



THE LOUIS DE LA PARTE FLORIDA MENTAL HEALTH INSTITUTE



# **Evaluation of Florida's Medicaid Managed Mental Health Plans: Mail Survey Component**

Roger A. Boothroyd, Ph.D.



June 2007



This publication was produced by  
**The Louis de la Parte  
Florida Mental Health Institute**

University of South Florida  
13301 Bruce B. Downs Blvd.  
Tampa, FL 33612-3807

For more information, call 813-974-7995  
or visit the Website: <http://fmhi.usf.edu>

© June, 2007

Louis de la Parte Florida Mental Health Institute Publication  
Agency for Health Care Administration (AHCA) series, 220-86,  
Tampa, Florida

### Recommended citation for the report:

Boothroyd, R. A., (2007). *Evaluation of Florida's Medicaid Managed Mental Health Plans: Mail Survey Component*. Tampa, FL: Louis de la Parte Florida Mental Health Institute. University of South Florida.

*This document may be reproduced in whole or part without restriction as long as the Louis de la Parte Florida Mental Health Institute, University of South Florida is credited for the work.*

*Submitted to the Florida Agency for Health Care Administration under Contract MED049.*

### The University of South Florida

The University of South Florida is among the nation's top 63 public research universities and one of 39 community engaged public universities as designated by the Carnegie Foundation for the Advancement of Teaching. It is one of Florida's top three research universities. USF was awarded more than \$300 million in research contracts and grants last year. The University offers 219 degree programs at the undergraduate, graduate, specialist and doctoral levels, including the doctor of medicine. The University has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than 45,000 students on campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.

### Louis de la Parte Florida Mental Health Institute

The Louis de la Parte Florida Mental Health Institute at the University of South Florida has a mission to strengthen mental health services throughout the state. The Institute provides research, training, education, technical assistance, and support services to mental health professionals and agencies as well as consumers, consumer organizations, and behavioral health advocates statewide. At the state level, the Institute works closely with the Departments of Children and Families (DCF), Corrections (DOC), Elder Affairs (DOEA), Education (DOE), and the Agency for Health Care Administration (AHCA), as well as with members and staff of the State Legislature and providers of mental health services throughout Florida.

Comprised of three primary research departments, Mental Health Law & Policy, Child & Family Studies, and Aging & Mental Health and a number of specialized centers, the Institute conducts research and program evaluations, provides training and consultations, and offers a number of academic courses at the masters and doctoral levels.

# Evaluation of Florida’s Medicaid Managed Mental Health Plans: Mail Survey Component

## Contents

<b>Executive Summary</b>	<b>1</b>
<b>Background and Context</b>	<b>4</b>
Managed Mental Health Care in Florida.....	5
Primary Study Questions.....	7
<b>Methodology</b>	<b>9</b>
Sampling Frame .....	9
Questionnaire .....	9
Measures in the Adult Survey .....	11
Measures in the Child Survey.....	11
Mailing Procedures.....	12
Analysis.....	14
<b>Results</b>	<b>15</b>
Response Rates.....	15
Adults .....	15
Adult Respondent Characteristics.....	15
Adult Access to Health and Mental Health Services .....	15
Adult Health and Mental Health Status .....	16
Adult Satisfaction with Services.....	17
Adult Trust in Health Care Providers .....	18
Adult Quality of Life.....	19
Children.....	19
Child Respondent Characteristics .....	19
Child Access to Health and Mental Health Services .....	19
Child Health and Mental Health Status .....	21
Child Satisfaction with Services.....	22
Child Trust in Health Care Providers .....	23
Child Quality of Life.....	23
<b>Summary</b>	<b>24</b>
<b>Recommendations</b>	<b>28</b>
<b>2006-2007 Follow-up Mailings</b>	<b>29</b>
<b>Appendices</b>	<b>30</b>
A: 2005 & 2006 Mail Survey Sampling Scheme.....	30
B: Psychometric Properties of Measures in the Adult and Child Surveys.....	31
C: 2007 Mail Survey Sampling Scheme for AHCA Area 11 .....	34
<b>References</b>	<b>35</b>

## Tables

Table 1	Financial Risk Arrangements in Areas 5 and 7 at the Time of Baseline & Follow-up Mailings.....	7
Table 2	Measures Included in the Adult & Child Mail Surveys.....	10
Table 3	Mailing Contents & Schedule.....	13
Table 4	Mail Survey Response Rates .....	15
Table 5	Adult Mail Survey Respondent Characteristics .....	15
Table 6	Child Mail Survey Respondent Characteristics .....	19
Table 7	Comparisons Over Time .....	24
Table 8	Comparisons Between Health Care Plans .....	25
Table 9	Comparisons Between SSI and TANF Respondents.....	25
Table 10	Significant Differences Between Areas 5 and 7 Respondents .....	27
Table 11	2005 & 2006 Mail Survey Sampling Scheme .....	30
Table 12	2007 Mail Survey Sampling Scheme for AHCA Area 11.....	34

## Figures

Figure 1	Mailing and Managed Care Implementation Timeline.....	13
----------	---	----

### List of Acronyms

ABH	Access Behavioral Health
AHCA	Agency for Health Care Administration
BHO	Behavioral Health Organization
CHQ	Child Health Questionnaire
CSI	Colorado Symptom Index
FFS	Fee-for-service
FHP	Florida Health Partners
FMHI	Louis de la Parte Florida Mental Health Institute
HMO	Health Maintenance Organization
IRB	Institutional Review Board
MHSIP	Mental Health Statistics Improvement Project
PMHP	Prepaid Mental Health Plan
PSC	Pediatric Symptom Checklist
QoL	Quality of Life
SD	Standard deviation
SE	Standard error of the mean
SF-12	Short Form 12-item Version
SOBRA	Sixth Omnibus Budget Reconciliation Act (i.e., Medicaid coverage to pregnant women and children up to the age of 19 years)
SSI	Supplemental Security Income
SSI-SA	Simple Screening Instrument – Substance Abuse
TANF	Temporary Assistance for Needy Families
USF	University of South Florida

# Evaluation of Florida's Medicaid Managed Mental Health Plans: Mail Survey Component

## Executive Summary

This report provides a detailed and technical summary the responses of 254 adult and 254 caregivers of child Medicaid recipients living in AHCA Areas 5 and 7 who participated in both the 2005 and 2006 mail surveys conducted by the Louis de la Parte Florida Mental Health Institute (FMHI). This work was conducted as part of the evaluation of Florida's Medicaid managed mental health care implementation and was completed under a contract with the Florida Agency for Health Care Administration (AHCA). The goal of this component of the evaluation is to obtain and monitor a variety of Medicaid recipient indicators including health and mental health status, service needs and use, satisfaction with services, and to assess changes, if any, in these indicators over time. The findings summarized in this report are based on surveys conducted in AHCA Areas 5 and 7 during the spring 2005 (February through April) just as the implementation of managed mental health care in Areas 5 and 7 was getting underway and in the spring 2006 (February through April) approximately one year after its implementation. When the 2005 survey was conducted, the Prepaid Mental Health Plans (PMHPs) had not yet been initiated in these two areas and most of the Health Maintenance Organizations (HMOs) were only at risk for physical health care and pharmacy, but not comprehensive mental health services. At the time of the 2006 survey, the PMHPs in both areas were functioning and were at risk for mental health services and the HMOs were now at risk for physical health care, comprehensive mental health care, and pharmacy. Thus, these findings reflect the status of a sample of Medicaid recipients in these two AHCA areas prior to and after the implementation of managed mental health care.

Statistically significant changes between the 2005 and 2006 survey administrations were noted in 3 of the 23 comparisons (13%); all reported by caregivers of children enrolled in Medicaid. Each of these changes represents what can be considered a less desirable change in the status of children or their caregivers compared to what was reported in 2005. Caregivers reported decreased quality of life, increased problems getting physical health medications for their children and decreased use of physical health services among their children. In is important to note that the decreased use in physical health services and increased problems accessing physical health medications can not be attributed to the expansion of mental health managed care given the financing of these services did not change with the implementation of mental health managed care. These reported changes could reflect a decrease in the use of non-medically necessary health services.

Only 2 of the 23 comparisons between health care plans (i.e., MediPass/ PMHP versus HMO) examined (9%) were statistically significant. Again the significant differences were related to child Medicaid recipients and both favored

the MediPass/PMHP plan over the HMO plans. These differences suggest that caregivers of children enrolled in the MediPass/PMHP reported higher use of physical health services and greater levels of satisfaction with the physical health services their children received compared to caregivers of children enrolled in an HMO. Although these differences may be associated with management of physical health care (i.e., in HMOs physical health services are managed while in the MediPass/PMHP they are fee-for-service [FFS]), these differences are not likely associated with the expansion of mental health managed care.

Four of the 23 comparisons associated with the AHCA area (Area 5 and Area 7) were statistically significant (17%). These differences suggest that caregivers of children living in Area 5 had higher levels of satisfaction with the physical and mental health services their children received and that Area 5 adults had more trust in their health care providers compared to Medicaid recipients living in Area 7. Adult Medicaid respondents in Area 7 reported a higher self-reported use of physical health services compared to Area 5 Medicaid respondents.

As has been typical in previous years of this evaluation, significant differences associated with eligibility status were found in 9 of the 23 comparisons examined (39%). In general, a higher proportion of adult and child Medicaid recipients receiving Supplemental Security Income (SSI) reported using physical health and mental health services and were in significantly poorer physical health and mental health compared to Medicaid recipients receiving Temporary Assistance to Needy Families (TANF). The significant differences found between TANF and SSI recipients' health status are not surprising given that SSI recipients are individuals with some type of disability; TANF recipients are more likely to be poor, but otherwise healthier. Similarly, the higher service use among SSI recipients is consistent with their poorer health and mental health status, as well as having a disability.

Interestingly, although the implementation of managed care in these areas was primarily focused on mental health benefits, the significant changes observed over time in this year's mail survey, as well as the difference noted between health care plans, are for the most part associated with physical health care services. While these between-plan differences are understandable, given the between-plan differences in financial risk associated with the provision of physical health services, the changes that have taken place over time are more difficult to interpret. Perhaps these changes are, in part, due to issues associated with the coordination of care across different health care providers.

In summary, the results from this year's mail survey analyses indicate that no consistent differences exist in Medicaid recipients' access to care, health or mental health status, or in the other outcomes examined. Although some "less desirable" changes were reported by the caregivers of Medicaid-enrolled children, including decreased use by children of physical health services and greater problems getting physical health medications, these potential concerns are unlikely to be associated with the expansion of mental health managed care. Similarly, while some significant differences were found between the MediPass/PMHP and HMO plans favoring the MediPass/PMHP plan, the findings are not consistent and again,

unlikely to be associated with the expansion of mental health managed care. These differences, however, may be related to the different financing mechanisms for physical health services between the plans. Throughout the 11 years of our evaluation, potential areas of concern that have emerged from these population-based surveys have most frequently been associated with Medicaid-enrolled children in contrast to adult recipients and it is recommended that they continue to be monitored. In conclusion, this examination of the early implementation of the expansion of managed mental health in Areas 5 and 7 have not generated any major cause for concern.

## Background and Context

Nationally, publicly financed health and mental health systems continued to undergo dramatic changes. Stimulated by concerns with cost containment, new financing arrangements and management strategies have been implemented that dramatically differ from those traditionally used. Although complex and highly variable across settings, these arrangements often involve capping the state's financial liability for identified populations or specific services through prospective payment arrangements. Typically, the financial risk for over utilization of services is shifted from the state to insurers or service providers who have profit incentives for assuming this risk. The ultimate goal of these reforms is to reduce the costs and minimize the use of services that are not medically necessary while maintaining the quality of care. While findings from previous demonstrations have documented that that it is possible to reduce costs (Bloom, Hu, Wallace, Cuffel, Hausman, Sheu, & Scheffler, 2002), the long-term impact of implementing these strategies on service quality (Bouchery & Harwood, 2002; Brown, Wooldridge, Hoag, & Moreno, 2001; Busch, Frank, & Lehman, 2004) or recipient outcomes (Bloom et al., 2002; Brown et al., 2001; Cuffel, Bloom, Wallace, Hausman, & Hu, 2002; Manning, Lieu, Stoner, et al., 1999; McFarland, Khorramzadeh, Millius, & Mahler, 2002; Popkin, Lurie, Manning, Harman, Callies, Gray, et al, 1998; Wieman & Dorwart, 1999) is less well understood .

Given the emphasis in prospective payment schemes on cost containment, appropriate access to care is an important concern in evaluating program adequacy. Barriers to care can result in less service to persons most in need. While some health care plan recipients do not use services, their lack of utilization is poorly understood. Their outcomes, therefore, are unknown. Non-utilizers may be in good health, they may be receiving services from other sources or their health/ mental health status may be deteriorating because of the inability to obtain care. Given the need to better understand service access issues and the fact that existing service use and service recipient data are inadequate to evaluate the care needed by an important segment of the population, it is important to conduct population-based monitoring studies that assess the needs, status, and outcomes of all program enrollees, not only those who successfully gain entry to the service system.

This report summarizes the procedures and findings from a baseline and follow-up mail survey conducted in AHCA Areas 5 and 7. The use of mail survey techniques with a sample of Medicaid recipients selected from the enrolled population has an important advantage over collecting data from points of service. This advantage is that many individuals who enroll in health care plans do not use available services and the use of mail surveys permits the well-being of all Medicaid recipients to be monitored, not just those who use services. The baseline mailing was conducted in 2005 just as the implementation of managed mental health care was getting underway. The follow-up mailing was conducted in 2006, approximately one year after managed mental health care was implemented in these areas.

The goal of this component of the evaluation is to obtain and monitor population-based assessments in domains such as health and mental health status, service needs and use, and selected outcomes among adult and child Medicaid recipients. The use of mail survey techniques with a sample of recipients selected from the enrolled population has a distinct and important advantage over collecting data from points of service. Given the majority of evaluations include only individuals who are seen in service environments, recipients who are not using services are excluded and their outcomes are, therefore, unknown. Given this, service recipient data is inadequate to evaluate the outcome of a significant portion of the enrolled population. Population-based mail surveys, however, permit the monitoring of the service needs and health status of all enrollees, irrespective of whether they used services.

This evaluation component serves three primary purposes. First, the attainment of self-report health and mental health status data from a population-based sample of Medicaid recipients permits an estimation of the prevalence of health-related needs among all recipients. Secondly, these health-status and service need data can be used to compare the relative status of recipients enrolled in the MediPass/PMHP and HMO plans. Finally, these self-report status measures provide a mechanism for monitoring the general well being of Area 5 and 7 Medicaid recipients over time. The methodology used in this component of the evaluation and the resulting findings are detailed below.

## Managed Mental Health Care in Florida

The continued expansion of managed care strategies throughout Florida provides the context in which we continue to evaluate the implementation and impact of managed care plans on Medicaid recipients. Although Florida began using managed care strategies for comprehensive mental health services in 1996 by establishing Prepaid Mental Health Plans (PMHPs), the Medicaid program has used managed care strategies for physical health services since 1984. Approaches include a physician case management program, MediPass, which was implemented in 1991; Provider Service Networks; Children's Provider Networks; Minority Physician Networks; and Exclusive Provider Organizations. These strategies provide primary care services, care coordination, and authorization of specialty care for Medicaid recipients. The largest percentages of Medicaid recipients, however, are still in Medicaid HMOs (almost 50%) and MediPass (49%) (Agency for Health Care Administration, 2005).

The initial PMHP was established in 1996 in AHCA Area 6, the Tampa Bay region under a 1915(b) waiver from the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services) (Ridgely, Giard, & Shern, 1999). Four eligibility groups were included in the demonstration; Social Security Income, Temporary Assistance for Needy Families, Sixth Omnibus Budget Reconciliation Act Medicaid [SOBRA: i.e., Medicaid coverage to pregnant women and children up to the age of 19 years], and Foster Care. Medicaid enrollees who did not choose a plan were assigned to one on a mandatory basis. The PMHP was responsible and at-risk for providing their Medicaid recipients

with comprehensive mental health services as well as inpatients and psychiatric office visits.

The 2000 Florida Legislature authorized the expansion of the Medicaid PMHP demonstration and Area 1, the Panhandle region comprising Escambia, Santa Rosa, Okaloosa and Walton Counties, was selected as the new implementation site and began operating its PMHP in November 2001. In Area 1, there were three primary behavioral health providers and one HMO operating in the region. Unlike Area 6, where the managing entity for the PMHP was a separate incorporated entity, the managing entity in Area 1, Access Behavioral Health (ABH), was a component of one of the service-providing agencies. ABH subcontracted with the other providers on a subcapitated, risk-adjusted basis.

In its 2004 session, the legislature passed HB 1843 that authorized the AHCA to establish prepaid plans for behavioral health services for individuals not enrolled in Medicaid HMOs in each AHCA area and to require that all Medicaid HMOs provide the same comprehensive behavioral health services to their recipients. At the end of fiscal year FY 2004-2005, Florida Health Partners (FHP) was selected as the vendor to provide prepaid mental health services in AHCA Areas 5 and 7. HMOs assumed responsibility for the same comprehensive mental health benefits in all areas of the state where they operate, as they meet readiness requirements established by AHCA.

Additionally, the amendment of Florida Statute 409.912 (4) (b) (8) stipulated that by July 1, 2005, child welfare recipients receive their behavioral health benefits through a specialty prepaid mental health plan. During 2006-2007, AHCA expanded PMHPs statewide, with the exception of the counties in which Medicaid Reform has been introduced (Area 4 – Duval, Clay, Baker and Nassau Counties and Area 10 – Broward County). The PMHPs have area-wide responsibility, within their AHCA areas, for providing the comprehensive mental health benefits to individuals enrolled in MediPass.

In addition to the PMHPs, Medicaid health maintenance organizations and their behavioral health organizations (BHOs) have expanded the benefits to include comprehensive mental health services in AHCA Areas throughout Florida. Every AHCA Area now has at least one HMO providing expanded mental health care benefits; however, there are several counties within AHCA Areas, particularly in more rural areas, in which no HMO operates.

In Areas 5 and 7, on which this report is based, managed mental health care was just being implemented when the baseline mailing was conducted in early 2005. Implementation was complete by the time the follow-up mailing was conducted in 2006. The changes in the financing mechanisms in these two areas over time are summarized in Table 1.

During the time period when the baseline mailing was conducted in these two areas (i.e., 2005), comprehensive mental health services for Medicaid recipients enrolled in either the MediPass or HMO plans were reimbursed through an FFS mechanism in which the state was at risk for comprehensive mental health service utilization. The HMOs were at risk for inpatient and

psychiatric office visits. In Areas 5 and 7, First Health, a utilization management firm, managed authorizations for inpatient admissions statewide. They also required intervention strategies for people considered to be high-users of services. Also, Medicaid required prior authorization for three additional services – day treatment, intensive therapeutic onsite services, and rehabilitation day treatment on a targeted basis for some providers. For recipients enrolled in MediPass, both physical health and pharmacy were paid for on an FFS basis. For recipients enrolled in an HMO, physical health and pharmacy benefits were paid for through a capitated arrangement with the HMOs.

**Table 1**  
**Financial Risk Arrangements in Areas 5 and 7 at the Time of Baseline & Follow-up Mailings**

Year	Financing Condition	Health	Community Mental Health	Inpatient/ Psychiatric Office Visits	Pharmacy
Baseline (2005)	MediPass/PMHP	No Risk	No Risk	No Risk	No Risk
	HMO	<i>At Risk</i>	No Risk	<i>At Risk</i>	<i>At Risk</i>
Follow-up (2006)	MediPass/PMHP	No Risk	<i>At Risk</i>	<i>At Risk</i>	No Risk
	HMO	<i>At Risk</i>	<i>At Risk</i>	<i>At Risk</i>	<i>At Risk</i>

When the follow-up mailing in these two areas was conducted in 2006, comprehensive mental health services for Medicaid recipients were being provided under managed care arrangements. Recipients in the MediPass/PMHP plan obtained their mental health services under a capitated arrangement with the PMHP, while physical health services were paid for through an FFS mechanism in which the state remained at risk for service utilization. For Medicaid recipients enrolled in an HMO, their physical health, mental health, and pharmacy benefits were paid for through a capitated arrangement with the HMOs.

### Primary Study Questions

As previously noted, the overall goal of this aspect of the evaluation is to conduct a population-based monitoring of Medicaid recipients on an array of indicators that include: health and mental health status, physical and mental health service needs and use, and satisfaction with services. Additionally, several other outcomes; trust in health care providers and quality of life, are examined. Furthermore, this study component examines if and how these self-reported indicators change over time and most importantly, whether any changes observed are associated with differences in the managed care plans being studied. The primary study questions included:

1. Have there been any changes in adult and/or child Medicaid recipients’ self-reported physical health and mental health status between the 2005 and 2006 mail surveys?
2. Are there differences between MediPass/PMHP and HMO adult and/or child Medicaid recipients’ self-reported physical health and mental health status?

3. Are there any differences between Area 5 and Area 7 Medicaid recipients' self-reported physical health and mental health status?
4. Have there been any changes in adult and/or child Medicaid recipients' self-reported needs and use of physical health and mental health services between the 2005 and 2006 mail surveys?
5. Are there differences between MediPass/PMHP and HMO adult and/or child Medicaid recipients' self-reported needs and use of physical health and mental health services?
6. Are there any differences between Area 5 and Area 7 Medicaid recipients' self-reported needs and use of physical health and mental health services?
7. Have there been any changes in adult and/or child Medicaid recipients' trust in their health care providers or quality of life between the 2005 and 2006 mail surveys?
8. Are there differences between MediPass/PMHP and HMO adult and/or child Medicaid recipients' trust in their health care providers or quality of life?
9. Are there any differences between Area 5 and Area 7 Medicaid recipients' trust in their health care providers or quality of life?

As is noted by these questions, the primary focus in the mail survey component was to determine if: 1) Medicaid recipients reported changes between the 2005 and 2006 surveys on the indicators being assessed, 2) if their responses to these indicators differed according to the health care plan in which they were enrolled, or 3) if their responses differed according to the AHCA Area in which they lived. Survey responses were also examined according to the Medicaid recipients' eligibility status.

## Methodology

### Sampling Frame

The original sample of Medicaid recipients in AHCA Areas 5 and 7 included in the mail survey component of the evaluation was obtained from the 2004 Medicaid eligibility data provided to the Louis de la Parte Florida Mental Health Institute by the Florida Agency for Health Care Administration. A random sample of 3,840 Medicaid recipients was selected, stratifying on six variables: Age (2 strata; children [5-21], adults [over 21]), Area (2 strata; Area 5, Area 7), Plan (2 strata; MediPass/PMHP, HMO), Eligibility Status (2 strata; SSI, TANF), Gender (2 strata; male, female), and Race/Ethnicity (3 strata; White, Black, Other). All current Area 5 and Area 7 Medicaid recipients were classified into their respective cells and a quota of 40 recipients was randomly selected from within each cell to receive a mail questionnaire. With a 50% response rate, this procedure would ensure that a sufficient number of responses would be obtained within each age group, health care plan, eligibility status, and area to estimate the health and mental health needs and to permit comparisons between health care plans, eligibility status, and geographic area.

All respondents to the 2005 mail survey were included in the follow-up survey conducted in 2006. Repeat responses from Medicaid recipients participating in the 2005 survey would permit an examination of any changes in these indicators that have occurred since managed mental health care was implemented. In addition, a replacement sample of respondents was selected from the 2005 Medicaid eligibility file so that the 40 individual quota was replenished in each of the 96 strata with current Medicaid recipients. A detailed breakdown of this sampling frame is located in Appendix A.

### Questionnaire

Parallel questionnaires, (one version for adults and one version for children) were developed that were specifically tailored to the needs of this Medicaid evaluation. As part of the initial questionnaire development, Medicaid recipients participated in focus groups during which they reviewed and commented on a draft version of the questionnaire developed by the evaluation team. Comments and suggestions from focus group participants resulted in various changes being made to the questionnaire. The questionnaires were then translated into Spanish. The readability of the cover letter was written at an 8th grade reading level and the questionnaire was written at a 6th grade reading level.

Both the adult and children's version of the questionnaire included a number of previously developed, psychometrically tested and validated respondent self-report health and mental health status measures. A complete listing of the measures included in both the child and adult versions of the questionnaires is provided in Table 2.

**Table 2**  
**Measures Included in the Adult & Child Mail Surveys**

Domains	Measure	
	Adult Version	Child Version
Access		
Service Need and Use	Self-developed items to obtain respondent self-reports of physical health, mental health, and substance abuse services need and use.	Self-developed items to obtain respondent self-reports of physical health, mental health, and substance abuse services need and use.
Status		
Health Status	Ware, J.E., Kosinski, M., & Keller, S.D. (1995). A 12-Item Short-Form Health Survey (SF-12). A construction of scales and preliminary tests of reliability and validity. <i>Medical Care</i> , 32(3), 220-233.	Landgraf, J.M., Abetz, L., Ware, J.E. (1999). <i>The CHQ User's Manual</i> . Second Printing. Boston, MA: Health Act.
Mental Health Status	Shern, D.L., Wilson, N.Z., Coen, A.S., Patrick, D. C., Foster, M., Bartsch, D. A. et al. (1994). Client outcomes II: Longitudinal client data from the Colorado Treatment Outcome Study. <i>The Milbank Quarterly</i> , 72(1), 123-148.	Jellinek, M.S., Murphy, J.M., & Burns, B.J. (1986). Brief psychosocial screening in outpatient pediatric practice. <i>The Journal of Pediatrics</i> , 109, 371-378.
Outcomes		
Substance Abuse Status	Winters, K.C., & Zenilman, J.M. (1994). Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases (Treatment Improvement Protocol series No. 11). Rockville, MD: U.S. Dept of Health and Human Services, Public Health Service, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. Available <a href="http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.32939">http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.32939</a> .	Self developed measure
Satisfaction with Services	U.S. Department of Health and Human Services. (1996). <i>The MHSIP Consumer-Oriented Mental Health Report Card</i> . Rockville, MD, Center for Mental Health Services. <a href="http://www.mentalhealth.samhsa.gov/publications/allpubs/MC96-60/default.asp">http://www.mentalhealth.samhsa.gov/publications/allpubs/MC96-60/default.asp</a>	U.S. Department of Health and Human Services. (1996). <i>The MHSIP Consumer-Oriented Mental Health Report Card</i> . Rockville, MD, Center for Mental Health Services. <a href="http://www.mentalhealth.samhsa.gov/publications/allpubs/MC96-60/default.asp">http://www.mentalhealth.samhsa.gov/publications/allpubs/MC96-60/default.asp</a>
Trust in Provider	Anderson, L.A., & Dedrick, R.F. (1990). Development of the trust in physician scale: A measure to assess interpersonal trust in patient-physician relationships. <i>Psychological Reports</i> , 67, 1091-1100.	Anderson, L.A., & Dedrick, R.F. (1990). Development of the trust in physician scale: A measure to assess interpersonal trust in patient-physician relationships. <i>Psychological Reports</i> , 67, 1091-1100.
Quality of Life	Lehman, A., (1988). A Quality of Life Interview for the chronically mentally ill. <i>Evaluation and Program Planning</i> , 11, 51-62.	Lehman, A., (1988). A Quality of Life Interview for the chronically mentally ill. <i>Evaluation and Program Planning</i> , 11, 51-62.

## Measures in the Adult Survey

This section provides a brief description of the measures used in the adult surveys. All measures have been previously developed and validated and have acceptable psychometric properties. Readers interested in more details on the psychometric properties of these measures are referred to Appendix B.

The SF-12 (Ware, Kosinski, & Keller, 1995) was included as a measure of adults' health status. The SF-12 is a 12-item self-report measure of both health and mental health functioning. In a general population—the mean score on each component is approximately 50.

Adults' mental health symptoms were assessed using the Colorado Symptom Index, a 14-item self-report measure that assesses the frequency of symptoms (Shern, Wilson, Coen, Patrick, Foster, Bartsch, et al., 1994). Recipients' substance abuse needs were assessed using the 16-item self-report Simple Screening Instrument (SSI-SA: Center for Substance Abuse Treatment, 2005).

The adult version of the questionnaire assesses respondents' quality of life using the subjective portion of Lehman's (1988) Quality of Life Interview for the Chronically Mentally Ill (QoL). In this 8-item self-report measure, respondents assess their quality of life in seven life domains as well as a global assessment of QoL using a 4-point Likert-type response scale ranging from "very" to "not at all" satisfied. The measure has been widely used in behavioral health services research.

Respondents' level of trust in their physician was measured using the Trust in Physician Scale (Anderson & Dedrick, 1990). This scale is an 11-item, self-report measure that assesses patients' trust in physicians within the domains of dependability, confidence, and confidentiality of information.

Enrollees' satisfaction with the mental health services they have received is assessed using portions of the Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card (U.S. Department of Health and Human Services, 1996). Respondents complete this 12-item measure using a 5-point Likert scale indicating their level of agreement with statements concerning service access, interpersonal interactions, quality of care, and costs.

## Measures in the Child Survey

The measures included in the children's version of the survey are briefly described in this section. These measures also have been previously developed and validated and have acceptable psychometric properties. Interested readers are again referred to Appendix B for more details on the psychometric properties of these measures.

In the children's version of the survey, caregivers assessed their children's health status using a subset of 24 questions from the Child Health Questionnaire (CHQ: Landgraf, Abetz, & Ware, 1999). Mental health status in the children's version of the survey was assessed using the Pediatric Symptom Checklist (PSC: Jellinek, Murphy, & Burns, 1986), a 35-item caregiver self-report psychosocial screening measure in which caregivers report the frequency with which their children exhibit specific behaviors.

Caregivers of children enrolled are also asked to assess their quality of life using the subjective portion of Lehman's (1988) Quality of Life Interview for the Chronically Mentally Ill (QoL). Similar to adult respondents, caregivers are asked to report their level of satisfaction with the mental health services their children received using portions of the Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card (U.S. Department of Health and Human Services, 1996) as well as their level of trust in their child's physician using the Trust in Physician Scale (Anderson & Dedrick, 1990).

Caregivers' level of trust in their child's physician was measured using the Trust in Physician Scale (Anderson & Dedrick, 1990). This scale is an 11-item, self-report measure that assesses caregivers' trust in physicians within the domains of dependability, confidence, and confidentiality of information.

Caregivers' satisfaction with the mental health services their children have received is assessed using portions of the Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card (U.S. Department of Health and Human Services, 1996). Caregivers complete this 12-item measure using a 5-point Likert scale indicating their level of agreement with statements concerning service access, interpersonal interactions, quality of care, and costs.

## Mailing Procedures

Mail survey techniques have been used for a long time across different settings with varying results (Kanuk & Berenson, 1975). In this evaluation we used a highly systematic and structured approach to survey design, and follow-up procedures similar to those recommended by Dillman (1978) and Salant and Dillman (1994). In total, five separate mailings were conducted. Before initiation of the mailings, all the questionnaires, cover letters, and mailing procedures were reviewed and approved by the USF Institutional Review Board (IRB).

The first mailing consisted of a pre-notification postcard informing the Medicaid recipients who were sampled that we were conducting an evaluation of their Medicaid health care services and that they would receive a questionnaire in the mail within one week. One week later, recipients were mailed a personalized cover letter and questionnaire with an explanation of the purpose of the study. A new computer algorithm was used to identify Medicaid recipients with Hispanic surnames who were sent questionnaires and letters in both English and Spanish. Individuals who did not receive correspondence in both English and Spanish were informed that surveys were available in Spanish by calling the toll-free telephone number. Recipients were informed that they would be paid \$10.00 (increased from \$8.00 in 2005) for returning a completed questionnaire and were given information about the days and hours of operation of a toll-free telephone number they could call to have questions answered about the evaluation or to complete the survey over the telephone. A pre-addressed, stamped return envelope was also included in the mailing. One week later, a postcard reminder was sent to each person who had not yet responded. This reminder emphasized the importance of the evaluation and again included the toll-free telephone number they could call.

Two weeks after the postcard reminder was mailed, a fourth mailing containing a cover letter, questionnaire, and return envelope was mailed to each non-respondent. Finally, four weeks later, a fifth mailing was sent via certified mail to individuals who still had not responded. As with the first and fourth mailing, enrollees received a personalized cover letter, questionnaire, and a pre-addressed, stamped return envelope. For children who were sampled, all mailings were sent to their primary caregiver who responded on their behalf. The mailing schedule and content is summarized in Table 3.

**Table 3**  
**Mailing Contents & Schedule**

Mailing Contents	Week								
	1	2	3	4	5	6	7	8	9
1st mailing: pre notification postcard	X								
2nd mailing: personalized letter & questionnaire in English and/or Spanish, preaddressed stamped return envelope		X							
3rd mailing: postcard reminder			X						
4th mailing: personalized letter & questionnaire in English and/or Spanish, preaddressed stamped return envelope				X					
5th mailing: personalized letter & questionnaire in English and/or Spanish, preaddressed stamped return envelope – sent certified mail							X		

To increase response rates, first class postage was used on both the outgoing and return envelopes of each mailing as recommended by Dillman (1978) and address corrections were requested from the post office so that mailing lists could be updated. (These mailing procedures were based on the findings of a feasibility study conducted to assess the validity of using mail survey procedures with a Medicaid population. The findings from this feasibility study are summarized in Boothroyd and Shern [1998]).

The 2005 mailing was conducted between February and April 2005, just as the implementation of managed mental health care in Areas 5 and 7 was getting underway. The 2006 mailing was conducted between February and April 2006, approximately one year after implementation. This timeline is shown graphically in Figure 1 below.

**Figure 1**  
**Mailing and Managed Care Implementation Timeline**



## Analysis

Descriptive statistics were performed to summarize the characteristics of the survey respondents and non-respondents. Data on the characteristics of non-respondents were obtained from the Medicaid eligibility file. Independent t-test and chi-square analyses were conducted to compare respondents and non-respondents depending on whether the respondent characteristic being examined was nominal or interval in nature.

A series of repeated measure analyses of variance were conducted to assess changes over time in respondents' self-reported mental health status, service access, and several indicators of general well-being, as well as differences between health care plans (HMOs versus PMHP), AHCA Areas (Area 5 versus Area 7), and respondents' eligibility status (i.e., those receiving Supplemental Security Income compared to Temporary Assistance for Needy Families). The findings presented in this summary have not been case-mix adjusted because the analyses conducted examine the effects associated with respondents' health care plan, eligibility status, area of residence, and time. They were examined as independent variables in these analyses and separate analyses were conducted for adult and child respondents. Only significant, two-way interactions are discussed in this report; higher order interactions are not reported. Interactions occur when two (or more) variables have an effect upon one another. For example, an interaction would exist if respondents in Plan 1 who lived in Area A reported high levels of satisfaction while those living in Area A and enrolled in Plan 2 noted low levels of satisfaction while in contrast, respondents living in Area B and enrolled in Plan 1 reported low levels of satisfaction while those in Plan 2 living in Area B noted high levels of satisfaction. When significant differences were found, effect sizes (Cohen, 1988) were calculated and reported to facilitate interpretation. (Cohen [1988] cautiously suggested that effect sizes of .2 are "small," .5 are "medium," and .8 are "large.")

# Results

## Response Rates

The findings summarized in this report are based on adult Medicaid recipients and caregivers of children enrolled in a Medicaid health care plan who responded to both the 2005 and 2006 mail survey. Of the 506 adult Medicaid recipients who responded in 2005, 50.2% also completed a survey in 2006 (n=254). Of the 473 caregivers of children enrolled in Medicaid who completed a survey in 2005, 254 also responded in 2006, a response rate of 53.7% (See Table 4). As is typical of previous year’s surveys, respondents were somewhat more likely to be female, white, and older compared to non-respondents.

**Table 4**  
Mail Survey Response Rates

Year	Adult		Child	
	2005	2006	2005	2006
Response Rates	N=506	N=254 (50.2%)	N=473	N=254 (53.7%)

## Adults

This section summarized the findings from 254 adult Medicaid recipients living in AHCA Areas 5 and 7 who responded to both the 2005 and 2006 mail surveys.

### Adult Respondent Characteristics

Table 5 summarizes the characteristics of the Medicaid recipients who responded to both the 2005 and 2006 mail surveys. As noted in Table 5, respondents averaged 44 years old (*SD*=12.3) and ranged in age from 22 to 66. They were more likely to be female (60.2%), nonwhite (60.6%), and receiving SSI for any disability (60.2%). Respondents were somewhat more likely to be enrolled in MediPass/PMHP (53.9%) and live in Area 5 (53.1%).

### Adult Access to Health and Mental Health Services

The self-reported use of physical and mental health services were examined to determine if the rates were associated with AHCA Area (5 versus 7), eligibility status (TANF versus SSI), or health care plan (MediPass/PMHP versus HMO) and whether the rates had changed since

**Table 5**  
Adult Mail Survey Respondent Characteristics

Characteristic	N	%
Gender:		
Male	101	39.8
Female	153	60.2
Race/Ethnicity:		
Caucasian	100	39.4
Black	74	29.1
Other	80	31.5
Eligibility Status:		
Supplemental Security Income	153	60.2
Temporary Assistance for Needy Families	101	39.9
Age:		
Average	44.0	
Standard Deviation	12.3	
Range	22-66	
Health Care Plan:		
MediPass Prepaid Mental Health Plan	137	53.9
Health Maintenance Organization	117	46.1
County:		
Area 5	135	53.1
Area 7	119	46.9

the implementation of managed care. The overall rate of use for physical health care for adult respondents during the six months preceding the survey was about 81% ( $SE \approx .03$ ). No significant difference was found regarding the likelihood of using physical health services based on plan in which respondents were enrolled (i.e., MediPass/PMHP versus HMO). However, SSI recipients were significantly more likely to have reported using physical health services (92.4%;  $SE = .03$ ) compared to TANF recipients (71.6%;  $SE = .04$ )  $F(1,134) = 16.91, p < .001$ . A significant difference was also noted in the use of physical health services between areas  $F(1,134) = 7.66, p < .005$ . Adult Medicaid recipients in Area 7 reported significantly higher use of physical health services (88.3%;  $SE = .04$ ) in the previous six months compared to recipients in Area 5 (75.6%;  $SE = .03$ ).

TANF recipients enrolled in HMOs reported a lower use of physical health services (64.8%;  $SE = .05$ ) compared to TANF recipients in the MediPass/PMHP (78.3%;  $SE = .05$ ). In contrast, SSI recipients in the MediPass/PMHP plans reported a lower use of physical health services (88.7%;  $SE = .04$ ) compared to SSI recipients enrolled in an HMO (96.0%;  $SE = .05$ ). TANF recipients from Area 5 reported a lower use of physical health services (60.2%;  $SE = .05$ ) compared to TANF recipients in Area 7 (83.0%;  $SE = .05$ ) while SSI recipients in both areas reported similar use of physical health services (Area 5 = 91.1%;  $SE = .04$ , Area 7 = 93.6%;  $SE = .05$ ).

The overall self-reported use of mental health services among adults in Areas 5 and 7 was approximately 33% ( $SE = .04$ ). No significant differences were found in the self-reported use of mental health services for adult respondents associated with the area in which respondents lived or the health care plan in which they were enrolled. Additionally, no significant change over time was found in the use of mental health services. A significant difference was found in the use of mental health services based on Medicaid recipients' eligibility status  $F(1,108) = 8.66, p < .001$ . SSI recipients were significantly more likely to use mental health services (53.5%;  $SE = .05$ ) compared to TANF recipients (13.3%;  $SE = .06$ ). No significant interactions were found.

Finally, Medicaid recipients' access to physical and mental health medications was examined. Overall, about 33% ( $SE \approx .05$ ) of respondents who used medications for their physical health reported problems getting them. This (does the 21% refer to the percent of respondents, as noted above as opposed to a rate?) was approximately 21% ( $SE \approx .05$ ) for respondents using mental health medications. The rates at which respondents reported problems accessing medications were not significantly associated with health care plan, eligibility status, or area. Additionally, no significant change was found in the rate at which problems were reported between the 2005 and 2006 mailing.

### **Adult Health and Mental Health Status**

The self-reported health and mental health status of adult Medicaid recipients was examined to assess the impact of their eligibility status, health care plan, and area on their health status as well as whether respondents reported a change in their status over time. During both the 2005 and 2006 administrations of the

survey, respondents were asked to complete the SF-12 (Ware, Kosinski, & Keller, 1995), a self-report measure assessing both physical and mental health status and the Colorado Symptom Index (Shern, et al., 1994), a self-report measure assessing mental health symptoms.

Overall, adult Medicaid recipients' physical health status (as assessed by the physical health score on the SF-12) was about 38.7 ( $SE=.42$ ), well below the average score of 50 that is typically found in a general population. This indicates that the responding adult Medicaid recipients reported themselves in poorer physical health than would be expected in a general adult population. No significant differences were found in respondents' physical health status between the two health care plans (i.e., PMHP versus HMO), between AHCA Areas (i.e., Area 5 versus Area 7), and no significant change in physical health status was found over time (i.e., 2005 versus 2006). Not surprisingly, TANF recipients reported themselves being in significantly better health (Mean=41.9,  $SE=.51$ ) compared to recipients receiving SSI (Mean=36.5;  $SE=.43$ )  $F(1, 234)=66.31, p < .001$ . Additionally, no significant interactions were observed.

Adult respondents' mental health status (as assessed by the mental health score on the SF-12) was 38.0 ( $SE=.62$ ), again well below the average score of 50 expected in a general population of adults; thus indicating they were in poorer mental health. As was the case with physical health, TANF recipients reported themselves being in significantly better mental health (Mean=41.6;  $SE=.80$ ) compared to adults receiving SSI (Mean=35.5;  $SE=.67$ )  $F(1,234)=33.51, p < .001$ . No significant differences were found in recipients' mental health status between the two health care plans, by area surveyed, or over time. Additionally, no significant interactions were found.

Adults' mental health status was also measured using the Colorado Symptom Index (Shern, et al., 1994). TANF recipients reported having significantly less frequent mental health symptoms (Mean=25.6;  $SE=1.16$ ) compared to respondents' receiving SSI (Mean=33.4;  $SE=.95$ )  $F(1,247)=26.70, p < .001$ . No significant differences were found in mental health status associated with either health care plan or geographic area, and no significant change in symptomatology was noted over time. A significant health care plan by eligibility status interaction was observed  $F(1,247)=6.20, p < .05$ . TANF enrollees in HMOs reported lower levels of mental health symptoms (Mean=23.7;  $SE=1.68$ ) compared to TANF enrollees in the PMHPs (Mean=27.6;  $SE=1.64$ ). In contrast, SSI enrollees in HMOs reported higher levels of mental health symptoms (Mean=35.2;  $SE=1.44$ ) compared to SSI enrollees in the PMHPs (Mean=31.6;  $SE=1.26$ ). None of the remaining interactions were significant.

### **Adult Satisfaction with Services**

Adult recipients were asked to assess their level of satisfaction with their Medicaid health care plan using a 15-item scale developed for this evaluation. Potential scores on this scale range from 15 to 75 with higher scores reflecting greater levels of satisfaction. Overall, adult respondents reported a moderate level of satisfaction with their Medicaid health care plan in both years (Mean≈34.31;

SE $\approx$ .93). No significant differences were found in respondents' level of satisfaction between health care plans (MediPass/PMHP versus HMOs), area (Area 5 versus Area 7), eligibility status (SSI versus TANF), or over time (2005 versus 2006).

In each survey year, adult respondents who used physical health services were asked to rate their level of satisfaction with the physical health services they received during the six months prior to receiving the survey. Ratings were made using a four-point scale ranging from 1 = "Not at All Satisfied" to 4 = "Very Satisfied." Overall, adults reported a moderate level of satisfaction with the physical health services they had received (Mean $\approx$ 3.00; SE $\approx$ .08). No significant differences in satisfaction were found associated with respondents' eligibility status, health care plan, or area of residence. Additionally, no significant change in satisfaction was noted between the 2005 and 2006 surveys and no significant interactions were found.

Adults who used mental health services in the six months preceding the survey were also asked to rate their level of satisfaction with these services using a four-point scale ranging from 1 = "Not at All Satisfied" to 4 = "Very Satisfied." Overall, adult respondents reported being somewhat to moderately satisfied with the mental health services they had received (Mean $\approx$ 2.48; SE $\approx$ .19). As was the case with physical health services, no significant differences in satisfaction with mental health services were found associated with respondents' eligibility status, health care plan, area of residence, or over time. In addition, no significant interactions were found.

### **Adult Trust in Health Care Providers**

Respondents were asked to complete an 11-item scale assessing their level of trust in their health care provider. Potential scores on this scale range from 11 to 55 with higher scores reflecting greater levels of trust and an average of 40 would be expected in a general population of adults. Overall respondents rating averaged 39.31 (SE=.75) suggesting that Medicaid recipients have a "typical" level of trust in their health care providers. Further examination revealed no significant differences in level of trust in between recipients in MediPass/PMHP and HMOs or between TANF and SSI recipients. Additionally no significant change in respondents' level of trust was noted over time. A significant difference was noted between recipients in Areas 5 and 7  $F(1,171)=9.05, p < .005$ . Medicaid recipients in Area 5 reported significantly higher levels of trust in their health care providers (Mean=41.34; SE=.93) compared to Medicaid recipients in Area 7 (Area 5; Mean=37.31; SE=.96). The effect size is approximately .45, indicating a moderate effect. An area by eligibility status interaction was also noted  $F(1,171)=7.02, p < .01$ . Adult TANF recipients in Area 5 (Mean=43.07; SE=1.60) reported significantly higher levels of trust in their health care providers compared to TANF recipients in Area 7 (Mean=35.49; SE=1.5). In contrast, the level of trust reported by respondents receiving SSI was similar in the two Areas (Mean=39.61; SE=.96; Mean=39.13, SE=1.12, respectively).

## Adult Quality of Life

Finally, adult Medicaid recipients were asked to assess their quality of life using the subjective domains from Lehman’s (1988) Quality of Life Interview. Respondents’ overall quality of life averaged 19.9 ( $SE=.29$ ). Given this scale can range from 8 to 32, this finding suggests that respondents were “somewhat to moderately” satisfied with their quality of life. No significant differences were found in respondents’ quality of life associated with health care plan, eligibility status, or area of residence. Additionally, no significant change in respondents’ quality of life was reported between the 2005 and 2006 mail surveys and none of the interactions were significant.

## Children

This section summarizes the responses from 254 caregivers of Medicaid-enrolled children living in AHCA Areas 5 and 7 that were the subject of caregivers’ responses to both the 2005 and 2006 surveys.

### Child Respondent Characteristics

Table 6 summarizes the characteristics of the Medicaid-enrolled children whose caregivers responded to both the 2005 and 2006 mail surveys. As shown in Table 6, the children averaged 14.4 ( $SD=4.43$ ) years old and ranged in age from 6 to 22. Caregivers who responded were equally likely to respond about boys (52.0) and girls (48.0%). However, they were more likely to report on children who were nonwhite (58.6%), and receiving SSI (56.7%). These children were somewhat more likely to be enrolled in MediPass/PMHP (59.1%) and to live in Area 5 (53.1%).

### Child Access to Health and Mental Health Services

Caregivers self-reported use of their children’s physical and mental health services were examined to determine if the rates were associated with AHCA Area (5 versus 7), eligibility status (TANF versus SSI), or health care plan (MediPass/PMPH versus HMO) and whether the rates had changed since the implementation of managed care. Across the two years, the overall use of physical health services among children during the six months preceding the survey was approximately 78% ( $SE\approx.03$ ). No significant difference in the self-reported use of physical health services was noted between respondents in Areas 5 and 7. A significant difference was found regarding the likelihood of using physical health services based on

**Table 6**  
**Child Mail Survey Respondent Characteristics**

Characteristic	N	%
Gender:		
Male	132	52.0
Female	122	48.0
Race/Ethnicity:		
Caucasian	105	41.3
Black	74	29.1
Other	75	29.5
Eligibility Status:		
Supplemental Security Income	144	56.7
Temporary Assistance for Needy Families	110	43.3
Age:		
Average	14.4	
Standard Deviation	4.43	
Range	6-22	
Health Care Plan:		
MediPass Prepaid Mental Health Plan	150	59.1
Health Maintenance Organization	104	40.9
County:		
Area 5	135	53.1
Area 7	119	46.9

plan in which the children were enrolled  $F(1,164)=5.76, p < .05$ . Caregivers of children enrolled in the MediPass/PMHP reported significantly higher use of physical health services for their children (83.7%;  $SE=.03$ ) compared to caregivers of children enrolled in an HMO (71.9%;  $SE=.04$ ). Additionally, caregivers of children receiving SSI were significantly more likely to report their children had used physical health services (82.9%) compared to caregivers in families receiving TANF (72.8%)  $F(1,164)=4.20, p < .05$ . A significant reduction in the use of physical health services was observed between the 2005 and 2006 surveys  $F(1,164)=12.27, p < .001$ . Caregivers reported that the use of physical health services by their children decreased from 84.6% ( $SE=.03$ ) in 2005 to 71.1% ( $SE=.03$ ) in 2006. No significant interactions were observed.

The self-reported use of mental health services reported by caregivers across both years was approximately 33% ( $SE=.04$ ). No significant differences were found in children's use of mental health services associated with the area in which the children resided or the health care plan in which they were enrolled. Additionally, no significant change over time was found in the use of mental health services. A significant difference was found in the self-reported use of mental health services based on the children's eligibility status  $F(1,139)=10.68, p < .001$ . Children receiving SSI were significantly more likely to use mental health services (44.6%;  $SE=.04$ ) compared to children living in families receiving TANF (21.9%;  $SE=.05$ ). No significant change in children's use of mental health services was found between the 2005 and 2006 surveys. A significant area by plan interactions was found  $F(1,139)=4.89, p < .05$ . Caregivers of children enrolled in the MediPass/PMHP in Area 5 were more likely to report their children had used mental health services (45.9%;  $SE=.06$ ) compared to caregivers of children enrolled in an HMO (26.7%;  $SE=.07$ ). In Area 7, however, caregivers of children enrolled in the MediPass/PMHP plan were less likely to report their children had used mental health services (24.5%;  $SE=.07$ ) compared to caregivers of children enrolled in an HMO (36.0%;  $SE=.07$ ).

Finally, problems related to children's access to physical and mental health medications were examined. Overall, approximately 19% ( $SE=.04$ ) of the caregivers who reported their children used medications for physical health reasons experienced some problems getting them. No significant differences were found in this rate associated with health care plan, the area in which the child lived, or their eligibility status. No significant change was noted over time.

Significant interactions were found for plan by district  $F(1,91)=8.65, p < .005$  and plan by eligibility status  $F(1,91)=4.48, p < .05$ . Caregivers of children residing in Area 5 who were enrolled in an HMO reported more problems accessing physical health medications (34.3%;  $SE=.07$ ) compared to caregivers of children residing in Area 5 who were enrolled in MediPass/PMHP (6.8%;  $SE=.05$ ). In contrast, caregivers of children living in Area 7 enrolled HMOs reported fewer problems accessing physical health medications (11.5%;  $SE=.08$ ) compared to caregivers of children in Area 7 enrolled in MediPass/PMHP (23.1%;  $SE=.06$ ). In terms of the plan by eligibility status interaction, caregivers of children living in families receiving TANF and enrolled in an HMO reported

fewer problems getting physical health medications (14.3%;  $SE=.08\%$ ) compared to children from families receiving TANF and enrolled in the in the MediPass/PMHP (20.4%;  $SE=.07$ ). In contrasts, caregivers of children receiving SSI in an HMO reported more problems accessing medication for physical health reasons (31.5%;  $SE=.06$ ) compared to caregivers of children receiving SSI enrolled in MediPass/PMHP (9.6%;  $SE=.04$ ). None of the remaining interactions were significant.

Approximately 22% ( $SE\approx.06$ ) of the caregivers whose children used medications for mental health reasons experienced problems accessing them. The rates of reported problems accessing mental; health medications were not associated with health care plan, eligibility status, or area. However, a significant increase in problems was noted over time  $F(1,55)=10.57, p < .005$ . Caregivers reported significantly more problems getting mental health medications for their children in the 2006 survey (31.9%;  $SE=.07$ ) compared to the 2005 survey (11.7%;  $SE=.06$ ).

### **Child Health and Mental Health Status**

Caregivers' reports of their children's health and mental health status were examined to assess the impact of children's eligibility status, health care plan, and geographic area on their health status and whether it changed over time. During both the 2005 and 2006 administrations of the survey, caregivers were asked to complete portions of the Children's Health Questionnaire (CHQ; Landgraf, Abetz, & Ware, 1999). The 25 items included subscales assessing the child's overall health, physical functioning, bodily pain, and caregivers' general perceptions of their child's health. Children's mental health status was assessed using the Pediatric Symptom Checklist (PSC; Jellinek, Murphy, & Burns, 1986), a 36-item caregiver self-report measure.

Across the two years, children's physical health status (as assessed by the CHQ) was about 62.5 ( $SE\approx.6$ ). No significant differences were found in caregivers' reports of their children's health status associated with the area in which the child lived, the child's Medicaid health care plan, or between the 2005 and 2006 surveys. As would be expected, a significant difference was found in children's health care status related to eligibility status  $F(1,165)=23.93, p < .001$ . Caregivers of children receiving SSI reported their children as being in poorer physical health (Mean=60.05,  $SE=.72$ ) compared to caregivers of children living in families receiving TANF (Mean=65.50,  $SE=.85$ ). None of the interactions were significant.

Children's mental health status (as assessed by the score on the PSC) indicated that across both survey years approximately 34% of the children in Areas 5 & 7 were assessed above the criterion score on this measure, suggesting a need for further psychosocial evaluation. It should be noted that in a general pediatric population, approximately 20% of the children screened would fall above this criterion score. This suggests that Medicaid-enrolled children in Areas 5 & 7 have poorer psychosocial functioning than would be expected in a general pediatric population. No significant differences in children's mental health status

were found associated with health care plan or area of residence. No significant change in reported mental health status was noted over time. Additionally none of the interactions were significant. Not surprisingly, children receiving SSI were significantly more likely to score more poorly on this measure compared to children in families receiving TANF  $F(1,238)=18.96, p < .001$ . Children receiving SSI were more likely to exceed the criterion score on the PSC (41.8%) compared to children living in families receiving TANF (25.5%).

### Child Satisfaction with Services

Caregivers were asked to assess their level of satisfaction with their children's Medicaid health care plan using a 15-item scale developed for this evaluation. Potential scores on this scale range from 15 to 75 with higher scores reflecting greater levels of satisfaction. Overall, caregivers reported a moderate level of satisfaction with their children's Medicaid health care plan in both years (Mean $\approx$ 35.6; SE $\approx$ .35). No significant differences were found in caregivers' level of satisfaction with their children's Medicaid plan between children enrolled in MediPass/PMHP versus HMOs, those living in Areas 5 versus Area 7, children receiving SSI versus TANF, or between the 2005 and 2006 surveys. In addition, no significant interactions were noted.

In both years, caregivers were asked to rate their level of satisfaction with the physical health services their children had received during the six months prior to the survey using a four-point scale from 1 = "Not at All Satisfied" to 4 = "Very Satisfied." Overall, caregivers whose children used physical health services reported a moderate level of satisfaction with the services their child had received (Mean $\approx$ 3.19, SE $\approx$ .81). No significant differences were found in caregivers' level of satisfaction with the physical health services their children received based on eligibility status or over time. A significant difference was noted in caregivers' level of satisfaction with the physical health services their children received associated with health care plan in which their child was enrolled  $F(1,154)=7.96, p < .005$ . Caregivers of children enrolled in HMOs reported significantly lower levels of satisfaction (Mean=2.99; SE = .10) with the physical health services their child received compared to caregivers of children in the MediPass/PMHP plan (Mean= 3.38, SE=.09). This difference represents a small to moderate effect size (ES=.38).

A significant difference also was noted in caregivers' level of satisfaction with the physical health services their children received associated with the area in which they resided  $F(1,154)=4.28, p < .05$ . Caregivers of children living in Area 7 reported significantly lower levels of satisfaction (Mean=3.04; SE=.10) with the physical health services their child received compared to caregivers of children in the Area 5 (Mean=3.33, SE=.10). This difference represents a small effect size (ES=.29). A significant area by eligibility status interaction was also found  $F(1,154)=4.18, p < .05$ . Caregivers of children receiving TANF living in Area 5 reported significantly higher levels of satisfaction with their children's physical health services (Mean= 3.60, SE=.15) compared to caregivers of children receiving TANF living in Area 7 (Mean= 3.03, SE=.15). In contrast, caregivers of children receiving SSI in both areas reported similar levels of satisfaction with their children's physical health care (Area 5: Mean= 3.06, SE=.12; Area 7: Mean= 3.05, SE=.13).

Similarly, caregivers were asked to rate their satisfaction with the mental health services their child received during the previous six months, using a four-point scale ranging from 1 = “Not at All Satisfied” to 4 = “Very Satisfied.” Overall, caregivers reported being somewhat to moderately satisfied with the mental health services their child had received (Mean≈2.35; SE≈.15). No significant differences were observed among caregivers regarding their level of satisfaction with the mental health services their child received associated with health care plan, eligibility status, area surveyed, or over time. In addition, no significant interactions were found.

### **Child Trust in Health Care Providers**

Caregivers were also asked to complete the 11-item scale adapted from Anderson & Dedrick (1990) to assess their level of trust in their children’s health care providers. As previously noted, potential scores can range from 11 to 55 with higher scores reflecting greater levels of trust. Overall caregivers’ ratings averaged about 42.1 (SE ≈.75) suggesting that they have a “typical” level of trust in their children’s health care providers (given an average of 40 would be expected in a general population). Further examination revealed no significant differences in the level of trust in health care providers between caregivers whose children were enrolled in MediPass/PMHP or HMOs or between children receiving TANF and SSI, or between the 2005 and 2006 surveys. As was the found among adult respondents, a significant difference was noted in caregivers’ level of trust between those residing in Areas 5 and 7  $F(1,172)=12.16, p < .001$ . Caregivers of children living in Area 5 reported significantly higher levels of trust in their children’s health care providers (Mean=44.42; SE=.90) compared to caregivers of children living in Area 7 (Mean=39.87; SE=.95). The effect size is approximately .83, indicating a large effect. No significant interactions were found.

### **Child Quality of Life**

Finally, caregivers of children enrolled in Medicaid were asked to assess their quality of life using the subjective domains from Lehman’s (1988) Quality of Life Interview. Caregivers’ reported a significant decline in their overall quality of life from the 2005 to 2006 surveys  $F(1,236)=107.70, p < .001$ . Quality of life decreased from an average of 23.32 (SE=.37) in 2005 to an average of 16.57 (SE=.35) in 2006. Given this scale can range from 8 and 32, this finding suggests that caregivers assessment of their quality of life declined from being “moderately” satisfied with their quality of life in 2005 to “somewhat” satisfied in 2006. No significant differences were found in caregivers’ quality of life associated with the child’s eligibility status, health care plan, or geographic area. However, a significant eligibility status by area interaction was found  $F(1,236)=4.73, p < .05$ . Caregivers of children receiving SSI in Area 5 reported having higher quality of life (Mean=20.3; SE=.27) compared to caregivers of children receiving SSI in Area 7 (Mean=19.5; SE=.28). In contrast, caregivers of children living in families receiving TANF in Area 7 reported a higher quality of life (Mean=19.7; SE=.32) compared to caregivers of children living in families receiving TANF in Area 5 (Mean=20.2; SE=.30).

## Summary

The following four tables (Tables 7-10) provide summary findings for both adult and child recipients on each access, status, and outcome indicator associated with the main effects related to health care plan, eligibility status, AHCA area, and change over time. The main effects associated with time (i.e., changes from the 2005 to the 2006 surveys) are summarized in Table 7. Examination of this table reveals that 3 of 23 time effects (13%) were statistically significant. All three significant time effects were associated with child Medicaid recipients; none were found among adult respondents. In addition, each significant effect represents what can be considered a less desirable status than was reported in 2005 (i.e., decreased quality of life, increased problems getting physical health medications, and decreased use of physical health services). The decrease in use of physical health services could reflect a decrease in the use of non-medically necessary health services.

**Table 7**  
**Comparisons Over Time**

<b>Area Effects on Access Indicators</b>	<b>Adults</b>	<b>Children</b>
Self-reported use of physical health services	None	Decrease
Self-reported use of mental health services	None	None
Problems getting physical health medications	None	Increase
Problems getting mental health medications	None	None
<b>Area Effects on Status Indicators</b>		
SF-12 physical health	None	
SF-12 mental health	None	
Colorado Symptom Index	None	
Child Health Questionnaire		None
Pediatric Symptom Checklist		None
<b>Area Effects on Outcome Indicators</b>		
Satisfaction with plan overall	None	None
Satisfaction with mental health services used	None	None
Satisfaction with physical health services used	None	None
Trust in health care provider	None	None
Quality of life	None	Decrease

The main effects for health care plan are summarized in Table 8. Only 2 of the 23 comparisons examined (9%) were statistically significant. Each significant plan comparison was again found among child Medicaid recipients as opposed to adult recipients. Additionally, both significant health care plan effects favored the MediPass/PMHP plan over the HMO plan. These differences suggest that caregivers of children enrolled in the MediPass/PMHP reported higher use of physical health services and higher levels of satisfaction with physical health services compared to caregivers of children enrolled in an HMO.

**Table 8**  
**Comparisons Between Health Care Plans**

<b>Plan Effects on Access Indicators</b>	<b>Adults</b>	<b>Children</b>
Self-reported use of physical health services	None	PMHP +
Self-reported use of mental health services	None	None
Problems getting physical health medications	None	None
Problems getting mental health medications	None	None
<b>Plan Effects on Status Indicators</b>		
SF-12 physical health	None	
SF-12 mental health	None	
Colorado Symptom Index	None	
Child Health Questionnaire		None
Pediatric Symptom Checklist		None
<b>Plan Effects on Outcome Indicators</b>		
Satisfaction with plan overall	None	None
Satisfaction with mental health services used	None	None
Satisfaction with physical health services used	None	PMHP +
Trust in health care provider	None	None
Quality of life	None	None

Across both adult and child Medicaid recipients, significant differences associated with eligibility status were found in 9 of 23 comparisons (39%) examined. These are summarized in Table 9. In general, a higher proportion of adult and child SSI recipients reported using physical and mental health services and were in significantly poorer physical and mental health compared to TANF recipients.

**Table 9**  
**Comparisons Between SSI and TANF Respondents**

<b>Eligibility Status Effects on Access Indicators</b>	<b>Adults</b>	<b>Children</b>
Self-reported use of physical health services	SSI +	SSI +
Self-reported use of mental health services	SSI +	SSI +
Problems getting physical health medications	None	None
Problems getting mental health medications	None	None
<b>Eligibility Status Effects on Status Indicators</b>		
SF-12 physical health	SSI -	
SF-12 mental health	SSI -	
Colorado Symptom Index	SSI +	
Child Health Questionnaire		SSI -
Pediatric Symptom Checklist		SSI +
<b>Eligibility Status Effects on Outcome Indicators</b>		
Satisfaction with plan overall	None	None
Satisfaction with mental health services used	None	None
Satisfaction with physical health services used	None	None
Trust in health care provider	None	None
Quality of life	None	None

The significant differences found between TANF and SSI recipients related to their self-reported health status are not surprising, given that SSI recipients are individuals with some type of disability; while TANF recipients are more likely to be poor, but otherwise healthier. Similarly, the higher use of services among SSI recipients are consistent with their poorer health and mental health status, as well as having a disability. These results are consistent with findings from previous years. These differences associated with Medicaid recipients eligibility status have less relevance in understanding how differences among plans in the financing and delivery of services impact recipients, but are important in validating the mail survey methodology given these results are consistent with what is expected.

Finally, 4 of 23 comparisons associated with the AHCA area among adult and child recipients examined were significant (See Table 10). These significant effects suggest that caregivers of children residing in Area 5 have higher levels of satisfaction with the services their children receive and that adults living in Area 5 have more trust in their health care providers compared to Medicaid recipients living in Area 7. In contrast, in Area 7, adult Medicaid recipients reported higher use of physical health services compared to adult respondents from Area 5.

In summary, the results from this year's mail survey analyses indicate that no consistent differences exist in Medicaid recipients' access to care, health or mental health status, or in the other outcomes examined. Although some "less desirable" changes were reported by the caregivers of Medicaid-enrolled children, including decreased use by children of physical health services and greater problems getting physical health medications, these potential concerns are unlikely to be associated with the expansion of mental health managed care. Similarly, while some significant differences were found between the MediPass/PMHP and HMO plans favoring the MediPass/PMHP plan, the findings are not consistent and again, unlikely to be associated with the expansion of mental health managed care. These differences, however, may be related to the different financing mechanisms for physical health services between the plans. Throughout the 11 years of our evaluation, potential areas of concern that have emerged from these population-based surveys have most frequently been associated with Medicaid-enrolled children in contrast to adult recipients and it is recommended that they continue to be monitored. In conclusion, this examination of the early implementation of the expansion of managed mental health in Areas 5 and 7 have not generated any major cause for concern.

**Table 10**  
**Significant Differences Between Areas 5 and 7 Respondents**

<b>Area Effects on Access Indicators</b>	<b>Adults</b>	<b>Children</b>
Self-reported use of physical health services	Area 7 +	None
Self-reported use of mental health services	None	None
Problems getting physical health medications	None	None
Problems getting mental health medications	None	None
<b>Area Effects on Status Indicators</b>		
SF-12 physical health	None	
SF-12 mental health	None	
Colorado Symptom Index	None	
Child Health Questionnaire		None
Pediatric Symptom Checklist		None
<b>Area Effects on Outcome Indicators</b>		
Satisfaction with plan overall	None	None
Satisfaction with mental health services used	None	None
Satisfaction with physical health services used	None	Area 5 +
Trust in health care provider	Area 5 +	Area 5 +
Quality of life	None	None

## Recommendations

Given that Medicaid managed mental health care now has been implemented statewide and given that to date, the population-based monitoring conducted as part of this evaluation has been focused on specific geographic regions throughout the state, the following recommendations are offered for continued program monitoring.

1. Develop a set of performance standards based on an agreed upon set of indicators. These indicators might be derived from the existing mail survey used in this evaluation or from other performance measures considered important and relevant to the Agency.
2. Use these indicators to create a report card highlighting the relative performance of various managed care entities. To date, the evaluation has primarily contrasted the performance of HMOs collectively relative to the PMHPs. Given that there are multiple PMHPs and HMOs that have differing organization and fiscal arrangement with providers, a report card would permit the direct comparison across the PMHPs and HMOs.
3. As previously noted, to date the sampling for the mail survey has been limited to specific geographical regions that were the focus of a given year's evaluation. This was done to parallel the rollout of the PMHPs throughout the state. However, given that implementation is now statewide, the Agency should consider moving toward a Medicaid population-based monitoring system using a statewide sampling framework.

## 2006-2007 Follow-up Mailings

It is important to remember that the results summarized in this report were obtained from mailings conducted in 2005 and 2006 -- the first at a point in time when the implementation of managed mental health care was getting underway in Areas 5 and 7, and the second about a year after implementation of managed mental health care. These results represent what could be characterized as the initial impact on Medicaid recipients' service access, health-related status, and outcomes. During the 2006-2007 AHCA contract, a second follow-up survey on recipients in Area 5 and Area 7 was conducted. The results from this mailing (which will be summarized in next year's report) will continue to monitor the well-being of adult and child Medicaid recipients in the MediPass/PMHP plan and HMO plans in these two areas and will provide an opportunity to examine the longer term impact on recipients, if any, associated with the implementation of Medicaid managed mental health care in these AHCA areas.

Questionnaires again were mailed to each respondent from the 2005 and 2006 survey, as well as to a new replacement sample. The replacement sample was selected in a manner to ensure that 40 Medicaid recipients from each of the 96 strata were again sampled.

In addition to our continued monitoring of Medicaid recipients in Area 5 & 7, the 2007 mailing was expanded to AHCA Area 11 (i.e., Miami). At the request of AHCA staff, we modified our previous sampling frame and stratified the sample by Medicaid providers so that individual providers could more readily be compared. This sampling frame is summarized in Table 12 in Appendix C. The results from the expanded mailing in Area 11, as well as the findings from the second follow-up survey to Medicaid enrollees in Areas 5 & 7, will be summarized in next year's report.

In addition, under next year's contract we will conduct a follow-up mailing to Medicaid recipients in Area 11 which will allow analyses to determine if any changes are reported by recipients in terms of the service needs and use, health and mental health status, and satisfaction with their Medicaid plan and providers.

# Appendix A

**Table 11**  
2005 & 2006 Mail Survey Sampling Scheme

Enrollee Characteristics				Area 5		Area 7		Totals
				MediPass/ PMHP	HMO	MediPass/ PMHP	HMO	
Adult	Female	White	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Black	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Other	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
	Male	White	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Black	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Other	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
Child	Female	White	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Black	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Other	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
	Male	White	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Black	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
		Other	SSI	40	40	40	40	160
			TANF	40	40	40	40	160
<b>Totals</b>				960	960	960	960	3,840

## Appendix B: Psychometric Properties of Measures in the Adult and Child Surveys

### Adult Measures

#### SF-12

The SF-12 examines eight health concepts including physical functioning, role limitations due to physical health problems, bodily pain, general health, vitality (energy/fatigue), social functioning, role limitations due to emotional problems, and mental health (psychological distress and psychological well being). The first four health concepts indicate physical health status and the remaining four concepts indicate mental health status. In a general population the mean score on each component is around 50, with scores of 40-49 indicating mild disability, scores of 30-39 indicating moderate disability and scores below 30 indicating severe disability. The measure has good test-retest reliability (.89 for physical health and .76 for mental health) over two weeks. The median validity estimates for the physical health component was .67 while the median validity estimates for the mental health component ranged was .97 (Ware, Kosinski, & Keller, 1996).

#### Colorado Symptom Index (CSI)

Boothroyd and Chen's (2006) analysis of the responses of 3,874 Medicaid respondents found the internal consistency reliability was .92. Test-retest reliability estimates calculated on a sub-sample of 1,717 Medicaid recipients over an average of 381 days were high (.71). These findings are consistent with those of Wright and Young (1997) who found the CSI to have high internal consistency reliability with alphas averaging .9 across eight projects serving persons with co-morbid mental illness and substance use disorder.

The validity of the CSI was documented as scores on the measure differentiate among subgroups of Medicaid recipients with varying levels of mental health disability  $F(3, 3870) = 288.73, p < .001$ . Respondents with no known disability had significantly lower CSI scores (Mean=26.6,  $SD=10.25$ ) compared to those with physical health disabilities only (Mean=30.7,  $SD=11.55$ ), who in turn had significantly lower scores than respondents with mental health disability only (Mean=39.6,  $SD=13.11$ ). Individuals with co-morbid health & mental health disabilities had significantly higher scores than any of the other three subgroups (Mean=42.1,  $SD=11.89$ ). Further evidence of the CSI validity was noted given that CSI scores differentiated between Medicaid recipients reporting a need for mental health services in the past six months from those who did not  $t(1002.64)=26.12; p < .001$ . Respondents (N=695) who reported needing mental health services in the previous six months reported significantly higher CSI scores (Mean=40.89;  $SD=12.34$ ) compared to respondent (N=2,349) who did not need mental health services (Mean=27.43;  $SD=10.39$ ). The validity of the CSI was also documented through its association with respondents' functioning. Overall Medicaid respondents' (N=3,686) self-reported functioning was significantly and negatively associated with the CSI symptom scores ( $r = -.48; p < .001$ ) (i.e., higher levels of symptomatology were associated with lower levels of functioning).

### Simple Screening Instrument (SSI)

The SSI-SA was designed for the Center for Substance Abuse Treatment (CSAT) to encompass a broad spectrum of signs and symptoms for substance use disorders, and particularly to screen patients for substance abuse disorders. The SSI-SA has 16 items, of which 14 were derived from existing drug and alcohol screening tools. The SSI-SA measures five domains: 1) Substance consumption; 2) Preoccupation and loss of control; 3) Adverse consequences; 4) Problem recognition; and 5) Tolerance and withdrawal. The SSI-SA is available in both interview and self-administered formats. The developers indicate that the SSI-SA is consistent with a bio-psychosocial view of substance use disorders, such as adopted by the World Health Organization and the American Psychiatric Association. Fourteen of the items are scored, thus scores can range from 0 to 14; a score of 4 or greater has become the established cut-off point warranting a referral for a full assessment.

### Trust in Health Care Provider

Respondents answered each question using a 5-point Likert scale and the items include both positively and negatively worded questions. Anderson and Dedrick (1990) reported that each of the 11 items has item-to-total correlations exceeding .40. The internal consistency reliability of the scale is also high; with Cronbach's alphas exceeding .85 in two independent phases of scale development (Anderson & Dedrick, 1990). The scale's construct validity was also assessed as sufficient on multiple occasions by correlating scores obtained on this scale with those from scale assessing constructs closely aligned with patient/physician relationships. Validity of the measure, by comparison with other trust scales, showed moderate correlation with these other measures. In further measures of reliability and validity, Thom, Ribisl, Stewart, and Luke (1999) tested a slightly modified version of the scale where one question and the response labels had been slightly reworded. They report that the measure has high internal consistency ( $\alpha=.89$ ) and good one-month test-retest reliability ( $r=.77$ ). Trust scores correlated well several measures of the patient's preferences regarding the physician's role. In six-month follow-up surveys, trust scores were significantly correlated with continuity of care, adherence to prescribed medication, and overall satisfaction with care.

In Thom et al.'s study to assess the association between physician behaviors and patient trust, 414 patients enrolled in 20 community-based family practices, patients rated 18 physician behaviors and completed the Trust in Physician Scale immediately following their visits. Trust was also measured at 1 and 6 months after the visit. The association between physician behaviors and trust was examined in regard to patient sex, age, and length of relationship with the physician. All behaviors were significantly associated with trust ( $p<.0001$ ), with Pearson correlation coefficients ranging between .46 and .64. Being comforting and caring, demonstrating competency, encouraging and answering questions, and explaining were associated with trust among all groups.

## Child Measures

### Child Health Questionnaire (CHQ)

Subscale on the CHQ (Landgraf, Abetz, & Ware, 1999) include the child's overall health (1 question), difficulty doing physical functioning (9 questions, e.g., "do tasks around the house", "bend, lift, or stoop"), bodily pain (2 questions, e.g., "amount of pain child has had in the past month"), and caregivers' general perceptions of their child's health (13 questions, e.g., "I worry about my child's health", "My child doesn't seem to get very sick"). The subscales have acceptable internal consistency reliability ranging between .66 and .94 and have been shown to differentiate between children with and without health problems (Landgraf, Abetz, & Ware, 1999; Walters, Salmon, Wake, Wright, & Hesketh, 2001).

### Pediatric Symptom Checklist (PSC)

The 35-item PSC (Jellinek, Murphy, & Burns, 1986) asks caregivers to report the frequency with which their children exhibit specific behaviors such as "being irritable or angry", "having trouble concentrating", "feeling sad or unhappy", "getting in fights with other children", and "not listening to rules" on a three-point scale ranging from 0="Never" to 2="Often." Studies have documented high levels of agreement between parents' and professionals' PSC ratings (Jellinek, et al., 1988; Murphy, Jellinek & Milinsky, 1989; Murphy, Reede, Jellinek, & Bishop, 1992), good internal consistency (.89) and test-retest reliability (.86) (Jellinek, et al., 1988), and acceptable validity (Jellinek & Murphy, 1990). Normative data suggest that PSC scores of 28 or above reflect a need for further psychosocial evaluation and that 10% to 13% of children in a general pediatric sample exceed this threshold (Jellinek & Murphy, 1990; Jellinek, Murphy, & Burns, 1986; Jellinek, Murphy, Little, Pagano, Comer, & Kelleher, 1999). The measure has good sensitivity (87 to 95) and specificity (68 to 100) (Jellinek, et al., 1988; Murphy, Reede, et al., 1992; Walker, Lagrone, & Atkinson, 1989).

# Appendix C

**Table 12**  
**2007 Mail Survey Sampling Scheme for AHCA Area 11**

Enrollee Characteristics				Area 11										Totals			
				PMHPs		HMOs											
				1	2	1	2	3	4	5	6	7	8		9	10	
Adult	Male	White	TANF	10	10	10	10	10	10	10	10	10	10	10	10	120	
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Black	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Other	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
	Female	White	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Black	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Other	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
Child	Male	White	TANF	10	10	10	10	10	10	10	10	10	10	10	10	120	
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	120	
		Black	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Other	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
	Female	White	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Black	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
		Other	TANF	10	10	10	10	10	10	10	10	10	10	10	10	10	120
			SSI	10	10	10	10	10	10	10	10	10	10	10	10	10	120
<b>Totals</b>				<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>2,880</b>		

Legend: PMHP1=Magellan Behavioral Health of Florida  
 PMHP2=The Public Health Trust of Dade County  
 HMO1=Amerigroup Florida, Inc.,  
 HMO2=Buena Vista Medicaid  
 HMO3=Healthease  
 HMO4=Humana Family  
 HMO5=Preferred Medical Plan Inc.  
 HMO6=Stay Well Health Plan  
 HMO7=Total Health Choice  
 HMO8=United Healthcare of Florida  
 HMO9=Vista South Florida.  
 HMO10=The Public Health Trust of Dade County

## References

- Agency for Health Care Administration. (2005). *MediPass reports: April 2005*. [Data file]. Retrieved April 2005 from <http://www.fdhc.state.fl.us/Medicaid/MediPass/reports.shtml>.
- Anderson, L. A., & Dedrick, R. F. (1990). Development of the trust in physician scale: A measure to assess interpersonal trust in patient-physician relationships. *Psychological Reports, 67*, 1091-1100.
- Bloom, J., Hu, T., Wallace, N., Cuffel, B., Hausman, J. W., Sheu, M., & Scheffler, R. (2002). Mental health costs and access under alternative capitation systems in Colorado. *Health Services Research, 37*(2), pp 315-340.
- Boothroyd, R. A., & Chen, H. J. (2006, November). *The Psychometric Properties of the Colorado Symptom Index*. A paper presented at the annual conference of the American Evaluation Association, Portland Oregon.
- Boothroyd, R. A., & Shern, D. L. (1998, January). *Preliminary findings of the member survey component: Evaluation of Florida's prepaid mental health plan: Interim report*. Tampa, FL: Louis de la Parte Florida Mental Health Institute, University of South Florida.
- Bouchery, E., & Harwood, H. (2002). The Nebraska Medicaid managed behavioral health care initiative: Impacts on utilization, expenditures, and quality of care for mental health. *The Journal of Behavioral Health Services & Research, 30*(1), 93-108.
- Brown, R., Wooldridge, J., Hoag, S., & Moreno, L. (2001). *Reforming Medicaid: The experiences of five pioneering states with mandatory managed care and eligibility expansions*. (No. PR01-31). Princeton, NJ: Mathematica Policy Research, Inc. Available <http://www.mathematica-mpr.com/publications/PDFs/reformmed.pdf>.
- Busch, A. B., Frank, R. G., & Lehman, A. F. (2004). The effect of a managed behavioral health carve-out on quality of care for Medicaid patients diagnosed as having schizophrenia. *Archives of General Psychiatry, 61*, 442-448.
- Center for Substance Abuse Treatment. (2005). Substance Abuse Treatment for Persons With Co-Occurring Disorders. *Treatment Improvement Protocol (TIP) Series 42*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Earlbaum Associates.
- Cuffel, B. J., Bloom, J. R., Wallace, N., Hausman, J. W., & Hu, T. W. (2002). Two-year outcomes of fee-for-service and capitated Medicaid programs for people with severe mental illness. *Health Services Research, 37*(2), pp341-339.
- Dillman, D.A. (1978). *Mail and telephone surveys: The total design method*. New York: John Wiley & Sons, Inc.
- Jellinek, M. S., & Murphy, J. M. (1990). The recognition of psychosocial disorders in pediatric office practice: The current status of the Pediatric Symptom Checklist. *Journal of Developmental and Behavioral Pediatrics, 11*, 273-278.
- Jellinek, M. S., Murphy, J. M., & Burns, B. J. (1986). Brief psychosocial screening in outpatient pediatric practice. *The Journal of Pediatrics, 109*, 371-378.
- Jellinek, M. S., Murphy, J. M., Little, M., Pagano, M. E., Comer, D. M., & Kelleher, K. J. (1999). Use of the Pediatric Symptom Checklist to screen for psychosocial problems in pediatric primary care. *Archive of Adolescent Medicine, 153*, 254-260.

- Jellinek, M., Murphy, J. M., Robinson, J., Feins, A., Lamb, S., & Fenton, T. (1988). The pediatric symptom checklist: Screening school-aged children for psychosocial dysfunction. *Journal of Pediatrics*, *112*, 201-209.
- Kanuk, L., & Berenson, C. (1975). Mail surveys and response rates: A literature review. *Journal of Marketing Research*, *12*(4), 440-453.
- Landgraf, J. M., Abetz, L., & Ware, J. E. (1999). *The CHQ User's Manual*. Second Printing. Boston, MA: Health Act.
- Lehman, A., (1988). A Quality of Life Interview for the chronically mentally ill. *Evaluation and Program Planning*. *11*, 51-62
- Manning, W. G., Lieu, C. F., Stoner, T. J., et al. (1999). Outcomes for Medicaid beneficiaries with schizophrenia under a prepaid mental health carve-out. *Journal of Behavioral Health Services and Research*, *26*(4), 442-450.
- McFarland, B. H., Khorramzadeh, S., Millius, R., & Mahler, J. (2002). Psychiatric hospital length of stay for Medicaid clients before and after managed care. *Administration and Policy in Mental Health*, *29*(3), 191-199.
- Murphy, J. M., Jellinek, M. S., & Milinsky, S. (1989). The Pediatric Symptom Checklist: Validation in real world middle school. *Journal of Pediatric Psychology*, *14*, 629-639.
- Murphy, J. M., Reede, J., Jellinek, M. S., & Bishop, S. J. (1992). Screening for psychosocial dysfunction in inner-city children: Further validation of the Pediatric Symptom Checklist. *Journal of the American Academy of Child Adolescent Psychiatry*, *31*, 1105-1111.
- Lehman, A., (1988). A Quality of Life Interview for the chronically mentally ill. *Evaluation and Program Planning*. *11*(1), 51-62.
- Popkin, M. K., Lurie, N., Manning, W., Harman, J., Callies, A., Gray, D, et al. (1998). Changes in the process of care for Medicaid patients with schizophrenia in Utah's Prepaid Mental Health Plan. *Psychiatric Services* *49*, 518-523.
- Ridgely, M. S., Giard, J., & Shern, D. (1999). Florida's Medicaid mental health carve-out: Lessons from the first years of implementation. *The Journal of Behavioral Health Services & Research*, *26*(4), 400-415.
- Salant, P. A., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: John Wiley & Sons, Inc.
- Shern, D. L., Wilson, N. Z., Coen, A. S., Patrick, D. C., Foster, M., Bartsch, D. A., et al. (1994). Client outcomes II: Longitudinal client data from the Colorado Treatment Outcome Study. *The Milbank Quarterly*, *72*(1), 123-148.
- Thom, D. H., K. M. Ribisl, A. L. Stewart, D. A. Luke, & the Stanford Trust Study Physicians (1999). Further validation and reliability testing of the trust in physician scale. *Medical Care*, *37*(5) 510-517.
- Thom, D. H., & the Stanford Trust Study Physicians (2001). Physician behaviors that predict patient trust. *Journal of Family Practice*, *50*(4) 329-30.
- U.S. Department of Health and Human Services (1996). *The MHSIP consumer-oriented mental health report card: The final report of the Mental Health Statistics Improvement Program (MHSIP) task force on a consumer-oriented mental health report card*. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, National Mental Health Information Center. Retrieved August 1, 2006 from <http://www.mentalhealth.samhsa.gov/publications/allpubs/MC96-60/default.asp>

- Walker, W. O., Lagrone, R. G., & Atkinson, S. W. (1989). Psychosocial screening in practice: Identifying high-risk children. *Journal of Developmental and Behavioral Pediatrics, 10*, 134-138.
- Walters, E. B., Salmon, L. A., Wake, M., Wright, M., & Hesketh, K. D., (2001). The health and well being of adolescents: A school-based population study of the self-report Child Health Questionnaire. *Journal of Adolescent Health, 29*, 140-149.
- Ware, J. E., Kosinski, M., & Keller, S.D. (1995). *SF-12: How to score the SF-12 physical and mental health summary scales*. Boston, MA: The Health Institute.
- Ware, J. Jr, Kosinski, M., & Keller, S. D. (1996). A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care, 32*(3), 220-233.
- Wieman, D. A., & Dorwart, R. A. (1999). A comparison of public and privatized approaches to managed behavioral health care for persons with serious mental illness. *Mental Health Services Research, 1*, 159-170.
- Winters, K. C., & Zenilman, J. M. (1994). *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases (Treatment Improvement Protocol series No. 11)*. Rockville, MD: U.S. Dept of Health and Human Services, Public Health Service, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. Available <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.32939>
- Wright, J. G., & Young, N. L. (1997). A comparison of different indices of responsiveness. *Journal of Clinical Epidemiology, 50*, 239-246.

