

Department of Health and Human Services
National Institutes of Health
National Institute of Mental Health

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**

Harold E. Varmus, M.D.
National Institutes of Health
May 1998

Parity in Financing Mental Health Services:
 Managed Care Effects on Cost, Access, and Quality
 Interim Report to Congress by the National Advisory Mental Health Council

CONTENTS

EXECUTIVE SUMMARY 3

I. INTRODUCTION 5

 A. Charge 5

 B. Background 5

II. UPDATE ON COSTS OF PARITY 9

 A. Background 9

 B. Empirical Studies of Parity Benefits in States and Private Plans 10

 C. Refining Actuarial Models for Predicting Parity Costs 13

III. ACCESS TO CARE 18

 A. Issues in Definition 18

 B. Determinants of Access 18

 C. Standards for Access 21

 D. Studies from Administrative Data: Treated Prevalence Findings 22

IV. QUALITY OF CARE 25

 A. Background 25

 B. Quality Assessment Studies from Administrative Data: Current Findings .. 27

 C. Quality Assessment Studies from Clinical Outcome Data: Current Findings 29

 D. Special Studies 31

 E. Other Research Issues 34

V. MANAGED CARE FOR CHILDREN:
 MEDICAID AND THE UNINSURED 37

 A. Background 37

 B. Studies 37

 C. Outcome 40

VI. CONCLUSIONS 41

APPENDIX A: Legislative Charge to NAMHC 47

APPENDIX B: NAMHC Workgroup Members and Consultants 48

APPENDIX C: National Advisory Mental Health Council Roster 49

APPENDIX D: State Mental Illness Parity Laws 51

APPENDIX E: Prior NAMHC Reports on Parity and Managed Care 54

Parity in Financing Mental Health Services:
Managed Care Effects on Cost, Access, and Quality
Interim Report to Congress by the National Advisory Mental Health Council

EXECUTIVE SUMMARY ¹

In Senate Report No. 105-58 the National Advisory Mental Health Council (NAMHC) was thanked for its 1997 interim report *Parity in Coverage of Mental Health Services in an Era of Managed Care*, and asked to provide “additional reports on this topic as more data from throughout the country become available.” The NAMHC was also asked to provide “as a fundamental part of its next report on this topic, what is known about the impact of managed care on access to mental health services, and on the quality of the care. Current research-based knowledge relevant to these issues can be summarized as follows:

Costs of Mental Health Care under Parity

- o In systems already using managed care, implementing parity results in a minimal (less than 1 percent) increase in *total health care* costs during a 1-year period. In systems not using managed care, introducing parity with managed care results in a substantial (30 to 50 percent) reduction *in total mental health* costs.
- o New, more sophisticated actuarial models of the costs of parity show that, in general, as the overall proportion of the population in managed care increases, the projected cost of parity declines.
- o Introducing parity nationwide may accelerate the trend toward increased management of mental health services. In every example in which parity has been put into place, management has followed.

Access to Mental Health Care

- o Parity alone does not guarantee improved access to mental health care because of the strong counteracting effect of management. The proportion of individuals receiving mental health treatment varies considerably across managed behavioral health plans--both before and after the introduction of parity benefits.

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

- o Introducing managed care in Medicaid-funded child mental health services results in cost reductions as well as shifts from inpatient treatment settings to those offering less-intensive treatment.

Quality of Care

- o Considerable variability has been observed in access and other process measures of quality across managed behavioral health plans, raising concern about the quality and outcome of mental health care in some plans. In some cases in which management has resulted in limited mental health access, decreased work performance, increased absenteeism, and greater use of medical services have been observed.
- o There is some evidence that access and quality can be maintained or improved after managed care is introduced. However, these results are preliminary, and further research is needed to assess treatment outcomes directly--both before and after the introduction of parity benefits.

Future Directions for Study

- o Systematic outcome data are needed to determine how the funding level of managed behavioral health care plans is related to the accessibility and quality of mental health services. Current data are limited to a few relatively well-funded plans.
- o Special research attention needs to be given to the impact of managed care in Medicaid plans and to the relationship between the public and private mental health systems under diverse types of funding.
- o Further studies are needed to evaluate how the State Children's Health Insurance Program (SCHIP) and other alternatives affect the use--and costs--of mental health services by formerly uninsured children.

I. INTRODUCTION ²

A. Charge

In Senate Report No. 105-58, the National Advisory Mental Health Council (NAMHC) was thanked for its 1997 report *Parity in Coverage of Mental Health Services in an Era of Managed Care* (see Appendix E), and asked to provide “additional reports on this topic as more data from throughout the country become available.” The NAMHC was also asked to provide “as a fundamental part of its next report on this topic, what is known about the impact of managed care on access to mental health services, and on the quality of the care that is made available.” The following is submitted in response to that request.

B. Background

1. NAMHC Workgroup and Reports to the Appropriations Committee

The NAMHC report (National Advisory Mental Health Council 1997) mentioned by the Appropriations Committee had been prompted by uncertainty about the potential costs and consequences of implementing parity³--however limited--in insurance coverage of mental disorders. Such parity was called for in the Mental Health Parity Act of 1996 (P.L. 104-204). That legislation required that, beginning in 1998, limited mental health parity--elimination of annual and lifetime dollar limits for mental health care--be made available for all U.S. group health plans that offer mental health benefits and serve more than 50 employees.⁴ Employers that can show an increase of 1 percent or

² NOTE: This report does not necessarily reflect the views of the Department of Health and Human Services.

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, co-payments, and out-of-pocket maximums in mental health compared to general health benefits. The Mental Health Parity Act of 1996 is an example of “limited” parity legislation. It only affects annual and lifetime dollar limits, so that day and visit limits and higher co-payments and deductibles may still be applied to those with mental illnesses. The intent of parity legislation can be undermined by these practices as well as by certain managed care practices (e.g., aggressive utilization review). 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 severe mental illnesses).

⁴ The Mental Health Parity Act of 1996 requires annual and lifetime dollar limits equal to other physical illnesses; covers mental illnesses as defined under individual plans; excludes substance abuse and chemical dependency, and businesses with 50 or fewer employees; does not mandate coverage; and

greater in total annual health premium costs as a result of mental health parity are exempted from the legislation.

The 1997 NAMHC report was prepared by a special workgroup of the NAMHC, with the assistance of staff of the National Institute of Mental Health, other federal agencies, and nonfederal consultants (see Appendix B). It provided preliminary results of a systematic analysis of available empirical data and economic models to shed light on the realistic costs of implementing such benefits.

As the 1997 NAMHC report noted:

“Current information about how parity and/or managed care affect the quality, utilization, and costs of mental health care is both inconsistent and inconclusive, and national data are not yet available. In the area of cost estimation, prior efforts were hampered by reliance on outmoded economic and actuarial models using data from the pre-managed care era, and by their lack of empirical information on current practice patterns. To overcome many of these limitations, a special NAMHC workgroup is developing a new comparative empirical database that can inform policy decisions as well as economic assumptions and models for estimating national effects of parity and managed care on the costs and quality of mental health services. The database builds on cost and utilization data from several States that have implemented parity, and on updated empirically based models that use the experience of managed care in the context of generous (parity) mental health benefits.”

The NAMHC workgroup has continued its analysis of the cost implications of parity, and, in response to its more recent charge, has amplified its study domain to include how managed care affects both access to mental health services and the quality of those services--two related issues of concern to the Appropriations Committee and the American people at large. This report presents current data on all three issues, which will be amplified in subsequent reports. It is hoped that these systematic findings will illuminate policy discussions of what has been termed the cost/access/quality triangle.”

It is important to 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.

provides for one percent cost-increase exemption. Thus, not covered by provisions of this legislation are about 80 million workers and dependents in small benefit plans, those who require substance abuse treatments, and those who lack any health insurance. In addition, there is no requirement to provide mental health benefits.

However, the reliance of the NAMHC workgroup on these data sources may have introduced an unavoidable bias: Those managed care companies that are willing to share their data with federal researchers are not necessarily representative of the industry at large. They are very likely to provide better funding for mental health benefits and data systems, and be more thorough in their record keeping.

Readers should also be aware that this report is focused primarily on managed care and parity in the private sector. It does not examine the State/County responsibility for mental health systems--the public safety net. (In the absence of full parity coverage for mental illness in the private system, governments still provide annually a \$20 billion public mental health safety net (Manderscheid & Sonnenschein, 1996).) Thus, this report does not consider other fundamental issues regarding the public/private interface of managed care, such as: the practice of cost-shifting from the private to the public system; the comprehensiveness of private benefits for people with severe mental illness; the feasibility and cost of privatization of public acute care (Hogan, 1997); and the integration of physical and mental health care.

2. Update: The Changing Policy Context

Since the 1997 NAMHC report, the mental health service system has been responding to a number of important new and continuing forces. Health care in the United States is undergoing a period of rapid structural change that requires creative and flexible responses from service providers, administrators, researchers, and policymakers alike. Some important recent developments are these:

a. Federal and State efforts to improve access to health care: Federal parity legislation (The Mental Health Parity Act, P.L. No. 104-204) was implemented on January 1, 1998, providing an important, albeit limited, step toward parity for all States. That legislation overrode Employment Retirement Income Security Act (ERISA) exclusions that had exempted from State-level parity legislation at least one-third of the population covered by self-insured employers. However, companies with fewer than 50 employees remain exempted from federal parity legislation. In theory, the new national parity legislation provides an opportunity to make mental health services more accessible to those who need them. (Employers could, of course, drop or not provide mental health benefits, but to date there is no empirical evidence that any employer has done so in response to parity legislation.) The new legislation also provides a basis for new analyses of the impact of parity on mental health services in all States.

The parity studies cited in this report are all based on State-level parity legislation implemented prior to P.L. No. 104-204; State parity legislation is usually based on more comprehensive definitions of parity than that used in the Mental Health Parity Act. Although States are moving toward parity legislation for those who are insured--with

wide variation in breadth and depth of coverage (see Appendix E)--there is continued concern about access to health and mental health services for the more than 15 percent of the U.S. population who are uninsured, particularly children. One important legislative response to this issue was the October 1997 implementation of the State Children's Health Insurance Program (SCHIP) under the Balanced Budget Act of 1997. This program, discussed more fully in Section V, offers \$24 billion for block grants to the States to provide health insurance benefits--including some mental health benefits--for uninsured children.

b. Concern about the consequences of managed care's continuing explosive growth and consolidation : The striking recent proliferation of managed care, with its powerful braking effect on health care costs, has elicited both praise and criticism. Managed care now covers 75 to 80 percent of all U.S. employees (Jensen et al., 1997; Peat Marwick, 1998). The Hay/Huggins Benefits Reports have documented recent (1992-1997) trends in primary health benefit plans for over 1,000 medium- to large-size employers. During this period, fee-for-service (FFS) plans dropped from being the most prevalent primary medical plan (62 percent) in 1992 to being the least prevalent (20 percent) in 1997. Preferred-provider organization (PPO) plans rose from 13 percent to 34 percent of primary medical plans, with a similar rapid rise in health maintenance organization (HMO) plans from 9 percent to 24 percent. Point-of-service (POS) plans rose more slowly as the principal medical plan, from 16 percent in 1992 to 22 percent in 1997.

The current period of enormous growth in the managed care industry is also one of instability as managed care companies compete, merge, and thrive or fail in a competitive market environment. The full meaning of these events for those who seek health and/or mental health care has yet to be determined. However, some consumers and consumer advocates are already concerned that the management measures used to cut the costs of health care may also lower its quality and/or accessibility. Mental health carve-outs now cover approximately 149 million Americans, but only three companies control 60 percent of all insured persons (or 90 million covered lives).

One indication of this concern is the recent creation of the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry. The Commission has developed a Patients' Bill of Rights (discussed in Section IV) largely focused on access and quality issues, especially those related to vulnerable populations, including those with mental illness. A second indication is the effort by managed care organizations to develop and apply quality measures in their programs (also discussed in Section IV).

II. UPDATE ON COSTS OF PARITY

A. Background

In its 1997 report, the NAMHC workgroup reached the following conclusions regarding the cost of implementing parity:

- o The introduction of parity in combination with managed care can result in lowered costs and lower premiums (or at most very modest increases) within the first year of parity implementation;

- o These findings do not support earlier concern about potentially high financial costs caused by parity. Prior estimates were based on fee-for-service models that are no longer valid for a market dominated by managed care and likely to become even more so.

- o The national introduction of parity...in private health insurance will not have uniform effects across States; its impact on mental health service costs and access will depend in large measure on the extent of managed care and parity already in place in those States;

- o Results of a recent, carefully designed study of a large managed behavioral health care plan with generous mental health and substance abuse benefits suggest that benefit design alone--and therefore parity legislation--cannot necessarily assure access to mental health and substance abuse services in the presence of managed care.”

During the past year, both the empirical studies and economic simulation modeling studies of parity costs described in that report have been bolstered and refined by additional data. Also, a key actuarial model has undergone several modifications based on empirical data. The current findings, reported below, generally support the conclusions of the preceding report, but allow them to be stated with greater confidence and precision.

A rapidly growing body of research data published in scientific journals has documented that managed care plans have been able to reduce mental health costs, often while providing access to outpatient mental health services for an increased proportion of beneficiaries. The ability of managed care companies to achieve large initial cost reductions and later, much smaller but sustained, cost reductions has now been demonstrated. However, the consequences of these cost reductions on access

and quality are only beginning to emerge. This report is intended to focus on summarizing the existing information on access and quality while stimulating additional research to fill in the wide gaps in existing knowledge about the public health consequences of current practice.

B. Empirical Studies of Parity Benefits in States and Private Plans

1. Declining Costs: Experience in States with Parity Legislation

a. Texas

In 1992 parity legislation covering severe mental disorders and substance abuse was implemented for Texas State employees. At the same time, managed care for mental health and substance abuse services was introduced. During the next 5 years under parity, managed care⁵ reduced the per-member-per-month (PMPM) cost of mental health services for these employees by more than 50 percent. Inpatient mental health costs decreased even more sharply but outpatient (ambulatory) mental health PMPM costs increased over the period. Additional data are being evaluated regarding the effects of this cost reduction on access and quality of services. A generally positive evaluation of this experience with State employees is reflected in the recent enactment of parity legislation covering the entire State, effective September 1, 1997 (HB 1173).

b. Maryland

Maryland started to phase in its comprehensive parity legislation for mental health and addictive disorders on July 1, 1994; it was fully implemented 1 year later (see Appendix D for details of Maryland legislation). Managed care was common in Maryland at the time of parity legislation. The NAMHC workgroup has analyzed data from five private managed care companies with business in Maryland, that provided data on cost, utilization and/or access to services. Not every company was able to provide all types of data. Because data collection and analysis requirements for research differ from those for business, special efforts from a number of individuals and companies were needed to assemble the data presented below. These data were assembled specifically for this report and have not been published elsewhere.

As reported previously, after parity was implemented there was a small increase in the number of inpatient admissions per 1,000 members, a decrease in the average inpatient length of stay, and a decrease in outpatient visits. New findings indicate that in the past year inpatient admissions remained level or decreased, while length of stay

⁵ The term "managed care" in these aggregate studies refers to a mixture of types of management, including fee-for-service (FFS) plans with utilization review, preferred-provider organizations (PPOs), point-of-service (POS) plans, and health maintenance organizations (HMOs).

continued to decrease, outpatient visits increased, and use of intermediate-care treatments (such as intensive outpatient care and partial hospitalization) increased over time. The percentage of the population receiving services (treated prevalence)⁶ remained steady or decreased since the introduction of parity. (Source: proprietary data.)

The cost of introducing parity in Maryland was low. Additional data received during the past year from Maryland indicate that after an initial increase following implementation of parity, PMPM mental health/substance abuse costs dropped back toward pre-parity baseline levels. (Source: proprietary data.)

In a group of Maryland residents for whom data on total health benefit costs are available, the cost for treating mental/addictive disorders rose by 0.84 percent of overall benefit costs in the first year following parity (transition to parity). During the second year (full parity), the costs were unchanged, and in the third year of followup, treatment costs decreased by 0.27 percent of total benefit cost. (Source: proprietary data.)

Hospital discharge data from public and private institutions in Maryland indicate a decreasing proportion of admissions to State hospitals over time, a trend that appears unaffected by parity (Source: Maryland Health Resources Planning Commission; State of Maryland Mental Hygiene Administration.)

c. North Carolina

Since implementing parity legislation for mental disorders and introducing managed mental health care in the North Carolina State Employee Health Plan in 1992, both utilization and cost of services have decreased, while treated prevalence has increased. Both the inpatient admission rate and the average length of stay decreased substantially following parity, and continue to decrease gradually. Outpatient treated prevalence increased from 6.0 percent in 1991 to 6.7 percent in 1996, while the total number of outpatient visits gradually decreased, and PMPM costs dropped 32 percent during the same time period--from \$5.93 in 1991 to \$4.06 in 1996 (Source: North Carolina Teachers' and State Employees' Comprehensive Major Medical Plan.)

North Carolina State employees had a mental health benefit funded at a relatively moderate to high level prior to parity, and their current benefit is managed less intensively than most. There are no separate deductibles or co-payments for mental

⁶Treated prevalence rates are usually based on the number of individuals treated in different settings in a given period of time. See the section on Access for a discussion of aspects of access that go beyond treated prevalence.

health treatment. All inpatient care undergoes review, while outpatient treatment is reviewed after 26 sessions. Parity for chemical dependence was added in October 1997.

2. Declining Costs: Experience of Private Insurance Plans with Partial or Full Parity-Level Benefits

a. Case Study 1 (Goldman et al., 1998)

In a 9-year (1988-1996) study of a private insurance company with 179,000 beneficiaries, the cost for mental health treatment was rising at a rate of 30 percent per year from 1988 to 1990. However, costs decreased by 40 percent in the first year after a mental health "carve-out"⁷ managed by United Behavioral Health was implemented in 1991; costs continued to decline slowly through 1996. Outpatient visits per user decreased 31 percent, inpatient admissions decreased 53 percent, and average length of stay decreased 69 percent, while treated prevalence increased from 6.4 percent to 9.6 percent. Although the PMPM costs dropped from \$12.01 in 1988 to \$8.05 in 1996, this remains a relatively well-funded benefit among managed care programs (Goldman et al., 1998).

b. Case Study 2 (Grazier et al., 1997)

A 3-year study of mental health benefit costs for a large national employer with 45,000 employees and dependents showed that managed care--implemented through a mental health carve-out--decreased outpatient costs by 28 percent and decreased the average number of outpatient visits by 19 percent. At the same time, outpatient treated prevalence increased from 8.6 percent to 9.7 percent.

c. Case Study 3 (Sturm, McCulloch, & Goldman, 1998)

In a study of the State of Ohio employee benefit program, the switch to carve-out managed care was associated with a dramatic drop in mental health costs despite an expansion of benefits for State employees and an increase in treated prevalence from 6 percent to 7 percent. The cost reduction was realized through decreases in outpatient sessions per user, inpatient admissions, average length of stay, and service unit costs. The lowered costs remained stable despite the addition of parity benefits.

d. Case Study 4 (Ma & McGuire, 1998)

A recent study further contributes to the accumulating evidence on carve-outs and

⁷ One approach to managing MH/SA care is the *behavioral health carve-out*, in which those benefits are separated from general medical benefits. Carve-outs generally have separate budgets, provider networks, and financial incentive arrangements. Covered services, utilization management techniques, financial risk, and other features vary depending on the particular carve-out contract (Frank et al., 1995; Merrick, 1997).

managed care by reporting on the experience of a mental health and substance abuse carve-out of a major Massachusetts employer. The experience of a continuously enrolled sample of 40,000 people was reported 2 years before and 2 years after the implementation of the carve-out in 1994. The findings indicate that costs for mental health and substance abuse services were reduced by 30 to 40 percent in response to changes in incentives within the carve-out contract. Reductions in employer PMPM payments were not due to cost-shifting to employees. Excluding substance abuse and patient co-payments (to make data comparable to Goldman et al., 1998), the average total cost PMPM dropped from approximately \$18 pre-parity to \$8 post-parity, while the treated prevalence dropped from 12.4 percent to 9.3 percent of enrollees per year.

C. Refining Actuarial Models for Predicting Parity Costs

1. Background

As noted in the 1997 NAMHC report, there have been many attempts to provide national estimates of the effect of parity on the cost of mental health care (National Advisory Mental Health Council 1993; Coopers & Lybrand 1996; Congressional Budget Office 1996; Congressional Budget Office/Joint Committee on Taxation 1996; Melek and Worldwide/Association of Private Pension Office/Joint Committee and Welfare Plans 1996). Of particular importance, the Congressional Budget Office (CBO) found that full parity would increase total premium costs by 4 percent.

These estimates vary widely in their assumptions, methodologies, data sources, and thus, projected costs. None has tapped the actual experience of States that have enacted parity legislation. Rather, using actuarial data on benefit use and cost data from large insurance plans that do not operate under parity conditions, they have tried to model the likely consequences of changing one part of the benefit structure, namely, increasing benefits for mental disorders. While these estimates make some adjustments for the effects of managed care on costs, the actuarial models generally do not directly incorporate the recent experience of managed behavioral carve-outs and other forms of managed care in greatly reducing mental health costs.

Managed care is the critical factor explaining differences between empirical and actuarial estimates. With heavily managed mental health services, the empirical studies suggest that cost increases would be minimal, while in lightly managed or unmanaged plans, cost increases would be substantial, based on evidence from the RAND Health Insurance Experiment. In all of the empirical studies, managed mental health care is either already present or introduced concurrently with parity (there are no known examples of parity without managed care.) In contrast, the actuarial estimates were derived from models assuming mostly fee-for-service or lightly managed plans (e.g., PPOs). Thus, the actuarial cost estimates, weighted towards unmanaged mental

health care, are much higher than the empirical studies of parity in managed mental health care environments.

The rapid movement toward managed care for all health services, and in particular, managed behavioral health care carve-outs, creates a strong need for updated actuarial models to account for the considerably different cost experiences of plans with managed behavioral health care. In addition, the rapid movement into managed care requires correct assumptions about both the existing distribution (for static estimates) and future distribution of types of managed behavioral health care. Parity cost projections are highly sensitive to these assumptions.

2. Hay/Huggins Model: MHBVC Managed Care Update

Recognizing the shortcoming of existing actuarial models, NIMH recently made efforts to update actuarial simulation models used by the Congressional Budget Office and the Congressional Research Service to reflect new market conditions. The Institute contracted with the Hay/Huggins Company to update their Mental Health Benefits Value Comparison (MHBVC) actuarial model to estimate explicitly the premium costs of mental health services under HMOs and managed behavioral carve-out plans based on benefit design and newer managed care approaches.

The company's leading actuaries first updated their baseline cost data (based on new data provided by NIMH and its consultants) to reflect the continuing shift away from inpatient treatment, as well as the increased use of utilization review and other management tools by all types of plans. The baseline cost data were then adjusted to reflect the experience of HMOs and managed behavioral carve-out plans from empirical studies.

A simulation by the NAMHC Parity Workgroup using this updated model predicted that implementing full parity benefits would result in a 4 to 5 percent increase in total benefit costs for a fee-for-service or preferred-provider organization; about a 3 percent increase for a point-of-service plan; and a less than 1 percent increase for a health maintenance organization or carve-out plan. As noted above, parity cost projections are sensitive to the distribution of managed care plan types under study. Depending on the mix of plan types, projected total benefit cost increases may range from less than 1 percent to 4 percent. The greater the proportion (penetration) of heavily managed mental health care, the lower the projected cost of parity.

Under a Center for Mental Health Services contract with Mathematica, the updated Hay/Huggins model was applied to the current national distribution of health insurance plans. However, this distribution did not account for the use of carve-outs in non-HMO plans. Using this distribution in a simulation study of the cost of full parity benefits, projections of total benefit increases ranged from 0.6 percent for HMOs to 5 percent for

fee-for-service plans. It was projected that, with no changes in the distribution of fee-for-service, preferred-provider organizations, point-of-service, and HMO plans with the implementation of parity benefits, an average annual premium increase of 3.6 percent would be expected for a combined mental health/substance abuse benefit (Sing et al, 1998). Since this simulation did not fully account for the impact of existing carve-out arrangements, this study overestimates the expected premium increases. As the use of managed care plans in general, and managed behavioral carve-outs in particular, continues to increase, premium increases will be smaller.

This type of actuarial projection is a first step in predicting the cost of implementing parity legislation. Case studies of implementing parity-level benefits through State legislation or private insurance benefit expansion have shown that such benefit enhancements only occur when increased management is in place. In fact, managed care was introduced to control cost increases of this magnitude that occurred prior to implementation of parity benefits in predominantly unmanaged fee-for-service systems. Such managed care programs have demonstrated an ability to control costs while enhancing benefits, as illustrated by the previous examples. Given the contrast between actuarial projections of parity and actual experience with parity benefits, the NAMHC Parity Workgroup has recognized the need for a more dynamic model of the impact of parity legislation (see below).

3. Testing the Hay/Huggins Model: A Carve-Out Response Example

Actuarial estimates of the cost of parity generally assume a fixed or static distribution of managed care plan types. However, the introduction of parity creates strong incentives to manage mental health services to offset the loss of demand-side cost-containment mechanisms. The extent of increased management resulting from parity is difficult to predict, but its importance in accurate predictions of the cost of parity is illustrated by the following example:

An NAMHC Parity Workgroup simulation study with the Hay/Huggins model exploring the hypothetical impact of introducing a carve-out in response to parity has predicted that if a fee-for-service or PPO plan with an \$8 PMPM rate moves to full parity, the projected PMPM costs would rise from \$8 to \$17 in the absence of managed care. However, if a carve-out were introduced subsequent to full parity, the costs would fall to \$5 PMPM--\$3 less than the initial cost. If a similarly unmanaged fee-for-service or PPO plan were to introduce a carve-out before implementing full parity, the projected costs would fall from \$8 to \$4, rising to \$5 with full parity. Both paths result in a savings of \$3 per member per month (see Figure 1 at <http://www.nimh.nih.gov/research/prtyrpt/parityfg1.htm>) These findings indicate that existing actuarial models cannot predict parity costs reliably without being recalibrated to reflect the cost impact of new management techniques and the intensity of medical

care management.

In summary, based on new knowledge derived from empirical case studies and updated actuarial cost-prediction models, the costs of parity are controllable. New questions arise, however, concerning the impact of managed care on access to and quality of care. The following sections will explore the consequences of that control for access and quality in mental health care.

III. ACCESS TO CARE

A. Issues in Definition

The term “access to mental health and substance abuse (MH/SA) services” refers to the ability to obtain treatment with appropriate professionals for MH/SA disorders. Access is often reported in terms of “treated prevalence,” or “penetration rates.” These rates reflect the proportion of individuals in a given population (e.g., members of a particular managed behavioral health care plan) that use specialty mental health and/or substance abuse services in 1 year.

Access to care has many additional dimensions and meanings to consumers, health care providers, and health services researchers. These include: a) waiting time for emergency, urgent, and routine initial and followup appointments; b) telephone access, including call pick-up times and call abandonment rates; c) access to a continuum of services, including treatment in the least restrictive setting; d) access to providers from a full range of mental health disciplines; e) choice of individual provider; f) geographic access; and g) access to culturally competent treatment.

B. Determinants of Access

Many factors determine access to mental health services; some are common to all health insurance arrangements and some are specific to particular types of managed care. Common determinants of access across all insurance arrangements include the patient’s clinical status and desire for care; knowledge about MH/SA services and the effectiveness of current treatments; level of insurance co-payments, deductibles, and limits; ability to obtain adequate time off from work and other responsibilities to obtain treatment, and the availability of transportation and childcare. However, stigma associated with MH/SA disorders is still a barrier to care. Access can be facilitated by employee assistance programs (EAPs), which may reduce stigma and serve as a gateway to further treatment when necessary.

Different systems of organizing and financing MH/SA treatment result in a variety of financial incentives potentially affecting access to care, as illustrated by the following examples:

In fee-for-service insurance, access is determined by the consumer’s perceived need for care and financial resources, the insurance plan’s benefit level, and the supply of practitioners. In general, those who desire care and can pay for it usually receive it.

In managed behavioral carve-out companies, where a capitated rate per beneficiary is usually paid to administer and/or provide services, access to specialty mental health/substance abuse treatment is frequently controlled through procedures required for authorizing treatment. These procedures typically include authorization by administrative gatekeepers or “care managers” for all inpatient care and for some or all outpatient care. Authorization decisions are influenced by the clinical status of the patient, the generosity of the benefit, the managed care company’s authorization guidelines, the clinician’s clinical skills and reporting abilities, the care manager’s clinical skills and judgment in assigning a patient to an appropriate clinician, and the actual availability of appropriate treatments in the local area (see, for example, Frank et al., 1997). Both flexibility in implementing authorization guidelines and procedures for appealing authorization decisions vary across programs. In addition, financial incentives for the care manager or the clinician may influence authorization decisions.

When provider networks are used, typically in carve-out and point-of-service plans, additional factors influence access to care. Access is hampered when lists of providers are unavailable to potential patients and to primary care providers who make referrals. Keeping closed lists limits patients’ choices of providers and the development of referral relationships among clinicians that could facilitate coordination of specialty and primary care and among clinicians of different mental health disciplines. Access to the most appropriate providers may be compromised if nonclinical staff make referrals using administrative criteria such as location rather than finding providers with clinical expertise in treating the patient’s particular illness. Requiring the use of network providers may be especially problematic for rare or treatment-resistant conditions for which special expertise is needed. Access to ongoing treatment relationships may be lost during the transition to network-based care arrangements. On the positive side, well-screened networks can protect patients from providers who lack appropriate credentials, and centralized network referral mechanisms (such as toll-free numbers) may facilitate access, particularly for patients who have difficulty finding providers on their own.

In HMOs or other systems that use primary care gatekeepers, incentives limiting the number of specialty referrals may restrict access to mental health and substance abuse care. However, primary care gatekeepers may, in theory, facilitate access if they are skilled at making appropriate referrals and are not restricted from doing so by financial or administrative disincentives against specialty referrals. Because of the stigma of seeking treatment for mental and addictive disorders and the low level of recognition of these disorders in primary care practice settings, the availability of patient self-referral to specialty mental health services has been adopted in a number of programs to facilitate access of the mentally ill to appropriate and early evaluation and treatment. This approach relies on active care management and financial incentives within the specialty mental health program to limit inappropriate or unnecessary care.

When cost-containment strategies contribute to excessive denial of care and underutilization of needed services, access may be limited. Financial incentives to providers and facilities to reduce specialty referrals, hospital admissions, or length or amount of treatment may ultimately contribute to lowered quality of care. This may occur through restricted access to the most highly skilled/ trained health professionals or to a sufficiently intensive or extensive course of treatment. This restriction poses the greatest risk to the most severely and persistently ill patients.

Of particular interest is the impact of strong financial incentives in capitated systems and/or carve-out contracts to deny access/benefits in order to contain costs. Recent court cases indicate that the interpretation of consumers' rights of access to care has been changing to protect consumers. Gosfield (1997) reports:

“For about five years the case law fairly consistently held that where the plan denied benefits and patients were thereby harmed, there was no remedy in state court (that is punitive tort damages), and often there was no consideration as to the propriety of the plan's decision. This situation has begun to change very recently, and the ultimate outcome is as yet unknown.

“In 1996, in *Dukes v. U.S. Healthcare*, instead of challenging the benefit denial (the omitted service that led to the harm), the plaintiffs complained that the managed care organization had an ongoing responsibility to select and then monitor the performance of its contracted network of physicians: based on a failure to perform this duty effectively, the managed care organization should be held liable. The Third Circuit Court of Appeals agreed, finding not only that the managed care organization could be held liable for the actions of its contracted physicians, but that this obligation had absolutely nothing to do with benefit determinations...(p. 30).”

This legal interpretation focuses on the patient's need to access care and gives no consideration to what is covered in the insurance benefit package. Earlier courts used the interpretation of the Employee Retirement Income Security Act (ERISA) to determine liability of health care organizations on the basis of what is written in the insurance benefit package. ERISA was designed primarily to make retirement plans accountable to their pensioners, and accordingly, the remedies available to aggrieved claimants are limited to the benefit that the plan should have provided--as Gosfield (1997) explains. The same author also points out that applying the ERISA interpretations to health care complaints oversimplifies the possible negative health consequences of denied access to care.

The new relationship between promised and actual access to care does not mean that there were no differences between the two in private insurance under fee-for-service incentives. Practitioners and patients at times may have viewed these benefits as an

entitlement regardless of the need for using the full benefit. Under managed behavioral health care, the benefit serves as the maximum treatment, regardless of the clinical need, unless flexible benefit extensions are provided. Certain types of care may be denied, but with flexible benefits, services in a different setting or with another provider type may be substituted.

C. Standards for Access

No benchmark standards exist for access to specialty mental health/substance abuse services. Establishing targets for treated prevalence is problematic because the appropriate level of service utilization is unknown. Mental health and substance abuse services are delivered in a variety of settings by a variety of practitioners. These include the specialty mental health sector (psychiatrists, psychologists, psychiatric social workers, psychiatric nurses, and licensed counselors), the general medical sector (e.g., primary care physicians), self-help groups, and the clergy. Although training can improve primary care providers' abilities in diagnosing and treating patients with MH/SA disorders, specialty consultation and referral are necessary in this, as in all other areas of medicine. Access to specialty care is particularly important for individuals with severe illnesses or disabling symptoms.

It is not yet established what proportion of individuals with MH/SA problems need or want treatment. For some illnesses, such as juvenile-onset diabetes or traumatic injuries, the demand for services nearly matches their prevalence. Not so for mental illnesses and substance abuse disorders; not everyone with a diagnosable mental disorder perceives a need for treatment, and not all who desire treatment have a diagnosable disorder (Regier et al., 1993; Regier et al., 1998a, Regier et al., 1998b, in press). Perceived need for treatment is influenced by severity of symptoms and functional disability as well as by cultural factors, as reported by Kessler and colleagues (1997), who compared outpatient mental health service use in the United States and in Ontario, Canada.

A system to measure access and track it over time is clearly needed. Current efforts to standardize measurements of access include the Health Plan Employer Data and Information Set (HEDIS 3.0, Joint Commission on Accreditation of Healthcare Organizations) and Performance Measures for Managed Behavioral Healthcare Programs (PERMS 2.0, American Managed Behavioral Healthcare Association). (HEDIS and PERMS are discussed more fully in Section IV, Quality of Care.)

HEDIS and PERMS measures track aspects of access, including treated prevalence, availability of providers, telephone waiting times, and waiting time for initial appointments. Anecdotal reports suggest that these measures do not always reflect the real experiences of people trying to obtain care. For example, providers may be

less available than the data suggest because: 1) lists of network providers, which are the basis for some measures, are not necessarily current; and 2) listed providers may decline to take new patients. Enrollees may be denied choice of providers if they are given only one provider's name when they call for a referral, or if lists of participating providers are not made available to them or to their referring primary care physicians.

Measures of geographic distribution may fail to reflect logistical realities for some patients. Participating providers for medical care may be clustered in one hospital or clinic system, while providers for MH/SA services may be elsewhere. This arrangement creates access problems for patients and may compromise coordination of general medical and specialty MH/SA treatments.

D. Studies from Administrative Data: Treated Prevalence Findings

1. National Baseline: Prior to Managed Care

Epidemiologic data from the period before managed behavioral health care became widespread provide a baseline for determining how managed care has affected access to mental health services. According to data from the Epidemiological Catchment Area (ECA) survey in the late 1980s and the National Comorbidity Survey (NCS) in the early 1990s, between 5.8 percent (NCS) and 5.9 percent (ECA) of U.S. adults used specialty mental health services in 1 year (Kessler et al., 1994; Regier et al., 1993). A national multisite study of specialty mental health service use by children (ages 9 to 17) conducted in the early 1990s reports an 8.1 percent treated prevalence rate (Leaf et al., 1996).

2. Current Treated Prevalence in Managed Care

Although no comparable national treated prevalence data for adults and children are available for the current era of managed care, recent studies reveal wide variability in treated prevalence, ranging from 0.9 percent to 9.7 percent of members using outpatient specialty mental health services (Sources: proprietary data; Grazier et al., 1997). Even within a single managed care organization, outpatient treated prevalence varied five-fold, from 0.9 percent to 4.9 percent in a small number of commercial contracts. (Source: proprietary data.) Plans with treated prevalence at the 9 percent level were associated with costs of approximately \$8 PMPM (Goldman, 1998; Ma & McGuire, 1998), while lower PMPM benefit costs were associated with correspondingly lower treated prevalence rates. (Source: proprietary data.)

Treated prevalence for mental health services under managed care is much higher than for substance abuse services. For example, a study by RAND reports treated prevalence of 5.1 percent for mental health and 0.3 percent for substance abuse services in more than 617,000 enrollees of 93 behavioral health carve-out plans

operated by one national firm (Schoenbaum, Zhang, Sturm, 1997). Across all plans, the PMPM cost was \$4.72, of which \$3.80 was paid by insurance and \$0.92 was from out-of-pocket co-payments.

Data on treated prevalence for children and adolescents in managed care are sparse. Another RAND study compared treated prevalence for inpatient, outpatient, and partial hospital care in 108 plans from one managed behavioral health care carve-out company. Use of outpatient care (which was 4.7 percent for adults) was highest among adolescents aged 13 to 17 (5.0 percent), lower among children aged 6 to 12 (3.2 percent), and lowest for children aged 0 to 5 (0.08 percent). Treated prevalence for partial hospital care followed similar trends. Less than 1 percent of children under age 6 used any specialty mental health treatment, and nearly all such use was in outpatient settings (Gresenz, Liu, & Sturm, 1998).

The impact of managed care on special populations is the subject of ongoing studies. For example, recent research examining whether severely ill patients have access to psychiatrists has revealed that in one large carve-out organization, 95 percent of patients diagnosed with psychotic disorders received outpatient treatment from psychiatrists alone or in combination with other providers (Sturm & Klap, 1998).

Treated prevalence needs to be analyzed longitudinally as well as cross-sectionally. Empirical case studies applying "before-after" designs can track longitudinal trends resulting from managed care while controlling for other variables that may influence access. Health economists usually measure access to care by the probability of use. As was pointed out earlier, this is not the only access measure, but it is the easiest to obtain. Most of the empirical studies find that the probability of any use of mental health care--especially outpatient care--increases after managed behavioral health care is implemented in private insurance plans (Merrick 1997; Goldman 1998; Sturm, McCulloch, Goldman, 1998).

3. Future Studies: Exploring Treated Prevalence Variation Under Managed Care

The variation found in treated prevalence under diverse types of managed care invites further investigation. Some disparity in treated prevalence is expected, based on the ECA and NCS studies conducted in the pre-managed care era, which showed considerable regional and urban/rural variation in service use (Kessler, 1994; Regier et al. 1998a). Differences in treated prevalence may reflect real differences in the distribution of mental health and substance abuse disorders in various populations, or different levels of perceived need for specialty mental health care in various groups. However, the wide range of treated prevalence may reflect service system characteristics and financial incentives that facilitate or bar access to care. The

possibility that plans with extremely low rates of treatment may be denying necessary care is a serious concern.

More extensive data on treated prevalence, together with information on PMPM costs from a wide range of plans should clarify the relationship between access and cost; additional case studies should provide opportunities to clarify the relationship between access, cost, and quality of care.

IV. QUALITY OF CARE

A. Background

Managed care has been shown to reduce overall mental health and substance abuse costs and service utilization, with shifts from more-intensive inpatient to less-intensive intermediate and outpatient services. However, there has been considerable concern --but little systematic evidence--about how these reductions affect both access to care and quality of care for patients.

The inherently different incentives in managed care vs. traditional fee-for-service systems of care create effects that may potentially enhance or diminish quality of care. Case management, utilization review, and implementation of standardized criteria may reduce services that are unnecessary, overly intensive, and neither goal-directed nor demonstrably effective. For example, there is some evidence that adherence to professional consensus treatment guidelines, such as those of the American Psychiatric Association for major depression, is enhanced in managed behavioral health carve-out plans (Frank, Berndt, & Busch, 1998). Adherence to similar guidelines, such as those provided by the Agency for Health Care Policy and Research (AHCPR), has been shown to improve patient outcomes, at a somewhat increased cost (Katon et al., 1997). However, the introduction of management of services in systems that retain nonparity mental health benefits combines the effects of both supply and demand control on utilization, placing severely and chronically ill patients at particular risk. In some cases, these combined limitations on services may inhibit the provision of full and necessary treatment.

The Federal Government's concern with quality in the Nation's health care system was expressed (in addition to the Senate Appropriations Committee's charge to the NAMHC) in President Clinton's charge to his Advisory Commission on Consumer Protection and Quality in the Health Care Industry (March 26, 1997) "to recommend such measures as may be necessary to promote and assure health care quality and value and protect consumers and workers in the health care system." In November 1997 the Commission issued a Consumer Bill of Rights and Responsibilities (Advisory Commission on Consumer Protection and Quality in the Health Care Industry, 1997), which included the following issues of particular relevance to mental health:

- o Information disclosure of comparable measures of quality and consumer satisfaction from health plans, professionals, and facilities;
- o Direct access to specialists of choice for consumers with complex or serious medical conditions who require frequent specialty care;

- o Authorization, when required, should be for an adequate number of visits under an approved treatment plan;
- o Vulnerable groups, including individuals with mental disabilities, require special attention by decision-makers to protect their health coverage and quality of care;
- o Confidentiality protections for sensitive services, such as mental health and substance abuse services, should be provided by health plans, providers, employers, and purchasers to safeguard against improper use or release of individually identifiable information.

Quality of care within health systems has traditionally been assessed on three dimensions: 1) the *structure* of the health care organization or system; 2) the *process* of the delivery of health services; and 3) the *outcomes* for the consumers of those services (Donabedian, 1966). Services outcomes can be assessed along multiple domains, such as clinical outcome (symptoms, course, remission or relapse), functional outcome (the patient's activities of daily living, family and social function, occupational function, medical outcome, economic status, and legal status), and patient satisfaction.

Within the managed care industry, current incentives generally do not encourage an emphasis on quality of care and its assessment. Consolidation of the managed care industry has created intense pressure for competition based almost exclusively on price. It has also created disincentives for capital investment to develop comprehensive quality information systems that would allow competition on the basis of quality. Such competition is now limited to requiring attention to quality for contract bid consideration. Once in the zone of contention, however, contracts go to the lowest bidder with no evidence that additional premiums are being paid for contracts with demonstrably higher quality of clinical services delivered.

Nonetheless, quality assessment may have several important roles within some managed mental health systems: 1) to monitor and assure quality of care by public and private oversight organizations; 2) to develop programs to improve services or outcomes from systematic empirical evaluation; 3) to permit reward on the basis of quality and performance, not simply cost; and 4) to study the impact of public and private policy initiatives in financing and delivery of health care (Kane et al., 1994; Kane et al., 1995; Advisory Commission on Consumer Protection and Quality in the Health Care Industry, 1997; Institute of Medicine, 1997).

Overlapping efforts to assess quality standards systematically in organized mental health systems have been developed by a variety of oversight, managed behavioral health organizations, and other organizations with differing purposes, information

sources, and specificity for mental health. Because of the multiple, uncoordinated efforts to develop mental health outcomes measures and strategies, the American College of Mental Health Administrators hosted the Santa Fe summit in 1997, a forum of major industry, advocacy, professional, regulatory, and government organizations to try to develop “consensus on core performance measures and strategies in mental health and substance abuse care.” The result was the specification of key outcome indicators or domains that included mental and general health, housing, working, social, and legal dimensions of function. They presented a proposal for “measurable, manageable, and meaningful standardized measures” that are intended to be both collectable and relevant to the needs of consumers and purchasers of mental health services (American College of Mental Health Administrators 1997).

One approach to enforcing quality standards has been the accreditation of health care facilities and managed health care organizations. This approach has been used by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the National Committee for Quality Assurance (NCQA), based primarily on evaluation of structural and procedural indicators.

B. Quality Assessment Studies from Administrative Data: Current Findings

Two initiatives are representative of efforts to develop quality reporting systems based on existing administrative claims data. First, NCQA has promoted the continuing development of HEDIS 3.0, a set of more than 75 standardized quality performance measures of access, process, and patient satisfaction (National Committee for Quality Assurance, 1997). HEDIS, developed for application in the general health system, has a limited set of measures appropriate to mental health. These measures are for the most part minimum thresholds for provision of at least some treatment, screening, or followup for certain mental health conditions; they would not permit continuous or comprehensive measurement of quality for comparison or quality improvement purposes. In addition, the measures cannot be used for direct evaluation of patient clinical or functional outcome because that information is not available from administrative claims data. Furthermore, many of the measures are not yet operationalized or incorporated into the current required reporting set.

In view of these limitations for mental health care, the American Managed Behavioral Healthcare Association (AMBHA) has developed the PERMS 2.0, a quality reporting system also based on administrative claims databases and derived in part from HEDIS, with measures specifically adapted to mental health standards, and intended for voluntary benchmarking in managed behavioral health systems. PERMS has a set of performance measures of treatment process (called “effectiveness of care”), utilization of services, and access. Many of these measures are still either optional or pending

development and not currently available for use (American Managed Behavioral Healthcare Association, 1995). Examples of some PERMS quality indicators are: ambulatory follow-up within 7 and 30 days of inpatient discharge for MH/SA diagnoses; inpatient readmission rates for MH/SA (30, 90, 365 days) diagnoses; percentage of members receiving inpatient and outpatient MH/SA services; engagement rates for treatment of depression and substance abuse; availability of medication management for patients with schizophrenia; and presence of one family visit for children undergoing mental health treatment.

In a recent Massachusetts Group Insurance Commission (GIC) study (Merrick, 1997), investigators evaluated the effect on quality indicators of the 1993 transition to a managed behavioral health carve-out for Massachusetts State employees based on the administrative claims database of that single plan. They reported that rates of readmission after hospital discharge were not adversely affected by the carve-out transition, and the proportion of cases receiving outpatient followup (within 15 or 30 days) actually increased for patients with major depressive disorder, despite substantial reductions in inpatient utilization and costs. However, important general and disorder-specific outcomes measures could not be ascertained, nor could adjustment for patient risk factors be made from the available administrative claims data alone, limiting the conclusions that could be made about preservation of quality.

In the first comparative study within the managed behavioral health care industry, AMBHA voluntarily surveyed 13 member managed behavioral health companies covering a population of about 20 million (Frank & Shore, 1996). The purpose was to begin to define benchmarks for quality based on PERMS indicators. Only five to eight companies provided data for each indicator. Among those responding, a wide range of results was reported. For example, outpatient followup within 30 days after hospital discharge for depression ranged from 39 percent to 92 percent; hospital readmission rates for all mental health diagnoses ranged from 2 percent to 41 percent; the proportion of patients with schizophrenia who received a minimum of four medication visits per year ranged from 15 percent to 97 percent; and the proportion of children less than 12 years of age in mental health treatment who received at least one family visit ranged from 13.3 to 99 percent. Managed behavioral health care companies were more consistent in their capacity to *limit* treatment, ranging from 65 to 100 percent in limiting visits for adjustment disorder to fewer than 10. Measures of access (treated prevalence rates) varied widely. Lack of standardized methodology for collecting and reporting the data as well as difficulties in retrieving relevant data from existing information systems probably contribute to the variation among companies. These data raise concerns about real differences in quality among managed behavioral health care companies, and they underscore the need to improve quality measurement.

C. Quality Assessment Studies from Clinical Outcome Data: Current Findings

Most quality reporting systems in managed behavioral health systems are based on administrative data, which measure aspects of the *process* of care, rather than on *clinical outcome* data. However, several companies are currently testing the feasibility of implementing system-wide collection of clinical outcome data, to be managed through newly developed comprehensive clinical quality information systems. These are more expensive and complicated than administrative data systems, but have much greater potential for evaluating the actual impact of programs and practices on patient outcomes. Both designing and implementing procedures to collect comprehensive clinical outcome data pose challenges. Collection of clinical quality data needs to be integrated into the clinical assessment process to avoid undue interference with patients and clinicians. However, once developed, comprehensive outcome systems are superior to the current patchwork of single-outcome research studies, which are not integrated into clinical operations; require setting up specialized data collection and training special interviewers or raters; and may entail inconvenience and intrusion into the ongoing treatment relationship.

The managed behavioral health industry has expressed widespread concern about the higher initial development cost and the substantially higher operational cost for a comprehensive clinical outcome data system. However, data from one managed behavioral health organization with such a clinical quality system, obtained as part of an NIMH effort to evaluate the comparative costs and benefits of different quality-assessment approaches, indicate that the initial development costs were approximately equal to the annual operational cost, amounting to less than one cent (\$0.008) per member per month (Kane et al., 1998). Considering that clinical quality management depends on the availability of systematic outcome information, the return in quality improvement, efficiency, and competitiveness from this rather modest investment would seem both feasible and worthwhile. In the absence of comprehensive outcome information, services are currently evaluated and managed on the basis of administrative data sets containing information only on cost and utilization.

Several other issues need to be addressed in implementing clinical quality information systems. Measures must be developed that are appropriate to and applicable in vulnerable populations, including the mentally ill and substance abuse populations, and especially children and adolescents, seniors, and cultural minorities. Given the chronic and recurrent nature of many mental illnesses, and the often-deferred or fluctuating course of social and vocational outcomes, longitudinal assessment of outcomes is essential, so that short-term cost savings do not unwittingly contribute to long-term negative consequences. This is a particular challenge during a period of dynamic change and consolidation of the managed care industry, with rapid turnover of patients,

providers, contracts, and, in some cases, even companies. Other methodological problems that remain to be addressed include: assuring the accuracy and completeness of treatment and diagnostic coding; testing the validity and reliability of quality measures; ascertaining and adjusting for concurrent, comorbid disorders; accounting for out-of-system care; and assuring confidentiality of the data.

1. MCC CQIS Studies

The development of the Clinical Quality Information System (CQIS) by MCC Behavioral Care has been one of the most comprehensive efforts in the field to address “the challenge facing managed care organizations...[to develop] methodologically sound outcomes management systems to monitor and improve clinical processes, organizational structures, and outcomes of care...[which are] integrated into routine clinical operations” (Potthoff et al., 1998).

Several core features of the CQIS are noteworthy: 1) structured collection of baseline data is integrated into documentation of the initial clinical assessment of every patient; 2) longitudinal assessment occurs at 6 and 12 months with telephone follow-up of outcomes and satisfaction; 3) patients are assessed along multiple domains of function; and 4) clinical outcomes data can be linked to and analyzed with existing data on costs and utilization of services, characteristics of providers, patients, and benefits. Furthermore, the methodology of the CQIS, and especially the validity and reliability of its measures, were developed and tested in a collaborative private-academic partnership between MCC and the University of Minnesota Institute of Health Services Research (Kane et al., 1994).

Initial research studies based on the CQIS demonstrate how a comprehensive information system in a managed behavioral health organization can foster quality-improvement interventions through analysis of outcomes data. In a series of quality-improvement studies, MCC has identified several significant predictors of treatment engagement (e.g., co-payments less than \$20, and practical attendance problems); these findings have led to reduction in co-payments and special assistance for attendance problems. MCC has also demonstrated the benefits of certain substance abuse treatment programs on mental health, medical, and functional outcomes. They have identified predictors of abstinence in alcoholism treatment, leading to specific program modifications. In addition, the CQIS system has permitted the managed behavioral health organization to compete successfully for external health services research funding.

2. United Behavioral Health (UBH) Goal-Focused Treatment and Patient Outcome System

A second quality information system developed in a managed behavioral healthcare organization is the Goal-Focused Treatment and Patient Outcome System (GFTPO) introduced by United Behavioral Health (UBH) (Goldman, 1997; Goldman et al., 1998). The GFTPO is integrated into clinical operations and is designed for quality assessment and improvement of process and outcomes. It is a case management system for quality improvement through collaborative goal-setting and focusing of treatment between clinicians and patients in psychotherapy. Since 1994, data have been collected on general and individualized treatment goals at the beginning of all modalities of psychotherapy in all adult members, of whom 66 percent (10,544) have completed treatment and evaluation. Outcome is evaluated from global improvement ratings by providers and from patient satisfaction ratings from a mail survey, although the response rate for the latter has been low and does not provide a representative sample.

Ratings showed improvement at termination by 87 percent of the psychotherapy patients. Predictors of improvement include the absence of co-occurring disorders, participation in a higher number of treatment sessions (>12), and termination after completion of treatment goals (vs. discontinuation). Compared with a matched outpatient psychotherapy control group, those in the GFTPO group were less likely to terminate treatment prematurely, and formed more stable alliances with their therapists. Previous research suggests that these characteristics are associated with better clinical outcome. Costs were not significantly higher for GFTPO patients.

Limitations of the GFTPO are its focus only on psychotherapy patients rather than all patients in mental health or substance abuse treatment, and its lack of direct patient measurement of symptomatic or functional outcome. It is, therefore, less comprehensive than the CQIS system of MCC. However, it is feasible, has demonstrated effectiveness, and does not add substantially to clinical costs. UBH, like MCC, has also established collaborative partnerships with academic health services researchers to conduct their research studies.

D. Special Studies

1. Functional and Economic Outcomes

Another way to measure quality takes into account outcomes outside the mental health specialty sector. Two recent studies address how management and financial incentives affect the use and cost of general health care services, as well as the work performance and disability of employees with mental illness.

A study at Yale (Rosenheck et al., unpublished) examined the effects of managed care over time on employees of a large national corporation. The study compared 3-year trends in the use and cost of specialty mental health and general health services, as well as trends in employees' absenteeism and work performance. During this period, overall use of specialty mental health services decreased by 41 percent in outpatient settings and 4 percent in inpatient settings, resulting in a 44 percent decrease in mental health costs. Compared with other employees, users of specialty mental health services showed significantly reduced work performance over time (down by 5.1 percent), increased absenteeism (sick leave up by 21.9 percent), and increased general health services costs (up 36.6 percent). These trends offset any savings in mental health specialty costs and resulted in no net economic benefit or loss to the company. These findings raise concern that in the 3-year shift to increased use of general health care services for mental health care, employees may have received less appropriate and less effective treatment, resulting in a decline in work function.

Another study suggests that financial incentives that limit access to care may shift costs to disability claims. Salkever (1998) shows that employers offering (primarily fee-for-service) plans with high deductibles (\$750 or more per year for medical expenses or \$600 for mental health expenses) experience substantially higher rates of psychiatric disability claims, increased duration of disability, and decreased likelihood of employees' returning to work than those with lower deductibles. Thus, for employers, savings generated by purchasing lower cost health benefit plans may be offset by increased spending on disability claims. For employees, financial barriers limiting access to care are associated with increased occupational disability.

2. Quality of Specialty vs. Primary Care Mental Health Care

Two well-designed and well-conducted series of studies report on the important issue of the quality, effectiveness, and cost of mental health treatment conducted in primary care settings compared with specialty mental health settings.

One report from the RAND Medical Outcomes Study assessed the effect of financing type and clinical specialty on detection and recognition of depression. Among patients of primary care clinicians, but not mental health specialists, those receiving care financed by prepayment (e.g., those in HMOs) were significantly less likely to have their depression detected or to receive counseling treatment during the visit than were similar patients receiving fee-for-service care (Wells et al., 1989). In a later analysis, among patients who felt they needed help for depression, about half (48 to 57 percent) of those treated by general medical clinicians thought they did not receive help, while only 6 to 7 percent of those treated by psychiatrists felt they failed to receive needed help. Furthermore, treatment and outcome varied by specialty and payment type. Among patients treated by psychiatrists, those receiving prepaid care were initially

more likely to use antidepressants than those in fee-for-service care. However, over time, the percentage fell sharply for prepaid, but not fee-for-service care. Patients of psychiatrists in prepaid plans acquired additional limitations in role or physical functioning over 2 years, while those in fee-for-service plans did not (Rogers et al., 1993). These data are from the late 1980s, and suggest the need to investigate similar questions in the current health service environment.

In another report from the RAND Medical Outcomes Study (Sturm & Wells, 1995), the investigators compared treatment patterns, effectiveness, and costs of treatment for depression by primary care and mental health clinicians. Improvements in the quality of treatment (e.g., the use of appropriate antidepressant pharmacotherapy, avoidance of regular minor tranquilizer use, and *increased* use of counseling or psychotherapy) yielded improved functional outcomes and greater cost-effectiveness. These improvements were inherently more characteristic of psychiatric than of primary care practice. In the treatment of depression, psychiatrists produced better functional outcomes than did primary care physicians, at greater cost, but overall with greater cost-effectiveness. The investigators concluded that "in contrast with the effects of more appropriate care for depression, the trend away from mental health specialty care and toward general medical provider care under current treatment patterns reduces costs, worsens outcomes, and does not increase the value of health care spending in terms of health improvement per dollar."

These early findings from isolated primary care practices have led to new specialty/general medical collaborative models developed at RAND by Wells and others (Wells 1998, in press). For example, more recent studies that have developed a systematic consultation arrangement between primary care practitioners and psychiatrists have demonstrated marked improvements in depression treatment in primary care settings (Katon et al., 1997).

Another managed mental health quality study--the Large National Airline Carrier Study --has recently been initiated by MCC Behavioral Health Care in collaboration with academic health research scientists. The study combines some of the elements of a special data study and an integrated quality information system (Kathol et al., 1997). Its goal is to improve primary care practitioners' recognition of major depression and their appropriate use of Agency for Health Care Policy and Research (AHCPR) treatment intervention guidelines for patients with major depressive disorder. The study compares the effect of traditional primary care detection and treatment practices for major depression with the effect of integrating psychiatric specialists in the primary care team setting, combined with case management and mental health training for primary care practitioners. Outcome measures include changes in depression, life activities, work performance, disability, and medical care costs. In addition to providing longitudinal assessment of clinical outcomes, this study should permit evaluation of the

economic impact of this quality-improvement intervention on the health system (including claims costs as well as medical and pharmacy utilization) and on the work place (including job performance, productivity, and absenteeism).

E. Other Research Issues

The following important research issues related to quality of care require further study. Where there are relevant research studies that have been recently initiated or are ongoing under NIMH sponsorship, they are indicated below:

1. What is the PMPM floor below which access and quality are compromised?

Answering this question calls for a complex research design and access to rich proprietary data sets that are difficult to obtain. One such study might look at individual severely mentally ill patients' prescription fill rates, frequency of visits, and other meaningful quality indicators over time in a wide variety of plans. This kind of design may allow researchers to determine the proportion of patients whose care is well-, moderately well-, and poorly managed across plans with different benefit structures and different PMPM costs. Such data should shed light on the empirical relationship between costs, access, and quality. Investigators (of whom 13 are now supported by NIMH grants to conduct studies on managed care) will be encouraged to apply this or similar research designs in their proposed studies and obtain access to data sets that allow for this complex study design.

2. How do different cost-containment strategies affect quality of care?

The cost impact of carve-outs in PPOs, POS, capitated, and fee-for-service systems can be empirically assessed and predicted using refined actuarial models. More systematic research is needed to conduct case studies assessing quality of care specifically in these service-system configurations. The Research Center on Managed Care for Psychiatric Disorders (P50 MH54623, P.I.: Kenneth Wells and the Center for Rural Mental Health Research (P50 MH48197, P.I.: G. Richard Smith) have the capacity to conduct studies in this area. Once more is known about the quantitative relationship between cost and quality in these service-system configurations, then a *range* of cost predictions for the addition of parity can be examined.

3. How does following treatment guidelines affect clinical outcomes?

How treatment guidelines for major depression developed by the Agency for Health Care Policy and Research (AHCPR) are affecting the clinical practices of primary care practitioners is being evaluated by three NIMH grants (U01 MH5443, P.I.: Daniel Ford; U01 MH 54444, P.I.: Kathryn Ross; and U01 MH50732, P.I.: Lisa Rubenstein). The Texas Medication Algorithm Project (TMAP), partially supported by an NIMH grant (R24 MH53799, P.I.: A. John Rush), has been developed and will be implemented and tested in community mental health centers. Another NIMH-supported grant (KO2

MH01238, P.I.: Bentson McFarland) is developing and testing the validity of guidelines that can be used for measuring the performance of provider organizations serving defined populations. As the investigators point out, at this stage, “the guidelines can be used only as informal benchmarks for service utilization by a given population.” The first publication from this ongoing project, reporting on preliminary findings, will appear in the *Harvard Review of Psychiatry* later this year.

4 How do various financial incentives to providers and facilities affect quality of care?

Two ongoing studies address these issues. An NIMH-supported grant project (R01 MH 56925, P.I.: Judy Lave) focuses on how health insurance contract design affects the use and quality of mental health services, using data from a large managed behavioral health care company. In addition, NIMH members of the NAMHC workgroup are conducting a study on cost, access, and quality of care under parity with management in Texas. This study also will analyze the medical cost-offset and the occupational offset effect of managed behavioral health care. The study employs a four-way comparison design (before/after and experimental/ control group comparison). No previous empirical case study has been able to use this sophisticated study design, due to still-existing barriers to obtaining proprietary data.

5. What are the costs and feasibility of various quality measurement systems?

NIMH has commissioned Robert Kane of the University of Minnesota to describe systematically the quality measurement experience of MCC, a large managed behavioral care company in Minnesota.

6. What incentives exist for long-term outcome studies and investment in quality information systems?

NIMH investigators will be encouraged to conduct research in this area.

7. What are the effects of cost decreases in private managed care on the public system--uninsured, uncompensated care, safety-net providers?

The NIMH-funded Center for Public Mental Health Care (P50 MH51359, P.I.: Carole Siegel) has access to data sets to study this issue. However, no empirical study has been undertaken in this area.

8. What mental health services research initiatives on financial incentives, contracting mechanisms, and quality of care would strengthen the quality of mental health care, promote competition on the basis of quality in managed systems of care, and help guide and inform policy?

Two NIMH supported investigators have been conducting pioneering research in this area under various research mechanisms (K05 MH01263, P.I.: Thomas McGuire, “Public and Private Roles in Mental Health Care”; and #18-C-90314 (HCFA) jointly with MH 0020 (NIMH), P.I.: Richard Frank, “Risk Adjustments of Payments for Mental Health and Substance Abuse”). This primarily

conceptual but also empirical case-study research has focused on payment systems and managed care strategies and their implications for the cost and quality of care in mental health services.

Comparative evaluation of the various private and public efforts to establish and implement consensus quality performance standards in managed mental health services also would be valuable. Research could be undertaken to identify types of incentives and strategies that would encourage adoption of quality measurement, reporting, and competition among managed care organizations based on quality. Research would be needed to evaluate the impact of any new policies of Federal and State Governments--as major employers and purchasers of mental health services--to adopt standards of quality performance and outcomes assessment in their contracting for such services.

V. MANAGED CARE FOR CHILDREN: MEDICAID AND THE UNINSURED

A. Background

The Balanced Budget Act of 1997 (P.L. No. 105-33) enacted the State Children's Health Insurance Program (SCHIP) under Title XXI of the Social Security Act. The new law enables States to provide health insurance coverage, beginning in October 1997, for uninsured children through an enhanced Federal match of State expenditures. States are required to have an approved plan to expand coverage through Medicaid or a separate child health insurance program that is actuarially equivalent to the Federal Employees Health Benefits Program (FEHB)-Blue Cross/Blue Shield, the State Employees Health Benefit Program (SEHB), or the largest HMO benefit plan for the State. A total of \$24 billion has been authorized over 5 years, with an initial FY 1998 allocation of \$4.275 billion. The legislation stipulates that if States choose a non-Medicaid option for SCHIP, they must offer mental health benefits that are 75 percent of the actuarial equivalent of non-mental health benefits in any given plan.

B. Studies

Since this law followed shortly after enactment of the Mental Health Parity Act (P.L. No. 104-204), an effort was made to require full parity in coverage for mental disorders (HR 2014 and 2015). Preliminary Congressional Budget Office estimates of the cost of such coverage were based on the cost of providing coverage for mental health care in separate child health insurance plans equivalent to that provided in Medicaid. The cost of parity coverage under Medicaid was compared to the cost of standard mental health coverage in private insurance plans, with parity legislation estimated to raise costs from 5 percent of the total benefit costs (pre-parity) to between 15 and 20 percent of the total benefit costs--an increase of 300 to 400 percent in an unmanaged environment.

In this context, NIMH staff were asked to conduct an analysis of the cost of private managed behavioral health insurance plans providing parity coverage to children, as well as the experience of Medicaid plans with managed care for mental health benefits. Based on the previous experience of States and private insurance companies with parity-level benefits, the NIMH staff predicted that the enactment of mental health parity legislation for uninsured children would accelerate existing trends toward greater management of mental health benefits. As a result, they examined available information on: 1) the clinical status of uninsured children relative to Medicaid and privately insured children; 2) the cost of adding parity benefits to a large, previously managed health plan in Maryland; and 3) trends in the cost of Medicaid mental health benefits in North Carolina, Massachusetts, and Colorado where Medicaid benefits had

been managed. A brief summary of results of these analyses follows.

1. Relative Clinical Status of Uninsured Children

Estimates of the cost of parity coverage for uninsured children depend on whether that group's clinical status is more like Medicaid recipients or like those covered by private insurance. Findings to date from the NIMH Methods for the Epidemiology of Child and Adolescent Disorders (MECA) study show that the uninsured child population resembles the insured population more than it does the Medicaid population. For example, 22 percent of children with no insurance showed evidence of some level of psychiatric impairment, compared with 14 percent of children with private insurance and 40 percent of children with Medicaid insurance. Among children with family incomes less than 200 percent of poverty (the population eligible for SCHIP), 23 percent of the uninsured, 25 percent of the insured, and 39 percent of those with Medicaid had some evidence of impairment. (Glied et al., 1997; Frank and Glied, 1997-
-personal communication, July 19, 1997.)

Further distinction between uninsured and Medicaid children is provided by a study specifically conducted for this report. Premier Behavioral Systems of Tennessee, in cooperation with the TennCare Medicaid Administrative Office, examined the utilization and cost of mental health services for all Tennessee Medicaid and uninsured children ages 17 and younger. Premier and other State behavioral health organizations were kept unaware of the enrollment status (Medicaid or uninsured) of all service recipients during the period 7/1/96 to 6/30/97, making the comparison of relative utilization and cost a natural experiment. This study demonstrated that utilization and costs of mental health services for uninsured children were substantially lower than for Medicaid children. For the Medicaid population, inpatient admission rates were 2.2 times greater and outpatient visit rates were 1.7 times greater than rates for the uninsured. Treated prevalence rates for any mental health or substance abuse treatment in inpatient, outpatient, or alternative treatment facilities were 7.1 percent for Medicaid and 4.2 percent for uninsured children. (For further discussion of the Tennessee managed care program, see Chang et al., 1998.)

Because of the much higher rate of serious emotional disturbance (SED) among Medicaid recipients compared to the uninsured, it is useful to account for this factor in these comparisons. Children within Medicaid with SED had 3.3 times as many inpatient admissions and almost 4 times as many outpatient visits per 1,000 as Medicaid children without SED. Among children with SED, those who were uninsured appeared to be less impaired, since they had about half the annual hospitalization rate found among those with Medicaid. Even among children without SED, the treated prevalence rate was 1.3 times higher for Medicaid children than for the uninsured. The finding that uninsured children have lower levels of mental health service use than Medicaid children in this large Tennessee study is useful to avoid overestimating the

costs of extending Medicaid coverage to the uninsured.

About 80 percent of uninsured children are from households with at least one working parent (but without employer insurance eligibility). Compared with Medicaid children, those in uninsured families have experienced fewer of the social problems of poverty that elevate risk for mental disorders.

2. Adding Parity for Privately Insured Children

The State of Maryland provides a context for examining how parity legislation affects use of mental health services by children with private insurance. The experience before and after parity legislation of a large managed care organization responsible for between 100,000 and 150,000 children ages 0-19 can shed some light on how currently uninsured children would fare under parity coverage with managed care. Study of this Maryland-based managed care organization revealed that following implementation of parity, inpatient admission rates and total days per 1000 members increased in the more tightly managed plans, while length of stay decreased. In the fee-for-service plan, the number of inpatient admissions and days per 1000 members were relatively stable, as was length of stay. During the same period, outpatient visits per 1000 increased for both fee-for-service and point-of-service plans.

3. Managed Care For Children (age 0-17): Findings from States

a. *In North Carolina*, Medicaid child inpatient care costs were reduced through capitated managed care from 67 percent of total mental health costs to 13 percent between 1992 and 1996.⁸ Access to community-based intermediate and outpatient services increased, with treated prevalence for any mental health or substance abuse service rising from 6.9 percent to 8.3 percent (Burns, 1998). Although overall costs rose initially as a result of marked increases in intermediate and outpatient care, they later dropped and stabilized as the entire system came under a capitated managed care program. In the assessment of the impact on quality, followup outpatient care was found to increase after hospital discharge, but so did hospital readmission rates. In addition, child services were observed to shift from the mental health system to the special education and juvenile justice systems. Both findings may represent a warning about the potential negative delayed or displaced consequences of the short-term cost savings with managed care.

b. *In Massachusetts*, the traditional fee-for-service Medicaid program came under a carved-out managed behavioral care program in 1993. (The Medicaid Bureau In Massachusetts contracted with a single managed behavioral health care company to

⁸ This pilot program used a managed behavioral carve-out with a single portal of entry into services and a phase-in of full financial risk for all services during a 2-year period.

provide mental health and substance abuse services to all Medicaid beneficiaries.) Although access increased, the average total mental health care cost per user decreased by 28.5 percent during a 3-year period. Hence, the application of managed care techniques to an entire inpatient and outpatient plan resulted in about the same level of cost containment seen in private insurance plans that began as traditional fee-for-service programs. In one of the few quality measures of the mental health services provided, readmission rates within 30 days of inpatient discharge increased from 8 percent to 10 percent (Callahan, 1995). Access to mental health services increased for all physically and mentally disabled youth receiving Supplemental Security Income, and cost per user decreased 29 percent (Dickey, 1998).

c. *In a Colorado* child Medicaid study, the State carved out all specialty mental health services excluding pharmacy for two managed care organizations. The first model was made up of a group of nonprofit community mental health centers (CMHCs); the second model consisted of a joint for-profit behavioral health care firm and CMHCs. There was also a continuation of a fee-for-service benefit for those not covered by these capitated arrangements. In the first model total expenditures were significantly reduced by approximately 20 percent. The second model experienced a reduction of 37 percent compared with the fee-for-service benefit model. Access to outpatient care increased for children with less-severe psychiatric diagnoses--especially those under age 14, while both inpatient and outpatient costs decreased significantly. (Libby et al, 1997). Mental health services for the Medicaid population in Colorado are provided under a relatively pure form of risk-based capitation with a single entry point.

C. Outcome

The total NIMH analysis showed that the cost of parity for uninsured children would be far less than preliminary Congressional Budget Office estimates. Ultimately, the SCHIP included only the limited parity requirements of the Mental Health Parity Act.

VI. CONCLUSIONS

Major conclusions from the current NAMHC study are as follows:

Costs of Mental Health Care under Parity

- o In systems already using managed care, implementing parity results in a minimal (less than 1 percent) increase in *total health care* costs during a 1-year period. In systems not using managed care, introducing parity with managed care results in a substantial (30 to 50 percent) reduction *in total mental health* costs.
- o New, more sophisticated actuarial models of the costs of parity show that, in general, as the overall proportion of the population in managed care increases, the projected cost of parity declines.
- o Introducing parity nationwide may accelerate the trend toward increased management of mental health services. In every example in which parity has been put into place, management has followed.

Access to Mental Health Care

- o Parity alone does not guarantee improved access to mental health care because of the strong counteracting effect of management. The proportion of individuals receiving mental health treatment varies considerably across managed behavioral health plans--both before and after the introduction of parity benefits.
- o Introducing managed care in Medicaid-funded child mental health services results in cost reductions as well as shifts from inpatient treatment settings to those offering less-intensive treatment.

Quality of Care

- o Considerable variability has been observed in access and other process measures of quality across managed behavioral health plans, raising concern about the quality and outcome of mental health care in some plans. In some cases in which management has resulted in limited mental health access, decreased work performance, increased absenteeism, and greater use of medical services have been observed.

- o There is some evidence that access and quality can be maintained or improved after managed care is introduced. However, these results are preliminary, and further research is needed to assess treatment outcomes directly--both before and after the introduction of parity benefits.

Future Directions for Study

- o Systematic outcome data are needed to determine how the funding level of managed behavioral health care plans is related to the accessibility and quality of mental health services. Current data are limited to a few relatively well-funded plans.
- o Special research attention needs to be given to the impact of managed care in Medicaid plans and to the relationship between the public and private mental health systems under diverse types of funding.
- o Further studies are needed to evaluate how the State Children's Health Insurance Program (SCHIP) and other alternatives affect the use--and costs--of mental health services by formerly uninsured children.

References

- Advisory Commission on Consumer Protection and Quality in the Health Care Industry (1997). *Consumer Bill of Rights and Responsibilities*. .
- American College of Mental Health Administrators (1997)*Santa Fe Summit Summary Report*.
- American Managed Behavioral Healthcare Association (1995)*Performance Measures for Managed Behavioral Healthcare Programs (PERMS)*.
- Burns, BJ., Teagle, SE, Angold, A, et al. (1998)*Public-Sector Managed Mental Health Medicaid for Children and Adolescents in North Carolina: Preliminary Report* . Research supported by NIMH Grant #RO1 MH46323.
- Coopers & Lybrand (1996): *An Actuarial Analysis of the Domenici-Wellstone Amendment to S. 1028 "Health Insurance Reform Act" to Provide Parity for Mental Health Benefits under Group and Individual Insurance Plans* . Coopers & Lybrand (unpublished).
- Callahan, JJ, Shepard, DS, Beinecke, RH et al. (1995): Mental health/substance abuse treatment in managed care: The Massachusetts Medicaid Experience.*Health Affairs*, 14(3),173-184.
- Chang, DF, Kiser, LJ, Bailey, JE, et al. (1998): Tennessee's failed managed care program for mental health and substance abuse services.*JAMA* 279 (11), 884-869.
- Congressional Budget Office (April 23,1996).*CBO's Estimate of the Impact on Employers of the Mental Health Parity Amendment in H.R. 3103*. Washington, D.C.: Congressional Budget Office (unpublished).
- Congressional Budget Office/Joint Committee on Taxation (May 13, 1996): Letter to Hon. Nancy Landon Kassebaum (unpublished).
- Dickey, B. (1998) Preliminary findings from NIMH-funded grant (RO1 MH54076) Outcomes of Medicaid Managed Care.
- Donabedian, A. (1966): Evaluating the Quality of Medical Care.*Milbank Memorial Fund Quarterly*, 44, 166-203.
- Frank, RG & Glied, S (1997): Personal communication to Dr. Darrel Regier relating to an evaluation of the Congressional Budget Office analysis of the cost of parity coverage for children, July 10, 1997.
- Frank, RG, Berndt, ER, & Busche, SH: (1998): Price Indexes for the Treatment of Depression. In: J Triplett (Ed.): *Measuring the Prices of Medical Treatments* . Washington, DC: Brookings Institution, (in press).
- Frank, RG, & Shore, MF (1996):*Performance Measures for Managed Behavioral Healthcare Programs: PERMS 1.0*. American Behavioral Healthcare Association.
- Frank, RG, McGuire, TG, & Newhouse, JP (1995): Risk contracts in managed mental health care. *Health Affairs* 14 (3), 50-64.
- Frank, RG, McGuire, TG, Bae, JP, & Rupp, A (1997): Solutions for adverse selection in behavioral health care.*Health Care Financing Review*, 18 (3), 109-122.
- Glied, S., Hoven, CW, Moore, RE, Garret, AB, Regier, DA (1997): Children's access to mental health care: Does insurance matter?*Health Affairs* 16 (1): 167-174.
- Goldman, W. *Goal Focused Treatment Planning and Outcomes* . (1997). United Behavioral Health.
- Goldman, W, McCulloch, J, & Sturm, R (1998): Cost and utilization of mental health services before and after managed care.*Health Affairs* 17(2), 40-52.

- Gosfield, AG (1997): Who is holding whom accountable for quality of care? *Health Affairs* 16 (3) May/June, 1997, 26-40.
- Grazier, KL (1998): Insuring for mental health services: Corporate responses and implications. The case of the mental health carve-out. Manuscript based on an NIMH-supported grant RO1 MH54135. (Submitted for publication.)
- Gresenz, C, Liu, X, Sturm, R (1998): Managed behavioral health services for children under carve-out contracts. *Psychiatric Services* (In press).
- Hogan, MF (1997): *The Public Sector and Mental Health Parity: Time for Inclusion* . Ohio Department of Mental Health.
- Institute of Medicine (November 20, 1996) *Managing Managed Care: Quality Improvement in Behavioral Health, Vols. 1 and 2* . Washington, D.C.: Institute of Medicine/National Academy Press.
- Jensen, GA, Morrissey, MA, Gaffney, S, & Liston, D (1997): The new dominance of managed care: Insurance trends in the 1990s. *Health Affairs* 16 (1), 125-136.
- Kane, R (1997). *Understanding Health Care Outcomes Research* . Gaithersburg, MD: Aspen Publishers, Inc.
- Kane, R, Bartlett, J, & Potthoff, S (1994): Integrating an outcomes information system into managed care for substance abuse. *Behavioral Healthcare Tomorrow* (May/June), 57-61.
- Kane, R, Bartlett, J, & Potthoff, S (1995): Building an empirically based outcomes information system for managed mental health care. *Psychiatric Services*., 46 (5), 459-461.
- Kane, R, Meyer, Z, Potthoff, S (1998): The Future for Outcomes Monitoring in Managed Behavioral Health Care: Report to NIMH from MCC Behavioral Health Care and University of Minnesota School of Public Health, Clinical Outcomes Research Center, Minneapolis, MN.
- Kathol, R, & Whitehouse, D (1997): *The Healthcare Psychiatric Integration Initiative* . MCC Behavioral Care.
- Katon, W, VonKorff, M, Lin, E, Unutzer, J, Simon, G, Walker, E, Ludman, E, Bush, T (1997): Population-based care of depression: Effective disease management strategies to decrease prevalence. *General Hospital Psychiatry* 19, 169-178.
- Kessler, RC, McGonagle, DA, Zhao, S, Nelson, CB, Hughes, M, Eshleman, S, Wittchen, H, Kendler, K S (1994): Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry* , 51, 8-19.
- Kessler, RC, Frank, RG, Edlund, M, et al. (1997): Differences in the use of psychiatric outpatient services between the United States and Ontario. *New England Journal of Medicine* 336, 551-557.
- Leaf, PJ, Alegria, M, Cohen, P, Goodman, SH, Horwitz, SM, Hoven, CW, Narrow, WE, Vaden-Kiernan, M, Regier, DA (1996): Mental health service use in the community and schools: Results from the four-community MECA study. *Journal of the American Academy of Child and Adolescent Psychiatry* 35 (7), 889-897.
- Libby, A (1998): Preliminary findings from NIMH-funded grant (RO1 MH54136, Capitating Medicaid Mental Health Services, and P50 MH43694, Center on Financing of Care for Severely Mentally Ill).
- Ma, C & McGuire, T (1998): Costs and incentives in a mental health and substance abuse carve-out. *Health Affairs* 17(2), 53-69.
- Manderscheid, RW & Sonnenschein, MA (Eds.) (1996): *Mental Health, United States, 1996*. Washington, DC: Supt. Of Docs., U.S. Govt. Print. Off., DHHS Pub. No. (SMA)96-3098.

- Melek and Worldwide/Association of Private Pension Office/Joint Committee and Welfare Plans (1996).
- Merrick, E (1997) *Impact of a Behavioral Health Carve-out on Treatment of Major Depression*. Doctoral Dissertation, Brandeis University.
- National Advisory Mental Health Council (1993): Health care reform for Americans with severe mental illnesses: Report of the National Advisory Mental Health Council. *American Journal of Psychiatry* 150 (10), 1447-1465.
- National Advisory Mental Health Council (1997): *Parity in Coverage of Mental Health Services in an Era of Managed Care: An Interim Report to Congress by the National Advisory Mental Health Council*.
- National Committee for Quality Assurance. *HEDIS 3.0: Narrative - What's In It and Why It Matters*. (1997). Annapolis Junction, MD: NCQA. Volume 1.
- Palmer, R (1991): Considerations in Defining Quality of Health Care. In: R. H. Palmer, A. Donabedian, & G. J. Povar (Eds.), *Striving for Quality in Health Care: An Inquiry into Policy and Practice*. Ann Arbor, MI: Health Administration Press.
- Potthoff, S., Kane, R, Chen, Q, Opland, E, Meyer, Z., & Neis, S. (1998): Reliability of structured data recording tools for a drug and alcohol treatment outcomes system. (submitted).
- Regier, DA, Narrow, WE, Rae, DS, Manderscheid, RW, Locke, BZ, Goodwin, FK (1993): The de facto US mental and addictive disorders service system: Epidemiologic Catchment Area prospective 1-year rates of disorders and services. *Archives of General Psychiatry*, 50: 85-94.
- Regier, DA, Kaelber, CT, Rae, DS, Farmer, ME, Knauper, B, Kessler, RC, Norquist, GS (1998): Limitations of diagnostic criteria and assessment instruments for mental disorders: Implications for policy. *Archives of General Psychiatry* 55: 109-115.
- Regier, DA, Narrow, WE, Rupp, A, Rae, DS, Kaelber, CT (1998): The Epidemiology of Mental Disorder Treatment Need: Community Estimates of 'Medical Necessity.' In: Andrews, G & Henderson, S. (Eds): *Unmet Need in Mental Health Service Delivery*. London: Cambridge University Press (in press).
- Rogers, W., Wells, K., Meredith, L, et al. (1993): Outcomes for adult outpatients with depression under prepaid or fee-for-service financing *Archives of General Psychiatry* 50 (7), 517-525.
- Salkever, D. (1998): Psychiatric disability in the workplace *Insight* (5)1. UNUM Disability Lab, UNUM Life Insurance Company of America.
- Schoenbaum, M, Zhang, W, & Sturm, R (1997): Costs and utilization of substance abuse care in a privately insured population under managed care. Working Paper No 124. Research Center on Managed Care for Psychiatric Disorders: A Joint Program of the UCLA Neuropsychiatric Institute and RAND.
- Sing, M, Hill, S., Smolkin, S, & Heiser, N (1998): *The Costs and Effects of Parity for Mental Health and Substance Abuse Insurance Benefits*. Rockville, MD: U.S. Department of Health and Human Services Publication No. SMA 98-3205.
- Sturm, R, McCulloch, J, & Goldman, W (1998): Mental Health and Substance Abuse Parity: A Case Study of Ohio's State Employee Program, Working Paper No. 128, Los Angeles: UCLA/Rand Center on Managed Care for Psychiatric Disorders
- Sturm, R & Klap, R (1998): Use of Psychiatrists, Psychologists, and Master's Level Therapists in Managed Behavioral Health Care Carve-out Plans. Los Angeles: UCLA/RAND Center on Managed Care for Psychiatric Disorders.
- Sturm, R., & Wells, K.B. (1995): How can care for depression become more cost-effective? *JAMA*, 273 (1), 51-58.

- Wells, K (1998): The design of "Partners in Care": Evaluating the cost-effectiveness of improving care for depression in primary care. *Social Psychiatry and Psychiatric Epidemiology* (In press).
- Wells, K, Hays, R, Burnam, M, Rogers, W, Greenfield, S, & Ware, J (1989): Detection of depressive disorder for patients receiving prepaid or fee-for-service care. Results from the Medical Outcomes Study. *JAMA*, 262 (23), 3298-3302.

APPENDIX A: Legislative Charge to NAMHC

From 105th Congress, Senate Report 105-58, Departments of Labor, Health and Human Services, and Education and Related Agencies Appropriation Bill, 1998 July 24, 1997:

The Committee read with interest the interim report on Parity in Coverage of Mental Health Services in an Era of Managed Care, and looks forward to seeing additional reports on this topic as more data from throughout the country become available. The Committee further requests that the National Advisory Mental Health Council provide, as a fundamental part of its next report on this topic, what is known about the impact of managed care on access to mental health services, and on the quality of the care that is made available. The Committee requests that such a report be prepared under section 406(g) of the Public Health Service Act, and that it be submitted before next year's hearings.

APPENDIX B: NAMHC Workgroup Members and Consultants

NAMHC LIAISON

Mary Jane England, M.D.
Michael Hogan, M.D.
G. Richard Smith, Jr., M.D.

WORKGROUP STAFFING

National Institute of Mental Health

Darrel Regier, M.D., M.P.H., Scientific Coordinator
Agnes Rupp, Ph.D.
Ellen Weissman, M.D., M.P.H.
Stuart Sotsky, M.D., M.P.H.
Anne Rosenfeld
Gemma Weiblinger
Donald Rae, M.A.
Michael Feil, M.B.A.
Grayson Norquist, M.D., M.S.P.H.
Pamela Wexler
Susan Marley

Agency for Health Care Policy and Research

Samuel Zuvekas, Ph.D.

CONSULTANTS

Jeffrey Buck, Ph.D.
Barbara Burns, Ph.D.
Richard Frank, Ph.D.
Kevin Gilliland, Ph.D.
Gregory Greenwood, Ph.D.
Kevin Hennessy, Ph.D.
Haiden Huskamp, Ph.D.
Edwin Hustead, Ph.D.
Glenn Jennings
Robert Kane, M.D.
Thomas McGuire, Ph.D.
Zachary Meyer, M.A.
Lorence Miller, Ph.D.
Merilee Sing, Ph.D.
Roland Sturm, Ph.D.
Robert Waters, Ph.D.

APPENDIX C: National Advisory Mental Health Council Roster

(All terms end 9/30)

CHAIRPERSON

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

EXECUTIVE SECRETARY

Jane A. Steinberg, Ph.D.
Associate Director
National Institute of Mental Health
Rockville, Maryland

MEMBERS

Thomas J. Coates, Ph.D. (00)
Professor
Director, AIDS Research Institute and
Center for AIDS Prevention Studies
University of California, San Francisco
San Francisco, California

Kathy Cronkite (00)
Mental Health Advocate
Austin, Texas

Mary Jane England, M.D. (01)
President
Washington Business Group on Health
Washington, DC

Ellen Frank, Ph.D. (01)
Professor of Psychiatry and Psychology
Department of Psychiatry
School of Medicine
University of Pittsburgh
Pittsburgh, PA

Apostolos Georgopoulos, M.D., Ph.D. (00)
Professor, Department of Physiology, Neurology
and Psychiatry
University of Minnesota Medical School
Director, Brain Sciences Center
Veterans Affairs Medical Center
Minneapolis, Minnesota

Ann M. Graybiel, Ph.D. (99)
Walter A. Rosenblith Professor
Department of Brain and Cognitive Sciences
Massachusetts Institute of Technology

Cambridge, Massachusetts

Michael F. Hogan, Ph.D. (98)
Director
Ohio Department of Mental Health
Columbus, Ohio

Dale L. Johnson, Ph.D. (99)
Professor
Department of Psychology
University of Houston
Houston, Texas

Robert L. Johnson, M.D. (99)
Director of Adolescent Medicine
Department of Pediatrics
University of Medicine and Dentistry
of New Jersey
Newark, New Jersey

Constance E. Lieber (98)
President
National Alliance for Research on
Schizophrenia and Depression
Great Neck, New York

Anne C. Petersen, Ph.D. (01)
Senior Vice President for Programs
W. K. Kellogg Foundation
Battle Creek, Michigan

John Rush, M.D. (00)
Betty Jo Hay Professor and Chair in Mental Health
Department of Psychiatry
University of Texas
Southwestern Medical Center
Dallas, Texas

Richard H. Scheller, Ph.D. (99)
Investigator, Howard Hughes Medical Institute
Professor, Department of Molecular and Cellular Physiology
Stanford University School of Medicine
Stanford, California

G. Richard Smith, Jr., M.D. (98)
Professor
Director of Centers for Mental Healthcare Research
Department of Psychiatry
University of Arkansas for Medical Sciences
Little Rock, Arkansas

José Szapocznik, Ph.D. (98)
Professor and Director
Center for Family Studies
Department of Psychiatry and Behavioral Sciences
University of Miami School of Medicine
Miami, Florida

Joseph S. Takahashi, Ph.D. (99)
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. (01)
Professor
Department of Anatomy and Physiology
School of Medicine
Meharry Medical College
Nashville, Tennessee

Myrna M. Weissman, Ph.D. (00)
Professor of Psychiatry and Epidemiology
Columbia University
College of Physicians and Surgeons and
Chief, Department of Clinical and Genetic Epidemiology
New York State Psychiatric Institute
New York, New York

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
Harold E. Varmus, M.D.
Director
National Institutes of Health
Bethesda, Maryland

Department of Defense
Robert A. Mays, Jr., Ph.D.
Colonel, U.S. Army
Deputy Chief of Staff
North Atlantic Regional Medical Command
and
Walter Reed Army Medical Center
Washington, DC

Department of Veterans Affairs
Thomas B. Horvath, M.D., F.R.A.C.P.
Chief Consultant for Mental Health
Department of Veterans Affairs
Veterans Health Administration
Washington, DC

LIAISON REPRESENTATIVE

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

APPENDIX D: State Mental Illness Parity Laws ⁹

A total of 15 States now have some degree of mental health parity, with fairness bills pending in many other State legislatures.

State-By-State Breakdown of Mental Illness Parity Laws

State	Year Enacted	Type of Bill	Effective Date
Arizona	1997	Mirrors federal law ¹⁰ ; no substance abuse.	July 21, 1997
Arkansas	1997	Provides for equal coverage of mental illness and developmental disorders; excludes State employees, companies with less than 50 employees, and companies that anticipate a cost increase of more than 1.5 percent.	August 1, 1997
Colorado	1997	Provides for coverage of schizophrenia, schizoaffective disorder, bipolar affective disorder, major depressive disorder, obsessive-compulsive disorder that is no less extensive than the coverage provided for other physical illnesses.	January 1, 1998
Connecticut	1997	Provides for coverage of schizophrenia, schizoaffective disorder, major depressive disorder, bipolar disorder, paranoia and other psychotic disorder, obsessive-compulsive disorder, panic disorder, and pervasive developmental disorder and autism that is equal to coverage provided for medical or surgical conditions.	October 1, 1997

⁹ Source: National Alliance for the Mentally Ill.

¹⁰ The Mental Health Parity Act of 1996 requires annual and lifetime limits equal to other physical illnesses; covers mental illnesses as defined under individual plans; excludes substance abuse and chemical dependency, businesses with 50 or fewer employees; does not mandate coverage; provides for one percent cost-increase exemption.

State	Year Enacted	Type of Bill	Effective Date
Indiana	1997	Mirrors federal law; no substance abuse; includes State employees.	July 1, 1997
Maine	1995	Provides for coverage of schizophrenia, bipolar disorder, pervasive developmental disorder, or autism, paranoia, panic disorder, obsessive-compulsive disorder, and major depressive disorder in group contracts that is no less extensive than medical treatment for physical illnesses; no substance abuse; excludes groups of 20 or fewer employees.	July 1, 1996
Maine	1993	Raised minimum benefits to \$100,000 lifetime, 60 days annual inpatient, \$2,000 outpatient. Other terms same as 1995 measure (see above).	January 1, 1994
Maryland	1994	Insurers and HMOs are prohibited from discriminating against any person with mental illness, emotional disorder, or drug abuse or alcohol abuse by failing to provide treatment or diagnosis equal to physical illnesses.	August 1, 1994
Minnesota	1995	Requires cost of inpatient and outpatient mental health and chemical dependency services to be not greater or more restrictive than those for outpatient and inpatient medical services.	August 1, 1995
Missouri	1997	Covers all disorders in DSM-IV in managed-care plans only (<i>roughly 40% of population</i>) equal to physical illnesses; part of larger managed-care regulatory measure.	September 1, 1997
New Hampshire	1994	Provides for coverage of schizophrenia, schizoaffective disorder, bipolar disorder, paranoia, and other psychotic disorders, obsessive-compulsive disorder, panic disorder, and pervasive developmental disorder or autism no less extensive than coverage for physical illnesses; applies only to groups and HMOs regardless of size.	January 1, 1995
North Carolina (<i>State employees only</i>)	1991	Requires non-discriminatory coverage in State Government employee health contracts.	January 1, 1992

State	Year Enacted	Type of Bill	Effective Date
Rhode Island	1994	Provides for coverage of "serious mental illness" that current medical science affirms is caused by a biological disorder of the brain and substantially limits life activities.	January 1, 1995
South Carolina	1997	Mirrors federal law.	March 31, 1997 <i>(sunsets 9/30/2001)</i>
Texas	1997	Covers schizophrenia, paranoia and other psychotic disorders, bipolar disorder, major depressive disorder, schizoaffective disorder, pervasive developmental disorder, obsessive-compulsive disorder, and depression in childhood and adolescence; exempts businesses with fewer than 50 employees; 60 outpatient visits and 45 inpatient days annually.	January 1, 1998
Texas <i>(public employees only)</i>	1991	Covers all public State and local employees.	September 1, 1991
Vermont	1997	Coverage for any condition or disorder involving mental illness or alcohol or substance abuse; comprehensive coverage for deductibles and out-of-pocket expenses.	January 1, 1998

APPENDIX E: Prior NAMHC Reports on Parity and Managed Care

NOTE: Appended here is the 1997 NAMHC report on parity (*Parity in Coverage of Mental Health Services in an Era of Managed Care: An Interim Report to Congress by the National Advisory Mental Health Council*), which itself includes as an appendix the first (1993) NAMHC report on parity (*Health Care Reform for Americans With Severe Mental Illnesses: Report of the National Advisory Mental Health Council*).