An Actuarial Analysis of the Impact of HR 1424
"The Paul Wellstone Mental Health and Addiction Equity Act of 2007"

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I. Executive Summary

Milliman, Inc. was commissioned by Capitol Decisions, Inc. to perform an independent study and actuarial analysis of the impact of behavioral health insurance parity legislation on behalf of several interested parties.[1] This report contains the authors' analysis of HR 1424, cited as the "Paul Wellstone Mental Health and Addiction Equity Act of 2007".

HR 1424 would require that each group health plan or health insurance issuer offering group health insurance coverage to employers with more than 50 employees provide "parity" benefits for the diagnosis and treatment of all behavioral healthcare. In particular, the mental health and substance-related disorder benefits would have to be covered on the same terms as for the diagnosis and treatment of all physical health conditions. This includes the same treatment limits and beneficiary cost sharing for both in-network and out-of-network benefits. Additionally, HR 1424 defines a minimum scope of coverage for mental health and substance-related disorders as the same range of mental illnesses and addiction disorders covered by the health plan with the largest enrollment of federal employees (under chapter 89 of title 5, United States Code).

Findings

- Our estimates indicate that the legislation will increase per capita health insurance premiums of "typical" plans in 2008 by 0.6%, or $2.40 per member per month, if no increase in utilization management activities occurs in response to parity. This is our "Baseline Scenario."

- The legislation does not appear to prevent the use of utilization management (UM), and under our "Increased UM Scenario", where all benefit plans would choose to further tighten their degree of behavioral healthcare management, our cost estimates result in an aggregate premium increase less than 0.1%, or $0.03 per member per month. Since some insured plans will likely increase their utilization management while others will not, the actual cost increase will likely fall between the less than 0.1% and 0.6% aggregate results.

- The Congressional Budget Office (CBO) has estimated that typical employer responses to required coverages will result in cost reductions of about 60% of the gross cost estimate.[2] Applying this CBO estimate, aggregate employer contributions for health costs would rise by about 0.2% under our baseline scenario, and by less than 0.1% under our increased UM scenario.

- We project that utilization of facility-based behavioral healthcare services would increase by 9.7%, while professional services would increase by 30.0% under the Baseline Scenario. Our Increased Utilization Management (UM) Scenario shows much different results: a 21.3% decrease in use of facility-based services (the majority from mental health services) and a 3.1% increase for professional services.

- We project that member out-of-pocket costs for behavioral health services will decrease by 18%, or about $0.20 per member per month under the baseline

scenario. This reflects a balance between an increase in total out-of-pocket costs from higher service use by members under the higher parity benefit limits and a decrease in out-of-pocket costs per unit due to lower parity cost-sharing. For every 100,000 fully insured lives, member out-of-pocket costs are estimated to drop by $240,000 annually.

- We projected increased administrative costs in proportion to the benefit cost increases due to parity. Administrative costs account for about 15% of the total increase, or $0.36 or less per member per month.

- Increasing benefits for behavioral healthcare services may result in cost offsets from other healthcare services, particularly visits to primary care physicians and emergent/urgent care visits. Increasing benefits may also result in increased use of pharmaceuticals. We did not consider the effects of any such offsets or dynamics.

Limitations

Our analysis used actuarial data that reflect the experience of individuals covered through commercially available benefit plans. To represent current coverage, we selected "typical" PPO and HMO benefit plans[3]. We utilized a distribution of covered members by type of benefit plan[4]. The estimates represent averages that may not be applicable to any individual underlying population segment or any one plan.

Because the economy and the healthcare system are dynamic, there is an intrinsic uncertainty in projecting healthcare costs, especially under healthcare reform, and that uncertainty applies to our work. The estimates presented here are based on a number of assumptions as described in Appendix A. Other researchers who use other assumptions and methods may present different estimates, and the actual costs may depend in part on factors we have not considered.

This report is not intended to support or detract from any particular legislation. It is intended for the exclusive use of the parties who commissioned the study and not intended to benefit any third party. This report should not be distributed without the permission of Milliman, and any distribution should be of the report in its entirety. This report reflects the authors' analysis and should not be interpreted as representing Milliman's endorsement.

II. Key Actuarial-Related Elements of HR 1424

HR 1424 would bring parity in coverage for behavioral health benefits. HR 1424 would only apply to large group business, with small group business covering 50 employees or less and individual business being excluded from the requirement.

HR 1424 specifies that each group health plan or health insurance issuer offering health insurance coverage in connection with a group health plan provided to employers, provide benefits for the diagnosis and treatment of all behavioral healthcare, including mental health and substance-related disorders, on the same terms and conditions as those provided under the policy for the diagnosis and treatment of all physical health conditions. This includes the same treatment limits and beneficiary financial requirements. For coverage of inpatient hospital services, outpatient services and medication, the same coinsurance, copayments, other cost-sharing, limits on out-of-pocket expenses, and individual and family deductibles must apply equally to medical-surgical benefits and to mental health and substance-related disorder benefits. This requirement applies to in-network benefits and out-of-network benefits.

We have assumed that for parity benefits to apply, a licensed clinician would have to provide the diagnosis and treatment, which is a typical requirement for any covered benefit. We have also assumed that if a plan covers clinical trials or investigational treatments for physical conditions, then such coverage would also apply to behavioral conditions.

We have assumed that covered substance-related disorders are consistent with those described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (SM-IV). However, in our analysis, we do not include treatment for tobacco use, treatment of obesity or side effects of medication.

We have assumed the legislation would not prevent insurers from negotiating terms with behavioral health care providers on reimbursement rates and other service delivery terms, managing the provision of benefits, the use of pre-admission screening, step therapy, or other mechanisms to enforce medical necessity requirements, or enforcing the terms and conditions of a policy or plan of benefits.

III. Healthcare Cost and Premium Impact

HR 1424's mental health and substance-related disorder parity provisions would affect commercial health plans' costs principally by:

- Removing benefit limitations that often apply to mental illness and substance related conditions, but not physical medical conditions
- Requiring beneficiary cost-sharing provisions for such services is equal to those for care for all other physical diseases and disorders.

These plan changes would also likely result in increased premium rates in the absence of compensating changes to plan design or plan operations.

We estimate that, under our Baseline Scenario, adding full parity to behavioral healthcare benefits will increase costs, on average, by 0.6% for plans affected by the legislation. We estimate that an average health plan in the United States will have 2008 monthly premiums of about $450 for an employee with single coverage and about $1,200 for an employee with family coverage. The increases in monthly premiums due to parity are estimated to be $2.80 for single coverage and $7.40 for family coverage.

The increase for any specific insurance plan would vary, depending on the type of benefit plan (PPO, HMO, etc.), the scope and design of behavioral and other benefits currently covered, demographics of covered members, and the level of managed care applied to the behavioral health benefits. While the cost increase for a specific plan or employer under certain circumstances could be 1% to 2% or more (such as a plan without managed care that currently has very little coverage for behavioral healthcare services), we believe such plans cover a small portion of the people with group plans (probably less than 5%).

Following is a detailed discussion of our methodology, assumptions and findings.

A. Cost Estimation Approach and Baseline Results

To estimate the cost associated with HR 1424, we built actuarial models that reflect current, typical healthcare coverage and then estimated the cost changes due to parity. We assumed national average cost and utilization levels and note that both utilization and cost can vary dramatically by location, and health insurance coverage varies greatly in the scope of covered services and member cost-sharing.

We used two model benefit designs to represent typical insured plan benefits. One is a PPO plan and the other an HMO plan, and the benefit designs are consistent with the benefit plan descriptions in Milliman's annual Group Health Insurance Survey. Approximately 190 HMO plans and 210 PPO plans participated in the Survey in 2006.

We used these two model plans to represent the plan types and behavioral benefits that are common today. They vary in benefit structure, limitations on choice of providers, and level of managed care.

For both model plans, we estimated current average per member per month (PMPM) costs and average premiums charged by insurers. We also estimated the costs and premium levels if the behavioral health benefits of these plans were increased to comply with the modeled parity provisions.

We show percentage changes in premiums. The same percentage changes would also apply to administrative expenses of health insurers or health plans, which reflects our assumption that administrative expenses would change proportionately to the underlying change in benefit costs. For benefit cost changes of the relatively small magnitude presented in this report, we believe this proportionate assumption is reasonable.

In developing these estimates, we used the Milliman Health Cost Guidelines[5], our proprietary actuarial pricing guidelines. We also used certain trend, utilization and cost data provided by health plans to the Milliman Group Health Insurance Survey for 2006[6]. Appendix A provides more detailed information on our assumptions and approach.

Table 1 presents the estimated change in premium rates resulting from the expected behavioral parity legislation for both model plans. These estimates assume no change in benefits other than the behavioral health benefits, and they assume no change in the level of utilization management within each plan. We refer to this as our "Baseline Scenario".

We estimated the distribution of members for our model plans from information contained in the Survey of Employer Health Benefits 2006, as published by the Henry J. Kaiser Family Foundation and the Health Research and Educational Trust[7]. This distribution is shown in Table 1 along with the resulting overall premium increase across our model plans.

Table 1 – Estimated 2008 Change in Premium Rates for Model Plans
Baseline Scenario – No Change in Utilization Management

Model Plan Type	Estimated Premium Change	Membership Distribution
HMO Plan	0.6%	25%
PPO Plan	0.6%	75%
Total	**0.6%**	**100%**

It is important to note that these premium estimates reflect the assumptions we have made regarding average plan benefits. Based on the information available and our knowledge of today's health insurance marketplace, we believe these results represent a reasonable estimate of overall average premium changes. However, actual plan provisions involve a great deal more variation than exhibited by our model plans. If we could evaluate all benefit plans actually applicable to U.S. residents, we would find a greater range of premium changes than illustrated in Table 1. In particular, some plans have more limited behavioral benefits than we have modeled, and the corresponding cost increases under parity for these plans could be 1% to 2% or higher, while other plans will have very small cost increases of under 0.2%.

B. Role of Managed Care

Many HMOs and PPOs delegate management and administration of their behavioral healthcare coverage to a specialty managed behavioral healthcare organization (MBHO), often paying the MBHO a fixed, "capitated" premium. These business arrangements are sometimes called "carve-outs." MBHOs may apply utilization management techniques and use provider payment arrangements to manage costs. Health plans that do not use MBHOs may also apply these techniques "in-house."

Under either the carve-out or in-house approach, we have observed managed behavioral healthcare costs are often 25% to 50% lower than costs of non-managed benefit packages. When legislative mandates require parity for mental health and substance-related disorder services, increases in costs are significantly lower for managed care plans.

Because of this dynamic, behavioral healthcare parity tends to encourage health insurers to tighten utilization management controls, which is allowed by HR 1424. Typical actions would include greater application of pre-authorization and concurrent review, including stricter adherence to evidence-based clinical protocols. Employers may choose to modify some of the benefit plans they offer to their employees, substituting plans with greater degrees of managed care provisions. This could involve greater use of carve-out MBHO vendors, or substituting HMO plans for PPO plans.

To illustrate the potential impact of such tightening of managed care, we developed a scenario that reflects a greater application of utilization management (UM). This is our "Increased UM Scenario". Appendix A provides an explanation of the managed care levels described.

The Baseline Scenario levels of managed care were chosen based on reported utilization rates of behavioral healthcare services of health plans that participated in the national Milliman Group Health Insurance Survey of 2006 and our knowledge of the managed behavioral healthcare industry. Table 3 summarizes the estimated premium changes under the Increased UM Scenario and compares them with those of the Baseline Scenario.

Table 3 – Estimated 2008 Change in Premium Rates for Model Plans Increased UM and Baseline Scenarios

Model Plan Type	Estimated Premium Change	
	Baseline Scenario	**Increased UM Scenario**
HMO Plan	0.6%	< 0.0%
PPO Plan	0.6%	< 0.1%
Total	**0.6%**	**< 0.1%**

Under the increased UM scenario, the cost of the additional parity benefits is offset by savings from utilization management. Costs for the HMO Plan and PPO Plans would be expected to barely change, despite the increase in benefits. This is consistent with our experience, where introduction of managed care or increased intensity of managed care related to behavioral healthcare services often produces significant reductions in costs.

Some plans will react in the fashion described, while others may not make a change (either because they are already managing their behavioral healthcare benefits or because they would choose to not change after parity). Thus, the actual aggregate impact of the parity legislation on premium rates would likely fall between the two high and low values (<0.1% for the Increased UM Scenario and 0.6% for the Baseline Scenario).

When managed care is tightened for behavioral healthcare benefits, prescription drug use for treatment of mental illness may increase as psychotherapy visits and facility-based care fall. Some believe the cost of increased prescription drug utilization offsets some of the savings due to increased managed care, although the widespread availability of generic drugs could ameliorate this drug cost. We are not aware of studies of this dynamic, and our cost estimates do not reflect any such increases in prescription drug costs.

C. Impact on Employers

The increase in premium rates for specific employers will depend on the benefit plan(s) and the level of coverage currently provided. Employers already providing full parity for these benefits would incur no cost increase.

Employers could respond to a parity cost increase by changing benefit plans or by increasing employee premium contributions, rather than absorbing the full increase. In particular, they may choose to offer plans with greater levels of managed care or higher insured cost-sharing. The Congressional Budget Office (CBO) addressed the issue of potential employer responses to behavioral health parity in a 1996 report[8]. While CBO estimates that approximately 60% of the gross increases would be offset by reductions in benefits, the report also discusses the uncertainty inherent in such estimates, as follows:

> "Projections of the relative magnitude of the possible responses are, inevitably, speculative. The best studies of the effects of mandates on health insurance coverage have large margins of error associated with their estimates. Some empirical questions, such as the degree to which other components of health benefits would be dropped in response to a mandate about a specific component of coverage, have simply not been addressed by academic studies."

The CBO continued to use this 60% offset assumption in their cost estimate of the Mental Health Parity Act of 2007, S. 558.[9]

IV. Impact on Access and Use of Behavioral Health Services

We expect access to and utilization of certain behavioral healthcare services to increase with the proposed behavioral health parity because of two dynamics:

1. Calendar limits on the maximum number of covered inpatient hospital days, outpatient professional visits and any other benefit limits for behavioral health benefits cannot differ from those used for all physical health benefits. While health plans currently include such limits on behavioral healthcare benefits, members typically have access to unlimited inpatient and outpatient physical healthcare.

2. Insured copayments and cost-sharing must be on par with physical health benefits. Behavioral healthcare benefits often have higher levels of insured cost-sharing, and higher out-of-pocket costs tend to discourage behavioral healthcare use. However, members may more frequently visit psychotherapists if the per visit copay is $10 rather than $25.

In our model, we estimated the impact behavioral healthcare parity would have on facility-based services (inpatient hospital, partial hospital and other outpatient hospital) and on professional services (diagnosis, evaluation, therapies and medication management). Facility-based utilization would increase by 9.7% and professional utilization would increase by 30.0% under our Baseline Scenario. These increases reflect both higher numbers of users of behavioral healthcare and greater numbers of services used by some patients.

The expected utilization change would be much lower under the Increased UM Scenario. Utilization management can significantly reduce utilization of behavioral healthcare services – specifically those that may be deemed as not medically necessary. This typically results in fewer and shorter inpatient hospital admissions, shifting some use to outpatient settings, and shorter treatment duration for selected patients. In the Increased UM scenario, we estimate that facility-based service utilization would decrease by about 21.3%. Professional service utilization would increase by about 3.1%.

V. Impact on Member Out-of-Pocket Costs

As described above, behavioral healthcare parity is expected to reduce insured member out-of-pocket costs as a result of lower cost-sharing. We modeled the impact of behavioral health parity on these costs, using the benefit designs in Appendix B. We project that insured out-of-pocket costs will decrease by 18%, or about $0.20 per member per month under the Baseline Scenario. This is the net result of increase in member costs due to additional service use and decreases in out-of-pocket costs per unit due to higher coverage levels. For every 100,000 fully insured lives, insured out-of-pocket costs are estimated to drop by about $245,000 per year under this scenario. These figures are for behavioral health care only, but are spread across the entire covered membership, not just the users of behavioral health benefits.

Our model PPO plan has an integrated out-of-pocket limit for all services (including behavioral). If cost sharing shrinks for behavioral care, the contributions of this cost sharing toward out of-pocket limits decreases. On average, across a population of covered lives, this dynamic produces a very small increase in cost sharing for non-behavioral services.

VI. Impact on Health Plan Administrative Costs, Risk Margins and Profits

Health plans' administrative expenses consist of true administrative cost, risk margins and profits, and we assumed these would change proportionately to the change in benefit costs. This reflects the expected impact on claims processing, utilization management and other administrative functions, and risk margins. While a detailed examination of administrative expense may show particular additional changes due to parity, the relatively small magnitude of the changes relative to total plan expenditures make the proportionate assumption reasonable. We note that this assumption should be revisited when considering organizations such as managed behavioral health carve-out companies, because their business is concentrated in areas affected by parity.

We have assumed that the covered services net of cost sharing represent 85% of the total Health Plan premiums. Therefore, the remaining 15% of premium is for administrative costs, risk margins and profits. We note that some programs may have smaller or larger costs for these elements. In particular, self-funded programs often have different cost structures, and the application of our figures to those programs may require adjustments.

We project that administrative costs, risk margins and profits will increase by 0.6% under the Baseline Scenario and by less than 0.1% under the Increased UM Scenario. On a per member per month (PMPM) basis, these increases account for $0.36 or less. By contrast, 15% of total premium for our 2006 Survey data trended to 2008 is about $59 PMPM, and the expected annual trend forecast is about 12%.

VII. Medical Cost Offsets

Many behavioral health advocates promote the concept that effective behavioral healthcare can reduce medical costs, but this "cost offset" has been a controversial subject. There is strong evidence that behavioral problems and medical problems are associated with one another. [10] [11] [12] Some of these associations have been recognized by recommended medical practices; for example, screening for post-partum depression, depression following heart attack, or alcoholism screening.[13][14] In addition, the behavioral component of wellness and disease management programs is well-recognized. For example, behavioral components are recognized as important elements of smoking cessation and obesity programs.[15] [16] Advocates believe the impact of effective behavioral healthcare extends beyond these examples. Some health insurers are developing integrated approaches to covering medical and behavioral illnesses.

Because specialty behavioral healthcare is generally a small component of total medical spending, even a small percent reduction in medical costs through parity benefits could amount to a significant cost offset relative to the increased cost of parity benefits. However, we did not include any such offsets in this work.

VIII. Preemption of State Laws

HR 1424 does not appear to preempt any State law that provides greater consumer protections, benefits, methods of access to benefits, rights or remedies than would occur under HR 1424. Therefore, any State laws that include broader requirements for access or coverage of mental health or substance-related disorder benefits, such as additional mental conditions or diagnoses or applicability to groups of 50 or less employees, are not preempted by this legislation.

IX. Evidence Based Practices and Medical Management

Evidence Based Practices

The evidence base for diagnosis and treatment of mental and substance-related disorders is well established and on par with the medical evidence for diagnosis and treatment of medical and surgical conditions. Mental and substance-related clinical practice guidelines are broadly accepted in the medical community including the American Psychiatric Association's evidence based practice guidelines[17], those of American Academy of Child and Adolescent Psychiatry[18] and those of the American Society of Addiction Medicine Patient Placement Criteria[19]

Along with the expansion in the documentation of the science base of treatments for mental and substance-related disorders, two recent seminal reports strengthen the message that mental health is fundamental to health and that mental disorders are real health conditions that are equally as important as general health conditions. The 1999 Surgeon General's Report on Mental Health [20] provides a review of the research supporting the fact that evidence based mental health treatments are well established. According to the Report,

- "The efficacy of mental health treatments is well documented, and
- A range of treatments exists for most mental disorders"

The 2006 Institute of Medicine (IOM) report *Improving the Quality of Health Care for Mental and Substance-Use Conditions* [21]takes the discussion a step further to examine how well evidence based mental health treatments are being delivered. The report also examines how the framework and strategies to improve the quality of health care delivery, proposed in the IOM 2001 report *Crossing the Quality Chasm: A New Health System for the 21st Century* [22], should be applied to mental health care. The IOM 2006 report highlights the lack of adherence to established clinical practice guidelines for many mental health conditions and the importance of attending to the quality problems using the recommendations in the IOM 2001 report.

Medical Management of Mental and Substance-Related Conditions

Medical management practices by payers can apply to medical as well as mental health and substance-related utilization. As a matter of cost and quality control, payers often use a process known as medical necessity determinations to identify particular patients who do not meet indications for needing a particular service[23]. Medical necessity determinations are intended to prevent inappropriate utilization of services which can increase utilization and cost without improving quality.[24] Narrowly speaking, medical necessity determinations do not affect the benefit design but influence utilization of covered benefits for individuals. To oversimplify, although an MRI may be a covered service, an insurer will not pay for the MRI unless it is reasonably needed for the patient's diagnosis or treatment. This distinction between covered benefits and administration of benefits also applies to behavioral health.

Payers making medical necessity determinations should rely on evidence based guidelines[25] or treatment protocols and indicate such in contracts with providers. HR 1424 does not appear to interfere with the ability of payers to make medical necessity coverage determinations and we expect that some payers will increase their application of this process in response to parity. As we note above, this application of managed care could actually reduce costs under parity for some payers to below the pre-parity level. Payers are in a position to assist in the measurement of effective evidence based practice in mental health, a deficiency identified in the IOM 2006 report. Payers are also positioned to incentivize providers to provide quality mental health care delivery. Under parity, delivering evidence based mental health care and measuring the quality of mental health care delivery would no longer be restricted by benefit limits.

X. National Mental Health and Substance-Related Disorder Spending Trends[26]

National expenditures for the treatment of mental health and substance related disorders (MHSRD) disorders increased to $121 billion in 2003, up from $70 billion in 1993 -- an average annual growth rate of 5.6%. This was lower than the 6.5% average annual growth rate during this period for all health services. The projected MHSRD expenditures for 2006 were $145 billion. Future growth in MHSRD expenditures are expected to continue to lag the growth in all health services, due in part to the lesser impact of cost-increasing technology on MHSRD service delivery.

Mental health expenditures make up the majority of the MHSRD expenditures. In 1993, they accounted for 78.6% of MHSRD spending at $55 billion, and grew to 82.9% of 2003 MHSRD spending at $100 billion. The 2006 projection is at 83.8% or $122 billion. The rapid rise in prescription drug spending for mental disorders contributes substantially to this trend.

Prescription drug costs within mental health service delivery have risen rapidly from just 7% of total mental health spending in 1986 to 23% in 2003, and are projected to hit 30% of all mental health spending by 2014. Meanwhile, total hospital costs (including inpatient acute services and outpatient services such as day treatment) dropped from 41% in 1986 to 28% of total mental health spending in 2003. Physician services increased from 11% in 1986 to 14% in 2003.

The distribution of expenditures by public-private payer differs significantly between mental health and substance-related disorder services. Private payers (includes private insurance, out-of-pocket, and other private sources) accounted for 46% of mental health expenditures in 1986, reduced to 42% by 2003, and is currently expected to remain at that level for many years. Private insurance accounts for 24% of all mental health expenditures. Public payers (includes Medicare, Medicaid, other federal, and other state and local payers) accounted for 54% in 1986 and 58% in 2003. The addition of the Medicare Part D benefits increased the Medicare component from 7% in 2003 to an estimated 11% in 2006, while the Medicaid component dropped from 26% in 2003 to 24% in 2006.

Private payers accounted for 50% of all substance-related disorder expenditures in 1986 but dropped to 23% by 2003, while the public payers accounted for 50% in 1986 and 77% in 2003. Private insurance accounts for just 9% of substance-related disorder expenditures. Other state and local payers are the largest payer group of substance-related disorder benefits at 46% in 2003. Current projections show the public portion of substance-related disorder expenditures continuing to grow under current conditions, up to 83% by 2014.

The largest category of expenditures for substance-related disorder treatment are specialty substance-related disorder clinics, increasing from 19% in 1986 to 41% in 2003, while total hospital costs dropped from 48% of total substance-related disorder expenditures to 24% in 2003. Those levels are projected to remain fairly flat in the future.

Appendix A

Assumptions

This section describes key assumptions and sources for our estimates. We also present cautions about how the estimates should be interpreted and used.

We estimated costs for the currently insured commercial population in the United States. This does not include individuals covered by Medicaid or Medicare. We used standard Milliman demographic assumptions, intended to represent the age and gender mix of a typical commercially-insured employee group with the demographics of the U.S. labor force population.

We estimated per capita costs for two different typical benefit plans in the United States commercial marketplace today – a PPO plan and an HMO plan. We applied the benefit plan specification details described in Milliman's 2006 Group Health Insurance Survey, to set pre-parity benefit specifications. These details are summarized in Appendix B. We also used an expected annual trend estimate from the Survey to project costs to 2008. We note that trend for behavioral health benefits has been lower than for medical benefits as a whole, and this means our trend assumption may cause our estimates for 2008 to be overstated somewhat.

We used a 25%/75% distribution between the HMO and PPO plan designs, based on information contained in the Survey of Employer Health Benefits 2006[27], published by the Henry J. Kaiser Family Foundation and the Health Research and Educational Trust.

We applied cost estimates using Milliman's *2006 Health Cost Guidelines* (HCGs). The HCGs are Milliman's actuarial guidelines that show how the components of per capita medical claim costs vary with benefit design, demography, location, provider reimbursement arrangements, degree of managed care delivery, and other factors. In most instances, these cost assumptions are based on our evaluation of several data sources, and are not specifically attributable to a single data source. The HCGs are used by scores of client insurance companies and health plans for premium rate setting, evaluating health insurance products, and for financial management.

We used adjustment factors from the HCGs to modify our utilization and unit cost assumptions for the modeled plans and included a typical allowance for administrative costs, risk margins and profits. We incorporated estimates of the effect of managed care delivery within each plan. We also applied our knowledge of the managed behavioral healthcare delivery systems.

If HR 1424 were enacted, health insurers will likely choose to tighten utilization management controls within their existing benefit plans, which is allowed under the legislation. They would typically increase use of pre-authorization and concurrent review requirements for mental health and substance-related disorder benefits, as well as require stricter adherence to clinical criteria. In addition, employers may choose to modify some of the benefit plans they offer to their employees, substituting plans with greater degrees

of managed care provisions (for example, more restrictive networks) in place of plans with lesser degrees of managed care provisions. This could involve greater use of carve-out MBHO vendors, or substituting HMO plans for PPO plans.

Discounted fees are common in HMO and PPO plans for in-network healthcare providers. We have assumed that the health plans could negotiate a discount of 25% for all in-network professional behavioral services, 40% for all in-network facility services for alcoholism and substance-related disorders, and 60% for all in-network facility services for mental health disorders. These discounts are consistent with what we have observed in managed behavioral healthcare contracts recently. We assumed that no discount would be obtained for any out-of-network services provided in the PPO plans.

In our premium rate estimates, we considered the following items and benefit features as appropriate:

- The maximum number of inpatient days and outpatient visits for treatment for mental illness and substance-related disorders
- Deductible, copay, coinsurance, and out-of-pocket maximum adjustments appropriate to various benefits
- Increases in utilization by service category due to benefit richness and induced demand

Table 3 summarizes the estimated change in premium rates due to the behavioral health parity provisions of the expected legislation under the Baseline Scenario and the Increased UM Scenario. The premium values are on a per member per month basis, meaning an overall average across all adults and children. Note that the premium amounts for both individual and family coverage would be higher than these member values.

Table 3 – Estimated Change in 2008 Premium Rates for Model Plans After Parity

Model Plan Type	Average Monthly Premium per Member for Behavioral Healthcare Services		Increase in Premium		
	Before Parity	After Parity	Amount	% of Behavioral Health	% of Total Premium
Baseline Scenario					
HMO Plan	$7.25	$9.60	$2.36	32.5%	0.6%
PPO Plan	$8.15	$10.56	$2.41	29.6%	0.6%
TOTAL	**$7.92**	**$10.32**	**$2.40**	**30.2%**	**0.6%**
Increased UM Scenario					
HMO Plan	$7.25	$7.25	$0.00	0.0%	0.0%
PPO Plan	$8.15	$8.19	$0.04	0.5%	<0.1%
TOTAL	**$7.92**	**$7.95**	**$0.03**	**0.4%**	**<0.1%**

Appendix B

Summary of Modeled Benefit Plan Provisions
Pre-Parity Benefit Designs

Plan #1: HMO Plan		
Benefit Description	Medical/Surgical	Behavioral
Deductible	None	None
Out-of-Pocket Limit	None	None
Coverage	100% Inpatient after $0 copay, 100% Outpatient after $10 copay	100% Inpatient after $0 copay, 100% Outpatient after $25 copay
Limits	No other limits	30 IP days/CY, 20 OP visits/CY

Plan #2: PPO Plan				
Benefit Description	Medical/Surgical		Behavioral	
	In-Network Benefits	Out-of-Network Benefits	In-Network Benefits	Out-of-Network Benefits
Deductible	$250	$500	$250	$500
Out-of-Pocket Limit	$1,000	$2,000	$1,000	$2,000
Coverage	90% Inpatient 100% Outpatient after $10 copay	70% Inpatient 70% Outpatient	90% Inpatient 100% Outpatient after $25 copay	70% Inpatient 70% Outpatient
Limits	No other limits	No other limits	30 IP days/CY, 20 OP visits/CY	30 IP days/CY, 20 OP visits/CY

About Milliman

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[1] American Association for Child and Adolescent Psychiatry, American Counseling Association, American Society of Addiction Medicine, Bradford Health Services, Caron Treatment Centers, Hazelden Foundation, NAADAC – The Association for Addiction Professionals, National Association of Addiction Treatment Providers, National Board for Certified Counselors, and National Council for Community Behavioral Healthcare.

[2] *Congressional Budget Office Cost Estimate, S.558 Mental Health Parity Act of 2007,* March 20, 2007

[3] We used the plan designs in Milliman's annual Group Health Insurance Survey. See www.Milliman.com

[4] The Survey of Employer Health Benefits 2006 includes detailed trend information on health insurance enrollment, premiums and contributions between 1988 and 2006. See www.kff.org/insurance/7527/.

[5] The Milliman, Inc. *Health Cost Guidelines* provide a flexible but consistent basis for the determination of claim costs and premium rates for a wide variety of health benefit plans. The *Guidelines* are developed as a result of Milliman's continuing research on health care costs. First developed in 1954, the *Guidelines* have been updated and expanded annually. These *Guidelines* are continually monitored; Milliman consultants and many insurers use the Guidelines for a variety of actuarial and financial management purposes.

[6] The 15th annual Milliman, Inc. survey of the nation's HMOs and fully-insured PPOs. Over one-third of all companies responded to the 2006 survey. Data collected includes manual premium rates, employee tiered rates, renewal rate changes anticipated, medical trend rates, inpatient utilization data, cost per utilization data, physician reimbursement rates as a percent of Medicare RBRVS, and medical expense ratios. Data reported in the survey includes straight average results, 25th percentile results, and 75th percentile results from all contributing companies.

[7] The Survey of Employer Health Benefits 2006. Op cit.

[8] *Congressional Budget Office Cost Estimate, Estimates of the Impact on Employers of the Mental Health Parity Amendment in HR3103*; May 13, 1996

[9] *CBO Cost Estimate*, S558, op cit.

[10] World Health Organization press release; October 8, 2004; Dr. Matt Muijen, Acting Regional Adviser for Mental Health

[11] David Whitehouse, MD, Improving Total Health & Well-Being: An Innovative Approach That Integrates Behavioral Health Across the Health Care Continuum, *Open Minds*, September 2006

[12] Patrick R. Finley, et al "Impact of a Collaborative Care Model on Depression in a Primary Care Setting: A Randomized Controlled Trial, *Pharmacotherapy* 23(9):1175-1185, 2003.

[13] Agency for Healthcare Research and Quality, Research Activities, November 2006, No. 315, "Depression among heart attack survivors can persist for a year after leaving the hospital"

[14] United States Preventive Services Task Force, Guide to Clinical Preventive Services. http://www.ahrq.gov/clinic/cps3dix.htm.

[15] Fiore MD, Bailey WC, Cohen SJ et al. Treating tobacco use and dependence. Clinical Practice Guidelines. Rockville, MD. US Department of Health and Human Services. Public Health Service. June 2000.

[16] Centers for Medicare and Medicaid Services, Decision Memo for Bariatric Surgery for the Treatment of Morbid Obesity (CAG-00250R), February 21, 2006. Available at http://www.cms.hhs.gov/mcd/overview.asp

[17] APA Practice Guidelines available at http://www.psych.org/psych_pract/treatg/pg/prac_guide.cfm

[18] AACAP Practice Guidelines.
http://www.aacap.org/page.ww?section=Practice+Parameters&name =Practice+Parameters
[19] http://www.asam.org/PatientPlacementCriteria.html
[20] U. S Department of Health and Human Services. Mental Health: A Report of the Surgeon General – Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.
[21] Institute of Medicine, Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders. Improving the quality of health care for mental and substance-use conditions. 2006. The National Academies Press. Washington, D.C.
[22] Institute of Medicine Committee on Quality of Health Care in America, Crossing the quality chasm: A new health system for the 21st century. 2001. The National Academies Press. Washington, D.C.
[23] For example, see Regence Blue Shield,
www.or.regence.com/provider/clinicalCorner/docs/behavioral**HealthPractice**Guideline.pdf
[24] Dartmouth Atlas, http://www.dartmouthatlas.org/
[25] Sackett, DL, Rosenberg WM, Gray JA et al. Evidence based medicine: what it is and what it is not. BMJ. 1996;312:71-72.
[26] Levit KR et al. Projections of National Expenditures for Mental Health Services and Substance Abuse Treatment, 2004-2014. SAMHSA Publication. Rockville, MD, 2006
[27] The Survey of Employer Health Benefits 2006, op cit.