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INSURANCE PARITY FOR MENTAL HEALTH: COST, ACCESS, AND QUALITY

Final Report to Congress by the National Advisory Mental Health Council

Ruth L. Kirschstein, M.D.
National Institutes of Health
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Insurance Parity for Mental Health: Cost, Access, and Quality
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EXECUTIVE SUMMARY[1]

In Senate Report No.105-300, the Senate Appropriations Committee observed, "The Committee has recently received from the National Advisory Mental Health Council [NAMHC] the report requested in its fiscal year 1998 appropriations report and notes the impact of managed care on keeping costs of parity at a low level." The Committee requested from the NAMHC an additional report on its findings from emerging health services research data that would, where possible "...address both employer direct costs, and the impact of indirect cost savings from successful treatment of employees." The NAMHC was also asked to "consider the costs and quality of coverage for children, and the development of outcome measures of quality for all mental health coverage." This report was developed in response to the Committee's request.

Building upon a body of knowledge developed in the course of three prior NAMHC reports on parity to the Senate Appropriations Committee, an analysis of recent studies reveals the following major findings:

- What is the current status of parity legislation in the US? Thirty-one of the 50 States have now passed some form of parity legislation, with benefits that range from limited to comprehensive. The 1996 Mental Health Parity Act (which is now being considered for reauthorization) appears to have accelerated the passage of State-level parity legislation. And in mid-1999, President Clinton announced that a parity-level benefit would be implemented for 8.7 million beneficiaries of the Federal Employees Health Benefit Program (FEHB) beginning in calendar year 2001.

- Does implementing parity increase the total cost of health benefits? Recent research supports and expands earlier findings that implementing parity benefits results in minimal if any increase in total health care costs. A recently updated simulation model estimates an approximately 1.4 percent increase in total health insurance premium costs when parity is implemented. In addition, data from a large State show that total health care costs decreased after the implementation of parity.

- Does implementing parity cause cost shifting between different health system sectors? The issue is complex. Data are not available under parity, but recent research indicates that high-cost consumers may not shift completely to coverage under the public system; rather, some may be covered by both the private and public systems. The implications of this finding remain unclear.

[1] NOTE: This report does not necessarily reflect the views of the Department of Health and Human Services.

- How does parity affect access and quality? A recent study with a large State database shows that when parity mental health benefits are introduced with managed care, an increased proportion of adults and children used some outpatient mental health services. However, the intensity of services (number of visits) did not increase and inpatient use declined. Although the reduction in inpatient use was most pronounced for children, there was evidence that their access to specialty mental health services increased. What is unknown is the quality of care and impact of these changes.

- How can the quality of mental health services be measured and improved? Although research in this area offers the promise of new and feasible measures, no currently available quality measures provide all the answers that consumers, providers, employers and policy makers want. Even with appropriate measures of quality and the ability to put them into place, interventions need to be developed that actually improve the quality of mental health care. Some recent evidence suggests that even small-scale interventions can ensure the delivery of appropriate services.

- How does parity or managed care affect disability and productivity in the workforce? Data are not yet available to assess the impact of parity in these areas. However, studies under non-parity conditions suggest that mental health services can decrease the amount of lost wages and reduce lost days from work and the number of disability claims.

In summary, mental health parity is now the law in the majority of States. The cost of parity in combination with managed care is less than initially anticipated, and it has some beneficial effects on access. Yet, it is still unclear what impact parity has on the quality of mental health services and the well-being of people with mental illnesses. As Mechanic and McAlpine note in a recent issue of *Health Affairs*:

> "The challenge for the coming decade is to develop clear standards based on the best evidence and clinical judgment so that parity has substance in implementation as well as in concept. Parity is not simply some match in service limits to what a medical or surgical patient experiences. It should be a configuration of management strategies fitted to careful assessment of patients' needs and a response that is consistent with our best scientific knowledge." (Mechanic and McAlpine1999)

It remains to be seen how the balance will be struck over the next few years between State legislation, large employer initiatives (public and private), and federal legislative expansions of the 1996 Mental Health Parity Act.

I. INTRODUCTION

A. Charge

This report is one of a series developed by the NAMHC in response to requests by the Senate Appropriations Committee.[2] In Senate Report No.105-300, the Senate Appropriations Committee observed:

"The Committee has recently received from the National Advisory Mental Health Council the report requested in its fiscal year 1998 appropriations report and notes the impact of managed care on keeping costs of parity at a low level." The Committee requested from the NAMHC an additional report on its findings from emerging health services research data that would, where possible "...address both employer direct costs, and the impact of indirect cost savings from successful treatment of employees. The NAMHC was also asked to "consider the costs and quality of coverage for children, and the development of outcome measures of quality for all mental health coverage." (For the full Senate language, see Appendix A.)

The prior NAMHC report (1998) presented the results of research studies that focused on the indirect effects of managed mental health care on general medical care and disability as well as the quality of mental health services in the primary care setting. That report also summarized the efforts at that time to develop clinically based quality information systems in managed care. In addition, the report reviewed the existing research findings that evaluated the quality of managed mental health services both on the basis of administrative claims data and clinical outcome data. This report updates, refines, and expands those earlier findings, often with much larger databases.

B. Background: The Changing Policy Context

Since 1993 when the first NAMHC report was published, the U.S. health care system has undergone many changes that profoundly affect both mental health and general health care. Of particular importance is the ongoing search for ways to control the costs of health care while maintaining quality and accessibility. One major structural change intended to contain costs has been the shift to managed care after decades of predominance by fee-for-service insurance. Intertwined with this change have been increasing efforts at the State and federal levels to mandate health insurance coverage for treatment of mental illness that is comparable to that for other illnesses--also known as "parity."[3]

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[2] The prior reports are contained within one document: National Advisory Mental Health Council (1998): *Parity in Financing Mental Health Services: Managed Care Effects on Cost, Access, and Quality: An Interim Report to Congress by the National Advisory Mental Health Council* , Bethesda, NIH Publication No. 98-4322.

[3] The term "parity" or "mental health parity" refers generally to insurance coverage for mental health services that is subject to the same benefits and restrictions as coverage for other health services. "Comprehensive" parity legislation eliminates the use of different annual and lifetime dollar limits, inpatient day and outpatient visit limits, deductibles, and out-of-pocket maximums in mental health compared to general health benefits. The Mental Health Parity Act of 1996 affects annual and lifetime dollar limits, so that day and visit limits and higher co-payments and deductibles may still be applied to

In the 1990s, a growing number of States enacted their own parity legislation. In addition, the Mental Health Parity Act (MHPA) of 1996 (P.L. No. 104-204), implemented on January 1, 1998, provided an important step toward parity for all States. The MHPA amended the Public Health Service Act (PHSA) and the Employee Retirement Income Security Act of 1974 (ERISA) to provide for parity in applying dollar limits on certain mental health benefits when limits are placed on medical and surgical benefits. The MHPA stipulates that when a group health plan--or health insurance coverage offered in connection with a group health plan--provides both medical and surgical benefits as well as mental health benefits, it may not impose an aggregate lifetime dollar limit or annual dollar limit on mental health benefits if it does not also impose such a limit on substantially all of the medical and surgical benefits. The MHPA also provides two exemptions from these requirements: the first is for small employers (defined as an employer with at least two but not more than 50 employees); the second is for group health plans if the application of these provisions results in an increase in the cost under the plan or coverage of at least 1 percent. In theory, the new national parity legislation provides an opportunity to make mental health services more accessible to those who need them. Actual experience has shown that the majority of mid- to large-sized corporations eliminated outpatient and inpatient dollar limits but instituted visit or bed-day limits (Hay Group 1999).

Another important step on the road to parity was President Clinton's announcement in mid-1999 that a parity-level benefit would be implemented for 8.7 million beneficiaries of the Federal Employees Health Benefit Program (FEHB) beginning in calendar year 2001.[4] In doing so, the President noted, "We must make it clear once and for all: mental illness is no different from physical illness--and our nation's health plans should provide both with the same quality coverage." Research findings contained in the previous NAMHC reports contributed to the decision by the Office of Personnel Management (OPM) to recommend that such a step was financially feasible.

The feasibility of expanding mental health benefits to parity levels without dramatically raising costs has gained increasing acceptance among policymakers over the course of the Workgroup's reports. This is due in part to the containment of costs by managed care organizations. In response, the impact of managed care on the accessibility and quality of mental health care is a continuing source of attention and concern. As elaborated in this report, efforts are intensifying to develop uniform measures of quality for use in administration and research, and to find cost-effective ways to obtain data essential for evaluating quality in mental health services. However, these developments are still, for the most part, at an early stage.

The interactions of cost, quality, and access to mental health care under various conditions of parity and managed care have been the primary foci of the three prior NAMHC reports. These interactions are also at the heart of this report, which builds

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those with mental illnesses. In some State legislation, although not in the Mental Health Parity Act, mental health parity may only apply to a subgroup of the population (e.g., those with specific mental illnesses).

[4] The FEHB parity-level benefits include coverage for substance use disorders. Although the current report focuses on parity for mental health, coverage for substance use disorders is an important issue, especially since many people with mental illness have comorbid substance use disorders.

upon the growing experience of public and private mental health care systems with parity and managed care. The NAMHC Parity Workgroup has both stimulated and benefited from studies in progressively larger populations. These new data provide an increasingly reliable research base for future policy projections and decisions.

II. STATE PARITY LEGISLATION: CURRENT STATUS (1991-2000)

A. Background

Prior to 1996, only five States had successfully passed parity legislation. The passage of the federal 1996 Mental Health Parity Act gave significant momentum to this movement. After 1996, the number of bills introduced increased dramatically, with 26 additional States ultimately passing mental health parity. However, State parity laws are not homogenous, and most offer more benefits than the 1996 MHPA. In addition, the Federal Employee Health Benefits Program and five State-employee health programs (Ohio, North Carolina, Texas, Indiana, and Massachusetts) have initiated parity. The brief overview below of the current status of parity across the States indicates that the concept of parity is gaining widespread acceptance.

B. Recent Analyses

Scheffler and Gitterman (2000a) found significant statutory variation in how States regulate mental health insurance parity in the United States. That variation can be classified along six dimensions: type of mental health mandate; definition of mental illness; coverage of substance abuse; terms and conditions; and small-employer and cost-increase exemptions (see Appendix D, Table II.)[5] The investigators also found significant differences in how States define "mental illness." They may use a broad-based definition[6] or definitions based on serious mental illness, on biologically based mental illness, or mental illness as defined by the health plan (see Appendix D, Tables IA-ID)

As of May 15, 2000, 31 State legislatures have enacted mental health parity statutes (10 State legislatures passed parity statutes in 1999). Before the 1996 federal Mental Health Parity Act (MHPA), only five State legislatures had enacted parity statutes: Maryland (1994), New Hampshire (1994), Rhode Island (1994), Maine (1995), and Minnesota (1995).

After the 1996 MPHA, 26 State legislatures enacted mental health parity statutes between 1997 and May 2000: in 1997, six States (Arkansas, Colorado, Connecticut, Missouri, Texas, Vermont); in 1998, five States (Delaware, Georgia, Pennsylvania, South Dakota, Tennessee); and in 1999, 10 States (California, Hawaii, Indiana, Louisiana, Montana, Nebraska, Nevada, New Jersey, Oklahoma, Virginia). In 1999, two States revisited and broadened their original parity statute: Connecticut and Missouri. The 1999 legislative session recorded the greatest number of parity enactments during any single year during the 1990s. In 2000, five States enacted

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[5] Note that in Appendix E, Tables I A-D focus on how States define mental illness under parity legislation, while Table II focuses on differences among State policies regarding parity.

[6] Broad-based coverage was defined to include all mental disorders listed in the American Psychiatric Association's *Diagnostic and Statistical Manual* (4th edition) and/or the mental disorders in the World Health Organization's *International Classification of Disease.*

parity requirements (Alabama, Kentucky, Massachusetts, New Mexico, Utah) by early May.

Following the 1996 MHPA, 14 States also enacted statutes to match the federal parity statute including: in 1997, Alaska, Arizona, Delaware, Indiana, Kansas, Louisiana, Montana, Nevada, North Carolina, South Carolina, Tennessee, and West Virginia; and in 1998, Florida and New Mexico. Of the 14, seven States matched the federal statute in 1997 or 1998, and then opted to have a "stronger" State parity statute: Delaware (1998), Indiana (1999), Louisiana (1999), Montana (1999), Nevada (1999), New Mexico (2000) and Tennessee (1998). In addition, five States included mental health parity for their State employees: Ohio (1990), Texas (1991), North Carolina (1991), Massachusetts (1994), and Indiana (1997).

A preliminary econometric analysis by the same investigators (Scheffler and Gitterman 2000b) revealed a number of factors that influence the likelihood of passage of State parity legislation. They found that economic factors are important in influencing a State's decision to enact mental health parity. A State is more likely to enact mental health parity if it has higher levels of per-capita mental health spending; a higher proportion of the population under managed care; a higher level of mandated health benefits; and higher levels of education. Conversely, States with a higher percentage of small business firms are less likely to enact mental health parity. In an earlier study, Sturm and Pacula (1999) found that States with below-average mental health care utilization were more likely than other States to enact State parity legislation for mental health insurance.

III. UPDATE ON COST OF PARITY FOR ADULTS AND CHILDREN

A. Background

The Senate Appropriations Committee's data requests to the NAMHC reflect a continuing concern about the potential costs and consequences of implementing mental health parity. In response, the NAMHC Parity Workgroup, assisted by staff of NIMH and other federal agencies, as well as nonfederal consultants (see Appendix B), has provided systematic analyses of empirical data and economic models to clarify the costs of implementing such benefits (see National Advisory Mental Health Council 1998).[7] This report presents findings on the cost of parity from three types of studies: 1) predictions based on an updated simulation model; 2) an empirical case study using a pre-post parity design; and 3) other studies based on State-level data sets. The findings for both adults and children are summarized below.

B. Predictions Based on an Updated Simulation Model

Actuarial and economic forecasting models used to predict the differential cost of parity for mental health coverage under private insurance have continued to evolve, although their role is gradually being supplanted by empirical data from evaluations of actual State or company parity experience. Major improvements have been made in the data used to create a baseline for making projections. In addition changes created by managed care have been incorporated into the models used to project costs.

In May 1996, the Congressional Budget Office (CBO) issued a report entitled *CBO's Estimates of the Impact on Employers of the Mental Health Parity Amendment in H.R. 3103.*[8] The CBO provided its own analysis predicting that the cost increases of total health benefits associated with mental health parity benefits in a pure indemnity (fee-for-service) plan would be 5.3 percent, with the aggregate estimate lowered to a 4 percent increase to reflect the influence of managed behavior health care plans on the market (Congressional Budget Office 1996). In a subsequent review of multiple estimates of mental health parity costs, Sing and colleagues (1998), based on Hay Group models, lowered the overall parity cost estimate to a 3.6 percent increase of total health benefits**.**

The NAMHC parity workgroup recently asked the Hay Group to update its simulation model for estimating the average annual premium increase with the implementation of parity. Using this new model and standard assumptions (see Appendix D that take into consideration the impact of managed care on baseline cost data led to a further reduction of the previously predicted cost increase with parity--from 3.6 percent to 1.4

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[7]Note that the proprietary data in this report on managed care costs, utilization, and quality derive from a small number of managed behavioral health care companies, without whose cooperation this report could not have been written. However, the reliance of the NAMHC parity workgroup on these data sources may have introduced an unavoidable bias: Managed care companies willing to share their data with federal researchers are not necessarily representative of the industry at large. They may provide better funding for mental health benefits and data systems, and be more thorough in their record keeping.

[8] H.R. 3103 was an earlier full-parity amendment consistent with the Senate Parity Bill sponsored at the time by Senators Domenici and Wellstone.

percent of total health benefits. This recent estimate is based on using new data in the Hay model, including actuarial data from the Federal Employees Health Benefit Program, complemented by cost and utilization data from several large managed behavioral health care companies as well as the experience of a large State employees health plan (described in Section III of this report.)[9] Nevertheless, even models such as the newest one developed by the Hay Group may overestimate the cost of parity because they do not account adequately for many of the recent changes in the mental health care delivery system.

Research on interactions between managed care and mental health services points to "disconnects" between empirical research on managed care and the structure of models projecting costs. New findings in several key areas of study have not yet been incorporated into projection models. These include: 1) the response of managed care to changes in budgets and benefits; 2) the impact of managed care on demand responses to changes in benefits; and 3) the impact of managed behavioral health care carve-outs above and beyond existing managed care arrangements.

Nearly all current projection models adjust the level of predicted costs under a given benefit design according to the type of managed care arrangement within which the benefit is administered. For example, cost-reduction parameters are specified for various types of managed care arrangements (e.g., health maintenance organizations (HMOs), preferred-provider organizations (PPO), and point-of-service (POS) plans). Although these parameters are assumed to be fixed at levels estimated in the research literature, they may vary depending on the benefit design, the available budget for mental health, and other management responses (Huskamp 1999; Brisson et al. 1999). Current forecasting models do not take into account the evidence that management responds to budgets and benefits.

Most projection models continue to rely on estimates of demand response to copayment levels that are derived from the RAND Health Insurance Experiment (Wells et al. 1992). Those estimates are based on unmanaged fee-for-service indemnity arrangements. Research has shown repeatedly that the impact of management dominates the impact of benefit design. More specifically, managed care has led to reduced use of hospital care for any given insurance benefit arrangement. These findings suggest that both admissions and duration of hospital stays respond differently to insurance coverage in the presence of managed care (Ma and McGuire 1998; Goldman et al. 1998).

Similarly on the outpatient side, current evidence suggests that demand response to copayment levels is different under managed care than in the context of fee-for-service plans. Some actuarial models, such as the updated Hay Group (2000) model, have recently begun to offer some sensitivity analysis to differing assumptions about demand response for outpatient mental health care. Preliminary results from the sensitivity analysis indicate that different assumptions about the demand/consumer response for outpatient mental health care have minimal impact on the cost increase under parity.

[9] The assumptions of this model are described in Appendix D.

Finally, projection models view the cost-control potential of health plans as depending entirely on the general model of care (e.g., HMO, PPO). Thus, an HMO that carves out its mental health care to a specialty vendor under a capitated premium is treated the same way analytically as an HMO with a fee-for-service network of providers and no carve-out. Recent research suggests that the use of specialty vendors within a general model of managed care will yield additional costs savings (Brisson et al. 1999; Sturm et al. 1998).

Hence, even with the improved empirical base of the recent Hay Group model, forecasting models that project mental health costs under private insurance lag behind the existing base of knowledge about modern mental health care delivery. (Both the rapid pace of research advances and the difficulty of incorporating such findings into forecasting models contribute to this lag.) Sensitivity analyses of forecasts using a range of assumptions about management, demand response, and organizational structure of markets are therefore needed to understand more fully the likely consequences of parity initiatives. However, as more results from State and large-employer parity experiences are being published, the need to use projection models to predict the cost of parity becomes less critical.

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C. Cost Impact of Parity under Managed Care: Case Study Based on Pre/Post Parity Design

A very recent analysis requested by the NAMHC parity workgroup (Zuvekas et al. 2000) examined the actual effects of a State mental health parity mandate (combined with "carve-out" managed care) on costs, utilization, and access for a large employer group (over 150,000 employees) subject to parity. The 4-year study extended from 1 year before parity to 3 years after parity was implemented. Overall, the study demonstrated that, compared with the pre-parity period, per-member costs were halved by the third year of parity, while the proportion of the population receiving some mental health services increased (from less than 5 percent to more than 7 percent),

What accounts for the cost reductions associated with parity combined with carve-out management? Although per-member costs declined only modestly (about 9 percent) between Year 1 and Year 4 for employees and their spouses, plan costs declined dramatically (by 75 percent) for dependents (especially for their inpatient treatment--see Subsection D, below). In fact, children and adolescents accounted for more than 90 percent of the overall cost decline. Increases in outpatient use and costs were offset by substantial declines in inpatient costs, by a factor of 4 or 5 to 1. (Most of the overall increases in outpatient costs came from an increase in the number of people receiving outpatient treatment.) Three-quarters of the declines in inpatient costs stemmed from reduced lengths of stay; decreases in inpatient admissions and per diem costs account for the rest of the decline.

This case study also compared the experience of the large-employer group to other, smaller groups who were covered by the same insurance carrier but not subject to the parity benefit. These groups experienced increases in costs over the same period, suggesting that the large decrease in costs observed in the large-employer group was not simply an artifact of a general trend over time.

D. Costs and Coverage for Children

***Background*:**

The need for better mental health services for children and adolescents is widely recognized. As researchers have often observed, "most children and adolescents who need mental health/substance abuse (MH/SA) services do not receive them" (Burns et al. 1999). However, during the mid-1990s, employment-based health insurance for children increased (Fronstin 1999). A growing amount of research has been clarifying how improved coverage combined with parity and managed care affects the cost and use of mental health services for children and adolescents.

Case Study 1: Single State Pre and Post Parity

The study by Zuvekas and colleagues (2000) described in Section IIIC showed that, in the experience of one large State, access to specialty mental health services increased by 50 percent for children and adolescents (as it did for adults) under parity with carve-out managed care. But, as noted above, the costs for children declined much more than they did for adults (75 percent for children vs. about 9 percent for adults) with 6- to -17-year-olds accounting for most of the decline. Because of very high inpatient utilization among children and adolescents in the large-employer group prior to parity, carve-out management was able to effectively reduce costs, despite improved benefits, while still increasing overall access. The same level of cost reductions might not necessarily be expected with other populations when simultaneously introducing parity and more intensive managed care; however, the experience described for the employees and their spouses suggests that costs would not dramatically increase.

Case Study 2: Multiple States

An analysis of the impact of parity legislation on the use and cost of mental health services for children and adolescents in 12 States was prepared by Cuffel and colleagues (1999a). Adolescents have had relatively high mental health costs, primarily because of their use of inpatient care. This study revealed that parity legislation has widely varied effects on the use and cost of mental health services for adolescents across States. In some, such as Minnesota and Rhode Island, the increased benefits were associated with increases in costs, while in others, such as Colorado, the greatest decreases in cost and utilization after parity occurred among adolescent populations. These findings generally suggest that cost reductions for children and adolescents under parity legislation stem primarily from reduction of inpatient services.

In both case studies, the decline in cost for children reflects a reduction in inpatient care, although outpatient use increased. It is not clear if this decrease in inpatient use is good or bad for adolescents. If appropriate outpatient services are available it may be a positive shift. However, the impact of such changes on the long-term mental health of children remains to be determined.

IV. ACCESS AND QUALITY UNDER PARITY

A. Background

By using various cost-control methods, managed behavioral health care has made it possible to offer expanded parity-level benefits without dramatic cost increases. However, those same controls are also sufficiently powerful to prevent access to mental health services. During the last 2 years, more data sets became available for evaluating access and refining its measurement. While researchers were initially only able to measure the probability of any mental health use in a given year, they can now also identify the intensity (volume) of access. In addition, a very recent study was able to differentiate between the population with severe mental illness (SMI) and the non-SMI population while evaluating access to care.

B. Case Studies

***Case Study 1*:**

Concerns that cost containment and price competition among managed care companies might have unduly restricted access to specialty treatment led the NAMHC Parity Workgroup to request a preliminary study to examine the relationship between insurance companies' expenditures on mental health (measured by cost per member per month, PMPM) and the probability of receiving any specialty mental health treatment. The analysis indicates that, in general, access to specialty treatment decreases as mental health expenditures fall (Weissman et al. 2000**).**

***Case Study 2*:**

The pre- and post-parity study described in Subsection III C (Zuvekas et al. 2000) provides extensive data on the impact of parity and carve-out managed care on access to and use of inpatient and outpatient mental health services by adults and children. Overall treated prevalence (for employees, spouses, and dependents) rose from 4.9 percent pre-parity (Year 1 of the study) to 7.3 percent after 3 years of parity (Year 4).

As noted earlier, this case study also compared the experience of the large-employer group to other smaller groups who were not subject to the parity benefit. Treated prevalence also increased in these smaller groups over the same period, suggesting that factors other than parity and carve-out management may have contributed to better access to services. However, it is also clear that parity and carve-out management did not lead to reduced access at the same time that costs were dramatically reduced.

Inpatient Admissions: Between Year 1 and Year 4 of the Zuvekas et al. study, inpatient admissions for employees and their spouses rose by a little over one quarter. However, for dependents, inpatient admissions fell 40 percent overall, with admissions down 65 percent for 6- to 12- year-olds and down 45 percent for 13- to-17-year-olds, while admissions rose slightly for dependents 18 and older.

During the same period the average number of inpatient nights decreased substantially for employees from 83 nights per 1000 enrollees to 47 nights, and from 98 nights to 71 for spouses. Among children and adolescents, the number of inpatient nights decreased by 80 percent, with most decreases occurring among 6- to 17- year-olds. The average length of stay for these dependents fell from more than 30 nights per admission to about 10 nights per admission.

Although overall inpatient admissions for dependents, employees, and spouses fell slightly with parity (8 percent), the number of inpatient nights was reduced almost 70 percent. As noted above, dependents experienced the most dramatic changes. In the pre-parity period, 77 percent of dependents receiving inpatient treatment during the year spent more than 30 nights in the hospital, and 61 percent spent more than 60 nights. By the third year of parity, 52 percent of dependents receiving inpatient treatment spent more than 30 nights during the year as inpatients, and only 34 percent spent more than 60 nights. As noted in Section III, it is unclear if the decrease in inpatient use has a positive or negative impact, especially since outpatient use increased (see below). The long-term effect on mental health remains to be determined.

Outpatient Utilization: Overall, both the proportion of enrollees with any outpatient use and number of outpatient visits per 1000 increased by 50 percent under parity. Dependents were less likely than employees or spouses to use outpatient mental health and substance abuse services; they also tended to have slightly fewer visits when they did use them. In general, although a greater proportion of enrollees were using mental health services after parity, the mean number of visits for those with any use remained virtually unchanged.

C. Studies Based on National Data Sets

In theory, implementing parity for mental health can reduce financial barriers to access to mental health care (Rupp and Lapsley 2000). Research based on national data sets confirms that more people have access to mental health care under parity, but there is not necessarily more use per individual (Sturm and Sherbourne 2000). Another national study, which examined how parity affects the use of mental health services by people in poor mental health vs. those not in poor mental health, revealed a small increase in number of visits among the former group (Sturm and Wells 2000). Despite some limitations in the generalizability of this study, it suggests that even limited reductions in co-insurance rates and deductibles can increase access for those in greatest need for mental health services.

V. DEVELOPMENT OF OUTCOME MEASURES OF QUALITY

A. Background

As noted in previous NAMHC reports on parity (National Advisory Mental Health Council 1998), the ability to measure the quality of health and mental health services is crucial for achieving the real intent of parity (i.e., providing the best and most appropriate services for those who need care). Various efforts have been launched, ranging from clinical measures for specific illnesses applied at the individual level to global performance measures applied to the health care system. Although the ability to measure quality has improved in recent years, there is still a long way to go (Dickey et al. 1998). Below we discuss recent developments in this area. Although no current data reveal the impact of parity on quality, these efforts should make it possible as data become available for care under parity.

B. Recent Developments

There are many ways to measure quality, but most are based on a model outlined by Donabedian many decades ago (Donabedian 1966). This model separates quality into three domains: structure, process, and outcome. Most current measures use some aspect of each of these, although the most popular is outcome assessment. Newer measures have expanded to incorporate other aspects, such as access to specific health services, and to include a more comprehensive view of the health system as well as education and caregiver support. Recently there have been efforts to move beyond simply measuring aspects such as structure and process to determine ways to reduce variation in health care by ensuring provider adherence to "evidence-based" guidelines.

Earlier studies showed that the quality of care for mental illnesses is not often good, especially in the general medical sector (Wells 1994; Wells et al. 1994). However, even in the specialty sector there are quality problems, as shown by recent reports from the Schizophrenia Patient Outcomes Research Team (Lehman and Steinwachs 1998). Although some earlier studies raised concerns about the quality of mental health care in managed care settings, there are no consistent data to indicate that managed care settings are any less likely than non-managed care settings to deliver appropriate treatment services (Durham 1998).

No currently available quality measures provide all the answers that consumers, providers, employers, and policymakers want. Some, such as the currently popular Health Plan Employer Data and Information Set (HEDIS) measures are not sufficient in the mental health area (Druss and Rosenheck 1997). In addition, outcomes of health care may be affected by factors that are not under the control of the medical system, or their relevance to a particular treatment may not become apparent for years. Thus, it is crucial to be able to link what is done in a particular patient encounter to the ultimate impact of that intervention. One way to do this is to show through research which interventions work for particular illnesses in specific populations. This is the basis for what is called “evidence-based practice.”

The National Institute of Mental Health recently launched several major clinical treatment trials that will determine the effectiveness of treatment interventions in community populations with various mental illnesses. These studies will provide evidence about which interventions are best for the varied populations seen in everyday community practice. The first trials are in bipolar disorder, schizophrenia, depression in adolescents, and treatment-resistant depression in adults. Future studies will focus on other major mental illnesses.

Even with adequate measures, it is essential to have access to data that can be used to assess the quality of care delivered. This requires that a variety of data sources, such as clinical and survey data, be available. For example, information on access to care can be obtained through surveys of consumers, but use of specific services is best determined through administrative databases. The need for these different sources of information presents a multitude of feasibility problems, however. Population surveys are often costly and require a great deal of effort to enlist a representative sample, while medical records and administrative data raise confidentiality concerns.

Because many of the factors that affect health are social and their relationship to health status is unclear, more research is needed at the interface between social sciences and clinical treatment. Acting without such data, or on the bases of imperfect data, could increase costs, disenfranchise groups who have special needs, and even put excellent health plans out of business.

Even with appropriate measures of quality and the ability to put them into place, interventions need to be developed that actually improve the quality of mental health care in places where it is now not optimal. Efforts to improve quality have focused on regulation, competition, quality-improvement programs, and economic incentives (Chassin 1997). Clearly, no single approach is sufficient; multiple approaches are needed. For example, regulation can set the groundwork for what is expected and make it possible to collect data that could be used to formulate risk adjustment. Competition is a powerful tool, but without valid measures of quality, the wrong factors may form the basis for competition among plans. Thus, consumers and health plans may segregate themselves to take advantage of the most positive results that relate to them. This might improve some specific areas of health care but might result in poorer general health care. Financial incentives can certainly influence what care is delivered, but it is unclear how much impact they have on quality and how to use them to improve the quality of care. A number of quality-improvement programs have been tried, and some recent evidence suggests that it is possible to improve the quality of care without major efforts (Wells et al. 2000). However, it still is unclear what programs will work and what other incentives will be needed to ensure that they last.

Current efforts are focused on finding ways to ensure that providers and consumers use the treatments that are considered best. We need to understand how providers, consumers, and systems will change their behavior to ensure that the best care is delivered and used. The NIMH is currently encouraging research that seeks to address these issues.

VI. WORKPLACE ISSUES

A. Background

Comprehensive analyses of the impact in the workplace (including employer concerns) of broadened mental health coverage under parity need to take into account parity's effect on the costs of general health care, and costs of disability and work productivity. Potential shifts of employees with mental illness into primary care to obtain mental health treatment, changes in workplace performance and attendance, and movement of workers between the employment and disability rolls are of particular interest to employers. No data are available on the impact of parity in these areas. However, previous research discussed below provides some insight into the potential effect of providing expanded mental health services under parity.

B. Indirect Effects of Mental Health Care on General Medical Care Costs

The interactions of somatic and psychological factors in health and illness--and their impact on health care use and costs--are gaining increasing recognition in a climate of greater management and cost control. There is widespread agreement that people with mental illness are high users of general medical services. For example, people diagnosed with depression have nearly twice the annual health care costs of those without depression, while those with somatization disorder have nine times greater annual health care costs than those without the disorder (Simon et al.1995). There has been considerable interest in the effect of providing mental health and substance abuse treatment on the use and cost of general medical care.

In the classic research review and meta-analysis of how mental health care affects medical care costs (Mumford et al. 1984), most of the 58 studies under review demonstrated a medical cost offset, that is, a compensatory reduction in the cost of general health services, usually resulting from provision of short-term psychotherapy or supportive counseling. But many of the studies were difficult to interpret because of methodological flaws, such as lack of randomization or of a well-matched comparison group.

Two studies that used random assignment examined the effect of providing psychiatric consultation to primary care physicians for people with somatization disorder or somatization syndrome (Smith et al. 1986; Simon et al. 1995) Both studies demonstrated reductions in health care expenditures (53 percent and 33 percent respectively) for the two illness groups.

Zhang and colleagues (1999) followed 435 people with depression over a 1-year period. Among those receiving depression treatment, individuals treated in the mental health sector had significantly higher depression treatment costs and significantly lower lost earnings than those treated in the primary care sector. The investigators concluded that the annual net economic costs are lower for people treated within the mental health sector than for those treated by primary care providers.

Concern has been expressed in the field that restricting access to specialty mental health services might shift the cost of caring for the mentally ill into the general health system. This concern is based in part on findings of cost shifting to the general health system, such as that identified by Rosenheck and colleagues (1999) described in Section C below. However, a recent study of the transition of a large employer from an unmanaged indemnity plan to a managed behavioral health carve-out did not show any evidence of cost shifting (Cuffel et al.1999b). This study compared the use and cost of behavioral health care and medical care services during a 2-year period before the carve-out and 3 years afterward. Medical care costs decreased for those using behavioral health care services during a period when such costs were generally increasing.

England (1999) has proposed that medical cost offset data could be very valuable for identifying people who are underserved and for developing better coordination of medical and mental health care. She underscores the importance of linking employer databases of aggregate data on health, mental health, disability, workers' compensation and employee absenteeism to comprehend fully how changes in mental health coverage and policy affect the system as a whole, rather than the mental health specialty sector alone. It is important to remember, however, that the idea of a medical cost offset presents enormous conceptual and methodological challenges that make it difficult to study.

C. Indirect Effects of Mental Health Care on Disability

The World Health Organization (WHO) Report on the Global Burden of Disease (Murray and Lopez 1996) highlights the substantial impact of disability resulting from several major mental and addictive disorders--especially major depressive disorder--compared to physical disorders. Among the 10 leading causes of disability worldwide, four are mental disorders, and unipolar major depression leads the entire list. It is well known from the clinical and disability literatures that severe mental disorders tend to have earlier ages of onset and are more persistent than many other disabling conditions; thus they tend to result in longer periods of disability. Even among those able to work, the severity of illness affects both productivity at work and the ability to tolerate the stress of the workplace. However, current treatments for depression and other mental illnesses offer appreciable benefits for workers and their employers. For example, the effectiveness of treatments for depression in improving work performance, satisfaction, and work relations has been convincingly demonstrated in meta-analyses of several randomized clinical trials (Mintz 1992).

The economic impact of effective treatment can be considerable, given the high toll of disability exacted by certain mental disorders. Kessler and colleagues (1999) recently estimated the short-term work disability associated with a diagnosis of major depression over a 1-month period, based on an analysis of two national surveys (the National Comorbidity Survey and the Midlife Development in the United States Survey). Such short-term work disability is much more prevalent among workers with major depression (affecting 37 to 48 percent) than among those without depression (affecting 17 to 21 percent). Within a 30-day period, workers with depression experienced between 1.5 and 3.2 more short-term work-disability days than workers without depression. This differential represented "a salary-equivalent productivity loss averaging between $182 and $395 [during the 30-day period]." The researchers

showed that this amount was nearly comparable to the direct costs of treatment of depression for that period of time, thus providing support for the cost-effectiveness to employers of providing mental health treatment.[10]

How does managed care affect the workplace and the work-related benefits of treatment? In a recent Yale study, Rosenheck and colleagues (1999) examined the impact of managed care (not under parity) on employees of a large national corporation. During the 3-year study period mental health expenditures decreased, due to a large decrease in the use of specialty mental health services. At the same time, however, there was greater employee absenteeism and poorer work performance; in addition, increased general health costs offset any savings in mental health specialty costs among users of mental health services.

Researchers at Johns Hopkins University (Salkever et al. 2000) have found that in general, having greater access to outpatient specialty care and increased mental health coverage reduces the number of mental health disability claims. Plans with the highest financial barriers (first dollar costs and coinsurance) experienced more psychiatric disability claims. By contrast, front-line disability management (e.g., providing alternative employment and offering Employee Assistance Program services) was associated with reduced numbers of claims, as was having greater organizational access to specialty care through carve-outs.

[10] This study only examined the cost of short-term work disability for employed persons; it did not include the costs to employers of long-term depression-related disability for those no longer in the work force. Thus, it underestimates the total disability impact associated with this illness

VII. PUBLIC-PRIVATE SECTOR INTERFACE

A. Background

Concern about parity's potential for shifting mental health care costs to the general medical sector is paralleled by concern about parity's potential to shift some expenditures for mental health/substance abuse care from the public sector to the private sector. The latter shift may lower overall mental health/substance abuse expenditures as a result of efficiency gains in the private sector, but higher private insurance premiums may also result. (Another potential shift of particular concern to people with severe mental illness is that from the private to the public sector due to exhaustion of private insurance benefits--especially for inpatient care.) Studies delineating differences in utilization and cost between the public and private sectors, as well as the effects of parity and managed care in encouraging cost shifting between the sectors are at an early stage of development. A few recent findings are reported here.

B. Single-State Case Studies

Case Study 1: Public-Private Sector Comparisons: Utilization and Expenditures

A 1-year study was recently conducted of utilization patterns and expenditures for a single managed care company providing mental health and addictive services to a State population of almost 2 million enrollees; of these, approximately 650,000 were in the public sector (Goldman H. et al. 2000). The study provides a more complete picture of a single State mental health system--in both private and public sectors--than previously available. Preliminary data from the study indicate that all service use (except rarely used and usually noncovered substance abuse services) is higher in the public sector than in the private sector. This difference does not seem to change dramatically when managed care is implemented in both the public and private sectors by the same managed behavioral health care company.

Case Study 2: Public-Private Sector Cost Shifting

A recent study using a longitudinal data source (pre-parity) from the mid-1990s (containing individuals with private insurance who also use public-sector services, as well as privately insured individuals who do not use publicly financed services) is contributing to understanding interactions and cost shifting between the public and private mental health care systems (Siegel et al.1997, 2000). Major findings of this case study indicate that during a year, only a small proportion (< 1 percent) of those with private insurance directly shifted to the public sector; a larger proportion (< 2.2 percent) of those with private insurance shifted to a mixture of private and public-sector services.

During the first year of the study, the latter group had the highest costs within the private group. There is a high likelihood of remaining in the mixed private/public pay category; approximately 55 percent of people in that group remain in it over 2 years, and have consistently high costs. People who shift from private to public sector or to a mixture of public and private sectors tend to be dependents (with subsidized income) of employed individuals. This study demonstrates empirically that the public and

private insurance sectors are not mutually exclusive, and individuals are not purely in one sector or the other. There is a small group of high-use, high-cost patients who are being financed by both sectors, and about 13 percent of them moved to the public sector after being in the mixed sector for 2 years.

VIII. KNOWLEDGE GAPS

Since the first NAMHC report on parity to the Senate Appropriations Committee, a substantial body of research knowledge has developed concerning the impact of parity on mental health care and its costs. However, many gaps in knowledge remain as the focus of inquiry shifts from the cost of parity to its short-term and long-term effects--in combination with managed care. These include:

- What is the long-term effect on continued access to appropriate mental health services?
- What is the impact on particularly vulnerable populations, such as children and adolescents, the elderly, the severely mentally ill, and traditionally underserved populations?
- What is the effect on disability and work productivity in insured populations?
- How is the quality of treatment affected?
- What is the long-term impact on public mental health?
- How do health care systems respond to parity?
- What is the impact on the types of co-morbid problems seen in the general health care sector?

Both the implementation of a parity-level benefit in the Federal Employees Health Benefit plan in 2001 and the implementation of parity in 31 States offer unique opportunities to study many of these issues and build on a strong foundation of baseline data.

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APPENDIX A:
Workgroup Charge from Senate Report No.105-300

"Research has provided clear evidence that mental illnesses are diagnosable, treatable, and real diseases affecting the brain. The Committee has recently received from the National Advisory Mental Health Council [NAMHC] the report requested in its fiscal year 1998 appropriations report and notes the impact of managed care on keeping costs of parity at a low level. The Committee requests that the NAMHC prepare an additional report on its findings from emerging health services research data from both the private and public sectors and submit it under the provisions of section 406g of the Public Health Service Act. Where possible, the report should address both employer direct costs, and the impact of indirect cost savings from successful treatment of employees. This report should, to the extent possible, also consider the costs and quality of coverage for children, and the development of outcome measures of quality for all mental health coverage."

APPENDIX B:
NAMHC Parity Workgroup Members and Consultants

NAMHC LIAISON
Mary Jane England, M.D.
Mary L. Durham, Ph.D.
Roy C. Wilson, M.D.

WORKGROUP STAFFING

National Institute of Mental Health
Darrel Regier, M.D., M.P.H.
Agnes Rupp, Ph.D.
Donald Rae, M.A.
Michael Feil, M.B.A.
William Narrow, M.D.
Grayson Norquist, M.D., M.S.P.H.
Anne Rosenfeld

Stuart Sotsky, M.D., M.P.H.[11]

Agency for Healthcare Research and Quality
Samuel Zuvekas, Ph.D.

SPECIAL CONSULTANT
Richard Frank, Ph.D.

[11] Note: Dr. Sotsky served on detail from George Washington University to NIMH from 1998 to 1999.

APPENDIX C:
National Advisory Mental Health Council Roster

CHAIRPERSON
Steven E. Hyman, M.D.
Director
National Institute of Mental Health
Bethesda, Maryland

EXECUTIVE SECRETARY
Jane A. Steinberg, Ph.D.
Acting Director
Division of Extramural Activities
National Institute of Mental Health
Bethesda, Maryland

MEMBERS
Thomas J. Coates, Ph.D.
Professor
Director, UCSF AIDS Research Institute
and Center for AIDS Prevention Studies
University of California, San Francisco
San Francisco, California

Kathy Cronkite
Mental Health Advocate
Austin, Texas

Mary L. Durham, Ph.D.
Vice President/Research
Kaiser Foundation Hospitals
Portland, Oregon

Mary Jane England, M.D.
President
Washington Business Group on Health
Washington, DC

Javier I. Escobar, M.D.
Professor and Chairman
University of Medicine and Dentistry of New Jersey
Robert Wood Johnson Medical School
Piscataway, New Jersey

Ellen Frank, Ph.D.
Professor of Psychiatry and Psychology
Department of Psychiatry
School of Medicine
University of Pittsburgh
Pittsburgh, Pennsylvania

Apostolos Georgopoulos, M.D., Ph.D.
Professor, Department of Physiology, Neurology and Psychiatry
University of Minnesota Medical School
Director, Brain Sciences Center
Veterans Administration Medical Center
Minneapolis, Minnesota

Henry Lester, Ph.D.
California Institute of Technology
Division of Biology
Pasadena, California

James McClelland, Ph.D.
Professor
Humanities and Social Sciences
Carnegie Mellon University
Pittsburgh, Pennsylvania

Charles B. Nemeroff, M.D., Ph.D.
Reunette W. Harris Professor and Chair
Department of Psychiatry and Behavioral Sciences
Emory University School of Medicine
Atlanta, Georgia

Anne C. Petersen, Ph.D.
Senior Vice President for Programs
W. K. Kellogg Foundation
Battle Creek, Michigan

A. John Rush, M.D.
Professor, Betty Jo Hay Distinguished Chair
Department of Psychiatry
Southwestern Medical Center
University of Texas
Dallas, Texas

Edward Scolnick, M.D.
President
Merck Research Laboratories
West Point, Pennsylvania

Joseph S. Takahashi, Ph.D.
Investigator, Howard Hughes Medical Institute
Walter and Mary E. Glass Professor
Department of Neurobiology and Physiology
Northwestern University
Evanston, Illinois

James G. Townsel, Ph.D.
Professor and Director
Center for Molecular and Behavioral Neuroscience
School of Medicine
Meharry Medical College
Nashville, Tennessee

Myrna M. Weissman, Ph.D.
Professor
Department of Clinical and Genetic Epidemiology
New York State Psychiatric Institute
Columbia University
New York, New York

Roy C. Wilson, M.D.
Director
Missouri Department of Mental Health
Jefferson City, Missouri

EX OFFICIO MEMBERS

Office of the Secretary, DHHS
Donna E. Shalala, Ph.D.
Secretary
Department of Health and Human Services
Washington, DC

National Institutes of Health
Ruth Kirschstein, M.D.
Acting Director
National Institutes of Health
Bethesda, Maryland

Department of Defense
Robert A. Mays, Jr., Ph.D.
Colonel, U.S. Army
Office of the Inspector General
North Atlantic Regional Medical Command
Walter Reed Army Medical Center
Washington, DC

Department of Veterans Affairs
Thomas B. Horvath, M.D., F.R.A.C.P.
Chief of Staff
Veterans Affairs Medical Center
Houston, Texas

LIAISON REPRESENTATIVE

Thomas H. Bornemann, Ed.D.
Deputy Director, Center for Mental Health Services
Substance Abuse and Mental Health
Services Administration
Rockville, Maryland

APPENDIX D: Comparing Parity Cost Estimates Using Actuarial Models

The new NAMHC estimate of a 1.4 percent cost increase in total health insurance premiums due to parity is lower than previously reported estimates based on Hay Group actuarial models (all were of similar magnitude). Previous estimates include the 1996 Congressional Budget Office (CBO)/Congressional Research Service (CRS) 4.0 percent increase, the 1998 Substance Abuse and Mental Health Services Administration (SAMHSA) estimate of 3.6 percent, and estimates from the previous NAMHC report, as shown in the Table below. Because each of the Hay Group model-based estimates uses the same basic methodology it is important to understand what drives the latest estimate.

Table. Cost of Full Parity Estimates Based on Hay Group Actuarial Models

		Increase in Total Premium	
Estimate	Model Version*	FFS Plans	All Plans
CBO/CRS (1996)	HCBVC 6.5	5.3%	4.0%
NAMHC (1998)	MHBVC1.7	4% to 5%	<1 to 4%
SAMHSA (1998)	MHBVC1.7	5.0%	3.6%
NAMHC (2000)	MHBVC2.0	1.4%	1.4%

* Principal model for mental health/substance abuse cost estimates (separate model used to calculate non-mental health costs for HMOS in all but CBO/CRS study).

The different Hay Group models (HCBVC 6.5, MHBVC1.7, MHBVC2.0) work essentially the same way. The Hay Group uses actuarial methods to develop an expenditure grid, which represents the extent of medical, mental health, and substance abuse service use by plan enrollees if they paid nothing out of pocket (i.e., if the plan paid 100 percent). Combinations of induction factors (which measure how responsive enrollees are in reducing their health care use when faced with higher out-of-pocket costs) and management factors (which measure how costs are reduced with utilization review and other managed care practices) are then used to estimate how much care enrollees would use when faced with a particular set of copayments. Administrative loading factors are used to multiply these costs to determine the estimated premium for a particular health care benefit package.

The cost of a change in the health care benefit package, such as mental health parity, is simulated by first estimating the cost with existing benefits in the Hay model and then estimating the cost with the new benefits. All other assumptions are held constant (except, of course, for benefits). Because both baseline costs and benefits differ in fee-for-service (FFS), preferred-provider organization (PPO), point-of-service (POS), health maintenance organization (HMO), and managed behavioral carve-out plans, the Hay models were used to compute separate estimates of the cost of parity

for these different types of health plans. The 1998 SAMHSA and the 2000 NAMHC estimates then combine these separate estimates (using assumptions about the distribution of enrollees across types of plans) to produce a single estimate of the total cost impact of mental health parity. The previous NAMHC (1998) report did not present a single cost estimate, but rather a range of estimates based on the different plan types. The CBO/CRS estimated a typical FFS plan and then made an ad hoc adjustment downwards to reflect managed care.

The major difference between the current NAMHC estimate of 1.4 percent and previous estimates appears to be driven by the evolution of the Hay Group model as it is updated to reflect changes in the underlying distributions of mental health and health care expenditures. The most recent version of the Hay Group model (MHBVC2.0) assumes an average mental health and substance abuse cost per enrollee (with no out-of-pocket costs) that is fully *one-half* that of the Hay Group model used for the 1998 SAMHSA and the previous NAMHC report estimates, and *one-third* that of the model used for the 1996 CBO/CRS estimate (NAMHC calculations from Hay Group models). The most recent Hay Model incorporates new data from the FFS/PPO plans of the Federal Employees Health Benefit Program (FEHBP), several large managed behavioral health care companies, and the FFS plan of a large State employees health plan (described in Section III of this report). The experience of the FEHBP program, along with other evidence, suggests that mental health and substance abuse costs have declined substantially during the 1990s, mainly due to sharply reduced inpatient utilization even in FFS/PPO plans. Because mental health costs have declined, especially as a proportion of total health care costs, the estimated impact of a mental health parity benefit in terms of the increase in total premiums has correspondingly declined.

There are other much smaller differences in the assumptions used between current NAMHC estimate and previous estimates. The assumptions are discussed in more detail below, but in general these explain little of the differences between the estimates. (A useful companion to this discussion of the estimates is the report by Sing and Hill (1998) detailing the assumptions used to generate the 1998 SAMHSA estimates.) This is illustrated by the fact that when the NAMHC (2000) assumptions are applied to the previous version of the Hay Model (MHBVC1.7) used to produce the 1998 SAMHSA estimate, the estimated impact of parity is 3.7 percent instead of 1.4 percent (*preliminary* NAMHC calculations from the MHBVC1.7 model). That is, when the same assumptions are applied to mental health treatment patterns prevailing several years ago, the estimated cost of parity is 3.7 percent, but taking into account recent trends in mental health costs reduces the estimated cost of parity to a current level of 1.4 percent.

Other Differences in Basic Assumptions

Family vs. single premiums: The current NAMHC estimate is for singles only, while the other estimates represent the percent increase in total family premiums. Preliminary calculations using the new Hay model suggest that increase in total family

premiums would be approximately 1.6 percent, a slight increase from the 1.4 percent for the single premiums.

Distribution of Health Plans: The 1998 SAMHSA and the current NAMHC estimates assume different distributions of types of health plans, but this difference has no effect on either estimate. That is, applying the 1998 SAMHSA distributions to the current NAMHC estimate produces the same estimate, and vice versa. (The 1998 SAMHSA estimate assumes a distribution in which 20 percent of plans are FFS, 30 percent PPO, 20 percent POS, and 30 percent HMO, compared to a distribution of 14 percent, 40 percent, 20 percent, and 26 percent respectively in the 2000 NAMHC estimate.) The CBO/CRS estimate contains an unknown adjustment for managed care plans from their base FFS estimate.

Carve-outs: The current 1.4 percent NAMHC estimate includes an adjustment that assumes that 20 percent of FFS, PPO and POS plans have carved out their mental health and substance abuse benefits. This 20 percent factor is the same for both the current and parity benefit cost estimates. Several surveys estimate that in at least 20 percent (KPMG Peat Marwick, Hay Group) of these types of plans among medium and large employers, the employer separately contracts (carves-out) with a managed behavioral health firm. This 20 percent is a conservative estimate of carve-out management since FFS, PPO, and POS health plans may themselves subcontract (carve-out) behavioral benefits, but there are no good estimates of the extent of these indirect carve-outs. The 20 percent carve-out adjustment has a negligible impact on the current NAMHC estimate—without it the estimate is 1.5 percent—because the difference between cost increases in carve-out plans and non-HMO plans have decreased considerably. However, applying the 20 percent carve-out adjustment to the 1998 SAMHSA estimate would considerably reduce it from 3.6 percent to around 3.0 percent.

Benefits: All of the estimates use the same basic assumptions about existing mental health and substance abuse with one exception. The CBO/CRS estimates assumed that a $50,000 lifetime maximum applied to mental health benefits, while all the other estimates occurred after the federal parity legislation that removed this limit. There were slight differences across the different estimates in the assumed medical/surgical benefits, but these differences likely had little impact on any of the estimates.

Management Factors: The Hay Group models all incorporate a management factor to account for the effect of use of utilization review and other managed care techniques in reducing costs. The factors were, for the most part, the same across all of the estimates and the same factor was used to estimate both the cost under current benefits and under a parity benefit. The 1998 SAMHSA estimate includes a management factor for FFS, PPO, and POS plans that implies a reduction of 25 percent in mental health and substance abuse costs compared to unmanaged costs, but no reduction for HMO costs because the tighter management in HMOs are already reflected in the HMO expense grids. The current NAMHC estimate uses the same 25 percent management factor adjustment for FFS, PPO, POS, HMO and carve-out plans to estimate costs under current and under parity benefits. Preliminary NAMHC calculations suggest that if the 25 percent adjustment for HMOs and PPO is

eliminated, the current NAMHC estimate of 1.4 percent overall increase in premium costs due to parity would change slightly to 1.5 percent.

Induction (Demand Response): All the estimates based on the Hay Group model use the same induction factors, which are derived from the RAND Health Insurance Experiment, with one small exception. The 1998 SAMHSA estimates used slightly lower induction factors for HMO plans. However, this makes little difference in the overall estimates.

Administrative Factors: The Hay Group model multiplies the base claims costs in their models by an administrative loading factor, which represent a fixed percentage of the total claims costs for administrative costs and profit (where applicable), to obtain the total premium cost. The current NAMHC estimate uses the same administrative factor of 1.11 for all types of health care plans (carve-outs, HMO, FFS, PPO, POS). The 1998 SAMHSA estimate used the same administrative factor of 1.11 for FFS, PPO, and POS plans but higher loading factors of 1.15 for medical/surgical expenses and 1.2 for behavioral coverage. However, because these administrative load factors multiply both the numerators and denominators, the effect of differing administrative load factors tends to be canceled out when examining changes in premium costs.

References:

Hay Group (1999): *Employer Mental Health Coverage Features and Compliance with the Mental Health Parity Act. Hay Report for NIMH, June 1999*. (unpublished).

KPMG Peat Marwick, *Health Benefits in 1997*, June 1997.

Sing M. and Hill S. (1998): *Predicted Premium Increases Due to Full and Partial Parity for Mental Health and Substance Abuse Insurance Benefits*. Report Submitted to the Substance Abuse and Mental Health Services Administration. Washington, DC: Mathematica Policy Research, Inc.

APPENDIX E:
States with Mental Health Parity Statutes

As of May 15, 2000, 31 States now prohibit discrimination in insurance and managed care coverage of mental illnesses:

Alabama
Arkansas
California
Colorado
Connecticut
Delaware
Georgia
Hawaii
Indiana
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Minnesota
Missouri
Montana
Nebraska
New Hampshire
New Mexico
New Jersey
New Mexico
North Carolina
Oklahoma
Rhode Island
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia

Source: Richard M. Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley*, The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11).

TABLE IA: DEFINITION OF "BROAD-BASED" MENTAL ILLNESS IN STATE PARITY STATUTES

(Updated as of May 15, 2000)

"Broad-Based Coverage"	DSM-IV[1]	ICD[2]	DSM-IV and ICD
Alabama		X	
Arkansas			X
Georgia			X
Connecticut (99)	X[3]		
Kentucky			X[4]
Maryland[5]			
Missouri (97)	X		
Tennessee	X		
Utah	X[6]		
Vermont		X	

[1]DSM-IV includes disorders contained in the American Psychiatric Association's *Diagnostic and Statistical Manual*, fourth edition.

[2]ICD includes disorders contained in the World Health Organization's *International Classification of Disease*, latest edition (current edition is 10th edition).

[3] Connecticut includes coverage for all mental disorders in the most recent edition of the *DSM-IV* excluding mental retardation, learning disorders, motor skills disorder, communication disorders, caffeine-related disorders, relational problems, additional conditions that may be a focus of clinical attention, that are not otherwise defined as mental disorders in the most recent edition of the *DSM-IV*.

[4] Kentucky includes coverage for all disorders in the most recent edition of *the Diagnostic and Statistical Manual* or the *International Classification of Disease* but excludes coverage for conduct disorders (except ADHD), pervasive developmental disorder (except autism), learning disabilities, behavioral disorders, personality disorders, and mental retardation.

[5] Maryland parity statute covers "mental illness and emotional disorders" and is considered a broad-based statute. However, the statute does not specify DSM or ICD criteria.

[6] Utah includes coverage for all disorders in the most recent edition of *the Diagnostic and Statistical Manual* but excludes the following when diagnosed as the primary or substantial reason or need for treatment: marital or family problems; social, occupational, religious or other social maladjustment; conduct disorder; chronic adjustment disorder; psychosexual disorder; chronic organic brain syndrome; personality disorder; specific developmental disorder or learning disability; or mental retardation.

Source: Richard M. Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley*, The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11).

TABLE IB: DEFINITION OF "SERIOUS MENTAL ILLNESS" IN PARITY STATUTES

(Updated as of May 15, 2000)

	Schizophreni	Schizoaffect-ive disorder	Bipolar disorder	Major depressive disorder	Obsessive-compulsive	Panic	Autism	Paranoia/ psychotic	Delusional disorder	Childhood depression	ADHD	Anorexia/ bulimia	Post-Traumatic
NAMHC[1]	X	X	X	X	X	X	X						
California[2]	X	X	X	X	X	X	X			X[2]	X[2]	X	
Louisiana[3]	X	X	X	X	X	X	X					X	X
Nevada	X	X	X	X	X	X							
Penn.	X	X	X	X	X	X			X			X	
Delaware	X	X	X	X	X	X			X			X	
Texas (97)	X	X	X	X	X		X	X		X			
Montana	X	X	X	X	X	X	X						
Maine[4]	X		X	X	X	X	X	X					
Rhode Island	X	X	X	X	X				X				
Nebraska	X	X	X	X	X				X				
Oklahoma	X	X	X	X	X	X							
Hawaii	X	X	X										

[1]NAMHC: Definition as operationalized by National Advisory Mental Health Council (1993).

[2] Definition also includes serious emotional disturbances of a child, defined as a child who has one or more mental disorders included in the *Diagnostic and Statistical Manual of Mental Disorders*, other than a primary substance abuse disorder or developmental disorder. In addition, child must meet certain functional criteria (see text for details). Theoretically, all *DSM-IV* disorders are covered for children under 18 who meet the above criteria. ADHD is covered when diagnosed before age 18, as is true in the majority of cases.

[3] Definition also includes intermittent explosive disorder, psychosis NOS under 17, Rett's disorder, and Asperger's disorder.

[4] Maine statute does not specifically use the term "serious mental illness," but the disorders covered fit best with this classification.

Source: Richard M Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley*, The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11)

TABLE IC: DEFINITION OF "BIOLOGICALLY-BASED" MENTAL ILLNESS IN STATE PARITY STATUTES

(Updated as of May 15, 2000)

	Schizophreni	Schizoaffect-ive disorder	Bipolar disorder	Major depressive disorder	Obsessive-compulsive	Panic	Autism	Paranoia/ psychotic	Delusional disorder	Childhood depression	ADHD	Anorexia/ bulimia	Post-Traumatic
Literature[1]	X	X	X	X	X	X	X	X		X	X	X	X
Massachusetts[2]	X	X	X	X	X	X		X		X[2]	X[2]		
Missouri (99)[3]	X	X	X	X	X	X		X		X		X	X
Virginia	X	X	X	X	X	X	X	X			X		
Connecticut (97)	X	X	X	X	X	X	X	X					
New Jersey	X	X	X	X	X	X	X	X					
New Hampshire	X	X	X	X	X	X	X	X					
Colorado	X	X	X	X	X	X							
South Dakota	X	[4]	X	X	X	[4]		X[5]					

[1]Literature indicates what disorders recent medical literature claims as having possible genetic basis. List also includes Tourette's and conduct disorder.

[2]Massachusetts statute also provides nondiscriminatory coverage for delirium and dementia, affective disorders, and any biologically based mental disorders appearing in the *DSM* that are scientifically recognized and approved by the Commissioner of the Department of Mental Health in consultation with the Commissioner of the Division of Insurance. Coverage also includes non-biologically based mental disorders for children and adolescents, defined as persons under age 19 having disorders described in *DSM-IV* that substantially interfere with or limit functioning and social interactions (see text for details). Medically necessary care is mandated for the diagnosis and treatment of all other mental disorders in the *DSM-IV*.

[3]Missouri statute does not specifically use the term "biologically based," but the disorders covered fit best with this classification. Missouri statute also covers other affective psychoses.

[4]Removed by H 1264 (1999).

[5]Added by H 1264 (1999).

Source: Richard M. Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley, *The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11).

TABLE ID: HEALTH PLANS SET THE DEFINITION OF MENTAL ILLNESS COVERAGE IN STATE PARITY STATUTES[1]

(Updated as of May 15, 2000)

State	Individual Plan[2]
Indiana (99)	X
Minnesota	X
New Mexico	X

[1] Does not include State statutes that match the federal 1996 MHPA or cover State employees only.

[2]Individual plan indicates determined by individual health plans, usually subject to approval by the respective Departments of Insurance.

Source: Richard M. Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley*, The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11).

TABLE II: VARIATION IN STATE MENTAL HEALTH PARITY STATUTES
(Updated as of May 15, 2000)

State	Year Enacted	MH Benefit Mandate[A]	Broad Definition Mental Illness[B]	Covers Substance Abuse[C]	Set = terms and conditions[D]	Covers individual and group plans[E]	Small employer exempt[F]	Cost Exempt[G]
Federal MHPA	96	M(ifoff)	X				X	X
Alabama	2000	MO	X		X		X	
Arkansas	97	MB	X	X (opt out)[i]	X		X	X
California	99	MB			X	X		
Colorado	97	MB			X			
Connecticut (A)	97	MB			X	X		
Connecticut (B)	99	MB	X	X	X	X		
Delaware	98	MB			X	X		
Georgia	98	MO	X	X	X-group plans	X		
Hawaii	99	MB			X	X	X	
Indiana (A)	97	M(ifoff)			X	SE only[1]		X
Indiana (B)	99	M(ifoff)			X	X	X	X[ii]
Kentucky	2000	M(ifoff)	X	X	X		X	
Louisiana	99	MB MO[iii]	X (MO only)					
Maine	95	MB MO[iv]			X	X (MO only)	X	
Maryland	94	MB	X	X		X		
Mass (A)	93	MB	X	X		SE only[1]		
Mass (B)	2000	MB		X[v]	X[vi]	X	X[vii]	
Minnesota	95	MB M(ifoff)[viii]	X	X	X			
Missouri (A)	97	MO	X	X		X		
Missouri (B)	99	M(ifoff)		X		X		

Montana	99	MB			X	X		
Nebraska	99	M(ifoff)			X		X	
Nevada	99	MB				X	X	X
New Hampshire	94	MB			X			
New Jersey	99	MB			X	X		
New Mexico	2000	MB			X			X[ix]
North Carolina (A)	91	MB	X		X	SE only[1]		
North Carolina (B)	97	MB	X	X	X	SE only[1]		
Ohio[x]	90	MB	X	X	X	SE only[1]		
Oklahoma	99	MB			X		X	X
Pennsylvania	98	MB				HMO group	X	
Rhode Island	94	MB			X[xi]	X		
South Dakota	98	MB	[xii]		X	X		
Tennessee	98	MB	X				X	X
Texas (A)	91	MB			X	SE only[1]		
Texas (B)	97	MB					X	
Utah	2000	MO	X	X			X[xiii]	
Vermont	97	MB	X	X	X	X		
Virginia	99	MB		X	X	X	X	

[1]State employees only.
Italicized States also enacted statutes to match the 1996 Federal Mental Health Parity Act.
Source: Richard M. Scheffler, Daniel P. Gitterman, Marcia C. Peck, University of California, Berkeley, Center for Mental Health Services Research, *The Political Economy of Mental Health Insurance in the United States*, NIMH grant (MH-18828-11).

TABLE II: DEFINITIONS/VARIATION IN STATE MENTAL HEALTH PARITY STATUTES/REGULATION (X)

[A]**Mental Health Benefit Mandate**: There are three types of mental health benefit mandates:
MB: "mandatory inclusion" mandates—minimum coverage standards—require insurance policies to include certain provisions. A statute that includes a "mandated inclusion" provision typically states that a plan shall provide benefits for diagnosis and mental health treatment under the same terms and conditions as provided for covered benefits for the treatment of other physical illnesses;
MO: "mandated benefit offerings" require sellers to offer certain mental health coverage, with the decision of whether to purchase coverage left to the buyers. A statute that includes a "mandated benefit offering" provision typically states that insurers must make available coverage for the treatment of mental illness, and the coverage must be at least as extensive and provide at least the same degree of coverage as that provided for any other physical illness;
M (if off): "mandated if offered" does not require employer/insurer to offer mental health coverage. However, if employer offers coverage, then the coverage must comply with parity provisions. A statute that includes a "mandated, if offered" provision typically states that in the case of a group health plan that provides mental health benefits, those benefits must be provided on par with benefits for other physical illnesses and insurers shall not establish any rate, term or condition that places a greater financial burden on an insured for treatment of mental illness than for treatment of other physical illnesses.

[B]**Definition of Mental Illness**: "Broad-based mental illness coverage" is defined as encompassing all disorders listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders and/or the International Classification of Diseases Manual. Some States allow health plans to define the scope of the mental health benefit. Several States narrow the scope of the statute by requiring coverage for "serious mental illness," most commonly defined as including schizophrenia, bipolar disorder, obsessive-compulsive disorder, major depressive disorder, panic disorder, schizo-affective disorder, and delusional disorder.

[C]**Covers Substance Abuse (X)**: indicates the statute covers drug and alcohol disorders as listed in the American Psychiatric Association's Diagnostic and Statistical Manual or as defined in the statute.

[D] **Set terms and Conditions (X)**: indicates that the statute requires rates, terms, and conditions to be the same for mental illness coverage as for the coverage for all other physical illnesses. Those States that *do not* have an "X" permit a disparity in the terms and conditions required for mental health coverage compared to other physical health conditions. For example, the parity statute may set a cap on the number of inpatient and/or outpatient days required by insurers for mental health coverage, without setting the same cap on coverage for other physical illnesses.

[E]**Individual and Group Plans (X)**: specifies the statute apply to all policies, including individual and group.

[F]**Small employer exemption (X)**: indicates the statute allows small employers an exclusion from compliance. The statutes most commonly define small employers as those with either 25 or fewer employees or those with 50 or fewer employees.

[G]**Cost exemption (X)**: indicates that the statute allows employers that experience a premium increase at or above a specified percentage are excluded from the parity requirements.

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[i]Arkansas: An "X" is marked for substance abuse coverage, however, the statute does not require parity for substance abuse because it states that "[h]ealth care insurers providing chemical dependency treatment -- may, but are not required to, comply with -- the terms of this act …"

[ii]Indiana (A) and (B): The existing parity statute that matched the 1996 MHPA and the statute applicable to State employees were amended in 1999. The MHPA match was expanded beyond annual and lifetime limitations to prohibit individual or group plans from permitting treatment limitations or financial requirements for mental illness if similar limitations or requirements are not imposed on coverage for other physical conditions. The federal match and State employee provisions were amended to increase the cost exemption from 1% to 4%.

[iii]Louisiana: The statute mandates coverage of serious mental illness and requires a mandated offering for other mental illnesses.

[iv]Maine: The statute mandates coverage for group plans and requires a mandated offering for individual policies.

[v] Massachusetts: Existing limitation ($500/ year for outpatient and 30 days for inpatient treatment) for alcoholism or chemical dependency shall not apply when treatment is rendered in conjunction with treatment for mental disorders.

[vi] Massachusetts: The statute requires equal terms and conditions for biologically based mental illnesses as defined in the statute, however, does not require parity for other mental disorders.

[vii] Massachusetts: The statute exempts businesses with 1 to 50 employees and non-group health plans from compliance until 1 year after effective date of the statute.

[viii]Minnesota: The statute mandates coverage for HMOs and a "mandated, if offered" requirement for individual and group plans.

[ix] New Mexico: The cost exemption included in the statute requires employers with *at least 2 but not more than 49 employees* to do one of the following if premiums increase more than 1.5% per year: (1) pay the premium increase; (2) reach agreement with the employees to cost-share the amount of the premium above 1.5%; (3) negotiate a reduction in coverage, but not below the coverage existing before the renewal, to reduce the premium increase to no more than 1.5 %; or (4) after demonstrating a premium increase above 1.5 %, receive an exemption. For *employers with at least 50 employees*, if premiums increase more than 2.5% per year, they

have the same options as are available for employers with 2 to 49 employees, except the premium increases in the four options must be above 2.5% instead of above 1.5%.

[x]Ohio: The State did not enact a statute. Parity is applicable to State employee mental health coverage through the collective bargaining agreement between the state and the Ohio Civil Service union. The current agreement containing the parity provision is effective 1997-2000.

[xi] Rhode Island: The statute includes one limitation that may not result in setting equal terms and conditions: "[i]npatient coverage in cases where continuous hospitalization is medically necessary shall be limited to ninety (90) consecutive days."

[xii]South Dakota: The Governor signed HB 1264 in March (1999) to clarify the meaning of the term "biologically based" mental illness. The 1998 statute required parity for biologically based mental illness, defined as "any mental illness which current medical research affirms is caused by a neurobiological disorder of the brain and which substantially impairs perception, cognitive function, judgment, and emotional stability and which limits the life activities of the person with the illness. The term includes schizophrenia; schizo-affective disorder; bipolar affective disorder; major depression; obsessive-compulsive disorder, and other anxiety disorders which cause significant impairment of function; and other disorders proven to be biologically-based mental illnesses." The 1999 amendment to the statute narrowed the definition of biologically based mental illness to "schizophrenia and other psychotic disorders, bipolar disorder, major depression, and obsessive-compulsive disorder."

[xiii] The statute has a unique approach to small-employer exemptions: It requires insurers to offer an additional option for small employers that insurers need not offer to large employers. Specifically, the statute requires insurers to offer small employers (2-50 employees) "50/50 mental health coverage" — meaning coverage in a health insurance policy or health maintenance organization contract that pays at least 50% of covered services for the diagnosis and treatment of mental health conditions. The "50/50" coverage may include a restriction on episodic limits, inpatient and outpatient service limits, or maximum out-of-pocket limits.

NOTE: THE REPORT ENDS HERE. THE REMAINING TEXT IS SUPERFLUOUS. IT CANNOT BE ERASED, SO PLEASE TOSS THIS AND SUBSEQUENT PAGES.

APPENDIX D: Comparing Parity Cost Estimates Using Actuarial Models

The new NAMHC estimate of a 1.4 percent cost increase in total health insurance premiums due to parity is lower than previously reported estimates based on Hay Group actuarial models (all were of similar magnitude). Previous estimates include the 1996 Congressional Budget Office (CBO)/Congressional Research Service (CRS) 4.0 percent increase, the 1998 Substance Abuse and Mental Health Services Administration (SAMHSA) estimate of 3.6 percent, and estimates from the previous NAMHC report, as shown in the Table below. Because each of the Hay Group model-based estimates uses the same basic methodology it is important to understand what drives the latest estimate.

Table. Cost of Full Parity Estimates Based on Hay Group Actuarial Models

		Increase in Total Premium	
Estimate	Model Version*	FFS Plans	All Plans
CBO/CRS (1996)	HCBVC 6.5	5.3%	4.0%
NAMHC (1998)	MHBVC1.7	4% to 5%	<1 to 4%
SAMHSA (1998)	MHBVC1.7	5.0%	3.6%
NAMHC (2000)	MHBVC2.0	1.4%	1.4%

* Principal model for mental health/substance abuse cost estimates (separate model used to calculate non-mental health costs for HMOS in all but CBO/CRS study).

The different Hay Group models (HCBVC 6.5, MHBVC1.7, MHBVC2.0) work essentially the same way. The Hay Group uses actuarial methods to develop an expenditure grid, which represents the extent of medical, mental health, and substance abuse service

use by plan enrollees if they paid nothing out of pocket (i.e., if the plan paid 100 percent). Combinations of induction factors (which measure how responsive enrollees are in reducing their health care use when faced with higher out-of-pocket costs) and management factors (which measure how costs are reduced with utilization review and other managed care practices) are then used to estimate how much care enrollees would use when faced with a particular set of copayments. Administrative loading factors are used to multiply these costs to determine the estimated premium for a particular health care benefit package.

The cost of a change in the health care benefit package, such as mental health parity, is simulated by first estimating the cost with existing benefits in the Hay model and then estimating the cost with the new benefits. All other assumptions are held constant (except, of course, for benefits). Because both baseline costs and benefits differ in fee-for-service (FFS), preferred-provider organization (PPO), point-of-service (POS), health maintenance organization (HMO), and managed behavioral carve-out plans, the Hay models were used to compute separate estimates of the cost of parity for these different types of health plans. The 1998 SAMHSA and the 2000 NAMHC estimates then combine these separate estimates (using assumptions about the distribution of enrollees across types of plans) to produce a single estimate of the total cost impact of mental health parity. The previous NAMHC (1998) report did not present a single cost estimate, but rather a range of estimates based on the different plan types. The CBO/CRS estimated a typical FFS plan and then made an ad hoc adjustment downwards to reflect managed care.

The major difference between the current NAMHC estimate of 1.4 percent and previous estimates appears to be driven by the evolution of the Hay Group model as it is updated to reflect changes in the underlying distributions of mental health and health care expenditures. The most recent version of the Hay Group model (MHBVC2.0) assumes an average mental health and substance abuse cost per enrollee (with no out-of-pocket costs) that is fully *one-half* that of the Hay Group model used for the 1998 SAMHSA and the previous NAMHC report estimates, and *one-third* that of the model used for the 1996 CBO/CRS estimate (NAMHC calculations from Hay Group models). The most recent Hay Model incorporates new data from the FFS/PPO plans of the Federal Employees Health Benefit Program (FEHBP), several large managed behavioral health care companies, and the FFS plan of a large State employees health plan (described in Section III of this report). The experience of the FEHBP program, along with other evidence, suggests that mental health and substance abuse costs have declined substantially during the 1990s, mainly due to sharply reduced inpatient utilization even in FFS/PPO plans. Because mental health costs have declined, especially as a proportion of total health care costs, the estimated impact of a mental health parity benefit in terms of the increase in total premiums has correspondingly declined.

There are other much smaller differences in the assumptions used between current NAMHC estimate and previous estimates. The assumptions are discussed in more detail below, but in general these explain little of the differences between the estimates.

(A useful companion to this discussion of the estimates is the report by Sing and Hill (1998) detailing the assumptions used to generate the 1998 SAMHSA estimates.) This is illustrated by the fact that when the NAMHC (2000) assumptions are applied to the previous version of the Hay Model (MHBVC1.7) used to produce the 1998 SAMHSA estimate, the estimated impact of parity is 3.7 percent instead of 1.4 percent (*preliminary* NAMHC calculations from the MHBVC1.7 model). That is, when the same assumptions are applied to mental health treatment patterns prevailing several years ago, the estimated cost of parity is 3.7 percent, but taking into account recent trends in mental health costs reduces the estimated cost of parity to a current level of 1.4 percent.

Other Differences in Basic Assumptions

Family vs. single premiums: The current NAMHC estimate is for singles only, while the other estimates represent the percent increase in total family premiums. Preliminary calculations using the new Hay model suggest that increase in total family premiums would be approximately 1.6 percent, a slight increase from the 1.4 percent for the single premiums.

Distribution of Health Plans: The 1998 SAMHSA and the current NAMHC estimates assume different distributions of types of health plans, but this difference has no effect on either estimate. That is, applying the 1998 SAMHSA distributions to the current NAMHC estimate produces the same estimate, and vice versa. (The 1998 SAMHSA estimate assumes a distribution in which 20 percent of plans are FFS, 30 percent PPO, 20 percent POS, and 30 percent HMO, compared to a distribution of 14 percent, 40 percent, 20 percent, and 26 percent respectively in the 2000 NAMHC estimate.) The CBO/CRS estimate contains an unknown adjustment for managed care plans from their base FFS estimate.

Carve-outs: The current 1.4 percent NAMHC estimate includes an adjustment that assumes that 20 percent of FFS, PPO and POS plans have carved out their mental health and substance abuse benefits. This 20 percent factor is the same for both the current and parity benefit cost estimates. Several surveys estimate that in at least 20 percent (KPMG Peat Marwick, Hay Group) of these types of plans among medium and large employers, the employer separately contracts (carves-out) with a managed behavioral health firm. This 20 percent is a conservative estimate of carve-out management since FFS, PPO, and POS health plans may themselves subcontract (carve-out) behavioral benefits, but there are no good estimates of the extent of these indirect carve-outs. The 20 percent carve-out adjustment has a negligible impact on the current NAMHC estimate—without it the estimate is 1.5 percent—because the difference between cost increases in carve-out plans and non-HMO plans have decreased considerably. However, applying the 20 percent carve-out adjustment to the 1998 SAMHSA estimate would considerably reduce it from 3.6 percent to around 3.0 percent.

Benefits: All of the estimates use the same basic assumptions about existing mental health and substance abuse with one exception. The CBO/CRS estimates assumed that a $50,000 lifetime maximum applied to mental health benefits, while all the other estimates occurred after the federal parity legislation that removed this limit. There were slight differences across the different estimates in the assumed medical/surgical benefits, but these differences likely had little impact on any of the estimates.

Management Factors: The Hay Group models all incorporate a management factor to account for the effect of use of utilization review and other managed care techniques in reducing costs. The factors were, for the most part, the same across all of the estimates and the same factor was used to estimate both the cost under current benefits and under a parity benefit. The 1998 SAMHSA estimate includes a management factor for FFS, PPO, and POS plans that implies a reduction of 25 percent in mental health and substance abuse costs compared to unmanaged costs, but no reduction for HMO costs because the tighter management in HMOs are already reflected in the HMO expense grids. The current NAMHC estimate uses the same 25 percent management factor adjustment for FFS, PPO, POS, HMO and carve-out plans to estimate costs under current and under parity benefits. Preliminary NAMHC calculations suggest that if the 25 percent adjustment for HMOs and PPO is eliminated, the current NAMHC estimate of 1.4 percent overall increase in premium costs due to parity would change slightly to 1.5 percent.

Induction (Demand Response): All the estimates based on the Hay Group model use the same induction factors, which are derived from the RAND Health Insurance Experiment, with one small exception. The 1998 SAMHSA estimates used slightly lower induction factors for HMO plans. However, this makes little difference in the overall estimates.

Administrative Factors: The Hay Group model multiplies the base claims costs in their models by an administrative loading factor, which represent a fixed percentage of the total claims costs for administrative costs and profit (where applicable), to obtain the total premium cost. The current NAMHC estimate uses the same administrative factor of 1.11 for all types of health care plans (carve-outs, HMO, FFS, PPO, POS). The 1998 SAMHSA estimate used the same administrative factor of 1.11 for FFS, PPO, and POS plans but higher loading factors of 1.15 for medical/surgical expenses and 1.2 for behavioral coverage. However, because these administrative load factors multiply both the numerators and denominators, the effect of differing administrative load factors tends to be canceled out when examining changes in premium costs.

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