\$ 5.8
Total Mental Health	\$ 51.8	\$ 128.9	\$ 40.5	\$ 169.5
Inpatient SA	\$ 0.5	\$ 4.1	\$ 4.6	\$ 8.7
Outpatient SA	\$ 0.4	\$ 1.2	\$ 5.0	\$ 6.2
Intermediate SA	\$ 0.2	\$ 0.8	\$ 1.9	\$ 2.7
Total Substance Abuse	\$ 1.0	\$ 6.1	\$ 11.5	\$ 17.6
Total	\$ 52.8	\$ 135.0	\$ 52.1	\$ 187.1

An important observation to make about these results is that most of the costs are already covered at parity. The “Adults – Not Biologically-Based” mental health costs would be affected by HB4423, which represents only 17% of the total mental health costs. The adult biologically-based mental health services are already at parity as a result of Chapter 80 of the 2000 laws and represent 58% of current mental health costs. As noted above, for most of the market, mental health services for children are already administered at full parity and so would not be affected by HB4423. With respect to mental health services, it is primarily the approximately \$41 million in adult non-biologically-based costs that

³ As discussed in the “Results” section, children’s outpatient mental health data was split evenly into falling inside and outside the Chapter 80 mandate for one of the validation analyses conducted.

would be impacted by HB4423. Substance abuse services for all ages would be impacted. These costs currently constitute just under 8% of total costs, or approximately \$19 million.

Parity Impact Factors

Based on the results of the descriptive cost analysis in Exhibit 1 above, the primary analytical questions to assess the impact of HB4423 were:

1. From a baseline mental health benefit of 60 inpatient days and 24 outpatient visits, with co-pays in the range of \$10-\$25, what additional costs will be added by full parity to the current claims spending on non-biologically based conditions in adults currently at approximately \$41 million?
2. From a baseline substance abuse benefit of 30 inpatient days and \$500 in outpatient services, what additional costs will be added by full parity to the current claims spending for these services of approximately \$19 million?

In estimating the impact in the future of implementing HB4423, we need to apply a factor to the baseline costs that represents the estimated change in costs that will be produced by the bill's provisions, and thus calculate the estimated costs under the bill. The change in costs (projected less baseline) is the impact estimate (or range of estimates) we need to produce. We relied on three sources of information to address these questions. First, the survey of plans contained information about the number of persons hitting the existing benefit limits, which provides some indication of the degree to which dropping the limits will impact costs. Second, we consulted an expert panel identified to provide input for this study⁴. Third, we examined previous studies evaluating the impact of both actual and anticipated implementations of parity rules, including information on methodological approaches⁵.

Model parameters related to four dimensions instrumental to estimating the fiscal impact of HB4423 were investigated⁶:

1. Baseline estimates of insurance coverage and spending on claims and administration
2. Demand response to changes in benefit design
3. The impact of managed care on parity
4. The cross sector effects especially related to prescription drugs and medical cost offsets

⁴ The Division organized the Advisory Panel to provide consultation on development of the methodology for estimating the impacts of HB.4423. Richard Frank Ph.D. and Alisa Busch M.D, both of Harvard Medical School, provided expert advice to the study authors.

⁵ Frank RG, TG McGuire, L Bilheimer, et al. (2001) Estimating the Costs of Parity for Mental Health: Methods and Evidence. Results from a Robert Wood Johnson Foundation Workshop.

⁶ Decisions about parameter values were made independently after consultation with the expert panel.

Baseline results were discussed above and displayed in Exhibit 1. We accepted the Advisory Panel's recommendation that evidence for cross-sector effects (item 4) was insufficient to incorporate these effects into our estimates. The primary focus of the analysis was on determining appropriate parameter values for items 2 and 3.

The survey results on benefit limits provided useful information for the analysis. The results from the survey show that inpatient limits are for the most part not binding. For adults, exceeding either the inpatient mental health limit (60 days) or the inpatient drug & alcohol limit (30 days) is very rare, and neither occurred for a child in 2007. The inpatient mental health limit was exceeded for one adult and the inpatient drug & alcohol limit was exceeded by 7 adults or 0.0004% of members. Essentially the inpatient limits are not binding, and the implementation of parity rules would have no material impact on inpatient expenses.

The survey results show that outpatient visit benefit limits are binding for non-biologically-based conditions for adults and for substance abuse services for both adults and children. For adults with non-biologically related conditions (and thus subject to the 24 visit limit), approximately 3,000 persons, or 0.25% of members, had 24 visits paid for by the plans. Approximately 2,450 persons, or 0.20% of members, hit the \$500 outpatient substance abuse benefit limit. Since these limits are currently binding, it is reasonable to consider whether and by how much eliminating the associated benefit limits would increase claims expenses for Massachusetts insurers.

The research literature and other studies are another source we can examine in evaluating the impact of HB4423. In estimating the impact of HB4423 prospectively, we would ideally like to use carefully conducted retrospective studies assessing impact of actual parity implementations that meet the following criteria as closely as possible:

1. *Baseline Parity Requirements.* The baseline parity requirements of the settings used for the retrospective studies are similar to the current law in Massachusetts;
2. *Revised Parity Requirements.* The parity law implementation in the retrospective studies have similar requirements to HB4423;
3. *Study Quality.* The study or studies are well-conducted and have credible impact estimates – in particular they control for or have similar circumstances with respect to other factors that affect costs (such as underlying trend, other relevant laws, etc.)

To the extent that these criteria cannot be fully met, adjustments to and sensitivity analysis of the results from these studies may be necessary to arrive at reasonable estimates for HB4423. Application of factors could be done in aggregate across all mental health and substance abuse costs, or focusing on the individual components identified in the two analytical questions described above.

In order to identify factors for application to the baseline costs, the research literature can be utilized. The literature shows that the impact of benefit structures on behavioral health costs has evolved over time. The RAND Health Insurance Experiment in the 1970s

found that use of mental health services in an unmanaged indemnity insurance environment is more sensitive to the price paid by users of care (determined by cost sharing provisions of the benefits) than other medical care⁷. Differential benefit structures with visit limits and higher cost sharing have been one way that this issue was addressed historically. During the 1990s and into the current century, the advent of Managed Behavioral Health Organizations (MHBOs) and the management of behavioral health services through selective contracting, care management, and other techniques have brought spending for behavioral services as a share of health care costs down significantly⁸. Recent evidence suggests that the presence of both restrictive benefit limits and managed behavioral health is a “belt and suspenders” approach to containing behavioral health spending. Research studies examining the introduction of parity (i.e., the elimination of the older method of less generous utilization and cost-sharing benefits for behavioral health services) in contexts in which behavioral health is managed have not found the type of cost increases that occurred in the unmanaged indemnity insurance environments of the last century.

For example, a large federally-funded evaluation of the implementation of parity in the Federal Employees Health Benefit Plan (FEHBP) that by Executive Order began January 1, 2001 found little or no overall impact of implementing parity on overall health spending and small impacts on health plan claims costs.⁹ This study is an important benchmark for estimating the impact of HB4423 for several reasons:

- The form of parity that was implemented in the FEHBP was essentially the same as HB4423 – non-discriminatory, medically necessary coverage for diagnoses in DSM-IV.
- The baseline benefit arrangements in the plans studied, while not identical to the benefit structures available in Massachusetts currently, are similar enough that the results can be considered with some adjustment for differences in the baseline benefits. That is, the starting point of the parity implementation was different, but not dramatically so.
- The study was carefully performed by well-respected, credible researchers and included a large sample.

The approach taken in the FEHBP study included selection of nine plans, and matching of each with a comparison plan from a national self-insured claim database. Statistical techniques were used to control for some differences between the plans. Of the nine plans, seven showed growth in MH/SA spending after parity implementation that was lower than the spending growth in the comparison plans (which did not have parity

⁷ Manning WG, Wells KB, Buchanan J, et al (1989). Effects of Mental Health Insurance: Evidence From the Health Insurance Experiment. Santa Monica, Calif, RAND.

⁸ CA Ma, McGuire TG (1998). Cost and Incentives in a Behavioral Health Carve-out. *Health Affairs* 17(2): 53-67.

⁹ U. S. Department of Health and Human Services (2004), “Evaluation of Parity in the Federal Employees Health Benefits Program: Final Report,” <http://aspe.hhs.gov/daltcp/reports/parity.htm>. and Goldman, HH, RG Frank, MA Burnam et al. (2006). Behavioral Health Insurance Parity for Federal Employees. *New England Journal of Medicine* 354(13): 1378-1386. See also,

implementation). Results for four of these were statistically significant, and three were not. The remaining two plans showed slightly higher cost growth but neither was statistically significant. So costs grew after parity but in a way that was slower than or not distinguishable from cost growth in plans that did not implement parity.

Additional analysis in the study indicated that there was significant movement toward implementation of behavioral health carve-out vendors for the FEHBP plans but not for the comparison plans, which was judged to be a significant factor in the differential cost growth and the ability of the FEHBP plans to restrain cost growth at or below the cost growth of the comparison plans.

There are two important considerations in using the results of this study for estimating costs related to HB4423: Baseline behavioral benefits in the study's sampled plans and the "MBHO effect" just discussed. The existing Chapter 80 parity law already provides extensive parity requirements, as discussed above. While it is not possible from the published sources to understand the legal environments that the sample plans operated within, it is likely that in 2001-2002 that on average they were in environments with less extensive mental health parity requirements than those defined by Chapter 80. That would imply that the implementation of the FEHBP parity requirements would have constituted a bigger expansion of benefits than HB4423 requires, and thus the results of the study may overstate the cost implications. Since the study results related to overall health spending were essentially statistically zero, this would support the notion that HB4423 would not increase health care costs. However, the baseline substance abuse benefits in Massachusetts are generally less generous than the baseline benefits in the sampled plans, and so the impact of parity on substance abuse spending may be more significant than in the study's plans (seven of which had changes in substance abuse spending per enrollee relative to the comparison plans that were not statistically significant).

Moreover, given the movement toward carve-out vendors and the impact that this likely had on costs (see Ma and McGuire, *op. cit.*) during that period in our health care system's evolution, it is important to consider whether plans in Massachusetts currently have the same ability to use this lever on behavioral costs. Of the three Massachusetts health plans that submitted cost data for this study, one currently uses a carve-out vendor. The other two have used vendors in the past but now have moved most of these functions to internal staff. It would seem unlikely that these contracts would have been cancelled if the plans were not able to achieve similar cost restraint internally. The question of whether "low hanging fruit" exists now in the same way it did when the study was performed is important to consider – the use of care management techniques to counter the cost pressures of parity may not be present in the same way that it was during the study period. If true this would support the notion that the parameter values in the study findings understate the cost increasing implications of HB4423. The survey conducted for this evaluation of HB4423 found that plans in Massachusetts already use the following techniques to control behavioral costs:

- Prior authorization

- Required treatment plan
- Concurrent review
- Retrospective claim reviews

In addition, some plans use closed or preferred provider panels, behavioral case management, and behavioral disease management programs. The FEHBP study indicates that for the association plans in the study, 50% added treatment plans, 31% added prior authorization, and 27% added preferred panels after parity was required. For the other plans in the study approximately 10% to 20% added these care management techniques. With these techniques already applied in Massachusetts in 2007 the potential counter-pressure may be smaller.

Another example from the research literature is a study performed assessing the implementation of parity in Vermont¹⁰. This study found that parity resulted in an increase in behavioral health costs from their pre-parity level of approximately 4%, or 0.06% of total premium at that time. This parity law was implemented in the late 1990s and the same comments made above about the relevance of the FEHBP results for 2008 and HB4423 are applicable to this study as well.

Actuarial studies are another source of potential information to be applied to the HB4423 analysis. The disadvantage of these studies is that they are prospective estimation exercises rather than retrospective analyses. However, the manner in which the assumptions used in these studies have changed over time is instructive and represents a type of professional meta-consensus about the impact of parity provisions. For example, despite scoring a mental health parity bill at 4% of total premium in 1996, the Congressional Budget Office's most recent scoring of comprehensive parity legislation indicated the bill would increase premiums for group health insurance by an average of about 0.4 percent before accounting for responses of health plans, employers, and workers. CBO expects that those behavioral responses would offset 60 percent of the potential impact of the bill on total health plan costs.¹¹ This implies a net impact factor of approximately 0.16 percent. A 2007 actuarial study on the effects of legislation proposing to expand California parity from biologically-based conditions only to comprehensive parity (AB423) in 2007 estimated a 0.16 percent increase in total health care expenditures attributable to the bill¹². A recent brief prepared by Milliman actuaries suggests that parity impacts are 0.6 percent of premium without any managed care response and 0.1 percent with a managed care response.¹³

¹⁰ Rosenbach, M., Lake, T., Young, C., et al. (2003). Effects of the Vermont Mental Health and Substance Abuse Parity Law. DHHS Pub. No. (SMA) 03-3822. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.

¹¹ U.S. Congressional Budget Office (2007). Cost Estimate: S.558 Mental Health Parity Act of 2007. Washington DC: Congressional Budget Office.

¹² California Health Benefits Review Program (2007). Analysis of Assembly Bill 423: Health Care Coverage: Mental Health Services. CHBRP 07-03.

¹³ Melek, S., The Mental Health Divide, Mending the Split Between Mind and Body, <http://www.milliman.com/perspective/articles/the-mental-health-divide-insight-11-01-07.php>

As with the retrospective research studies, in interpreting the applicability of these percentages to HB4423 we should take into account the extensive parity already in place in Massachusetts, the current modest substance abuse benefit in Massachusetts, and the degree to which Massachusetts health plans have unused “weapons” for reducing behavioral health costs.

Evaluating Parity Impact Factors

In evaluating the information from the research and actuarial studies, the factors for parity implementations that do not consider a managed care response were in the range of 0.4% to 0.6% of overall spending. These estimates were judged to be too high to be applicable to HB4423 for the following reasons:

- A complete lack of managed care response is not plausible. Particularly for non-biologically-based services, for which plans have relied on benefit limits to restrain excessive costs, it is assumed that strategies would be employed to manage utilization of these services if HB4423 were to pass.
- Significant portions of benefits typically affected by parity laws are already covered by Chapter 80 and so we would expect the impact to be smaller.

The same sources indicate that allowing for a care management response, the factors for parity implementation may be slightly above zero, or may be in the range of 0.1% to 0.16%. The lower of these estimates are assessed to be too low to be applicable to HB4423 for the following reasons:

- Outpatient substance abuse benefits in Massachusetts, at a \$500 per person cap, are below the pre-parity levels present in the other contexts in which parity was implemented and evaluated. We would therefore expect a larger response than has been measured in previous studies¹⁴.
- The managed care response for mental health benefits that contributed to the findings of studies for parity implementations 8-10 years ago may not be fully realizable in today’s climate in which the techniques that achieved these reductions have been applied at least in part by application to those benefits affected by Chapter 80.

The foregoing discussion asserts that factors near zero are likely to be too low and those in the range of 0.4% to 0.6% are likely to be too high. This would suggest that factors in the range of 0.1% to 0.3% are more likely.

In order to test the reasonableness of percent of premium factors in the 0.1% to 0.3% range, we can use them to calculate the implied behavioral health service spending increase and evaluate those figures. Exhibit 2 below presents the service cost implications of low-end, mid-range, and high-end cost impact factors of 0.1%, 0.2%, and 0.3%. These correspond to increased spending for behavioral health services of \$11 million, \$21 million, and \$32 million, respectively.

¹⁴ In some studies with a richer baseline substance abuse benefit, zero or even negative impacts have been found. Given the current benefit, such a response is judged to be highly unlikely.

Exhibit 2

Estimation of 2007 Spending for Behavioral Health Services Based on 0.1% and 0.3% Increases
Millions of Dollars

Service Category	Base Claims Cost*	Impact Factors			Implied Cost Increase		
		Low	Medium	High	Low	Medium	High
All	\$ 10,653.8	0.1%	0.2%	0.3%	\$ 10.7	\$ 21.3	\$ 32.0

*Based on an assumption that the average premium PMPM is \$434, including 12% administrative costs, and adjusted to all FI enrollees (2,324,624)

Before extrapolating this calculation to a 2008-2012 premium estimate, we can use other information as a way of testing the reasonableness of the 2007 service cost increases estimated in Exhibit 2. In the “Baseline Benefits and Costs” section above the estimated costs for fully insured behavioral health services in 2007 were presented, along with the following observations:

- The survey results indicate that the inpatient limits for mental health and substance abuse services have an immaterial effect;
- Parity already applies to biologically-based services for adults, which represent the great majority of adult service costs; and
- The survey also suggests that in practice limits for children’s services are generally not applied.

Exhibit 3 presents the health plan survey data that was presented in Exhibit 1 with the costs for the first two of the above three components removed, and the costs for children’s outpatient mental health services reduced by half to account for those plans that do not apply limits for medically necessary services to children.

Exhibit 3

Estimated Behavioral Health Claim Expenditures for Massachusetts Fully-Insured Under-65 Enrollees Affected by HB4423
Adjusted to Full FI Population Based on Calendar 2007 Claim Extracts From Plans Representing 85% of the Fully-Insured Market Segment

Costs in Millions of Dollars						
	Age of Recipient on DOS			All Adults	Overall Total	
	0-18	19-64				
Ave Enrollment	598,137	1,726,488		1,726,488	2,324,624	
	Bio Based?					
Service Category	All Children	Yes	No		Overall Total	
Inpatient MH		-	-	-	-	
Outpatient MH	\$ 20.7	-	\$ 38.5	\$ 38.5	\$ 59.1	
Intermediate MH	\$ 1.0	-	\$ 0.5	\$ 0.5	\$ 1.6	
Total Mental Health	\$ 21.7	\$ -	\$ 39.0	\$ 39.0	\$ 60.7	
Inpatient SA	-	-	-	-	-	
Outpatient SA	\$ 0.4	\$ 1.2	\$ 5.0	\$ 6.2	\$ 6.6	
Intermediate SA	\$ 0.2	\$ 0.8	\$ 1.9	\$ 2.7	\$ 2.9	
Total Substance Abuse	\$ 0.6	\$ 1.9	\$ 6.9	\$ 8.9	\$ 9.5	
Total	\$ 22.3	\$ 1.9	\$ 45.9	\$ 47.9	\$ 70.2	

The costs in Exhibit 3 are for conditions that would have new, less restrictive benefit limits as a result of HB4423, and consist largely of substance abuse treatment costs and non-inpatient services for non-biologically-based conditions for adults. What growth factors, applied to these specific remaining cost components, produce service cost growth similar to that in Exhibit 2, the calculation of which relied on mandate impact factors of 0.1%, 0.2%, and 0.3% of healthcare premiums?

Exhibit 4 provides one answer to this question and contains three scenarios with factors applied to the costs from the Exhibit 3 above.

Exhibit 4

Estimation of 2007 HB4423 Mandate Impact Using Specific Impacted Services as the Base Spending
Millions of Dollars

Service Category	Base Claims Cost*	Impact Factors			Implied Cost Increase		
		Low	Medium	High	Low	Medium	High
Inpatient MH					\$ -	\$ -	\$ -
Non-Inpatient MH	\$ 60.7	10.0%	20.0%	30.0%	\$ 6.1	\$ 12.1	\$ 18.2
Inpatient SA					\$ -	\$ -	\$ -
Non-Inpatient SA	\$ 9.5	50.0%	100.0%	150.0%	\$ 4.7	\$ 9.5	\$ 14.2
Total	\$ 70.2	15.4%	30.8%	46.2%	\$ 10.8	\$ 21.6	\$ 32.4

*Includes costs associated with non-biological mental health conditions for adults and substance abuse costs for children and adults

The set of assumptions that produced the results in Exhibit 4 are: Non-inpatient mental health services (outpatient and intermediate services) for adults with non-biologically-based conditions increase by between 10% and 30%, the same percentages applied to children’s outpatient services, and outpatient substance abuse treatment costs increase by between 50% and 150% (starting from the current low base of \$9.5 million dollars stemming from the \$500 per person cap). We can see in Exhibit 4 that assuming these increases in the affected components of behavioral health spending produces estimated claims cost impacts of \$11, \$22, and \$32 million. This is very similar to the \$11 million, \$21 million, and \$32 million claims cost impact shown in Exhibit 2. So the behavioral health service spending that would result from the mandate impact parameters of 0.1% to 0.3% are consistent with service growth in the specific components of service affected by HB4423 as shown in Exhibit 4. It would reassure us about the percent of premium-based estimates if the service-specific growth displayed in Exhibit 4 makes sense as a response to the loosened benefit restrictions.

Do the service-specific growth percentages in Exhibit 4 reflect a reasonable range of estimates of the impact of applying parity to these components? Analysis of substance abuse claim data from regions with rich substance abuse benefits suggests that between half and two thirds of spending on outpatient substance abuse would stem from spending over the \$500 limit. This would suggest that the growth factors in Exhibit 4 for outpatient substance abuse are reasonable. Similarly, the spending for outpatient services displayed in Exhibit 4 (those services not covered by Chapter 80s provisions) allows for between 10% and 30% overall growth to allow additional coverage for the relatively small number of individuals that are currently restricted by the 24 visit maximum. For example, the survey results indicated that there are 3000 adults out of approximately 1.7 million fully insured adults that hit the outpatient visit limit for conditions not covered by Chapter 80’s provisions. For those individuals, the spending in the Exhibit would on average pay for two to three times more care than under current coverage, depending on the scenario.

The discussion related to Exhibits 3 and 4 provides additional evidence that HB4423 spending impact estimates based on the percent of premium calculations using parameter values from 0.1% to 0.3% are reasonable.

Administrative Costs

In addition to the incremental medical care costs previously discussed, the overall impact of a mandate on the costs of health insurance in the Commonwealth consists of two other components:

- 1.) Incremental Administrative Expenses
- 2.) Incremental Margins

Incremental administrative expenses would be incurred for activities associated with the implementation of the mandate such as modifications to benefit plan materials, claims processing system changes, training/communication material for staff, etc. These costs would be non-zero but less than the administrative costs of an average benefit.

Incremental margin is required in order for the insurer to maintain adequate reserve levels as required by the Massachusetts Division of Insurance. Required reserves are based on the claim levels for the insurer, and since the mandate would increase claim levels, it would increase required reserve levels and therefore incrementally increase the total dollars of margin required to meet those reserve levels.

Data provided by the Division from its Key Indicators report¹⁵ indicate that administrative costs plus margin are currently approximately 12% on average. For the purposes of this analysis, we assume that incremental administrative costs and margin are equal to their current average level, which allows for any extraordinary expenses and provides a conservatively high estimate of any additional administrative requirements.

Results

Estimated impacts of HB4423 on Massachusetts healthcare premiums for fully-insured products are calculated as follows:

1. Based on data from the Division's Key Indicators report, we assumed that the 2007 premium for fully insured business is \$434¹⁶
2. We applied the previously discussed percent of premium factors of 0.1%, 0.2%, and 0.3%, producing estimated impacts on the premium of \$0.43, \$0.87, and \$1.30 PMPM.
3. The PMPM impacts, which consist of behavioral health costs, are trended forward to 2008 through 2012 by applying the historical growth rate in behavioral healthcare costs. The historical growth in behavioral health trend according to a

¹⁵ http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/08/key_indicators_0608.pdf

¹⁶ Ibid

recent CMS study is 6.7%, which is below the 8% average trend in general medical care spending.¹⁷ We have assumed 6.5% annual growth to trend the PMPMs, as the per-person spending would be slightly less than the aggregate trend due to population growth.

4. The trended PMPMs are multiplied by the fully-insured population projection for the corresponding year to arrive at estimated annual impact dollars.

The five-year impact results are displayed in Exhibit 5. The low, medium, and high scenarios correspond to the percent of premium assumptions of 0.1%, 0.2%, and 0.3%. In 2008, these scenarios result in estimated increased total spending of \$12.9 million, \$25.8 million, and \$38.8 million respectively.

Exhibit 5

Estimated Cost Impact of HB4423 on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims	1.065					
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>All 5 Years</u>
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085	
Low Scenario						
Annual Impact Claims (000,000s)	\$ 11.4	\$ 12.1	\$ 13.0	\$ 13.9	\$ 14.8	\$ 65.2
Annual Impact Administration (000,000s)	\$ 1.6	\$ 1.7	\$ 1.8	\$ 1.9	\$ 2.0	\$ 8.9
Annual Impact Total (000,000s)	\$ 12.9	\$ 13.8	\$ 14.7	\$ 15.8	\$ 16.8	\$ 74.0
Premium Impact (PMPM)	\$ 0.46	\$ 0.49	\$ 0.52	\$ 0.56	\$ 0.59	\$ 0.53
Mid Scenario						
Annual Impact Claims (000,000s)	\$ 22.7	\$ 24.2	\$ 26.0	\$ 27.8	\$ 29.6	\$ 130.3
Annual Impact Administration (000,000s)	\$ 3.1	\$ 3.3	\$ 3.5	\$ 3.8	\$ 4.0	\$ 17.8
Annual Impact Total (000,000s)	\$ 25.8	\$ 27.5	\$ 29.5	\$ 31.6	\$ 33.7	\$ 148.1
Premium Impact (PMPM)	\$ 0.92	\$ 0.98	\$ 1.05	\$ 1.12	\$ 1.19	\$ 1.05
High Scenario						
Annual Impact Claims (000,000s)	\$ 34.1	\$ 36.3	\$ 38.9	\$ 41.7	\$ 44.4	\$ 195.5
Annual Impact Administration (000,000s)	\$ 4.7	\$ 5.0	\$ 5.3	\$ 5.7	\$ 6.1	\$ 26.7
Annual Impact Total (000,000s)	\$ 38.8	\$ 41.3	\$ 44.2	\$ 47.4	\$ 50.5	\$ 222.1
Premium Impact (PMPM)	\$ 1.39	\$ 1.48	\$ 1.57	\$ 1.67	\$ 1.78	\$ 1.58

The primary source of uncertainty related to these estimates is the degree to which care management can be used to offset the cost increasing effects of eliminating the benefit limits for non-biologically-based mental health services for adults and for substance abuse services for all ages. This source of uncertainty was addressed by bracketing a reasonable range for the percent of premium assumption to produce the low, medium, and high scenarios presented in Exhibit 5 above.

¹⁷ Mark, T.L., Levit, K.R., et. al. Mental Health Treatment Expenditure Trends, 1986-2003. (2007) Psychiatric Services 58:1041-1048.