



Evaluation of Florida's Prepaid Mental Health Plan: Year 4 Report

David L. Shern, Ph.D., Julienne Giard, MSW.,
Pat Robinson, MSW., Paul Stiles, Ph.D.,
Roger Boothroyd, Ph.D., Mary Rose Murrin, M.A.,
and Huey Chen, Ph.D.

with

Tim Boaz, Ph.D., Michael Dow, Ph.D.,
John Ward, Ph.D.

July 2001

Louis de la Parte Florida Mental Health Institute
University of South Florida, Tampa, FL

Submitted to the Florida Agency for Health Care Administration as a deliverable
under contract #M0107

Table of Contents

Executive Summary	
Background	1
Florida Context	4
Evaluation Design and Methods	5
Sub-studies Comprising the Evaluation	6
Implementation Analyses	7
Organizational and Financial Management	10
Competition and Payment Structure	10
Uncompensated Care and Delayed Payment	10
Rates	11
Utilization Management	11
Management Information Systems (MIS)	11
Consumer Involvement	11
Quality of Care Studies	11
Access to Pharmaceuticals	12
Integration of Care	12
Culturally Appropriate Care	13
Substance Abuse Services	13
Challenges	13
Enrollment Trends	14
Access to Services	15
Characteristics of the Enrollee Population	15
Clinical and Demographic Characteristics of Service Recipients	16
Access to Services - Penetration Rates	17
Utilization for Adults with Severe Mental Illness	17
Non-Service Users with Severe Mental Illnesses	20
Access Findings Summary	20
Cost of Services	21
Cost Analyses Summary	25
Patterns and Quality of Services	25
Trust in Provider	27

Outcomes of Services	28
Adults with Severe Mental Illness - Symptomatology and Satisfaction.	28
Mail Survey Outcome Data	29
Child Mail Survey.....	29
Adult Mail Survey.....	30
Outcomes from the Statewide Outcome Database.....	31
Service Recipient Satisfaction Data	31
Clinical Functioning	31
Arrest Rate Data.....	32
Conclusions and Discussion.....	33
Summary.....	36
Cost Containment	36
Access to Care	36
Integration of Services.....	36
Quality of Services	37
Quality of Management Information Systems.....	37
Creative and Flexible Uses of Resources.....	37
Optimal Allocation of Public Dollars.....	38
Improved Client Outcomes.....	38
Recommendations	39
References.....	41

Evaluation of Florida's Prepaid Mental Health Plan

Executive Summary

Evaluation of Florida's Prepaid Mental Health Plan Year 4 Report

Executive Summary

David L. Shern, Ph.D, Julienne Giard, M.S.W., Pat Robinson, M.S.W.,
Paul Stiles, J.D., Ph.D., Roger Boothroyd, Ph.D., Mary Rose Murrin, M.A.
and Huey Chen, Ph.D.

with

Tim Boaz, Ph.D., Michael Dow, Ph.D.,
John Ward, Ph.D.

Overview of the Study

In this report, we summarize the results and recommendations from the fourth year of our evaluation of the Florida Managed Mental Health Care Initiative. In March 1996, the Florida Agency for Health Care Administration (AHCA) implemented a Prepaid Mental Health Plan (PMHP) demonstration, under the authority of a 1915b waiver from the Federal Health Care Financing Administration. The Louis de la Parte Florida Mental Health Institute (FMHI) was selected to evaluate the effects of the Prepaid Plan. Under contract from AHCA and with previous additional support from the Substance Abuse and Mental Health Services Administration, we are conducting a series of integrated, multi-method evaluation projects that are designed to assess the effects of the PMHP on access, cost, quality, and outcomes of services relative to alternative managed care arrangements, and to the traditional financing arrangements that are in use in the rest of the state.

We contrasted two managed financing conditions in the demonstration area with two comparison sites (AHCA Area 4 - Jacksonville and Daytona Beach and AHCA Area 7 - Orlando area) where, with the exception of physicians' services or inpatient care rendered through an HMO, mental health services are reimbursed on a fee-for-service basis. In the demonstration site, the Prepaid Mental Health Plan is a specialty behavioral health managed care organization (Florida Health Partners, or FHP) that provides or arranges for all mental health services for its plan participants. In this behavioral health care "carve out" plan, FHP is paid by AHCA through a risk-adjusted, fixed monthly fee per enrollee.

In the second managed care condition in the demonstration area, Health Maintenance Organizations (HMOs) receive a risk-adjusted premium that includes general health, pharmacy, and specialty mental health components, often characterized as a 'carve in' purchasing scheme. In actuality however, the HMOs sub-contract with providers or behavioral health managed care organizations (BHOs) for the provision of their mental health benefits.

Implementation of Managed Care in the Demonstration Site

Many of the observations from the Year 3 implementation analysis were found to be true of this fourth year. The PMHP structure has remained stable. More complex financial and organizational administrative arrangements continue to be employed in the HMO condition, although there was a decrease this past year in the number of HMOs and BHOs in the market. Again this year, there were several changes in the organizational relationships found in the HMO financing condition and there continues to be competition among BHOs for HMO contracts. CMHCs continue to serve as the primary providers for mental health care for the PMHP as well as the HMOs, and increasingly are assuming financial risk for services. As a result, uncompensated care is less of a concern for the CMHCs than it has been in the past. Integration of medical and mental health services continues to be a problem for both managed care conditions, even when there is an integrated health and mental health premium paid by AHCA. There continue to be concerns about access to pharmacy benefits within the HMO condition, and fragmented care for people with co-occurring disorders is still of concern.

Access to Services

Since the inception of the demonstration in 1996, the number of enrollees in MediPass in Areas 4 and 7 and in the PMHP has declined, stabilizing in 99-00. Enrollment in the HMO condition has grown slightly, reflecting the effects of the state's assignment policies that were designed to favor growth in the HMOs. AHCA relaxed these policies in FY 00-01 but re-implemented them on 7/1/01.

There appears to be a relationship between the managed care conditions and service utilization rates. In terms of the overall population, case mix adjusted penetration rates are lowest in the managed care conditions. Reports of informal service use suggest that a greater volume of informal mental health services are obtained by persons in the managed care conditions relative to those served in fee-for-service. Use of newer psychotropic medications is significantly lower for HMO enrollees.

Cost of Services

In contrast to earlier years, this year's cost analysis leads us to question that the cost containment objective has been achieved in the later years of the intervention. Using the original case mix adjustment strategy there is evidence to support a claim that cost containment continues to be achieved. However, when using an updated case mix adjustment that reflects the more current composition of the enrolled population and using more recent cost information, it appears that the cost containment objectives of the intervention have not been achieved over the four year period. The use of either methodology is justifiable. Consequently, we are left with ambiguous results with respect to cost containment that are dependent upon the specific methodology employed. Also, as with last year, the

cost analyses indicate a substantially lower service-to-premium ratio (i.e., fewer resources are passed on for services) for the HMOs relative to the PMHP. Finally, for persons with severe mental illnesses, HMO enrollees use relatively more informal resources than individuals in Medicaid FFS, which may suggest a shift of Medicaid budgeted costs onto informal providers.

Quality and Outcomes of Services

In Year 4, we have begun to see some trends in the outcome data that favor persons who are served in the Medicaid fee-for-service financing conditions in Areas 4 and 7. In the outcome data for service users and self-reports of Medicaid recipients we found that persons enrolled in MediPass reported lower levels of psychiatric symptoms (Area 4) and greater improvement in functioning (Area 7) than persons enrolled in the managed care conditions – particularly the HMO condition. Typically, the effects were not large but they seemed to be consistent. Similarly, we found a trend indicating that persons who were enrolled in the managed care programs were at relatively greater risk for arrest following the onset of managed care than before its inception – compared to individuals in the general population.

While we did not find outcome differences in the adults with severe mental illnesses, we were able to look more closely into substitution effects that may be occurring. Individuals who were served in the managed care conditions generally used more informal mental health services than persons who were enrolled in Area 4 MediPass. These data are consistent with a substitution of informal for formal services in the at-risk conditions, which may partially account for the lack of outcome differences between the conditions. Interestingly, the results for the use of formal and informal *health* services also were generally related to the financial risk arrangements for the differing financing conditions.

Conclusions

Results indicate that service utilization rates clearly have been reduced in the managed care conditions and that the proportion of available resources that are dedicated to services is dramatically less in the HMO financing conditions than in the PMHP condition. Substitution of informal for formal mental health services seems to be occurring in the managed care conditions.

Cost Containment. For the first time this year, there is reason to question that cost containment has been achieved.

Access to Care. In some managed care demonstrations management of services has improved penetration rates. However, in this instance, management has been consistently associated with decreases in utilization rates relative to service levels before managed care and to the comparison areas of the state.

Integration of Services. We have seen little evidence that services are better integrated, even when health and mental health premiums are combined.

Quality of Services. The few indicators of service quality that we have considered have shown mixed results. However, in no instances have we obtained data that indicates that quality of care is better in the HMO conditions or, save pharmacy availability, in the PMHP condition.

Quality of Management Information Systems. Our experience in working with the HMOs and BHOs is that their information systems have several important limitations. We have found the information provided to the evaluation was of poor, to very poor quality. AHCA representatives report some concerns with the PMHP condition, but we have no data regarding the degree of under-reporting of services in the PMHP.

Creative and Flexible Uses of Resources. The hope that managed care providers would invest in alternative delivery systems (such as consumer-run services) that might be less expensive and more appealing to certain consumers has been largely unrealized in the demonstration. While there has been a decrease in the use of some resources like day treatment that were thought to be ineffective, alternative services have not been developed.

Optimal Allocation of Public Dollars. Our analyses of the HMO condition seem to indicate that about 80% of public resources that are allocated to care are not passed to even the first management entity in the hierarchical arrangement of care. While it was hoped that a more market-oriented approach to allocating public resources would result in a more optimal allocation than was available through state contracting mechanisms, this policy objective has not been achieved.

Client Outcomes. Outcome results have been mixed throughout the four years of the evaluation. However, to this point our standard for comparison has been the absence of harmful effects of managed care financing. This year's analyses, while far from definitive, almost always favor the FFS conditions and rarely indicate that persons served in the managed care conditions have outcome gains that exceed those for persons served in the comparison conditions.

Recommendations

For the first time since we began this evaluation, we are recommending that the use of these managed care arrangements be reassessed – especially the HMO conditions. The fourth year evaluation results seem to indicate clearly that many of the policy objectives that might have motivated the move to managed care have not been achieved with these interventions. Additionally, the use of these strategies – particularly the HMO model as implemented in Area 6 - appears to be drawing significant resources out of the treatment system, which do not appear to be reinvested in expanding service access or variety. We, therefore, recommend that as the state Medicaid and Mental Health authorities seek to expand alternative financing mechanisms to new areas of the state, they strongly consider approaches that differ from those used in Area 6.

We recommend that:

- The HMO alternative, as operationalized in Area 6, not be used in any expansion area.
- Alternatives to the full financial risk arrangements be used in the expansion areas (such as risk sharing or re-insurance arrangements).
- At-risk pharmacy benefits not be used for persons with severe mental illnesses.
- Vendors demonstrate their capacity to implement and maintain evidence-based practices including effective management information systems to monitor these practices.
- AHCA/ADM examine the evaluation and monitoring strategies that are in use to focus more clearly on ascertaining whether evidence-based practices are in use and to collect information in program environments that can be used to improve practices. This may call for the development of special study strategies.
- Reinvestment of resources obtained from managed care savings be an explicit part of AHCA's and ADM's plans.
- Alternative, creative financing arrangements (like consumer-run services, collaborative purchasing arrangements, etc.) be explored as part of a system reform effort.

We also recommend that AHCA review the recommendation of the recent Commission on Mental Health and Substance Abuse, specifically:

- To implement organizational arrangements which increase accountability and integration through a single, accountable, management entity and blended funding in each service area. Local planning and evaluation of these management entities is essential –they should be responsible and responsive to local governance structures that consider fiscal viability among several other performance measures in overseeing the local service system.

Evaluation of Florida's Prepaid Mental Health Plan

Year 4 Report

Evaluation of Florida's Prepaid Mental Health Plan Year 4 Report

David L. Shern, Ph.D, Julienne Giard, M.S.W., Pat Robinson, M.S.W.,
Paul Stiles, J.D., Ph.D., Roger Boothroyd, Ph.D., Mary Rose Murrin, M.A.
and Huey Chen, Ph.D.

with

Tim Boaz, Ph.D., Michael Dow, Ph.D.,
John Ward, Ph.D.

Background

Behavioral health care continues to be an important component of national health expenditures. In 1997, \$85.3 billion or 7.8% of total personal health care was spent on mental health and substance abuse treatment in the United States (Mark, T.L., Coffey, R.M., King, E., Harwood, H., McKusick, D., Genuardi, J., Dilonardo, J., & Buck, J., 2000). More than half of those resources came from public-sector payers with Medicaid (including both state and federal expenditures) being the largest payer (\$16.7 billion). The fastest growing payers for mental health and substance abuse treatment were Medicaid and Medicare between 1987 and 1997 (Mark, T.L., et al., 2000).

In an attempt to accomplish several policy objectives, with cost control primary among them, states continue to experiment with managed care programs. Managed care arrangements were thought to promote predictable budgets, controlled costs, improved access to care, and improved coordination of care (Gold, M. & Mittler, J., 2000b). HCFA supports states' use of Medicaid managed care waivers to achieve many of these policy objectives as well as to expand the array of community-based mental health services by using the purchasing flexibility inherent in waivers to add coverage for services that were not previously included in their Medicaid plans (GAO, 2000).

Given the attractiveness of these policy goals and the hope that managed care strategies would promote them, the use of managed care financing strategies has grown in Medicaid. Between 1991 and 1999, the overall proportion of Medicaid beneficiaries enrolled in managed care plans rose from 9.5% to 55.6%, representing 17.8 million enrollees (Hanson, K.W. & Huskamp, H.A., 2001; Huskamp, H.A., Garnick, D., Hanson, K.W., & Horgan, C., 2001). As of 1998, 27% of adult Medicaid enrollees with disabilities were in managed care programs and two thirds of this group were in capitated (at-risk) programs (Gold, M. & Mittler, J., 2000a).

However, these growth trends may be slowing. For the first time since January 1993, the annual HMO Medicaid growth rate dropped below 20%; in 1999 the HMO Medicaid growth rate fell sharply to 4.1% ("HMOs show first annual decrease," 2001). Additionally, overall HMO enrollment has dropped, the number of new HMOs

is declining, and the total number of HMOs listed in the InterStudy HMO Directory decreased by 45 plans during the last six months of 2000 because of terminations, mergers, acquisitions or consolidations within the industry (“HMOs show first annual decrease,” 2001).

This kind of instability in the Medicaid market raises concerns about disruptions to care, especially for individuals with more severe mental health and/or substance abuse disorders. Huskamp, et al. (2001) studied the changing Medicaid markets in three states. In 1998 and 1999 Missouri had four plans withdraw from the Medicaid market and two plans that were acquired. In 1996 and 1997 Oregon and New Jersey each had three plans leave their respective markets. These estimates of plan turnover likely under represent the overall instability in the markets since they do not reflect changes in sub-contractual arrangements between HMOs and BHOs or provider panels. Market instability may be more common among integrated premium arrangements (carve-ins) than among carve-outs.

In part, changes in the market participation of managed behavioral health care organizations may reflect growing dissatisfaction with the performance of these managed care plans relative to the range of policy objectives that they were originally intended to impact. While a six-year evaluation of five Medicaid 1115 demonstrations (HI, MD, OK, RI, TN) concluded that those programs had not had a detrimental effect on enrollees, it also concluded that the states had only enhanced their *potential* for improving the quality of care delivered to Medicaid beneficiaries (Brown, R., Woolridge, J., Hoag, S. & Moreno, L., 2001) rather than the actual quality of services provided. In *all* five states, mental health providers were overwhelmingly dissatisfied with the managed care programs. “Mental health providers reported that beneficiaries were relatively satisfied only because providers acted ‘behind the scenes’ to ensure people received necessary services, and that they did so despite inadequate payment levels and delays in receiving payments (Brown, R., et al., 2001, p.28).

Brown, et al., (2001) particularly noted the experiences in the TN program, which is a carve-out with two vendors, where people with mental illnesses had lower service use rates and higher dissatisfaction with their mental health care than expected. A significant minority of adult SSI recipients reported unmet needs or difficulties accessing services, such as prescription medicine (17%). One in five rated the MH care they received from fair to poor. Family members found the care coordination, which largely became their responsibility, to be very burdensome.

Another policy objective of managed care involved the availability of improved management information systems. However, deficient data systems that are integral to Medicaid managed care programs across the country are of increasing concern. For example, California’s Medicaid program, Medi-Cal, has 57% of its enrollees in managed care and has spent \$44 million dollars in the last four years to develop an information system for administrators and policymakers (Medi-Cal Policy Institute, 2001). Health plans and providers in that state have spent additional millions each year to collect and report managed care data for that system. In the end, however, inaccurate and incomplete data compromised the agency’s ability to evaluate quality

of care, monitor access to care, establish provider rates, or analyze and compare the managed care and FFS systems.

Another study of four states (HI, OK, RI, TN) with 1115 waivers (Woolridge, J. & Hoag, S., 2000) found that after five years only one state could produce usable data. Most often insufficient resources and lack of knowledge contributed to the data problems, although the researchers acknowledge it is difficult to convince policymakers that states need more administrative resources to monitor managed care than they did to run the FFS programs. The reality is that states need to change their role from processing claims data to acquiring, validating, and using encounter data for *monitoring*.

Increasing administrative cost in managed care programs is also an emerging concern with the management of these programs. California's Medicaid program is the largest in the nation and serves almost 5 million beneficiaries. California's managed care system includes multiple, large-scale customized models, but administrative layering is a problem. In one of the plans, the first layer of administration – between the purchaser and first health insurer - retains 6% of the capitation payment for administrative costs, each subcontractor retains up to 15% for administrative costs and profits, and the amount remaining after these deductions and risk-pool withholds is paid to providers through another intermediate entity that also keeps a portion of the payment. The amount that actually reaches the patient-care level is much less than the initial capitation payment, which is exacerbated by California's historically low Medicaid capitation rates (Draper, D.A. & Gold, M., 2000).

Sullivan (2000) argues, "that the evidence in support of the claim that managed care saves money is inconclusive" (p.139) and that HMOs may reduce utilization rates, but not total expenditures. Overall, there is little literature on administrative costs of managed care plans and providers. The available evidence indicates that administrative costs have increased exponentially at the plan and provider levels as managed care methods have spread. Sullivan (2000) states there is no empirical evidence to suggest that plans have reduced spending on services without cost shifting and increasing administrative costs. "Until these externalized costs are measured and placed back in the expenditures column of the HMO ledger, it is unwise to assume that HMOs are more efficient than FFS plans ..." (Sullivan, K., 2000, p.142).

Clearly, this is a time of re-examination of the logic that led states to enter managed contracts. This year's evaluation of Florida's Prepaid Mental Health Program also reflects this fundamental re-evaluation of the principal objectives of the program. This is a time for revisiting the original objectives for managed care programs, assessing the degree to which these objectives have been obtained in the Florida program and, based on this evaluation, determining the most attractive strategies for improving our mental health service system. This will be the focus of the fourth year evaluation.

Florida Context

Florida's Agency for Health Care Administration (AHCA) has engaged in several strategies for better managing care and its costs. In AHCA Area 6, which includes Hillsborough, Polk, Manatee, Hardee and Highlands counties, AHCA implemented a demonstration Prepaid Mental Health Plan (PMHP) in March 1996, under the authority of a 1915b waiver from the Federal Health Care Financing Administration. The Louis de la Parte Florida Mental Health Institute (FMHI) was selected by the Florida Agency for Health Care Administration to evaluate the effects of the Florida Prepaid Mental Health Plan. Under contract from AHCA and with previous additional support from the Substance Abuse and Mental Health Services Administration, we are conducting a series of integrated evaluation projects. These projects are designed to assess the effects of the PMHP on access, cost, quality, and outcomes of services relative to alternative managed care arrangements also available in the demonstration area (AHCA Area 6) and to the traditional financing arrangements that are in use in AHCA Area 4 (Jacksonville area) and Area 7 (Orlando area). In this integrative summary of our findings from the fourth year of the evaluation, we synthesize the major findings from these studies.

Three alternative financing and management arrangements for mental health services are in use in Florida. In the demonstration area, Medicaid enrollees may have their mental health services financed through a fee-for-service system or through one of two managed care arrangements. The fee-for-service system is used by several groups of enrollees who are excluded from the demonstration and by newly certified Medicaid clients who have not yet selected or been assigned to a managed care condition. All other Medicaid clients are enrolled in one of two managed care conditions. The first is a behavioral health care "carve out" plan in which a specialty behavioral health managed care organization (the Florida Health Partners or FHP) provides or arranges for all mental health services for plan participants. In this arrangement, FHP is paid by AHCA through a risk-adjusted, fixed monthly fee per enrollee. We will discuss this condition as the Prepaid Mental Health Plan, or PMHP. In the second managed care condition that is operating in the demonstration area, Health Maintenance Organizations (HMOs) receive a risk-adjusted premium that includes general health, pharmacy, and specialty mental health components. Since HMOs receive an integrated premium for these three components of the benefit, these arrangements are often characterized as a 'carve in' purchasing scheme. HMOs arrange all health, mental health, and pharmacy services for their enrollees, often through sub-contractual arrangements with providers or behavioral health managed care organizations (BHOs). Both the PMHP and HMOs in Area 6 are at financial risk for the mental health service utilization of their enrollees.

Outside of the demonstration area, comprehensive mental health services for Medicaid recipients are reimbursed through a fee-for-service mechanism in which the state is at risk for mental health service utilization. For Medicaid participants who are enrolled in HMOs outside of Area 6, inpatient and physician services for mental health are included in their benefits. As with all other Medicaid recipients

outside of Area 6, mental health services, other than inpatient and physician services, are reimbursed through a fee-for-service payment system for HMO enrollees. With the exception of mental health services provided by PMHP and the HMOs in Area 6, prior authorizations for inpatient admissions are managed statewide by First Mental Health, a utilization management firm. This utilization management system was initiated in January 1997, immediately prior to the second year of the evaluation.

Evaluation Design and Methods

We are using a non-equivalent comparison group design to investigate the effects of the differing financing conditions on access, cost, quality of services, and enrollee outcomes. In this design we selected the Jacksonville area (AHCA Area 4) as the area of Florida that most closely resembles AHCA Area 6 in its demographic characteristics and in the composition of its health and mental health care markets to compare with the managed care conditions. In Year 3 we added AHCA Area 7 (the Orlando area) as an additional comparison area for some analyses. Area 7 was added because service recipient functional data were not available in Area 4 due to changes in the statewide client data system in 1998-1999.

Table 1 summarizes the differential risk arrangements that characterize the four financing conditions that are contrasted in the evaluation. The financing conditions differ in their risk arrangements for medical care, mental health care, and pharmacy. The HMO condition in Area 6 is fully at risk for all three categories of services, while the PMHP and MediPass in Areas 4 and 7 are not at risk for medical or pharmacy benefits. Of course, the PHMP condition is fully at risk for mental health utilization.

Financing Condition	Risk Arrangement		
	<u>Health</u>	<u>Mental Health</u>	<u>Pharmacy</u>
Area 6			
PMHP	No Risk	At Risk	No Risk
HMO	At Risk	At Risk	At Risk
Area 6 and Area 7			
Medipass	No Risk	No Risk	No Risk

Sub-studies Comprising the Evaluation

In order to document the characteristics of the different financing conditions and understand their effects on access, cost, quality, and outcomes, we are completing a set of interrelated studies.

Julienne Giard, Pat Robinson, Claudia Ericson and Diana Falkenbach continued the implementation analysis in the fourth year evaluation. In late 2000 and spring 2001, site visits and key informant interviews were conducted with representatives from Florida Health Partners (FHP), the organization responsible for the Prepaid Mental Health Plan (PMHP); two HMOs and the three Behavioral Health Organizations (BHOs) operating in the market; and the five CMHCs in Area 6. Two project staff participated in the majority of the interviews.

Interviews focused on the following areas: contractual relationships, financing of contractual relationships, provider network, utilization review procedures, provider compensation, management information systems (MIS), quality of care studies, integration of primary care and mental health care, and challenges faced in serving this population. The implementation analysis team also continued to review contracts and other pertinent documents. These methods allowed them to chronicle changes within the system, describe the HMO and BHO financing arrangements in more detail, and summarize reported problems within the system.

Paul Stiles, Mary Rose Murrin, Kathy Dailey and their colleagues analyzed administrative data provided by AHCA, the FHP and the HMOs for the fourth year evaluation. The analyses focused on questions of access to and cost of services. AHCA enrollment and claims data are combined with paid claims data from FHP and the HMOs to describe patterns of services, costs, and penetration rates. The data reported here generally are organized into fiscal years that were selected relative to the inception of the demonstration in Area 6. Each fiscal year therefore reflects data from March 1st to February 28th. The data reported for this year of the evaluation reflect the 1999-2000 fiscal year and therefore lag many of the other analyses in the paper by one year.

Michael Dow, John Ward, David Thornton and Tim Boaz analyzed data that were collected as part of the statewide mental health outcome monitoring system to describe the characteristics of persons who received services and to assess their treatment outcomes. As with last year, they employed data from the Behavioral Healthcare Rating of Satisfaction (BHRS) (Dow and Ward, 1996); Functional Assessment Rating Scales (FARS) (Ward and Dow, 1996); and the Global Assessment of Functioning (APA, 1994). FARS data for Area 7 were employed during the fourth year of the evaluation since Area 4 data were no longer available. For children no service recipient functioning or satisfaction data were available for the fourth year analysis.

Roger Boothroyd, Huey Chen and their colleagues continued analysis of the population-based outcome data for both the general Medicaid enrolled population and for a special sample of 688 adults with severe mental illnesses. Mail survey

procedures were originally used to identify and recruit this population-based sample of 688 adult Medicaid recipients who were receiving SSI because of a mental illness and who were enrolled in the three financing conditions (PMHP = 264; HMO = 237; fee-for-service = 187). The service utilization and mental health status of these individuals were assessed during face-to-face interviews conducted at enrollment into the study and at 6 and 12 months following enrollment. Service utilization inside and outside the Medicaid program, as well as inside and outside the formal treatment and support system, was assessed through personal interviews every two months following enrollment. Data from this study can be used to assess the outcomes experienced by individuals with SMI who are enrolled in the Medicaid program regardless of their service use.

A second population-based component of the study involved a mail survey of Medicaid enrollees. During the fourth year of the evaluation, questionnaires were mailed to 5,846 adults and children in Areas 4 and 6 who were enrolled in Medicaid through participation in TANF or SSI. Most of these individuals (72%) had responded to questionnaires mailed in previous years of the evaluation while the remaining individuals comprised a replacement sample of current eligibles. Survey respondents were asked to provide general information about their health and mental health status, their quality of life and general functional well being, and the degree to which they received services that they felt they needed. Additionally, given that Florida is planning to expand managed care arrangements to new areas of the state, a stratified random sample (stratified on age and eligibility status, and area) of 9,000 Medicaid enrollees in three areas (AHCA areas 1, 5, & 8) were surveyed. Responses from these questionnaires will be the first true baseline data (i.e., before managed care) from Medicaid enrollees.

Generally, the estimates that we calculate from the administrative, service recipient, and population-based outcomes components of the study are case mix adjusted to control for the differences between the enrollee populations served in the differing financing conditions. Although the specific variables that are employed in the case mix adjustment differ slightly with each comparison depending upon the characteristics of the sample, the comparisons may be adjusted for differences in gender, age, eligibility status (SSI, TANF), race/ethnicity, and service utilization status (user vs. non-user). These procedures correct for between-group differences in these characteristics.

Implementation Analyses

Many of our summary observations from the Year 3 Implementation analysis were also true of our fourth year observations.

- The PMHP structure has remained stable.
- More complex financial and organizational administrative arrangements continue to be employed in the HMO condition, although there was a decrease this past year in the number of HMOs and BHOs in the market.

- Again this year, there were several changes in the organizational relationships found in the HMO financing condition. There continues to be competition among BHOs for HMO contracts.
- Increasingly, CMHCs are assuming financial risk for services.
- HMO-CMHC capitation rates are not risk-adjusted.
- Integration of medical and mental health services continues to be a problem in spite of integrated health and mental health premiums from AHCA to the HMOs. There continue to be concerns about access to pharmacy benefits within the HMO condition.
- Fragmented care for people with co-occurring disorders continues to be a problem.

For the most part, there were few changes in the Prepaid Mental Health Plan and few, if any, administrative or clinical problems in that financing condition. One change, however, was the addition of Central Florida Behavioral Health Network (CFBH), a consortium of substance abuse agencies, to the board of Florida Behavioral Health (FBH).

The HMO market continues to be marked by substantial change during year four (calendar year 2000) of the evaluation.

- Two HMOs and two BHOs left the market.
- One HMO changed BHOs.
- One of the two HMOs that never used a BHO began contracting with one.
- One HMO began managing their MH benefit internally and capitating CMHCs directly.
- Several HMO/BHO-CMHC arrangements moved to capitation for both inpatient and/or outpatient mental health services.
- One of the CMHCs in Area 6 ceased operation as a statewide BHO but continued purchasing relationships with other CMHCs in Area 6.

These unstable organizational relationships in the HMO condition are disruptive. Changes often occur with little advance notice, necessitating the re-credentialing of provider staff and the implementation of new administrative procedures.

Figure 1: Funding Streams as of 1/00

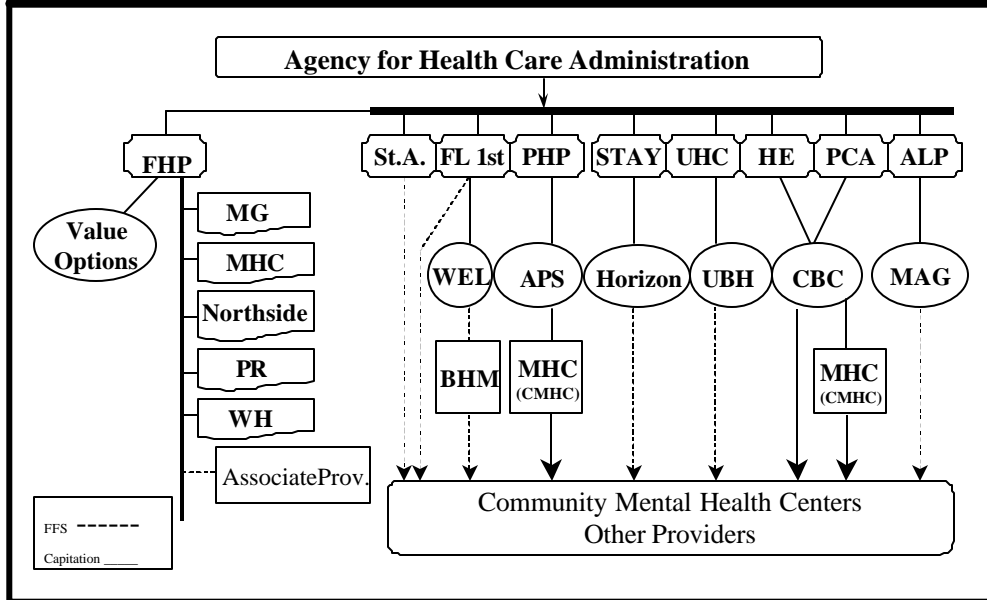
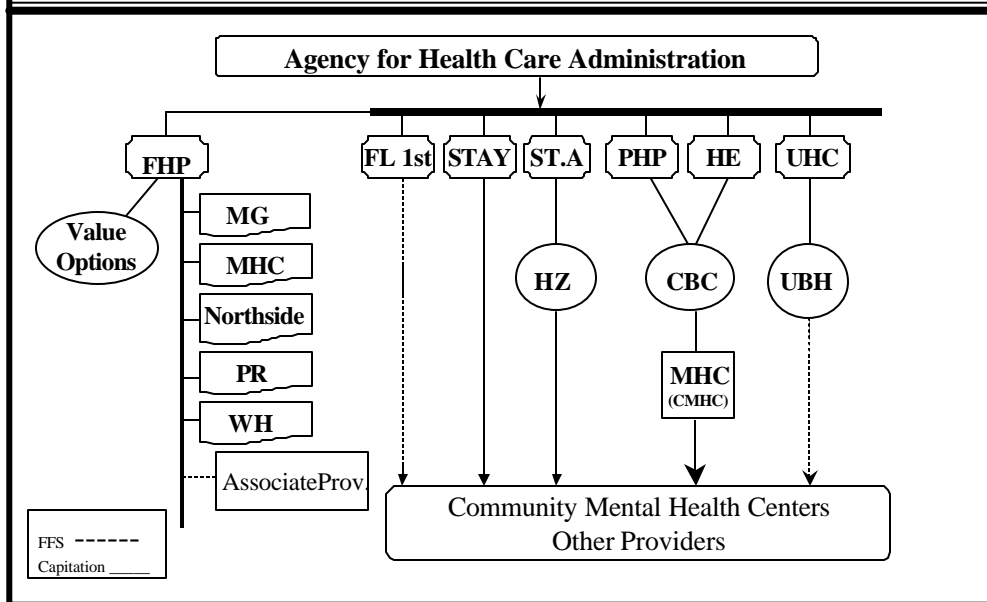


Figure 2: Funding Streams as of 1/01



Organizational and Financial Management

In Figure 1 we display the organizational and risk arrangements among the carve-out, HMOs, BHOs, and CMHCs in the demonstration area as of January 2000 and we display the arrangements in January 2001 in Figure 2. As may be seen by comparing these illustrations, the hierarchical nature of the risk arrangements in the HMO financing condition remained complex during the fourth year of the evaluation. However, there are fewer HMOs and BHOs in the market than previously. Two of the six HMOs do not use a BHO intermediary for the management and provision of mental health services – up from one last year. The remaining four HMOs employ BHOs that assume the risk for the provision of mental health services to the HMO Medicaid beneficiaries.

The dotted lines in Figure 1 depict fee-for-service purchasing relationships between the organizations, while solid lines indicate capitated, at-risk payment relationships. In this year there are more capitated arrangements with providers than in previous years. Four of the six HMOs have capitated arrangements for outpatient services and in some instances inpatient services, with their providers. Only two HMOs still pay providers on a fee-for-service basis. CMHCs report that the prospective payment scheme is desirable because they are assured reimbursement and avoid the payment difficulties that have characterized their relationships with BHOs in the past. Additionally, capitated payments allow for more flexibility and responsiveness in service delivery since external service authorizations are not required. The emergence of CMHCs functioning as risk-bearing entities also suggests a market maturation that may enable a flattening of these hierarchical purchasing arrangements as characterized by the changes between Year 2000 and 2001.

Competition and Payment Structure

The rationale for the inclusion of the PMHP and HMOs in Area 6 was to assure choice of plans for consumers as required by HCFA. However, the CMHCs continue to serve as the primary providers of mental health services to Medicaid enrollees in both financing conditions. The cost of associate or other provider services is subtracted from the CMHCs' capitation payment. This has the potential to create a financial disincentive for CMHCs to make referrals and in turn, may further dampen competition. Under these newly capitated provider arrangements, the managed care entity may find itself in the role of advocating for their enrollees. For the most part, consumers have not experienced increased choice of providers through these managed care strategies.

Uncompensated Care and Delayed Payment

CMHC respondents report fewer problems with uncompensated care than in earlier years of the demonstration. Outstanding balances from previous years have either been resolved or written off. While CMHCs view their current receivables as reasonable, there are still reported delays in payments made from BHOs to CMHCs.

Rates

FHP rates with their providers remain risk-adjusted for age and eligibility category similar to the capitation rates from AHCA to FHP and the HMOs. Capitation rates in the HMO condition for either BHOs or CMHCs remain non risk-adjusted. FHP's capitation payments to the CMHCs are significantly higher than the capitation payments in the HMO condition from the HMOs/BHOs to the CMHCs. Competition among BHOs continues to depress the prices for their services. CMHCs are increasingly entering risk-bearing relationships with BHOs at substantially reduced premiums relative to their FHP contracts.

Utilization Management (UM)

Since more CMHCs have entered into capitation arrangements with the HMOs/BHOs, they report less restrictive utilization management practices by the HMOs or BHOs than in previous years. In addition, four of the five CMHCs report moving away from internal pre-authorization programs and toward utilization management by reviewing outliers. This shift in their internal UM procedures may be reflective of the improved data systems within CMHCs as well as clinical practices that are more in keeping with managed care approaches.

Some of the managed care organizations either have a care management program or are developing one. These programs identify enrollees at high risk for utilizing expensive and intensive services and then work to ensure that they are receiving the services they need. One BHO recently added a complex care program to their high-risk program that works with enrollees who have multiple problems, including those with co-morbid physical and mental health disorders. One BHO reported reducing their re-admission rates within 30 days from 14% to 7% after their high-risk program was implemented.

Management Information Systems (MIS)

The managed care organizations report very few changes in their management information systems. On the other hand, the CMHCs report several changes. Two CMHCs jointly received a large grant to increase their MIS capacity. Other CMHCs reported upgrading servers, purchasing new computers, and many of them reported obtaining internet access in the past year.

Consumer Involvement

There are no reports of consumer involvement at the level of the HMO/BHO within the HMO condition. However, FHP has hired a consumer to administer their satisfaction measure.

Quality of Care Studies

Generally, the HMOs/BHOs report conducting quality of care studies of the services provided by their network. Most of the studies focus on enrollees who have a diagnosis of schizophrenia, major depression, or attention deficit hyperactivity disorder (ADHD). The predominant methodology for these studies is chart reviews at

provider sites. In addition, AHCA continues to conduct chart reviews at the same providers. To avoid duplicative effort, AHCA might utilize the results of chart reviews completed by HMOs/BHOs to provide feedback or to require corrective action plans based on those results. The move to managed care might warrant a shift in the state's monitoring activities to the HMO level, holding them accountable for the quality of services provided by their networks, rather than to continue monitoring at the direct service level.

Access to Pharmaceuticals

As in previous years, CMHC respondents reported that many HMO enrollees have significant problems getting their psychotropic medications. HMOs continue to contract with pharmacy benefit managers (PBM) to manage the pharmacy benefit. While the PBMs are not at risk for the costs of the medications, they still restrict access by requiring pre-authorizations and other paperwork. These procedures result in delays in receiving prescribed medications. Some CMHCs assist consumers by distributing samples and facilitating access to pharmacy assistance programs with the pharmaceutical companies. To the extent this is done, it represents a substitution for the medications that are supposed to be provided by the HMOs. Additional problems arise when prescriptions can only be filled for a maximum of 30 days.

Integration of Care

A concern reported by the HMOs and BHOs was fragmented care for persons with co-occurring mental health and substance abuse disorders. Since substance abuse services are not included in the mental health benefit package in Area 6, it is often difficult for managed care organizations to manage the care of people with mental health and substance abuse problems. For example, a person may need detoxification services before he or she can benefit from any mental health intervention. Oftentimes, it is hard to accurately assess whether an individual's symptoms are due to a mental disorder or a substance abuse disorder or both.

Additionally, CMHCs continue to report the lack of integration of primary care and mental health care for individuals overall. The HMOs/BHOs and CMHCs are using similar strategies to better integrate primary care and mental health care. They are looking for documentation within charts regarding contact with primary care physicians (PCPs), encouraging mental health providers to contact primary care physicians, and profiling PCPs to identify those who prescribe psychotropic medications in order to conduct outreach and education as needed. Other reported strategies included hiring staff to serve as liaisons with PCPs, coordinating physical health and mental health care at the BHO level, and requiring that a person be evaluated by a mental health specialist before their PCP can routinely prescribe psychotropic medications for them.

It is noteworthy that some HMOs risk-adjust their capitation rates with PCPs, but contract with CMHCs with non risk-adjusted capitation rates. One HMO reported that it is very difficult to contract with health providers because of the stigma

associated with Medicaid in general, and health providers routinely will not accept 100% of Medicaid rates, whereas behavioral health providers do.

Culturally Appropriate Care

Key informants reported common strategies to address culturally appropriate care: 1) creating task forces on cultural diversity, 2) providing interpreter services via phone, 3) staff training, and 4) assessing members' satisfaction in this area. CMHCs report great difficulty recruiting staff of minority ethnic groups.

Substance Abuse Services

Some of the CMHCs are actively preparing for the eventual integration of substance abuse services into the prepaid demonstration (e.g., sending staff for CAP certification, seeking SA licensure through ADM, starting SA groups, and looking at possible changes in their assessment forms). Two of the CMHCs already provide substance abuse services. FHP started a substance abuse task force that has been in place since June 2000 and meets monthly. As mentioned before, CFBH joined FBH/FHP's board of directors. HMOs report having received no communication from AHCA regarding incorporating substance abuse into their benefit plans.

Challenges

This year CMHCs reported great difficulty in trying to meet the new PMHP contractual requirements to follow-up on children in residential settings, adults in jail, people leaving CSU/inpatient/detox, and to provide outreach to people who are homeless, without any increase in their capitation rates. The CMHCs were successful in negotiating a lower administrative fee with ValueOptions in order to spread additional resources among the CMHCs.

In terms of Program administration, CMHCs reported challenges in meeting access standards, and determining accurate enrollment. CMHCs report that it is still necessary to do Medifaxes at the beginning of each month to determine eligibility and plan assignment because they still do not receive timely or accurate enrollee lists from the HMOs/BHOs.

HMOs/BHOs reported problems associated with reducing inpatient admission rates and the lack of congruence with the ADM system (e.g., lack of common codes, expectations).

Enrollment Trends

The average number of enrollees per month is displayed in Figure 3. Since the inception of the demonstration in 1996, the number of enrollees in MediPass in Areas 4 and 7 and in the PMHP has declined, stabilizing in 99-00. Enrollment in the HMO condition has grown slightly. The differential pattern of growth prior to 99-00 reflected the effects of the state's assignment policies, which were designed to favor growth in the HMOs. AHCA relaxed these policies in FY 00-01 but re-implemented them on 7/1/01.

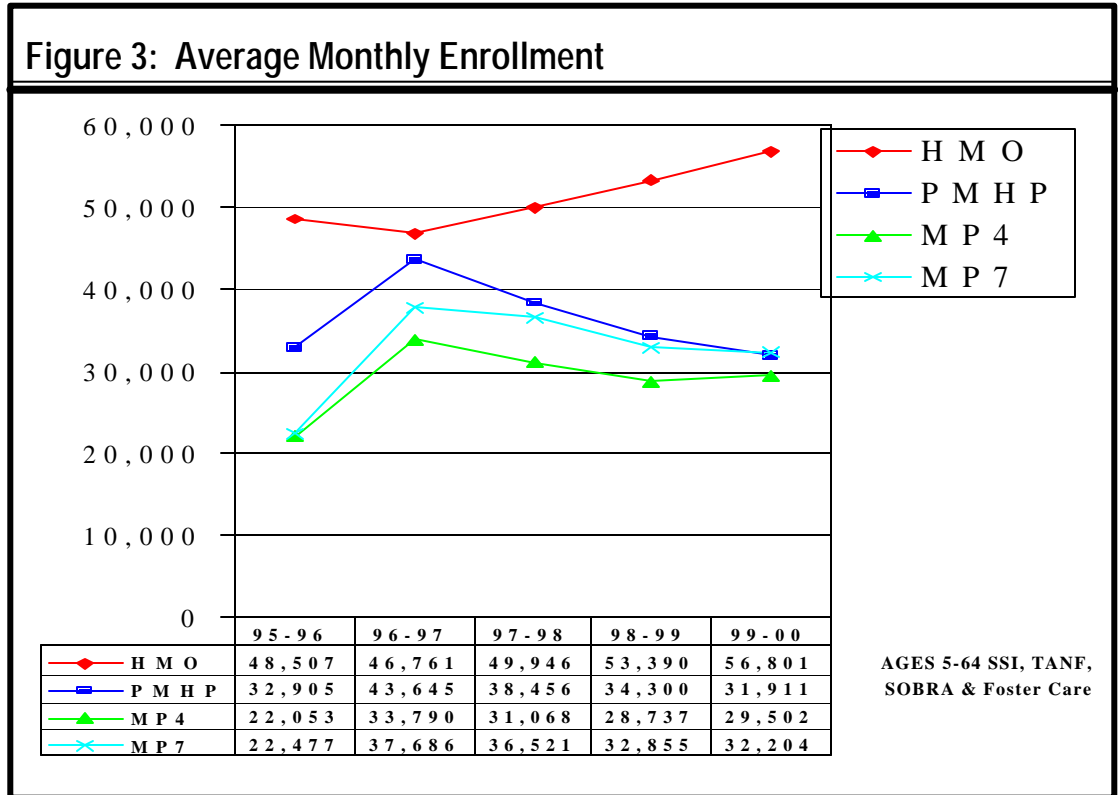
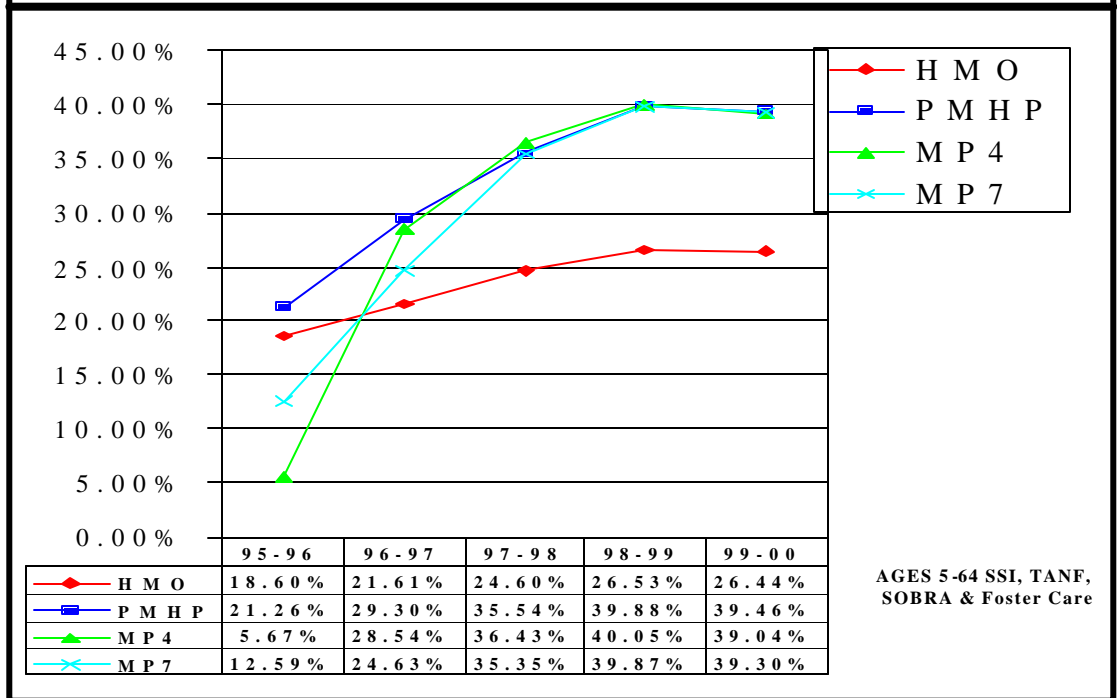


Figure 4: Proportion of SSI Enrollment



In Figure 4 we display the proportion of SSI enrollees in each of the plans. As can be seen, approximately 40% of enrollees in MediPass and PMHP conditions are SSI recipients. The proportion of SSI recipients in HMOs has grown to about 26%. SSI recipients have one or more disabilities and are more likely to use services than persons without disabilities. Their greater likelihood of service use results in higher risk-adjusted premiums and higher costs to plans. Owing largely to welfare reform efforts, the number of Temporary Assistance to Needy Families (TANF) recipients has declined during the first three years of the evaluation. As a result, SSI recipients now comprise a larger percentage of enrollees for the managed care plans in Area 6 than in years prior to the reform efforts.

Access to Services

Characteristics of the Enrollee Population

As we summarized in our Implementation discussion and in Figures 3 and 4, enrollees on SSI comprised an increasingly larger proportion of the overall enrollee population served in both the demonstration and comparison areas. As we have documented in earlier reports, the age, race, and gender differences found in the

different financing conditions largely reflect the differential enrollment of TANF enrollees in the HMOs. This results in relatively larger proportions of African Americans, children, and women in the HMO enrollee population. We generally employ case mix adjustments to accommodate these differences in the enrolled population and facilitate our comparison of the plans. In previous years, we case mix adjusted to reflect the composition of the overall Medicaid caseload in Areas 4 and 6 in 1996. This year, we updated the case mix adjustments to reflect the overall Medicaid caseload in Areas 4, 6 and 7 for March 2000. As noted earlier, substantial changes in case mix have occurred during this four year period with the significant increases in SSI and foster care enrollees.

In the case mix adjustment procedures, we adjust the estimates by a proportional weighting strategy that accounts for age, sex, race, eligibility status (SSI vs. TANF), and service utilization.¹ These procedures help to assure that observed differences between financing conditions do not simply result from differences in the characteristics of persons that are enrolled. However, it is important to note that the figures derived from case mix adjustment are not actual figures, but are useful primarily for comparative purposes. Both case mix adjusted and unadjusted estimates will be provided throughout this report.

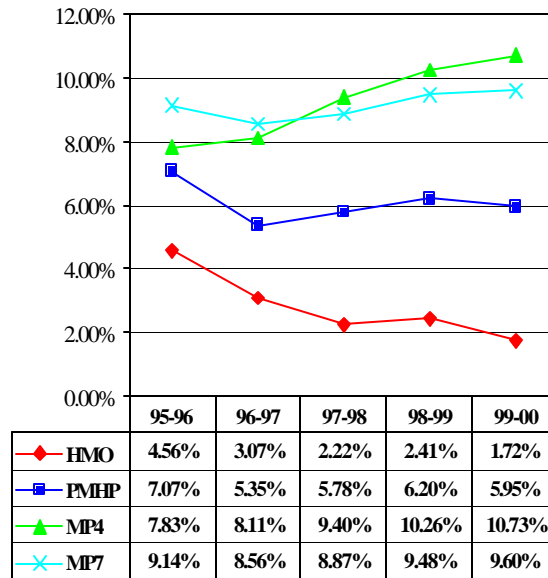
Clinical and Demographic Characteristics of Service Recipients

We used data from the statewide performance measurement system to estimate the clinical and demographic characteristics of adults at admission to mental health services. SSI and TANF enrollees are considered separately. SSI service recipients in the HMOs on whom FARS data were submitted do not significantly differ from recipients in the other conditions with regard to gender, racial composition or diagnosis at admission. Recipients in the PMHP are significantly older than either HMO or MediPass recipients (40 versus approximately 35 years old).

No differences in demographic or summary clinical characteristics were found at admission for adults served in the three financing conditions who were enrolled in the TANF program.

¹ For each variable that we wish to adjust, we calculate the statistic of interest (e.g., mean, proportion, etc.) for each of the groups specified by the unique combinations of the adjustment variables (e.g. young, female, African American, WAGES, service users). We then aggregate these groups within financing condition by weighting each group estimate by the proportion that the group represents of the overall population enrolled in the three financing conditions and summing these weighted estimates. Estimates for each financing condition, therefore, should be interpreted as the statistic that would have been obtained if the characteristics of the persons served in that financing condition exactly represented those for the population enrolled in the three financing conditions.

Figure 5: Average Monthly Penetration for any Mental Health Service – Case Mix Adjusted



Access to Services - Penetration Rates

In Figure 5 we display case mix adjusted penetration rates for each of the four financing conditions. These rates are obtained from the paid claims data provided by each of the managed care plans and by AHCA for Areas 4 and 7 MediPass fee-for-service enrollees. They reflect the average monthly penetration rates for each of the managed care conditions in Area 6 and Areas 4 and 7 MediPass.

A pre-existing difference in the rates at which individuals used services is clearly evident with enrollees in Area 6 using services at a lower rate than persons in Areas 7 or 4. The data also indicate a clear decline in the rate at which services were accessed in the managed care conditions that is associated with the onset of the managed care arrangements in Area 6. The effect is more pronounced in the HMO conditions than in the PMHP. The decline in penetration in the two managed care conditions appears to have stabilized. Managed care arrangements are associated with decreases in the overall rates of utilization relative to the fee-for-service comparison conditions.

Utilization for Adults with Severe Mental Illness

As part of the adults with SMI component of the research, study participants were regularly interviewed to determine the rate at which they used a full range of formal and informal medical services including health, mental health, substance abuse, dental and other medical services. We classified service use as either formal, on

the Medicaid budget (i.e., paid for by Medicaid), formal, off-Medicaid budget (i.e., not paid for by Medicaid) or informal, with informal services being off the Medicaid budget. Formal, on-budget services were those provided by a recognized professional service entity (practitioner or organized service setting) that involved no out-of-pocket expenses in excess of the Medicaid co-pay. Formal, off-budget services were those that are not reimbursed by Medicaid (such as over-the-counter pharmaceuticals) and other professional services for which the respondent indicated an out-of-pocket expense in excess of established co-pays. Informal services were those that were provided by a volunteer organization or family member for which no monetary exchange occurred. At this point in our analyses, we have not established a monetary value for informal services.

Table 2: Risk Arrangement by Financing Condition

Adults with Severe Mental Illness – Medical Service Utilization		
Service Type	Penetration Rate	Frequency of Use
Mental Health		
Formal	FFS>HMO	NS
Informal	NS	FFS<(HMO,PMHP)
Off Budget	NS	(FFS,PMHP)>HMO
Health Services		
Formal	(FFS, PMHP) > HMO	NS
Informal	FFS < HMO	(FFS,PMHP)<HMO
Off Budget	FFS>PMHP>HMO	NS
All Medical Services		
Formal	FFS>HMO	(FFS,PMHP)>HMO
Informal	FFS<(PMHP,HMO)	FFS<HMO
Off Budget	(FFS,PMHP)>HMO	NS (same trend)

In Table 2, we display the results of the comparison of the financing condition for these service utilization groupings. In the table, we present information about mental health services, health services, and all medical services (includes substance abuse, dental, eye, etc.) separately. Additionally, we examine both the differences in the rate at which services were used (penetration) and the volume of services that were consumed (frequency) by individuals who used services. Significant differences between conditions are expressed in terms of the order of the differences between the rates or means for each comparison.

With regard to formal mental health services, significant differences in service utilization were obtained between the financing conditions. Individuals enrolled in the HMO financing condition accessed services at a significantly lower rate than persons in the FFS comparison. Persons in the PMHP were intermediate in their rate of formal mental health service utilization. These findings are consistent with

the administrative data regarding utilization in the plans overall. For individuals who obtained formal services, no differences in the *volume* of services occurred between the financing conditions. No differences were found between groups in the *rate* at which either informal mental health or off-budget services were obtained. However, for those individuals who did obtain informal services, persons with SMI enrolled in either of the managed care conditions (HMO, PMHP) received a greater volume of informal services than persons in the FFS condition. Persons in the HMO condition reported using a lower volume of off-budget mental health services than persons in either the FFS or PMHP conditions. This is not the expected pattern if individuals were using off-budget service substitutions in response to more limited access in the prospective payment arrangements.

With regard to health services, the differences between conditions are largely as we would expect from the financial risk arrangements that characterize each of the conditions. Persons in the FFS and PMHP conditions report accessing formal medical services at a higher rate than persons in HMOs (which are at risk for health benefits). Once respondents access formal services, however, there is no difference in the volume of services that they receive. Also consistent with the financing incentives, persons in the HMO condition use more informal medical services than individuals in the FFS condition. Additionally, for those who use informal services, persons in HMOs use a relatively greater volume of informal services than their counterparts in the FFS and PMHP conditions, which are not at risk for health services utilization. The use of off-budget services is not as we would expect since persons in HMOs show the lowest rate of off-budget service utilization compared to the two groups served in conditions that are not at financial risk for health services.

If we focus on all types of medical service provision, persons in the FFS and PMHP conditions received more formal services of all kinds than individuals in the HMO condition. The reverse was true for informal services – FFS recipients received fewer informal services than HMO enrollees. There were no differences among conditions regarding the volume of off-budget services received by enrollees. However, HMO enrollees reported using off-budget services at a lower rate than PMHP or FFS enrollees.

Relative to our expectations from the financial risk arrangements, a mixed pattern of results is obtained from these service utilization analyses. Focusing only on informal services, it appears as though persons who are served in conditions that are at financial risk for formal services generally use a greater volume of informal services than persons enrolled in a financing condition that is not at risk for these services. There is a difference in the rate at which individuals receive formal services that is consistent with expectations. However, once a person with a serious mental illness (SMI) enters services, they receive a lower volume of service in the at-risk financing conditions. Off-budget utilization does not fit any consistent pattern.

We, therefore, have some evidence of substitution of informal for formal services for persons with SMI. Such substitution might mediate the lack of outcomes between these conditions to be discussed below. Consistent with these findings about

service access, respondents in the special study of persons with severe mental illnesses reported greater satisfaction with their access to service in the FFS condition than in either the HMO or PMHP condition during each of the three times they were interviewed during the study year.

Non-Service Users with Severe Mental Illnesses

A total of 102 of the 542 (18.8%) participants in the Adults with SMI study who still were enrolled in the study at time 3, reported using no mental health services throughout the nearly 14½ months that they were followed. An analysis by financing condition indicated that HMO enrollees (24.3%) were significantly more likely to report no mental health service use compared to participants enrolled in the FFS condition (12.7%). 17.2% of the individuals in the PMHP reported no mental health service use during the study period.

In an attempt to better understand why such a high percentage of adults receiving SSI because of a severe mental illness were not using mental health services, individuals were asked during their final interview to explain why they “*were not currently receiving any treatment for their emotional or psychiatric problems.*” Their responses were classified into five broad categories according to themes. The five categories included: 1) mental health services were not needed (37% of responses), 2) problems accessing mental health services (25% of responses), 3) previous mental health services not being perceived as helpful (18% of responses), 4) respondents were using the primary care physician as a mental health provider (11%), and 5) a miscellaneous category.

Problems accessing mental health services and the perceived lack of helpfulness of services are the two areas that are, perhaps, of most concern. Problems with access seemed to cluster in four areas: transportation, lack of system capacity (no referrals, long waiting times), agency policies (missed appointments, mandatory orientations), and lack of desired providers. Lack of helpfulness related to the perceived quality of the services and the degree to which services addressed the consumer’s wishes (e.g., lack of competent counselors, overmedication, ineffective medication).

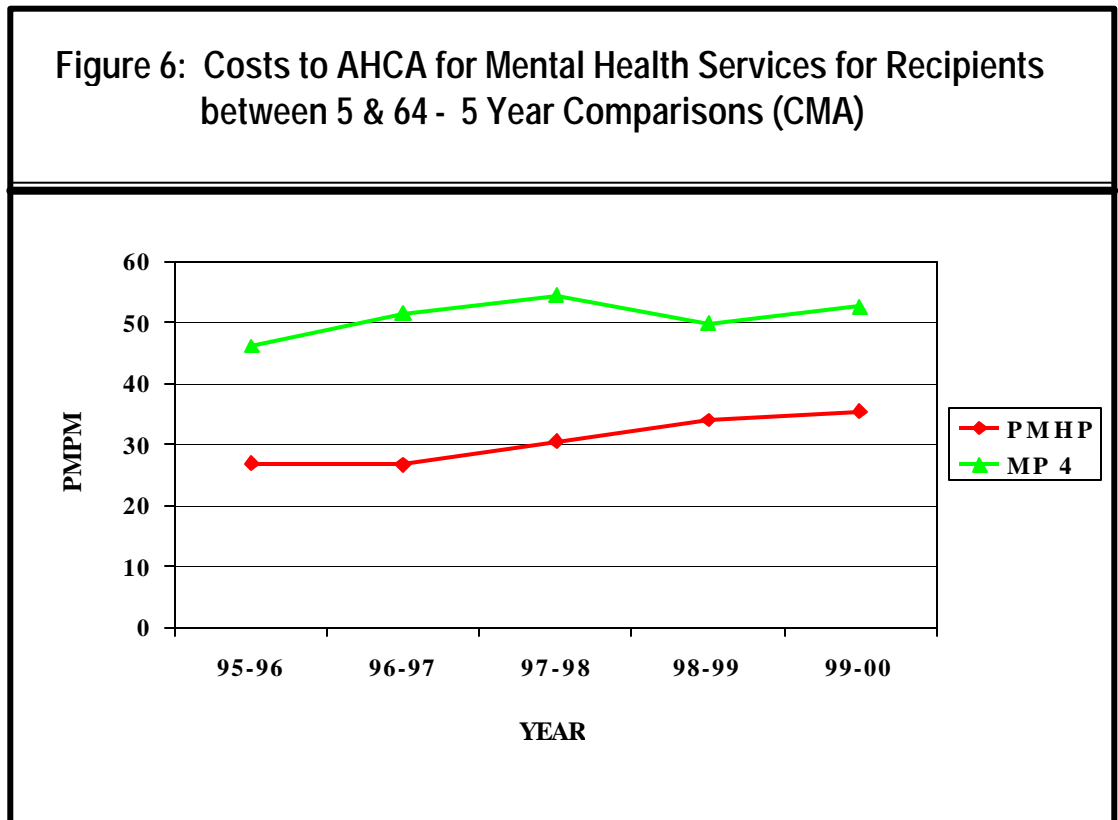
Access Findings Summary

From these data, we conclude that there appears to be a relationship between the managed care conditions and some measures of access. In terms of the overall population, case mix adjusted penetration rates are lowest in the managed care conditions. Persons with SMI utilize formal services at lower rates in the conditions that are at-risk for these services. For non-users, characteristics of the service environment like the availability of services and rules for obtaining services are important factors in service utilization. Reports of informal service use suggest that a greater volume of informal mental health services are obtained by persons in the managed care conditions relative to FFS. Off-budget service use does seem to be a substitution for formal services.

Cost of Services

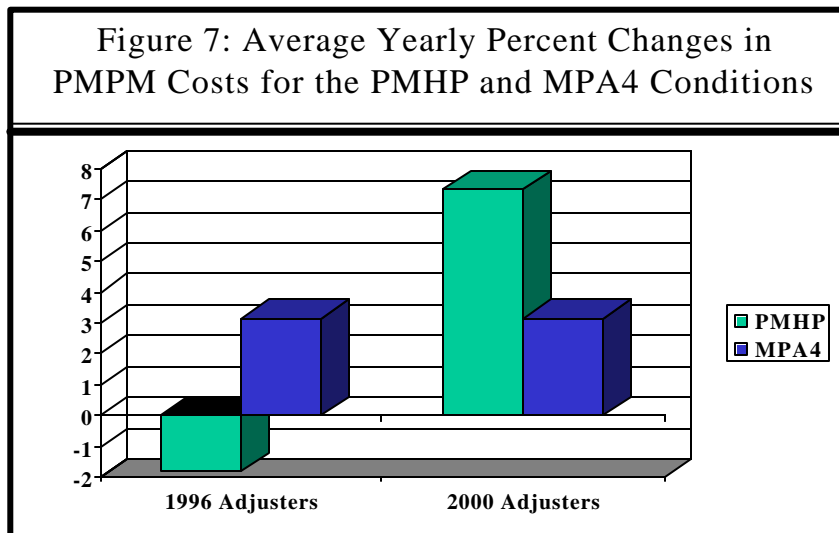
A primary goal of prospective payment methods is to control growth in the cost of services. Unlike previous years, we are presenting data on the PMHP and fee-for-service conditions, excluding the HMO data, because of the lack of clear information about how much of their integrated per member per month (PMPM) premium is considered apportioned for behavioral health services. We investigated the degree to which mental health costs have been controlled by calculating the average expenditures for mental health services in the PMHP and fee-for-service financing conditions. These cost estimates reflect Medicaid costs for all mental health services delivered to persons enrolled in one of these two financing conditions. A service was identified as a mental health service if it met any one of five criteria relevant for these two conditions, including a mental health diagnosis (290 – 314), delivered by a mental health provider, use of a mental health procedure code, or mental health appropriations code, or the data was received from FHP. In this year's analysis, we have excluded services that are delivered for developmental disorders, which comprise a significant cost of services to AHCA but are not relevant to the analyses here.

Costs include the PMPM capitation payments for the PMHP as well as any mental health services that are billed and paid on a fee-for-service basis. As such, these cost estimates are broadly inclusive of behavioral health-related services. These results are displayed in Figure 6.



The pattern that is shown in these data differs from what we have found in the first three years of the evaluation. In part, this difference reflects a change in our case mix adjustment strategy. As noted earlier, this year we updated the case mix adjustments to reflect the overall Medicaid caseload in Areas 4, 6 and 7 for March 2000. Substantial changes in case mix have occurred during this four year period with the significant increases in SSI and foster care enrollees.

With these new case mix adjusters it is not clear that the cost containment objectives of the intervention have been obtained. In order to address the cost neutrality of the intervention, we completed an analysis in which we calculated that average cost increases for each of the five years following the onset of the PMHP. In these analyses, we concentrate on the growth rates for the PMHP and the comparison area in Jacksonville (MPA4) and exclude the HMO condition owing, in part, to ambiguities in decomposing the HMO integrated capitation payment. We calculated the cost changes from year to year using the two different case mix adjusters that have been employed in the evaluation (1996 and 2000 caseload). These averages were calculated by computing the percent change in PMPM costs each year with those for the previous year and are depicted in Figure 7. As can be seen from the Figure, the conclusions regarding cost neutrality would depend upon the case mix adjusters that are selected. If the caseload had remained similar to that seen when the waiver was designed in 1996, the objectives of cost neutrality would have been achieved since the average growth from year to year since 1996 would have been negative for the PMHP. This contrasts with the average of about 3% growth in Jacksonville. If we look at a more contemporary characterization of the caseload, however, the PMHP has grown at approximately twice the average rate of that experienced in Area 4 (7.3% versus 3.5%). The large relative increase in the



proportion of SSI and Foster Care enrollees is associated with a growth rate in the PMHP costs, which substantially exceeds that of the comparison area. Given the differences in the PMPM costs between the comparison areas prior to the demonstration, we also compared the average dollar cost changes. The patterns

were essentially identical to those depicted in Figure 7. The cost containment objectives of the intervention, therefore, have not been unambiguously achieved, particularly in light of the changing composition of the Medicaid caseload.

In Table 3, we depict the costs in a different format than graphically displayed earlier. Here we contrast only specialty mental health costs to different payers involved in the hierarchical organizational structures portrayed in Figure 2. Additionally, we use a standard rate table for services to derive a standard cost that can be used to compare the volume of services provided across the differing financing conditions. It is important to note that the figures below are **not** actual figures because they were derived through case mix adjustments and the calculation of standard costs. They are useful for comparative purposes only.

Group	AHCA Specialty MH Payments	Plan Spec MH Payments ³	Payments Directly to Provider	Service Standard Rates ⁴
PMHP	\$31.78	\$24.30	\$24.30	\$15.28 - \$23.76. ⁵
HMO FFS direct ⁶	\$28.07	\$5.02- \$8.47	\$5.02- \$8.47	\$8.76 - \$14.28
HMO CAP via BHO	\$28.48	\$ 6.11- \$6.22	\$5.28 – \$6.57	\$5.08 - \$8.02
HMO FFS via BHO	\$28.06	\$5.98 - \$6.07	\$6.07 - \$9.97	\$5.61 - \$9.17
Medipass Area 4	\$46.88	\$46.50 YEAR	46.49	46.76

For example, the differences between the costs to AHCA and the costs to plan are one estimate of the administrative and management expenses that are borne at the first level of management. The differences between the cost to plan and payments

² These data reflect FY99-00 cost and organizational arrangements.

³ Note that any AHCA FFS claims that meet the Spec MH definition is included in both AHCA and Plan payments, no matter what the condition, so this does not directly reflect the PMPM that the plan pays, but rather equates the service payments across columns

⁴ Service standard rates are an estimate of the service mix cost if all service was delivered at AHCA maximum FFS rates (or Area 4 average rates for inpatient, physician, and emergency care). Note that downward substitution services for inpatient services provided in Area 6 such as CSU and residential treatment are assessed at inpatient rates

⁵ Wherever ranges are given, the data is based to some extent on Managed Care Encounter data. The ranges reflect the fact that encounter data has been shown to be under-reported. In Area 6, we have inflated all rates based on encounter data by 70% over reported values to account for this under-reporting. This rate reflects the under-reporting estimated to occur from a study of 13,900 RCC paid claims compared to HMO reported claims in the period from March 1, 1998-February 28, 1999.

⁶ Plan payments which are the same as payments directly to provider for this group, were largely estimated due to missing cost data from two of the HMOs in this plan. Where possible costs were estimated using per service costs reported by the HMO for each provider. Where necessary, costs were estimated using standard costs, except for inpatient and emergency services. Inpatient services were estimated at \$380 per unit and Emergency MH at \$100 per unit.

directly to providers reflect the effects of the secondary level of management. Finally, the standard cost column reflects the 'cost' of services utilized in each condition times a standard price table for all areas – in this case the prices for Area 4.

In Table 3, we also display the HMO conditions differently than we have in past reports. We are now distinguishing among the HMO plans based upon the methods they use to purchase services.

- HMO FFS direct are HMOs who purchase their services directly from providers using a fee-for-service reimbursement mechanism.
- HMO CAP via BHO are HMOs who have a capitated, risk bearing arrangement with BHOs who in turn pass risk to providers through a capitated payment arrangement.
- Similarly, HMO FFS via BHO are HMOs who use a risk bearing, capitated payment with their BHOs. The BHOs in turn purchase services on a fee-for-service basis from community providers.

In those instances where we have used encounter or claims data to derive costs, we are expressing our estimates as ranges in this year's analysis. We are using this convention since we have good reason to believe that the encounter data are incomplete and under-represent the utilization that occurred in each of these conditions.

Comparing the first two columns, as expected, the management costs to AHCA are minimal in the fee-for-service condition (MediPass Area 4) since they reflect only the expenses that are associated with the utilization management program. In the PMHP condition, administrative costs calculated in this manner reflect about 23% of AHCA payments. Similar to last year's analysis, administrative costs at the first level of management appear to be substantially greater in the HMO conditions at approximately 80%.

Payments to providers reflect either the fee-for-service reimbursements to providers or the capitation that they receive from BHOs. We can see that most of the funds received by the BHOs are passed to providers in those situations where the CMHCs are capped – over 80%. When a managed fee-for-service mechanism is used to purchase services, in contrast, only from 12 to 17% of the BHO cap payment is passed to providers. If we compare the HMO/BHO fee for service purchasing mechanisms overall with the strategies that capitate providers, a relatively greater proportion of the premium is paid to providers under capitated arrangements. Compare 77% for PMHP and 80%+ for HMO CAP via BHO with the two HMO/BHO fee for service purchasing arrangements with 10 to 20 % of cap rate being paid to providers.

The standard rate column indicates that the arrangements also have a direct effect on the volume of services that are delivered. In this analysis, the standard rate estimate for the HMO FFS direct is a bit misleading since it reflects a relatively

smaller risk pool than the other HMO conditions. Also, the higher rate largely reflects increased costs for inpatient services in that condition.

As with last year's analyses, it is clear that the managed care conditions provide either substantially fewer and/or less expensive services to their enrollees than are provided in the FFS condition. Additionally, persons enrolled in HMOs receive substantially less service or less expensive service than individuals who are enrolled in the PMHP.

As might be expected from the analyses presented earlier, substantially fewer funds are available to be spent on services in both of the managed care conditions relative to Medicaid FFS arrangements. These analyses indicate important differences between the two managed care conditions in their expenditure patterns.

Cost Analyses Summary

In contrast to earlier years, this year's cost analysis raises questions about the overall cost containment objectives of the intervention being achieved in later years. This ambiguity results from the use of more updated case mix adjusters in the analysis— with a relatively greater proportion of SSI and foster care enrollees now in the enrolled population, and more recent cost information. As with last year, these analyses indicated a substantially lower service to premium ratio for the HMOs relative to the PMHP. Additionally, they indicate that when HMOs/BHOs use a fee-for-service purchasing arrangement with providers, proportionally fewer resources are passed on for services than when providers are capitated directly. Finally, for persons with severe mental illnesses, HMO enrollees use relatively more informal resources than individuals in Medicaid FFS. Perhaps this suggests a shift of Medicaid budgeted costs onto informal providers. This observation may be important in the interpretation of the outcome data discussed below.

Patterns and Quality of Services

In Table 4, we present data on the use of atypical antipsychotic medications and Selective Serotonin Reuptake Inhibitors (SSRIs) by enrollees in the different financing conditions. These data reflect the rate at which persons with a diagnosis of either schizophrenia or major depression receive either atypical antipsychotic agents (such as Risperidol) or SSRIs (like Prozac). We present data for the last three years of the evaluation for individuals who received a diagnosis of either schizophrenia or major depression.

It is important to remember that the three financing conditions differ in the way in which pharmacy benefits are financed. HMOs are at risk for pharmacy costs, while the PMHP and Area 4 MediPass conditions are not at risk for the cost of pharmaceuticals. These data indicate an apparent strong effect of risk arrangements on access to newer, more expensive pharmaceuticals. Persons enrolled in the HMO condition who were diagnosed with either schizophrenia or major depression were substantially less likely to receive a prescription for these medications than individuals who were served in FFS or the PMHP. Assuming that

Table 4: Volume of Services - Pharmacy						
<u>Condition</u>	% of Persons with Schizophrenia who Receive Atypical Anti-psychotic Medication			% of Persons with Major Depression who Receive SSRI's		
	<u>97-98</u>	<u>98-99</u>	<u>99-00</u>	<u>97-98</u>	<u>98-99</u>	<u>99-00</u>
HMO	22%	20%	27%	51%	25%	25%
PMHP	39%	52%	60%	59%	63%	57%
MP	38%	44%	47%	62%	63%	61%

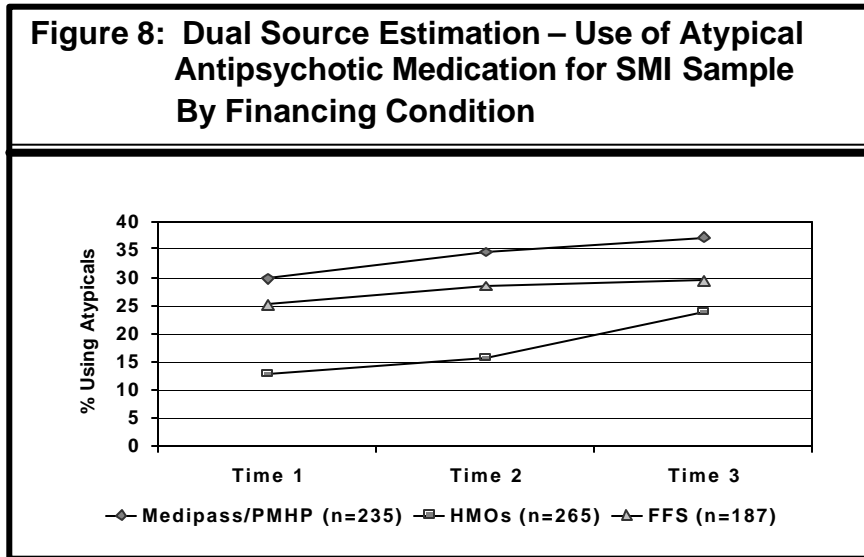
Percent of Persons with Diagnosis

the three groups are relatively homogeneous with regard to their need for access to these agents, these data indicate that persons enrolled in the HMO condition have substantially poorer access to these drugs.

In the study in which we are following 688 adults with severe mental illnesses, individuals are asked during their interviews if they have encountered problems getting medications and/or had been asked to take psychotropic medications that did not work well for them. HMO enrollees (23%) reported being asked to take medication that did not work well for them significantly more often than both PMHP (12%) and FFS (14%) enrollees at their first interview. However, the differences between plans vanished when individuals were interviewed the second and third times. In terms of individuals who were denied medication, the results were unstable. During the first interview, HMO enrollees (26%) were significantly more likely to report having medications denied compared to PMHP (18%) and FFS (14%) enrollees. At the time of their second interview, the findings changed – significantly more individuals in MediPass FFS reported being denied medications (28%) than PMHP (15%) and HMO enrollees (22%). At the time of their third interviews, no differences were found between conditions (HMO 9%, PMHP 10%, FF11%).

At each interview, respondents were asked if they were currently using atypical anti-psychotic medications. We compared their responses with estimates from administrative pharmacy data and from information that was obtained from chart

reviews. We found relatively good agreement among these three data sources. (Kappas ranging from 0.66 to 0.73.) We used a dual source estimation technique (Lie, Heuch, & Irgens, 1994) to combine the results from the self-report with those from the pharmacy administrative data. The results of these dual source estimates are presented in Figure 8.



As can be seen from the Figure, consistent differences are obtained across the three interviews. Persons served in the PMHP showed consistently higher rates of access to atypical agents as contrasted with individuals in either the HMOs or FFS. This consistent pattern across time is congruent with the general trends noted earlier from the administrative data.

Trust in Provider

During the fourth evaluation year, Huey Chen investigated the effects of the three differing financing conditions on the degree to which SSI enrollees trusted their providers (Chen, 2001). Using a mail survey technique, she asked individuals to rate the degree to which they trusted their medical and mental health providers. Her hypothesis was that in the managed care conditions that involved financial risk for services, service users would report relatively lower levels of trust in their providers than in situations where no financial risk was involved. The results were mixed. Persons enrolled in MediPass Area 4 (FFS) had higher levels of trust in their mental health providers than persons enrolled in the PMHP. No differences were obtained between the PMHP and the HMOs or between Area 4 and the HMOs. No differences were found between conditions for trust in health service providers. This important line of inquiry, which begins to investigate the effects of purchasing arrangements on clinician/client interaction, merits further study.

Outcomes of Services

In the fourth year analyses, we employed four methods to assess the outcomes of care:

- Interview data from our study of adults with severe mental illness regarding their levels of symptomatology and satisfaction with the services that they have received;
- Mail survey data from a sample of Medicaid enrollees;
- The statewide mental health outcomes database to measure changes in functioning and satisfaction for recipients of service; and,
- Population-based arrest rate data comparing the relative risk for arrest before and after the implementation of managed care for Medicaid enrollees contrasted with the general population.

Adults with Severe Mental Illness - Symptomatology and Satisfaction.

During three different interviews, the clinical status of 688 adults with severe mental illnesses was assessed using the Colorado Symptom Index (CSI: Shern et al., 1994). At the time of their first interview, HMO enrollees reported having experienced symptoms more frequently than enrollees in either the PMHP or fee-for-service conditions. At the second and third interviews, no significant differences in enrollees' self-reported clinical status were found across the three financing conditions.

Enrollees' satisfaction with the mental health services they used was also assessed during each interview using a consumer-developed measure (MHSIP, 1996). The measure assessed service users' satisfaction with access to services, perceived quality of the services received, and the outcomes resulting from service use, as well as overall satisfaction.

At all three interviews, enrollees in the fee-for-service condition reported greater levels of satisfaction with their *access* to mental health services compared to enrollees in either the HMO or PMHP conditions. No significant differences were found regarding enrollees' satisfaction with the *quality* of the mental health services they received. Collectively, enrollees' satisfaction with access and quality of mental health services increased over time.

With respect to their satisfaction with mental health *outcomes*, no significant differences were found among enrollees in the different financing conditions. At the time of their second interview, however, enrollees in the fee-for-service condition reported significantly greater satisfaction with their mental health outcomes compared to PMHP and HMO enrollees. No significant change in satisfaction with outcomes was noted over time.

Finally, at the time of their first interviews, HMO and PMHP enrollees report significantly lower levels of general satisfaction with their mental health services compared to fee-for-service enrollees. However, such differences disappeared at

the time of the second and third interviews. Over time, there was a significant increase in all enrollees' general satisfaction with mental health services.

Mail Survey Outcome Data

Between May and July, 2000, we conducted a mail survey of both adults and children who were enrolled in the Medicaid program in Areas 6 and 4. We mailed a total of 5,846 self-administered questionnaires and received 2962 responses for an unadjusted overall response rate of 51%. When we adjusted the response rate to reflect questionnaires for which we could not obtain a correct address and for those individuals who were deceased, we obtained a 63% response rate for adults and a 59% response rate for children.

The mail survey sample is composed of two components: a follow-up sample of individuals who had responded to earlier mail surveys (n= 4,226) and a replacement sample of individuals who were selected from current enrollment files (n= 1,620). Individuals in the follow-up sample responded at a significantly higher rate than persons in the replacement sample – approximately 68% for the follow-up sample and 42% for the replacement sample. In interpreting these data, therefore, we should be cautious regarding generalization to the current Medicaid enrollees. We compared individuals from the replacement sample with persons in the follow-up sample on outcome and service utilization measures and found that they were generally similar on these measures. No systematic pattern of differences emerged between the two groups from these analyses (i.e., follow-up respondents did not have better health status or express more satisfaction with services than replacement respondents).

Child Mail Survey

The demographic characteristics of the children enrolled in the TANF program and the children on SSI who are represented in the survey are displayed in Table 5. The two groups differ in age, gender and racial/ethnic composition. TANF respondents are younger, more likely to be female, and less likely to be Hispanic than the children on SSI.

Interestingly, no statistically significant differences in enrollee overall health status, mental health status, overall quality of life, access to needed medical, mental health services or other health services were found between financing conditions. As expected, several differences were obtained between SSI and TANF enrollees. TANF enrollees had significantly better health status and mental health status than SSI respondents.

No significant differences were found with regard to satisfaction with medical or mental health services between the financing conditions or eligibility groups.

Table 5: Child Respondent Demographics

Characteristics	TANF (n= 91)	SSI (n=210)
Age:*		
Mean	13.0	14.5
SD	3.5	3.9
Gender:*		
Male	23.3%	40.5%
Female	76.7%	59.5%
Race:*		
White	48.4%	35.2%
Black	41.8%	30.5%
Hispanic	9.9%	34.3%
Financing Condition:		
FFS	30.8%	41.1%
PMHP	42.9%	37.6%
HMO1	16.5%	11.4%
HMO2	9.9%	9.5%
Changed Plans in Last Six Months	8.9%	7.7%

* $p < .05$

Adult Mail Survey

Table 6: Adult Respondent Demographics

Characteristics	TANF (n= 173)	SSI (n=744)
Age:*		
Mean	34.9	47.4
SD	7.4	11.3
Gender:*		
Male	4.6%	27.4%
Female	95.4%	72.6%
Race:*		
White	38.7%	52.4%
Black	25.4%	19.6%
Hispanic	8.1%	.1%
Financing Condition:		
FFS	26.0%	30.9%
PMHP	31.2%	36.4%
HMO1	26.0%	18.4%
HMO2	16.8%	14.2%
Changed Plans in Last Six Months*	13.1%	8.1%

* $p < .05$

In Table 6, we present the demographic characteristics for adults who responded to the survey. As with the children respondents, TANF respondents are significantly younger, much more likely to be female and more likely to be African American than SSI respondents.

No significant differences in health status, mental health status or quality of life were found among individuals enrolled in the differing financing conditions. The groups did not differ in access to health or mental health services. Similarly, enrollees in the different financing conditions did not differ with respect to satisfaction with either medical or mental health services. SSI respondents reported poorer health and mental health status than TANF enrollees, but did not report poorer overall quality of life.

Given the relatively small sample sizes that are involved in many of these comparisons, we conducted a series of analyses to determine if we could conclude that the groups were *not* statistically different and in fact, that they were equivalent with one another. These analyses consider the magnitude of the differences between group means and the number of observations that would be required to detect an effect, should one exist. The results of these analyses suggest that there are several areas in which potential differences between the groups may have been obtained with larger samples. This has implications for the design of future evaluations.

Outcomes from the Statewide Outcome Database

Service Recipient Satisfaction Data

In addition to the satisfaction data collected as part of the special study of 688 adults with severe mental illnesses and the mail survey, we assessed satisfaction with services from data collected from service recipients in the CMHCs. In Year Four, 420 adults on SSI returned a Behavioral Healthcare Rating of Satisfaction Scale (BHRS) (Dow & Ward, 1996).⁷

Unlike the first three years of this analysis, in Year 4 adults on SSI served in MediPass Area 4 reported that they are significantly more satisfied than adults served in the other financing conditions. No differences in satisfaction were obtained in the first three years of these analyses. There were no differences in satisfaction reported by the 45 adult TANF recipients who returned BHRS forms and were enrolled in the different financing conditions. These results are similar to those in Year 3 but differ from Years 1 and 2 where TANF recipients were significantly more satisfied with the services in Area 6 than those delivered in Area 4. No differences were obtained between the PMHP and HMO enrollees who receive their services from the same service providers.

Clinical Functioning

Insufficient data were available to assess treatment outcomes for children who were enrolled in the managed care plans in Year 4. For adults on SSI, significant outcome differences were obtained among the conditions on the Functional Assessment Rating Scale (FARS). Individuals served in Area 7 were judged to have improved their functioning to a greater degree than individuals who were served in

⁷ Recall that these data are using observations obtained on adults in Area 7 to compare to the managed care conditions in Area 6 since Area 4 stopped using the full outcome battery that is used in Area 6 during the third year of the evaluation.

the managed care plans in Area 6. No differences were obtained for the Global Assessment of Functioning (GAF) rating for these SSI service recipients.

There were no overall differences in the amount of change in functioning over time among TANF recipients enrolled in different financing conditions. All enrollees showed improvement. However, an analysis by subgroups indicated that TANF recipients served in Area 7 showed greater improvement on their FARS ratings than individuals served in Area 6. No differences were obtained on the GAF rating.

Arrest Rate Data

In the fourth year of the evaluation, we attempted to determine if there was any relationship between the implementation of managed care and the rates of arrest for Medicaid enrollees. We used a method for matching de-identified data sets that enabled us to estimate the overlap of the populations that are represented in the Area 6 Medicaid eligibility files and the Florida Department of Law Enforcement data files (Banks and Pandiani, 2001). Using the March 1996 start date, we contrasted the arrest rates for the general population of Area 6 with that for the Medicaid population and calculated the change in the relative risk of arrest for these two populations, before and after the onset of managed care in Area 6. We found a modest increase in the relative risk of arrest for Medicaid enrollees, relative to the general population. Prior to managed care, Medicaid enrollees were two times more likely to be arrested than the general population. After the implementation of managed care, the relative risk increased to 2.4 times. While this increase in the rate does not reach conventional levels of significance, it approaches significance ($p=.15$). Interestingly, as Banks and his colleagues have found in other work (Pandiani, Banks, Clements, & Schacht, 2000), the majority of this increase is attributable to increased risk for women, particularly for older women. We have no explanations for these findings, but note them as a trend that requires further exploration.

Conclusions and Discussion

In many respects, the results of the fourth year evaluation are consistent with those obtained during the first three years of the study. We continue to note the problems that are associated with the instability in the HMOs' organizational structures and business arrangements. Their changing business strategies lead to systemic inefficiencies owing to the impacts of changes on service authorizations, utilization management, and payment of claims. These problems are further exacerbated by continuing difficulties with the management information system capacity of the HMOs/BHOs and their incompatibilities with those of the providers. Ironically, the promise of improved information systems was one of the important perceived benefits of entering into managed care agreements. Our experience in working with the HMO data indicates that this benefit has not been realized.

During the fourth year, the hierarchical nature of the HMO/BHO risk-sharing relationships became somewhat simpler than during the third year. The number of HMOs in the market decreased and their financial arrangements became more direct by involving fewer fiscal intermediaries. As with last year's analysis, the financial consequences of these arrangements are reflected in significant reductions in premiums across levels of management in the HMO condition and reduced service provision for persons served in the HMOs. We doubt that the architects of the initial waiver intended that resources be lost through these administrative structures to the degree that they are in the HMO condition.

Additionally, these complex arrangements diffuse responsibility for the delivery of mental health services to identified populations. Increasing accountability for the mental health status of identified individuals is one of the potential benefits of managed care arrangements. Accountability is not enhanced by multi-tiered organizational structures and relationships.

Another hope of integrating the health, mental health, and pharmacy premium in the HMO condition was the improved integration of care across the general medical and specialty mental health sectors. The purchasing arrangements that are used in the Area 6 implementation of the HMO model do not encourage better integration. The "carve in" embodied in the HMO premium is translated into a "carve out" in practice. Integration of health and mental health care appears to be no better in the HMO condition than in any of the alternative funding arrangements. Integration of substance abuse care continues to be a concern statewide, although some movement toward organizational integration is occurring in the PMHP.

Relative to the fee-for-service areas, penetration rates have declined in the managed care conditions since the inception of the waiver. As with many of the analyses in this evaluation, we have no "gold standard" rate of utilization to which we could compare our rates and, therefore, cannot conclude that declining utilization indicates harm to the population or, alternatively, more efficient allocation of treatment resources. It is interesting to note that adults with SMI report poorer satisfaction with their access in the managed care conditions than in the fee-for-

service comparison site, and that respondents in Area 6 use informal medical resources to a greater degree than their counterparts in Area 4 MediPass.

Throughout the four years of the evaluation, we have seen the provider system continue to adapt to the changing circumstances under which it operates. We are intrigued by the differences between our findings for adults with SMI in their initial and subsequent interviews. Initially, we noted several areas in which adults with SMI were disadvantaged in the HMO condition, including poorer access, difficulties obtaining pharmaceuticals, higher levels of psychiatric symptoms among other areas. These differences among the financing conditions largely disappeared in the 6 and 12-month follow-up interviews. We have some preliminary indications that these changes are reflections of system and/or personal adaptation to circumstances that have not objectively changed (e.g., organizational/structural instability, difficulty with service authorizations, reduced penetration, etc.). We have noted an increased sophistication of the CMHCs in managing their clinical and financial activities. Some have invested in utilization management staff and have improved their management information capacity. We speculate that with the development of these capacities, CMHCs will begin to compete directly with the BHOs. Their increasing sophistication may already be evident in the flattening of the purchasing structure that we witnessed this year.

Some of the findings in Year 4 differ from what we have seen in earlier analyses. For the first time, the cost data leads us to question that the cost containment objective has been accomplished in the later course of the demonstration. Depending upon which case mix methodology is used, there are differing conclusions about whether or not cost containment has been achieved.

In Year 4, we have begun to see some trends in the outcome data that favor persons who are served in the comparison sites, Areas 4 and 7. In the outcome data for persons who received services and in the mail survey data, we noted trends in which persons enrolled in the fee-for-service comparison conditions reported lower levels of psychiatric symptoms (Area 4) and greater improvement in functioning (Area 7) than persons enrolled in the managed care conditions – particularly the HMO condition. Quality of life differences were mixed. Typically, the effects were not large, but they seemed to consistently favor the fee-for-service conditions. Similarly, we found a trend indicating that persons who were enrolled in the managed care programs were at relatively greater risk for arrest than individuals in the general population. Therefore, some troublesome trends in population health status were noted in the Year 4 analyses.

While we did not find outcome differences between the financing conditions for adults with severe mental illnesses, we were able to look more closely into substitution effects that may be occurring. Focusing only on medical services (as opposed to social services), we found that individuals who were served in the managed care conditions generally used more informal mental health services than persons who were enrolled in Area 4 MediPass. They also accessed all informal medical services at a higher rate than persons in Area 4. These data are consistent with a substitution of informal for formal services in the conditions that bear financial

risk for formal services. This may partially account for the lack of outcome differences between the conditions. Interestingly, results regarding the use of formal and informal health services also were generally related to the risk arrangements – with fee-for-service enrollees in Area 4 and PMHP enrollees in Area 6 showing greater access to formal health resources and less use of informal health resources than persons in the HMO conditions. This helps to rule out pre-existing differences between the comparison areas that can provide an alternative explanation for differences between the managed care and comparison financing conditions.

Summary

The results indicate that service utilization rates have clearly been reduced in the managed care conditions and that the proportion of available resources that are dedicated to services is dramatically less in the HMO financing conditions than in the PMHP condition. While we have not traditionally noted differences in the outcomes of care, in Year 4 we have begun to note some trends that favor the population that is enrolled in the non-managed care conditions.

Business considerations rather than clinical models, seem to dominate the landscape in the HMO conditions. This landscape, however, shows indications of changing as the CMHCs become more sophisticated in the management of care and assume risk for it. However, they do so with a substantially impoverished resource base.

One of the more important objectives of managed care is cost containment. There is ambiguity as to whether this objective has been achieved. Additionally, other policy objectives which managed care was intended to achieve are also in question. We summarize our findings relative to many of these policy objectives below.

Cost Containment

For the first time, there is ambiguity about whether or not cost containment has been accomplished. The assessment of cost containment is dependent upon the case mix adjustments that are used. Adjustments that reflect more current characteristics of the people enrolled do not lead to the conclusion that cost containment has been accomplished, whereas earlier methods used for case mix adjustments do provide evidence for cost containment.

Access to Care

Open-ended, reimbursement methods were thought to encourage over-utilization of services and exhaust service capacity. In some managed care demonstrations, management of services has improved penetration rates. However, in this instance, management has been consistently associated with decreases in utilization of services, relative to service levels before managed care, and to rate trends in the comparison areas of the state. For this important measure of access, penetration rates, managed care is associated with poorer access.

Integration of Services

Fragmentation of services and diffuse responsibility for the care of persons – especially people with complex disorders – has long been a problem in public health and mental health systems. Generally, it was hoped that the increased accountability and financial incentives that would accompany an enrolled, managed care population, would motivate providers to assure better integration of care through improved case management and other mechanisms. We have seen little indication that, even with health and mental health premiums combined, services are better integrated. During the last two years, we have begun to see some movement

toward more aggressively addressing integration issues by the PMHP, but health and substance abuse services remain fragmented.

Quality of Services

The few indicators of service quality that we have considered have shown mixed results. We continue to note that pharmacy risk arrangements appear to reduce access to newer, more expensive pharmaceuticals. Last year, we noted that the use of clinical guidelines did not characterize the treatment of children in the managed care conditions. Satisfaction with quality of services in the adults with SMI study has had mixed results, with initial differences between the conditions disappearing overtime. Some of the comments from non-users of services suggest concern with quality. In our limited analysis of service quality, we found no evidence that indicates that quality of care is better in the HMO conditions or, save pharmacy availability, in the PMHP condition. No major improvements in quality have been noted.

Quality of Management Information Systems

One of the major contributions that managed care companies were thought to offer existing care systems was a more sophisticated management information system. Our experience in working with the HMOs and their BHO contractors is that their information systems have several important limitations. In year three, we conducted a study to determine the degree to which HMO/BHO claims data compared with the paid claims files of the CMHCs with which they contracted. We discovered a significant lack of overlap among the information systems and concluded that the information provided to the evaluation (which we presume to be the same information that the HMOs/BHOs use to manage their businesses) was of poor, to very poor quality. In fact, this year we adjusted our cost estimates to reflect ranges of costs in light of the poor coverage in these reporting systems. One of the mechanisms to improve the management of care is reliable, complete information. Our experience indicates that this information is lacking in the HMO condition. AHCA representatives report similar concerns with the PMHP condition, but we have no data on the degree of under-reporting in the PMHP.

Creative and Flexible Uses of Resources

Another hope that accompanied the onset of managed behavioral health care was that the use of prospective, capitated payments would free providers and purchasers from the arbitrary and restrictive rules that governed fee-for-service purchasing arrangements. It was hoped that providers would have a strong incentive to invest in alternative delivery systems (such as consumer-run services) that might be less expensive and more appealing to certain consumers. This hope largely has not been realized in the Area 6 demonstration, although substitution of informal mental health services for formal services may be occurring for individuals with severe mental illnesses. While there has been a decrease in the use of some resources, like day treatment, that were thought to be ineffective, alternative services have not been developed. This policy objective, therefore, also has not been realized.

Optimal Allocation of Public Dollars

Our analyses of the HMO condition seem to indicate that about 80% of public resources that are allocated to care, are not passed to even the first management entity in the hierarchical arrangement of care. Overall, in the HMO condition, over 80% of AHCA funds are not expended on care for HMO enrollees. While it was hoped that a more market-oriented approach to allocating public resources would result in a more optimal allocation than was available through state contracting mechanisms, this policy objective has not been achieved.

Client Outcomes

Outcome results have been mixed throughout the four years of the evaluation. However, to this point, our standard for comparison has been the absence of harmful effects of managed care financing - that individuals served in the managed care conditions were not experiencing poorer outcomes as a consequence of the restricted access to care relative to persons served in the fee-for-service comparison areas. This year we presented analyses from the mail survey and service recipient data that indicated that adults served in the comparison areas may be experiencing better outcomes in terms of their functioning and psychiatric symptoms than persons served in the managed care conditions. Additionally, arrest data suggest a trend toward increasing rates of arrest among the Medicaid population in Area 6 relative to the general population. While certainly far from definitive in terms of demonstrating better outcomes in the comparison conditions, our outcome indicators almost always favor the FFS conditions and rarely indicate that persons served in the managed care conditions have outcome gains that exceed those for persons served in the comparison conditions.

Recommendations

For the first time since we began this evaluation, we are recommending that the use of these managed care arrangements for the delivery of behavioral health services be reassessed – especially the HMO conditions. It seems to us that many of the policy objectives that should have motivated the use of these techniques have not been obtained. Additionally, the use of these strategies – particularly the HMO model as implemented in Area 6 - appears to be drawing significant resources out of the treatment system, which do not appear to be reinvested in expanding service access or variety. While the two managed care conditions differ from one another substantially, we think that it is time to fundamentally re-examine this at-risk financing strategy, to differentiate financial from clinical goals, and to search for system development strategies that accomplish these clinical and rehabilitative goals without the untoward consequences that accompany use of these financial models and simple risk arrangements.

We, therefore, recommend that, as the state Medicaid and Mental Health authority seek to expand alternative financing mechanisms to new areas of the state, they strongly consider approaches that differ from those used in Area 6. We recommend that:

- The HMO alternative, as operationalized in Area 6, not be used in any expansion area;
- Alternatives to the full financial risk arrangements be used in the expansion areas (such as risk-sharing or re-insurance arrangements);
- At-risk pharmacy benefits not be used for persons with severe mental illnesses;
- Vendors demonstrate their capacity to implement and maintain evidence-based practices, including effective management information systems to monitor these practices;
- AHCA/ADM examine the evaluation and monitoring strategies that are in use to focus more clearly on ascertaining whether evidence-based practices are in use and to collect information in program environments that can be used to improve practices. This may call for the development of special study strategies;
- Reinvestment of resources obtained from managed care savings be an explicit part of AHCA's and ADM's plans; and,
- Alternative, creative financing arrangements (like consumer-run services, collaborative purchasing arrangements, etc.) be explored as part of a system reform effort.

We also recommend that AHCA consider the following recommendation made by the recent Commission on Mental Health and Substance Abuse:

- AHCA/ADM continue to implement organizational arrangements that increase accountability and integration through a single accountable management entity and blended funding in each service area. Local planning and evaluation of these entities is essential - the management entities should be responsible and responsive to local governance structures that consider fiscal viability among several other performance measures in overseeing the local service system.

References

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders. Global Assessment of Functioning (GAF) Scale. Fourth Edition. Washington, D.C., American Psychiatric Association, 1994, p. 32.

Banks SM, and Pandiani JA (2001) Probabilistic population estimation of the size and overlap of data sets based on date of birth. *Statistics in Medicine* 20:1421-1430.

Brown, R., Woolridge, J., Hoag, S., & Moreno, L. (2001). Reforming Medicaid: The experiences of five pioneering states with mandatory managed care and eligibility expansions. Mathematica Policy Research, Inc.

Chen, H. (2001). Trust and managed mental healthcare. Unpublished doctoral dissertation, University of South Florida, Tampa.

Dow, M.G., & Ward, J.C. Behavioral Healthcare Rating of Satisfaction (BHRS). Odessa, FL: Psychological Assessment Resources, 1996.

Draper, D.A. & Gold, M. (2000). Customizing Medicaid managed care—California style. *Health Affairs*, 19(5), 233-238.

Florida Commission on Mental Health and Substance Abuse. (2001). Florida Mental Health and Substance Abuse Commission Final Report. University of South Florida.

General Accounting Office. (2000). Community-based care increases for people with serious mental illness. (GAO-01-224).

Gold, M. & Mittler, J. (2000a). Medicaid's complex goals: Challenges for managed care and behavioral health. *Health Care Financing Review*, 22 (2), 85-101.

Gold, M. & Mittler, J. (2000b). "Second-Generation" Medicaid managed care: Can it deliver? *Health Care Financing Review*, 22(2), 29-47.

Hanson, K.W. & Huskamp, H.A. (2001). Behavioral health services under Medicaid managed care: The uncertain implications of state variation. *Psychiatric Services*, 52(4), 447-450.

HMOS show first annual decrease in enrollment. (2001). *Drug Benefit Trends*, 13(5), 7-8.

Huskamp, H.A., Garnick, D., Hanson, K.W., & Horgan, C. (2001). The impact of withdrawals by Medicaid managed care plans on behavioral health services. *Psychiatric Services*, 52(5), 600-602.

Lie, R.T., Heuch, I., & Irgens, L.M. (1994). Maximum likelihood estimation of the proportion of congenital malformations using double registration systems. *Biometrics*, 50(2), 433-444.

Mark, T.L., Coffey, R.M., King, E., Harwood, H., McKusick, D., Genuardi, J., Dilonardo, J., & Buck, J. (2000). Spending on mental health and substance abuse treatment, 1987-1997. *Health Affairs*, 19(4), 108-120.

Medi-Cal Policy Institute. (2001). From provider to policymaker: The rocky path of Medi-Cal managed care data.

Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card (1996). The MHSIP Consumer-Oriented Mental Health Report Card. Rockville, MD, Center for Mental Health Services.

Shern, D. L., Wilson, N. Z., & Coen, A. S. (1994). Client outcomes II: Longitudinal client data from the Colorado treatment outcome study. *The Milbank Quarterly*, 72(1), 123-148.

Sullivan, K. (2000). On the "efficiency" of managed care plans. *Health Affairs*, 19(4), 139-148.

Ward, J.C., & Dow, M.G. *Functional Assessment Rating Scale (FARS)*. Odessa, FL: Psychological Assessment Resources, 1996.

Woolridge, J. & Hoag, S. (2000). Perils of pioneering: Monitoring Medicaid managed care. *Health Care Financing Review*, 22(2), 61-83.