Commonwealth of Massachusetts
Mandated Benefits Review

Review and Evaluation of Legislation Related to
Eating Disorders
House Bill No. 3024

Provided for:
The Joint Committee on Financial Services

October 29, 2007

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EXECUTIVE SUMMARY

This report was prepared by the Division of Health Care Finance and Policy (Division) pursuant to the provisions of M.G.L. c. 3, § 38C, which requires the Division to evaluate the impact of mandated benefit bills referred by legislative committee for review, and to report to the referring committee. The Joint Committee on Financial Services referred proposed House Bill 3024, named, *"An Act for Certain Health Care Insurance Coverage,"* to the Division of Health Care Finance and Policy for a review and evaluation on January 23, 2006. The bill would add "eating disorders" to the current list of nine biologically-based mental disorders for which insurers may not impose dollar and service limitations. The bill's lead sponsor is Representative Kay Khan. The Division interviewed insurers and providers in conducting its evaluation, and engaged Compass Health Incorporated to conduct an actuarial analysis.

The Division has determined that enactment of H. 3024 is not likely to result in an immediate or substantial increase in expenditures for the treatment of eating disorders. Under the current system, adult patients being treated for eating disorders seldom exhaust the current benefit levels mandated by statute. The Division believes that while the bill would ostensibly create unlimited mental health benefits for eating disorders, it may have minimal impact on the eating disorder treatment services authorized by Massachusetts insurers.

INTRODUCTION

The Mental Health Parity Law

The Massachusetts Mental Health Parity Act[*] was enacted in 2000. Among other things, 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 such mental health services. The mental health services subject to the "non-discrimination" requirement include

> (1) nine "biologically based" mental disorders specified by statute; [†]
> (2) for children and adolescents under 19, non-biologically based conditions that substantially interfere with social interactions, psychopharmacological services and neuropsychological assessment services.

For other mental health diagnoses, health plans must provide medically necessary coverage up to 60 days of inpatient treatment, 24 outpatient visits, and must cover a range of inpatient, intermediate, and outpatient services that permits medically necessary care to take place in the least restrictive setting.

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[*] Chapter 80 of the Acts of 2000.

[†] The law designates nine mental disorders as biologically based. 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.

Summary of the Legislation

As noted above, eating disorders are currently classified as a "non-biologically based" mental health disorder under the Mental Health Parity law. H 3024 would add eating disorders to the list of biologically based mental heath disorders for which insurers may not impose any dollar or service limitations. Current law requires coverage of "non-biologically based" mental health disorders of at least 60 days per year of inpatient care and a minimum of twenty four mental health outpatient visits per year. If the bill were enacted, insurers could not limit treatment of adults for eating disorders to 60 days of inpatient treatment or 24 outpatient treatments per year.

BACKGROUND

Definition of Eating Disorders

Psychiatric diagnoses are categorized by the *Diagnostic and Statistical Manual of Mental Disorders,* often known as the DSM-IV. According to this manual, there are three diagnoses that comprise the "eating disorder" category: Anorexia Nervosa, Bulimia Nervosa and Eating Disorders Not Otherwise Specified including Binge Eating Disorders. The following are brief descriptions developed by the University of North Carolina (UNC) of the three diagnoses. The UNC analysis was funded by the federal Agency on Healthcare Research and Quality.

> Anorexia nervosa (AN): a serious psychiatric illness marked by an inability to maintain a normal health body weight, often dropping well below 85% of ideal body weight. Patients who are still growing fail to make expected increases in weight (and often height) and bone density. Despite increasing weight loss, an individual with AN continue to obsess about weight, remain dissatisfied with the perceived size of the bodies, and engage an array of unhealthy behaviors to perpetuate weight loss (e.g. purging, dieting, excessive exercise, fasting).[1]
>
> Bulimia nervosa (BN): recurrent episodes of binge eating in combination with some form of inappropriate compensatory behavior. Binge eating is the consumption of an abnormally large amount of food coupled with a feeling of being out of control Compensatory behaviors (aimed at preventing weight gain) include self-induced vomiting: the misuse of laxatives, diuretics, or other agents: fasting: and excessive exercise.[2]
>
> Eating disorders not otherwise specified (EDNOS) include Binge Eating Disorder (BED) and five other disorders that do not meet criteria for AN or BN. BED is characterized by eating much larger amounts of food than most people would eat within a certain amount of time and a sense of lack of control over eating during episodes of overeating.[3]

Prevalence of Eating Disorders

The lifetime risk for Anorexia Nervosa among women is estimated at 0.3% to 1.0% and 0.1% for men.[4] Bulimia Nervosa is estimated to be present in 1% of women and 0.1% of men[5]. Binge Eating Disorder has been estimated by several researchers to be present in 0.7% to 3% of

individuals.[6,7,8,9] Eating disorders are commonly accompanied by other mental health diagnoses such as major depression and anxiety disorders.[10]

Medical Efficacy of Treatment

In April, 2006, the University of North Carolina at Chapel Hill Evidence-Based Practice Center published a technology assessment on the management of eating disorders. The study was funded by the US Department of Health and Human Services and concluded that the research on treatment efficacy and outcomes for Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorder is not rigorous enough to establish how to best treat these conditions. The report notes that "(i)n the treatment literature, the largest deficiency rests with treatment efficacy for Anorexia Nervosa where the literature was weakest." In spite of the dearth of high quality research on effectiveness of various treatments, the provider community generally agrees on the course of treatment for eating disorder patients (see the next section, "Current Treatment Protocols for Eating Disorders").

Full recovery is estimated in 50 to 70% of adolescent patients[11] and 25 to 50% of adult patients[12] who have been hospitalized. Patients who do not recover suffer from long-term complications including weakened bones and excess bone fractures, low birth weight babies and death.[13] Death occurs from suicide,[14] medical complications associated with starvation, and purging related heart arrhythmias.[15]

Current Treatment Protocols and Treatment Issues

Although eating disorders are regarded as mental health diagnoses, treatment often requires both medical and behavioral care. Medical care is necessary for a patient whose body weight is so low that he or she requires a medical intervention to prevent and/or reverse physical harm from dangerously low weight. Behavioral treatments following the inpatient stay, however, are regarded as mental health treatment and are subject to the limits permitted by the statute. Eating disorders are often accompanied by at least one of nine "biologically-based" mental health diagnoses. As a result, treatment for people with an eating disorder who are also being treated for any of the nine biologically-based mental health diagnoses cannot be limited to the mental health minimum benefit of 60 inpatient days and 24 outpatient visits

Inpatient treatment for the medical effects of starvation is covered under the patient's medical, not mental health, benefit. Accordingly, there are no treatment limits for the medical conditions that result from eating disorders, including starvation and low body weight. Behavioral treatments address the behaviors that result in too little body mass, including restriction of calories, purging, use of diuretics, and excessive exercise. There are generally three criteria for determining whether a treatment is medical or behavioral. The three criteria, in order of importance, are:

- Where is the patient being treated – in and acute or psychiatric hospital? If in an acute hospital, on a medical-surgical or psychiatric unit?
- Who the primary treating clinician is – e.g. a psychiatrist or other physician?
- What is the primary diagnosis – a mental health or medical condition?

As noted above, health plans generally authorize the least intensive setting appropriate for a patient before authorizing a more intensive setting for treatment. As a result, an insurer may authorize day treatment, residential or inpatient care only if the patient does not respond to outpatient care. In authorizing care for eating disorder patients, insurers are less influenced by legal benefit limits than by the determination of the appropriate setting. In other words, a health plan is more likely to deny inpatient care for the behavioral treatment of a patient with an eating disorder on the basis that outpatient care is more appropriate than inpatient care, rather than because the inpatient benefit has been exhausted.

While healthcare providers generally agree that treatment should be provided in the least intensive setting that is appropriate, they are more likely to regard more intensive settings as more appropriate for a larger number of patients than insurance companies. In interviews, providers complained about the insurers' reluctance to authorize intensive treatment and the dearth of intensive treatment programs. In addition, providers cited the insurers' use of "percent of ideal body weight" as the sole or over-riding criteria to determine appropriateness of inpatient or residential care.[16,17] Providers, on the other hand, tended to regard patients' ability or inability to regulate their food intake with the absence of supervision, as the criteria to determine the appropriate level of treatment. According to providers, residential programs may be appropriate for patients who are close to or even at their ideal body weight but still need constant supervision in order to maintain their weight. Providers contend that patients of residential programs should be transferred to day treatment programs only after they have demonstrated an ability to eat and keep down their food with less supervision. Patients are ready for outpatient care when they need less supervision than that provided in intensive day treatment programs.

As part of its review, the Division obtained data from the Office of Patient Protection concerning patient appeals of treatment denials. Patients may appeal to the Office of Patient Protection, within the Department of Public Health, for reasons of medical necessity when an insurer denies treatment benefits. This independent external review process is available to individuals who are covered by a fully insured Massachusetts health plan. Based on discussions with the Office, appeals brought by patients generally concern the level of care approved by insurers, rather than exhaustion of benefit limits. Eating disorder patients primarily appeal the insurers' denials of requests for residential treatment or inpatient care and approval is often given only for care in an outpatient setting. The Office of Patient Protection reports that nine patients, with eating disorders, filed appeals with the Office in 2006. Of the nine, five of the appeals were overturned. Additional appeals were filed in that year - although the patient's eating disorder was not the primary diagnosis.[18]

Experience of Other States

Thirty eight states, including Massachusetts, have enacted laws that create some level of parity between mental and physical illnesses. Data shows that these states experienced only small changes in utilization or costs for treating eating disorders.[19,20,21] Ten states have legislation mandating health insurance coverage of people with eating disorders: California, Connecticut, Delaware, Maine, Maryland, Minnesota, North Dakota, Vermont, Washington and West Virginia.[22] Although rules about the treatment of eating disorders vary by state, there is generally more variation of treatment options based upon the person's specific insurance policy rather than laws governing treatments.[23,24] More than one respondent reported that two patients with the same diagnosis and care needs and who have the same insurance carrier may receive

authorizations for different care based upon differences in their health insurance policies. Although the U.S. Substance Abuse and Mental Health Services Administration conducted an analysis of the effects of Vermont's parity legislation, the analysis did not break down before and after costs for eating disorders. Mental health and substance abuse service costs increased (for Blue Cross and Blue Shield of VT) $0.19 per member per month. The state of Maine estimated that creating full parity for eating disorders had a minimal affect on total mental health expenditures. [25]

Minnesota passed a parity law in the 1990s that established equal treatment for mental and physical conditions regardless of the specific mental condition. Two Minnesota insurers estimated that costs did not rise or rise appreciably following passage of its full mental health parity law in the 1990s.[26, 27] Insurers in Minnesota were not allowed to limit mental health inpatient days so it was not possible for a patient to exhaust the mental health inpatient benefit.[28, 29] Despite the fact that unlimited benefits were covered, the report found that inpatient care tended to be refused on the basis that treatment should be provided in the "least restrictive setting."

Minnesota insurers did not routinely authorize inpatient care or residential treatment for eating disorder patients unless it was for the purpose of re-establishing a patient's body weight.[30,31] Utilization of inpatient care and residential treatment for eating disorders did increase, however, following a lawsuit filed by the Minnesota Attorney General in 2000 against Blue Cross of Minnesota, following the death of an eating disorder patient whose request for inpatient care had been denied. Blue Cross of Minnesota settled with the Minnesota Attorney General in 2001. Blue Cross of Minnesota agreed to abide by the decision of an independent three person board established to review Blue Cross of Minnesota denials of provider treatment plans for certain mental health (including eating disorders) and substance abuse conditions. Since then, Blue Cross of Minnesota, and even other Minnesota insurers that were not bound to the Blue Cross of Minnesota agreement, have been less resistant to providers that seek authorization for residential care and intensive day treatment of eating disorder patients. Increased utilization of comprehensive behavioral treatments has been attributed to Blue Cross of Minnesota newly refocused criteria for ruling on providers' request for care. Since being formed, the three member board has not reviewed or overturned a substantial number of denials because providers generally receive authorization for the care they request.[32,33,34] Data about how much costs have increased are not available at this time.

Fiscal Impact of Bill

M.G.L. c. 3, § 38C (d) requires the Division to assess eight different measures in estimating the fiscal impact of a mandated benefit:

(1) the financial impact of mandating the benefit, including the extent to which the proposed insurance coverage would increase or decrease the cost of the treatment or the service over the next 5 years,
(2) the extent to which the proposed coverage might increase the appropriate or inappropriate use of the treatment or service over the next five years,
(3) the extent to which the mandated treatment or services might serve as an alternative or more expensive or less expensive treatment or service,

(4) the extent to which the insurance coverage may affect the number or types of providers of the mandated treatment or service over the next 5 years,
(5) the effects of mandating the benefit on the cost of health care, particularly the premium, administrative expenses and indirect costs of large employers , small employers, employees and nongroup purchasers,
(6) the effect of the proposed mandate on cost shifting between private and public payors of health care coverage,
(7) the cost to health care consumers of not mandating the benefit in terms of out of pocket costs for treatment or delayed treatment; and
(8) the effect on the overall cost of the health care delivery system in the commonwealth.

The statute also requires the Division to assess the medical efficacy of mandating the benefit, including the impact of the benefit to 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.

The Division engaged an actuarial firm, Compass Health Incorporated (Compass), to estimate the financial effect of passage of H. 3024. In its analysis, Compass compared the current cost for the treatment of children with eating disorders, which is not constrained by benefit limitation, to the cost of treating the population older than 18. This cost comparison assumes that the current treatment standard for children would become the standard for treating the over 18 population if eating disorders were defined as a "biologically based" mental health diagnosis not subject to benefit limitations.[35] Based on the current data showing that the medical necessity standard, rather than current benefit limits, determines the insurer's treatment for eating disorders, the actuary's fiscal impact estimate should be regarded as the maximum possible, but not the most probable, fiscal impact of the bill. It is not clear to what extent the assumption that insurers would change the current treatment standards for adults with eating disorders simply because of an elimination of benefit limitations would be borne out, especially since the mental health parity law not only imposes no benefit limitations for treatment of children with eating disorders, but also requires children's coverage for non-biologically based conditions that "substantially interfere" with social interactions.

FINANCIAL IMPACT OF MANDATE

DHCFP is required by M.G.L. c. 3, § 38C (d)(1) to evaluate the fiscal impact of proposed mandated benefits in nine specific areas:

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

As noted above, the Division's actuary, Compass, estimated the maximum possible fiscal impact of the bill. The Compass analysis assumed that under the proposed mandate, the cost per-person treated per-year in the over 19 group would rise to the level of the cost per-person treated per-year in the under 19 group. Clinical experts indicated that treatment protocols are similar for each group.

Based on this assumption, Compass staff estimated costs over a five year time period. A summary of these estimates appears in Exhibit E1. The column on the far right reflects the mean annual premium change over 5 years and the total dollar impact on monthly premiums. Over the five years, the total cost is estimated to be $60.4 million which is $0.33 PMPM or approximately 0.09% of the total premium.

Exhibit E1
Summary of Cost Impact of Eating Disorders Mandate

	2008	2009	2010	2011	2012	5-Year
Total Impact (000)	$ 9,380	$ 9,859	$ 10,364	$ 10,894	$ 51,948	$ 60,405
Total Monthly Premium Impact	$ 0.30	$ 0.32	$ 0.33	$ 0.35	$ 0.37	$ 0.33
Percent of Premium	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%

Sample Results

An analysis of a sample of 2005 services provided to eating disorder patients with eating disorders appears in Exhibit II. The sample data provides information on 4,682 users of service of which 1,290 were under 19 years of age, and 3,392 were 19 and older. Consistent with the difference in benefits available to the under 19 and over 19 groups, the annual cost per user was $2,965 for the under 19 group, and $1,418 for those over 19. The difference in annual costs per user, $1,548 was assumed to be due to the unlimited benefit available to those under 19.

Exhibit II
Statistics on Costs for Eating Disorders Services
Service Use and Payment from Sampled Health Plans
2005 Dates of Service

Users	Average Enrollment	Users of Service	Payments	Cost per User	PMPM
Total	1,958,130	4,682	$ 8,633,465	$ 1,844	$ 0.37
Under 19	469,951	1,290	$ 3,825,012	$ 2,965	$ 0.68
19 and Over	1,488,178	3,392	$ 4,808,453	$ 1,418	$ 0.27
Difference				$ 1,548	$ 0.41

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 eating disorders were added to the list of biologically-based disorders, insurers would no longer be allowed to limit outpatient care to a minimum of 24 outpatient visits or inpatient care to 60 days. Providers who believe their patients would be better served in a more comprehensive and intensive care setting, might request their patients receive care in residential care facilities, acute care hospitals, or undergo intensive day treatment. 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.

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

There is no data available that would permit the Division to quantify the extent to which the mandated treatment might serve as an alternative for more expensive or less expensive treatments. As noted above, should additional treatment facilities become available, costs may in fact increase. However, one could expect that insurers may initially approve care in less expensive outpatient settings, if medically appropriate, prior to approving care in more acute and comprehensive settings.

4. The Division is required to assess the extent to which the insurance coverage might affect the number and 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 may result in establishment of additional inpatient or residential treatment facilities. Should H. 3024 become law, providers may determine that demand for additional residential treatment centers may increase and it is possible that additional treatment facilities could be established to provide this specialized care.

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.

Exhibit III provides information on the impact of the mandate on premiums including its effect on administrative expenses. If eating disorders were determined to be biologically based and the 19 and older population could have benefited by this mandate, it is estimated that an additional $6.1 million would have been paid by insurers to fully-cover these individuals in 2005. (The $1,548 difference in cost per user in the sample, multiplied by the 3,392 users aged 19 and older resulted in an estimate of $5.2 million in increased medical costs in 2005. When administrative expenses are included, the total dollar impact increased to $6.1 million.) When these costs are adjusted for inflation, these costs are projected to be $10.9 million in 2008 which is $0.30 PMPM or approximately 0.09% of the total premium.

Over the five years 2008-2012, the total cost is estimated at $60.4 million. The per member per month cost for all eating disorders services was $0.37 with the PMPM cost increasing by $0.33 on average over the five years (see Exhibit E1). While the costs incurred by insured members as a result of mandating this benefit may seem to be negligible, opponents of mandated benefits are generally concerned with the increase in total costs (of all mandated benefits) to insured members.

Exhibit III
Estimated Impact of Eating Disorders Mandate
Service Use and Payment from Sampled Health Plans

	2005 Sample	Full Population	2008	2009	2010	2011	2012	5 Year
Per Patient Impact	$ 1,548	$ 1,548	1,791	1,881	1,975	2,074	2,178	
Monthly Premium Impact - Claims	$ 0.22	$ 0.22	$ 0.26	$ 0.27	$ 0.29	$ 0.30	$ 0.31	
Administration Premium Impact	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.05	$ 0.05	$ 0.05	
Total Monthly Premium Impact	$ 0.26	$ 0.26	$ 0.30	$ 0.32	$ 0.33	$ 0.35	$ 0.37	
Percent of Premium	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	
Dollar Impact - Claims (000)	$ 5,249	$ 8,076	9,380	9,859	10,364	10,894	11,451	$ 51,948
Administration (000)	$ 855	$ 1,315	$ 1,527	$ 1,605	$ 1,687	$ 1,773	$ 1,864	$ 8,457
Total Impact (000)	$ 6,104	$ 9,390	$ 10,907	$ 11,464	$ 12,051	$ 12,667	$ 13,315	$ 60,405

Since the majority of large employers are self-insured, this mandate could disproportionately affect small employers. However, there are some large employers who voluntarily abide by state mandates and may choose to offer this expanded benefit.

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

Some clinicians argue that early treatment, using a multidisciplinary approach, offers many patients the best opportunity to improve and many to recover. Insured employees who currently have paid for acute residential treatment out of pocket, for they or their family members, could possibly experience some savings should their insurer offer more intensive treatment options. However, premiums could rise to account for an increase in these services.

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 only applies to commercial insurers, HMOs and BCBS and the Group Insurance Commission. It is not expected that this would result in any cost shifting between public and private payers.

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.

In some instances, families report that they resort to using all their savings, including mortgaging their homes, in order to pay for residential care for their family member. Some clinicians argue that the provision of a comprehensive coordinated treatment plan early on in the patient's care contributes to chances for a successful long-term recovery. Should H. 3024 become law, patients may be afforded more comprehensive care in alternative settings. One might expect that insurers would still require providers first try less-intensive outpatient treatment options before authorizing more intensive therapy.

It is difficult to characterize the protocols used by all insurers to determine whether treatments will be available to patients as it often depends on a particular insurance product. Insurers offer many different products. Even within a particular product line offered by an insurer, an employer may opt for an option that covers acute residential while another employer may not choose to offer that option.

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

Classifying eating disorders under the category of biologically-based illnesses could result in some increase in overall health care delivery system costs especially in the absence of an annual or lifetime dollar or unit of service limit. However, while the goal of this legislation maybe to offer more intensive care without service limits, the care may still not be offered based on the "least restrictive setting" provision applied by insurers.

ENDNOTES

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[18] Personal communication in March 2007 with Karen Granoff, Office of Patient Protection.
[19] A Snapshot of the Implementation of California's Mental Health Parity Law, Mathematica Policy Research, Inc. March 2002,
[20] A Report to the Joint Standing Committee on Insurance and Financial Services of the 122nd Maine Legislature, Maine Bureau of Insurance, January, 2006
[21] Personal Communication in July, 2006 with Judith Walker, General Counsel of Blue Cross of Minnesota.
[22] National Eating Disorders Association Web-site: http://www.nationaleatingdisorders.org/p.asp?WebPage_ID=842

[23] Personal Communication in June, 2006 with Patricia Tarbox, Director of Eating Disorder Clinic, McLean Hospital, Belmont, MA.
[21] Personal Communication in July 2006 with Matt Eastwood, Director of Behavioral Health of Blue Cross of Minnesota
[25] Written communication in March, 2006 with Mary Hooper, Actuarial Assistant, Maine Bureau of Insurance.
[26] Personal Communication in July, 2006 with Matt Eastwood, Director of Behavioral Health of Blue Cross of Minnesota
[27] Personal Communication in August, 2006 Laurie Penning from Medica Health Plan, MN
[28] Personal communication in June, 2006 with Judith Walker, General Counsel of Blue Cross of Minnesota.
[29] Personal communication in June, 2006 with Matt Eastwood, Director of Behavioral Health of Blue Cross of Minnesota.
[30] Ibid.
[31] Personal Communication in June, 2006 with Judith Walker, General Counsel of Blue Cross of Minnesota.
[32] Ibid
[33] Personal Communication in July 2006 with Matt Eastwood, Director of Behavioral Health of Blue Cross of Minnesota.
[34] Personal Communication in June 2006 with Mike Vaneelow, Minnesota Attorney General's Office.
[35] Personal Communication in July, 2006 with Mark Santello, Associate Psychologist, McLean Hospital, Belmont, MA

APPENDICES

Appendix: I Actuarial Assessment – Compass Healthcare Inc.

Actuarial Assessment of Massachusetts House Bill No. 3024
Defining Eating Disorders as Biologically-Based Illnesses

Prepared for

Division of Health Care Finance and Policy
Commonwealth of Massachusetts

Prepared by

Compass Health Analytics, Inc.

Actuarial Assessment of Massachusetts House Bill No. 3024
Defining Eating Disorders as Biologically-Based Illnesses

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Actuarial Assessment of Massachusetts House Bill No. 3024
Defining Eating Disorders as Biologically-Based Illnesses

Executive Summary

Massachusetts House Bill No. 3024 would require insurers to include eating disorders in the list of conditions that are considered biologically-based illnesses for purposes of their inclusion under the Mental Health services mandate applicable under current Massachusetts law. Compass Health Analytics, Inc. ("Compass") was engaged by the Commonwealth's Division of Health Care Finance and Policy ("the Division") to develop an actuarial assessment of the likely increased healthcare costs resulting from the proposed mandate over the next five years. The results are based on analysis using data provided by the Division to Compass.

Currently, Massachusetts law contains a mandate for mental health services, which includes a list of conditions considered for purposes of that law to be biologically-based. The mental health mandate requires coverage of the diagnosis and treatment of biologically-based conditions for all age groups. Children under 19 years of age are covered for non-biologically-based disorders if the disorder is documented as serious or evidenced by conduct with consequences like missing school, needing hospitalization, or posing a danger to self or others. HB 3024 would make the required benefit for those 19 and over on par with the benefit that currently applies for those under 19.

Costs for the proposed mandate were calculated by using a health care claims extract summary to identify costs for eating disorder-related services. The per-person per-year costs for individuals using these services for both the under-19 group and the 19 and over group were computed from these data. It was assumed that under the proposed mandate, paid claim cost per person treated per year in the 19 and over group would rise to the level of the paid claim cost per person treated per year in the under-19 group. The assumption that treatment requirements would be similar in the two groups was validated with input from clinical experts.

Using this approach, Compass has estimated costs over a five year time frame. A summary of these estimates appears in Exhibit E1. The rightmost column shows the mean annual premium change over the 5 years and the total dollar impact. Health reform-related enrollment increases could increase the dollar impact by up to 23%.

Exhibit E1
Summary of Cost Impact of Eating Disorders Mandate

	2008	2009	2010	2011	2012	5-Year
Total Impact (000)	$ 9,380	$ 9,859	$ 10,364	$ 10,894	$ 11,451	$ 60,405
Total Monthly Premium Impact	$ 0.30	$ 0.32	$ 0.33	$ 0.35	$ 0.37	$ 0.33
Percent of Premium	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%

Proposed Legal Requirement

Currently, Massachusetts law contains a mandate for mental health services, which includes a list of conditions considered for purposes of that law to be biologically-based (MGL, c. 175 § 47B, c. 176A § 8A, c. 176B § 4A, c. 176G § 4M). The mental health mandate requires coverage of the diagnosis and treatment of biologically-based conditions for all age groups. Children under 19 are covered for non-biologically-based disorders if the disorder is documented as serious or evidenced by conduct with consequences like missing school, needing hospitalization, or posing a danger to the self or others. The proposed mandate, HB 3024, would make the required benefit for those 19 and over on par with the benefit that currently applies for those under 19. The relevant insured population consists of commercially fully-insured individuals less than 65 years of age, including those in both employer-sponsored plans and direct-purchase (i.e., non-group) policies.

Description of Impact Calculation

Four Massachusetts health plans provided a claim extract summary with service dates in calendar 2005 of eating disorders service data from their fully insured, under-65 population. A careful quality control process was performed on the claim extracts to ensure compliance with the specification provided to the plans, and consistency of the results across plans. Data from one plan were excluded due to data quality problems, leaving a sample representing almost 2 million members in Massachusetts, or approximately two thirds of the applicable population of individuals under 65 covered by fully-insured commercial products.

The primary strategy for the analysis was to estimate the average cost per person treated for those under 19 and compare it to the same measure for those 19 and over.[1] The difference between the average cost per person treated is then multiplied by the number of people 19 and over receiving treatment to arrive at the total estimated claims cost in absolute dollars in the sample. This figure was divided by the total member months in the sample to arrive at a per member per month (PMPM) estimate. The PMPM number was assumed to be representative of the overall fully-insured under-65 population, and was multiplied times the overall fully-insured, under-65 membership in the Commonwealth to arrive at base-year (2005) total claim dollar estimates, which were then trended forward at a 5% annual rate, and adjusted for population growth, through 2012.

In addition to the incremental medical care costs calculated, the overall impact of a mandate on the costs of health insurance in the Commonwealth includes two other components: Incremental administrative expenses and incremental margins.

[1] Since the relevant population is under age 65, "19 and over" refers to individuals between the ages of 19 and 64.

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.

Incremental margin is required 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. Based on a review of published financial statements and other available information, we have assumed that administrative costs and profit margin constitute 14% of the total premium.

Discussion of Major Assumptions

Below we describe in more detail the major assumption made in the calculations.

Insured Population

Compass developed population projections for this analysis, estimating the commercially fully-insured individuals in Massachusetts under 65 years of age. Exhibit I displays the estimates. Appendix A contains a detailed description of the sources and calculations used for the population estimates.

Exhibit I
Fully-Insured, Under-65 Population Projections
2008-2012

	2008	2009	2010	2011	2012
Employer Fully Insured	2,764,106	2,769,203	2,773,657	2,777,261	2,780,663
Direct (Individual)	246,213	246,716	245,506	243,584	242,669
Total	3,010,318	3,015,919	3,019,163	3,020,845	3,023,332

Definition of Eating Disorders

For purposes of this study, eating disorders were defined as services with a diagnosis of Anorexia or Bulimia. All claim records with one of these diagnoses in the first five diagnosis fields on the claim were included.

Intensity of Care in Those Above and Below Age 19

The results of this study are based on the assumption that the care requirements for individuals aged 19 and older are similar to those for individuals under 19 years of age. Specifically, we assume that the difference in cost per-person treated between these two groups is explained by the current difference in benefits that are available to the two groups, which in turn assumes that the average "intensity" and care requirements of cases in the two groups are similar.

This assumption was discussed with several clinical experts, including the director of an eating disorders program at a major tertiary psychiatric medical center, and a psychiatrist specializing in eating disorders. It was agreed by all that there is no reason to assume that the clinical care required, on average, differs between these two age groups for these conditions.

Results

General Results

The results of the sample of 2005 eating disorder services are displayed in Exhibit II. Of the 4,682 users of service in the sample data, 1,290 were under 19 years of age, and 3,392 were 19 and older. The annual cost per user was $2,965 for the under-19 group, and $1,418 for those 19 and over, consistent with the difference in benefit levels between groups. As discussed above, the difference in annual cost per user, $1,548, was assumed to be due to the unlimited benefit available to those under 19. The per member per month cost for all eating disorders services was $0.37.

Exhibit II
Statistics on Costs for Eating Disorders Services
Service Use and Payment from Sampled Health Plans
2005 Dates of Service

Users	Average Enrollment	Users of Service	Payments	Cost per User	PMPM
Total	1,958,130	4,682	$ 8,633,465	$ 1,844	$ 0.37
Under 19	469,951	1,290	$ 3,825,012	$ 2,965	$ 0.68
19 and Over	1,488,178	3,392	$ 4,808,453	$ 1,418	$ 0.27
Difference				$ 1,548	$ 0.41

The maximum cost per year (paid by the insurer) for one user of service was $157,000 for a person under 19 years of age. The 99th percentile for those under 19 was $56,000; for those 19 and over it was $29,000.

Service-Specific Results

Exhibit III displays cost data for the services contained in the eating disorders claims extract. Inpatient psychiatric, outpatient psychiatric, and residential programs are the primary services included; there are a variety of services including ancillary and diagnostic tests captured in the "other" category.

Exhibit III
Historical Profile of Service Use for Eating Disorders, All Users
By Age Group and Service Category

		Sample Dollars	Cost per User	PMPM	Estimated Full Population
Age Group 1 (< 19)	**Inpatient Psychiatric**	$1,988,739	$1,542	$0.35	$2,868,079
	Residential Treatment	$308,967	$240	$0.05	$445,580
	Outpatient Psychiatric	$780,892	$605	$0.14	$1,126,171
	Other Services	$746,414	$579	$0.13	$1,076,448
Age Group 2 (>= 19)	**Inpatient Psychiatric**	$1,899,563	$560	$0.11	$2,739,473
	Residential Treatment	$152,670	$45	$0.01	$220,175
	Outpatient Psychiatric	$1,862,064	$549	$0.10	$2,685,392
	Other Services	$894,156	$264	$0.05	$1,289,515
All Age Groups	**Inpatient Psychiatric**	$3,888,302	$830	$0.17	$5,607,552
	Residential Treatment	$461,638	$99	$0.02	$665,755
	Outpatient Psychiatric	$2,642,956	$564	$0.11	$3,811,563
	Other Services	$1,640,570	$350	$0.07	$2,365,963
	All Services	**$8,633,465**	**$1,844**	**$0.37**	**$12,450,833**

The cost per user of service (where users for all rows of the Exhibit are defined as any member appearing in the eating disorders claims extract) for inpatient psychiatric services, residential services, and other services are all much higher for the under 19 population than for the 19 and over population, presumably reflecting the more generous benefit available. The cost per user for outpatient psychiatric services is fairly similar at $605 for those under 19 and $549 for those 19 and over.

Exhibit IV displays the same cost information from the claim sample, but calculates cost per user as by dividing all costs for the service category by users of that service category only. The resulting cost per user estimates are total annual costs per person utilizing that service. For example, for those individuals under 19 years of age who were admitted to an inpatient unit, the average cost per person for inpatient care was $18,762.

Exhibit IV
Historical Profile of Service Use for Eating Disorders, Service-Specific Users
By Age Group and Service Category

Age Group 1 (< 19)	**Service**	**Dollars**	**Users**	**Cost Per User**
	Inpatient Psychiatric	$1,988,739	106	$ 18,762
	Residential Treatment	$308,967	11	$ 28,088
	Outpatient Psychiatric	$780,892	1,024	$ 763
	Other Services	$746,414	705	$ 1,059
	Service	**Dollars**	**Users**	**Cost Per User**
Age Group 2 (>= 19)	Inpatient Psychiatric	$1,899,563	156	$ 12,177
	Residential Treatment	$152,670	11	$ 13,879
	Outpatient Psychiatric	$1,862,064	2,879	$ 647
	Other Services	$894,156	1,069	$ 836
	Service	**Dollars**	**Users**	**Cost Per User**
All Age Groups	Inpatient Psychiatric	$3,888,302	262	$ 14,841
	Residential Treatment	$461,638	22	$ 20,984
	Outpatient Psychiatric	$2,642,956	3,903	$ 677
	Other Services	$1,640,570	1,774	$ 925

The largest differences between the age groups are for inpatient and residential care, with inpatient claims paid per person approximately 50% higher for the under 19 group, and residential services per person treated of approximately 100% higher. The under 19 group also has higher use for outpatient and other services, but the differences are smaller.

Five-Year Impact Estimates

The calculations used to convert the sample results into the five year impact estimates are displayed in Exhibit V.

Exhibit V
Estimated Impact of Eating Disorders Mandate
Service Use and Payment from Sampled Health Plans

	2005 Sample	Full Population	2008	2009	2010	2011	2012	5 Year
Per Patient Impact	$ 1,548	$ 1,548	1,791	1,881	1,975	2,074	2,178	
Monthly Premium Impact - Claims	$ 0.22	$ 0.22	$ 0.26	$ 0.27	$ 0.29	$ 0.30	$ 0.31	
Administration Premium Impact	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.05	$ 0.05	$ 0.05	
Total Monthly Premium Impact	$ 0.26	$ 0.26	$ 0.30	$ 0.32	$ 0.33	$ 0.35	$ 0.37	
Percent of Premium	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	
Without Adjustment for Health Reform								
Dollar Impact - Claims (000)	$ 5,249	$ 8,076	$ 9,380	$ 9,859	$ 10,364	$ 10,894	$ 11,451	$ 51,948
Administration (000)	$ 855	$ 1,315	$ 1,527	$ 1,605	$ 1,687	$ 1,773	$ 1,864	$ 8,457
Total Impact (000)	$ 6,104	$ 9,390	$ 10,907	$ 11,464	$ 12,051	$ 12,667	$ 13,315	$ 60,405
With Maximum Health Reform Impact								
Dollar Impact - Claims (000)	$ 5,249	$ 9,899	11,498	12,086	12,704	13,354	14,037	$ 63,679
Administration (000)	$ 855	$ 1,612	$ 1,872	$ 1,967	$ 2,068	$ 2,174	$ 2,285	$ 10,366
Total Impact (000)	$ 6,104	$ 11,511	$ 13,369	$ 14,053	$ 14,772	$ 15,528	$ 16,322	$ 74,045

The $1,548 difference in cost per user in the sample, when multiplied times the 3,392 users aged 19 and older in the 2005 sample, produced an estimate of $5.2 million, which is equivalent to a full population (all fully-insured, under 65 individuals) amount of $8.1 million in 2005. That is, it is estimated that if the 19 and older population had the benefit implied by defining eating disorders as biologically based, an additional $8.1 million would have been paid through the insurance system for fully-insured individuals aged 19 years and older in 2005. Inflated to 2008 and adding administrative costs, the impact is projected to be $10.9 million, which is $0.30 PMPM or approximately 0.09% of total premium. Over the five years 2008-2012, the estimated total cost is $60.4 million.

These projections do not take into account the increase in enrollment in fully insured plans that may occur due to Massachusetts health reform. At this point, it is uncertain how many additional persons will be insured under health reform. In Exhibit V, the last block shows the spending impact of modifying eating disorders legislation if the approximately 677,000 persons uninsured in Massachusetts were to be covered under fully insured plans, and if the health status related to eating disorders was comparable in the expanded coverage group as compared to those currently fully insured. Under the extreme assumption that all uninsured become covered due to health reform, the 2008 impact would increase to $11.5 million, and the five year 2008-2012 impact would increase to $74 million, a 23% increase.

The cost differences identified in the foregoing analysis, and attribution of the cost impacts implied by them to differences in benefit levels, are based on three important assumptions. First, it was assumed that the populations are clinically similar; this assumption was supported by interviews with clinical experts. Second, it was assumed that any differences in medical necessity criteria and utilization management processes carried out by health plans do not differ materially between children and adults. We do not have any information to support or refute this assumption. Third, for the additional costs associated with health reform coverage expansions, it was assumed that the prevalence of eating disorders in the uninsured population is similar to the prevalence in the insured population and that health reform will cover all uninsured individuals. It is likely that the estimates that include maximum health reform-related enrollment increases overstate the impact that House Bill No. 3024 would have on health care costs.

Appendix A: Development of Population Estimates

Overview of Population Projection Model

Compass maintains a Massachusetts population projection model to support its efforts to analyze the cost impact of various mandates enacted by the Massachusetts legislature. This model projects the Massachusetts population at the following level of detail:

- By year through 2013
- By gender
- By age grouping
    - Less than 18
    - 18-64
    - 65 or greater
- By insurance status for under 65 population
    - Uninsured
    - Insured by employer-sponsored fully insured plan
    - Insured by employer-sponsored self-insured plan
    - Insured by direct-purchase policy
    - Insured by MassHealth
    - Insured by other Medicaid programs

Detailed Description of Population Projection Model

The population projections for this analysis were developed by reference to various reports, tables, and other data sources at the following web sites:

- Massachusetts Division of Health Care Finance and Policy ("MADHCFP")
- United States Census Bureau ("Census Bureau")
- Massachusetts Institute of Social and Economic Research ("MISER")
- Kaiser Family Foundation
- Centers for Medicare and Medicaid Services ("CMS")

The first step was to determine the actual Massachusetts population split by age group. According to the Massachusetts "Quickfacts" exhibit on the Census Bureau website, the Massachusetts population in 2005 was 6,399,000. The current population was allocated by age by referring to percentages in the Quickfacts exhibit for "Persons Under 18 Years Old" and "Persons 65 Years Old and Over" for 2004. The current population was allocated by gender by referring to a report on the Census Bureau web site entitled: "Population Projections for States by Selected Age Groups and Sex: 1995-2020". From this report the female percentage by age category of the projected population could be determined.

To project future populations we used growth rates from a population projection on the MISER website which projected the Massachusetts population by gender and quinquenial age category out to 2010 and 2020. The growth rates implicit in the MISER projections for 2010 reflected the slowing in growth seen in recent years and appeared to be a suitable basis for projecting to 2013.

The MISER projections for 2010 included age and gender detail, which we used to allocate the projected 2010 population. The allocation by age and gender for intermediate years was based on interpolation of the 2005 allocation derived from 2005 Census data and the 2010 MISER projections.

The final step was to determine the insurance status for the projected population. To do this, we referred to several sources:

1.) Historical Health Insurance Tables HI-5 and HI-6 on the Census Bureau web site show a split of the Massachusetts population by health insurance status. Table HI-5 is for Children under 18 and Table HI-6 is for People Under Age 65.

2.) From the MADHCFP web site, we referred to a report entitled "Health Insurance Status of Massachusetts Residents (Fourth Edition)" with a publication date of November 2004. Table 1 of this report indicates that 3.2% of Massachusetts residents ages 0-18 are uninsured, the same rate as in 2002. The same table indicates that 10.6% of the non-elderly adult population of Massachusetts was uninsured in 2004, an increase over 9.2% in 2002.

3.) Overall Medicaid enrollment statistics were taken from the Kaiser Family Foundation State Health Facts Online web site. MassHealth enrollment statistics were taken from a Section 1115 fact sheet found on the CMS web site.

4.) A MADHCFP report entitled "Source of Insurance Coverage for Massachusetts Residents (2002)" shows that 61% of the entire population of Massachusetts is covered by employer-sponsored plans.

5.) We relied on a MADHCFP study that determined that 27% of the insured population covered by employer-sponsored plans was covered by self-funded plans that were exempt from the requirements of these mandates.

The population and insurance status estimates from these various sources were not always consistent and judgment was required to resolve these discrepancies.