U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

Using MSIS Data to Analyze Mental Health Service Use and Expenditures for Medicaid Beneficiaries with Mental Illness in New Jersey in 1999

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I. STUDY PURPOSE

A. Purpose of Study

Many Medicaid beneficiaries with chronic mental illness have serious difficulty finding services that will assist them to live in communities and participate in the full range of social activities. Recent national policy reports (GAO 2003; New Freedom Commission on Mental Health 2003) and judicial decisions (U.S. Supreme Court 1999) underscore the critical need to improve the mental health service system, and policymakers, program administrators, and advocacy groups are working to develop effective community-based alternatives to placement in psychiatric hospitals or residential facilities (see, for example, Bazelon 2001). A major obstacle impeding these efforts is the lack of adequate information on what medical and mental health services these individuals use and how much Medicaid spends for their care. Without a better foundation of knowledge, state Medicaid agencies are reluctant to expand services or develop new initiatives for individuals with chronic mental illness, particularly when state governments are facing financial shortfalls.

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the Department of Health and Human Services (HHS) plays an important role in establishing national policies for Medicaid and assisting state Medicaid agencies to address emerging policy issues effectively. As part of its mission, ASPE identifies opportunities to develop new sources of information and conduct studies that will be useful to state Medicaid staff and other key stakeholders. The study described in this report was designed to determine whether the Medicaid Statistical Information System (MSIS) files could be used to generate policy-relevant information on the use and costs of Medicaid services for beneficiaries with mental illness.[1]

MSIS files provide substantial individual-level information on the services that beneficiaries use, the costs of these services, and demographic and program eligibility characteristics of beneficiaries. The study described in this report is one of the first to use MSIS files to examine services for Medicaid beneficiaries with mental illness and it demonstrates how data in these files can be used to address policy issues affecting these individuals. Specifically, in this study we aim to (1) describe Medicaid services

[1] The MSIS files contain administrative and claims data that states submit quarterly to the Centers for Medicaid and Medicare (CMS). These data are submitted in a standardized format and are checked extensively to ensure that they meet explicit standards of quality. If files do not meet standards, they are returned to the state for correction or upgrading. Data are approved for research use only when the standards are met. This report is one of three reports produced for ASPE under the same contract. The other reports are "Using MSIS Data to Analyze Medicaid Coverage of Noninstitutional Long-Term Care in Four States in 1999" and "Using Medicaid Statistical Information System (MSIS) Data for Analysis of Medicaid Managed Care Enrollment." These reports can be obtained by contacting Ann Cherlow at acherlow@mathematica-mpr.com.

used by beneficiaries with mental illness in one state and (2) assess the feasibility of using MSIS data for analyses of mental health services. If MSIS files are found to be useful for this purpose, OASPE or other agencies could consider further analyses of MSIS data to investigate patterns in the use and cost of mental health services.[2]

B. Overview of Report

In the following chapter (Chapter II), we describe the methods we used for this study. Chapter III includes an overview of our findings on service use and costs for beneficiaries with mental illness compared with services for other Medicaid beneficiaries. The fourth chapter provides information on characteristics of the population with mental illness and the services they use. In Chapter V we examine characteristics of the "high-cost" subgroup and in the final chapter of the report (Chapter VI), we summarize our findings and suggest next steps. Specifically, we address the lessons learned regarding (1) patterns of service use and expenditures for beneficiaries with mental illness and (2) the utility of MSIS data.

Information for the analyses presented in Chapters III-V was drawn from the detailed data tables in Appendix A, which were produced in accordance with specifications developed in consultation with staff at the OASPE. These tables contain more information than could be presented in the text of this report. We selected key findings to include in the text that we believe would be of broad interest and would illustrate the feasibility of using MSIS data to provide policy relevant information. In addition to Appendix A, we include the following appendices:

Appendix B: Definitions of Terms in the Tables
Appendix C: Procedures for Identifying Individuals with Mental Illness, Definition of "Inpatient Stays," Procedures for Distinguishing Clinical vs Supportive Services, and Pharmaceutical Groups Used to Define Psychiatric Medications
Appendix D: Specific Drugs Identified as Psychiatric Medications
Appendix E: File Layout

[2] The information in MSIS files also can be used to assess quality of care by examining whether actual service patterns conform to expected or desired patterns. For example, it would be possible to determine the extent to which beneficiaries who were discharged from inpatient settings received subsequent outpatient services. We did not pursue these types of analyses in this project because our overall goal was to provide descriptive rather than evaluative data.

II. METHODS

Our first step for this study was to select an appropriate state in which to examine patterns of mental health service use and associated expenditures.[3] After this decision was made, we then (1) identified beneficiaries with mental illness, (2) sorted mental health services into selected categories, and (3) calculated expenditures for the services used. In this chapter, we discuss our approach to each of these steps.

A. Selecting Data from New Jersey

After examining MSIS data from numerous states, we selected files from New Jersey for three reasons. First, New Jersey data were being analyzed for a concurrent study and therefore we could conduct our analyses efficiently. Second, New Jersey had low rates of beneficiary enrollment in Medicaid behavioral managed care in 1999, and therefore claims data on service use were available for the large majority of beneficiaries. (As states began enrolling beneficiaries into managed care programs, claims data became increasingly incomplete because managed care organizations usually were not required to submit specific claims or encounter data to the state Medicaid agency.) Finally, New Jersey's a large population of Medicaid beneficiaries allowed for statistically robust analyses. We used MSIS data from calendar year 1999 because these were the most complete data available at the start of the study (September 2001).

B. Identifying Beneficiaries with Mental Illness

We elected to focus on beneficiaries with mental illness (including those who also have any other co-occurring mental disorder) because this study was designed to assess the feasibility of using MSIS data to examine services for a targeted group of beneficiaries rather than to conduct a comprehensive assessment of cost and service use for all individuals with any mental disorder. Therefore, we distinguished beneficiaries with mental illness from beneficiaries who have other mental disorders, including substance abuse (SA) problems, mental retardation or developmental disabilities (MR/DD), or organic brain disorders (OBD). Of course, many individuals with mental illness also have co-occurring SA, MR/DD, and/or OBD, and we included these individuals in our analyses. If MSIS data are found to be useful for describing service use and costs for beneficiaries with mental illness, future studies can analyze

[3] The process of obtaining the original MSIS data files from CMS and preparing them for analysis is described in a companion report, "Feasibility of Using Medicaid Statistical Information System (MSIS) Administrative Data for Policy Research."

cost and use data for groups of beneficiaries with other mental disorders as the targeted group of individuals.

Beneficiaries with mental illness are defined as individuals who had (1) a psychiatric diagnosis (using specific ICD-9-CM codes) on any claim in calendar year 1999 or (2) any claim for a selected mental health service. The ICD-9-CM codes and the mental health services used to select individuals with mental illness are in Appendix C.[4]

Most individuals whom we identified as having a mental illness were identified by either diagnosis alone, or diagnosis in conjunction with service codes (Table II.1). Only 5 percent of individuals identified were found based exclusively on services.

TABLE II.1. Proportions of Sample Found by Identification Methods

Identified by:	Percent of Identified Individuals
Diagnosis Only	71%
Service Only	5%
Diagnosis and Service	23%

Some services provided to individuals who have mental illness are not strictly mental health services although they often are provided to this population for therapeutic purposes. For example, occupational therapy is not usually considered a mental health service but many individuals with serious mental illness who are in day treatment or residential settings engage in occupational therapy as part of their treatment. Although we did not use certain types of services to identify beneficiaries with a mental illness, these services were designated as mental health services for the purposes of calculating expenditures. Consequently, we expected to find (and did find) that beneficiaries who did not have mental illness nonetheless had expenditures for mental health services. For example, some beneficiaries who do not have a mental illness will be given occupational therapy as treatment for other conditions. In future work, we will need to develop methods for distinguishing when a particular service such as occupational therapy should be considered as a mental health service, and when it should not be so considered.

[4] Although administrative and claims files contain substantial amounts of information, they cannot be used to estimate prevalence of mental illness in the population of Medicaid beneficiaries. Some beneficiaries will not use Medicaid services in any particular year, and hence would not appear in the data files. In addition, some beneficiaries with mental illness may use general medical services for physical health problems and their mental health diagnosis would not be recorded. As a result, they would not be identified as having a mental illness. Finally, Medicaid beneficiaries who are also receiving Medicare (i.e., beneficiaries who are "dually eligible") may receive the bulk of mental health services through Medicare. Their residual Medicaid claims may not include diagnostic or service use information that would identify them as having a mental illness when in fact they do.

Our approach may miss counting individuals who in fact have mental illness but are not diagnosed as such because the physicians they visit may be treating medical problems and because they do not use mental health services. Furthermore, individuals with mental illness in certain groups of beneficiaries are disproportionately likely to be missed. For example, in the group of aged beneficiaries who also have Medicare, individuals with mental illness may be missed because Medicare covers most of their services and, as a result, their residual Medicaid claims do not include qualifying codes.

Finally, as part of our feasibility assessment, we also considered using psychiatric medication codes to identify individuals as having a mental illness. However, after conducting a preliminary examination of the potential codes that could be used for this purpose, we elected not to use this identification strategy because many psychiatric medications also are used to treat certain types of physical symptoms (e.g., seizures) in individuals who do not have mental illness. We concluded that the use of psychiatric medication codes would yield high numbers of "false positives," and therefore would be an unreliable indicator of the target population.

C. Categorizing Mental Health Services

We classified mental health services into three primary categories: psychiatric inpatient services, community mental health services, and psychiatric prescription drugs. Within the category of inpatient services, we made further distinctions between services provided in long-term psychiatric institutions, acute psychiatric inpatient facilities (for example, psychiatric units of a general hospital), and other psychiatric residential facilities (for example, certain types of group homes).

Community mental health services were classified into two categories suggested by OASPE staff: individual clinical services, such as evaluation, diagnostic, and treatment services provided to individual beneficiaries in community settings or private offices; and all other therapeutic services, including family or group counseling and certain types of psychiatric case management services. Additional details regarding service classifications are in Appendix C.

D. Procedures for Calculating Expenditures

We used the amounts Medicaid paid on claims, as taken from MSIS, in calculating Medicaid expenditures. These expenditures include both payments for fee-for-service claims and payments for capitation premiums (e.g., to HMOs).

In all cases, we created fully adjusted payments, meaning that we combined original claims with subsequent additions or subtractions and resubmissions so that we

were left with the final amount actually paid for each service. The expenditure data from MSIS do not allow association of some Medicaid expenses with individual beneficiaries; these "missing" expenditures include administrative expenses of the Medicaid program, disproportionate share hospital payments, and other provider-level payments.

We calculated two types of Medicaid expenditures for services that beneficiaries received in 1999: expenditures for all services and expenditures for mental health services. The list of mental health services that we included in these calculations is in Appendix C. For most analyses, we calculated mean expenditures for each beneficiary. For selected analyses, we calculated expenditures based on person-years of enrollment, thereby accounting for the transient nature of Medicaid enrollment in some eligibility groups.

III. BENEFICIARIES WITH MENTAL ILLNESS: CHARACTERISTICS AND OVERALL SERVICE EXPENDITURES

In order to enhance existing mental health policies or plan new initiatives for individuals in Medicaid, policymakers and program administrators need reliable information on the number and characteristics of beneficiaries with mental illness. We used the 1999 MSIS eligibility and claims files for New Jersey to identify (1) beneficiaries with mental illness, (2) their demographic characteristics and program status, and (3) expenditures for the services they used. Key findings include the following:

- In 1999, 11.5 percent of all Medicaid beneficiaries in New Jersey had a mental illness (including those with mental illness only and mental illness with SA, MR/DD, or OBD as a co-occurring disorder).

- Beneficiaries with mental illness (including those with mental illness and co-occurring mental disorders) accounted for 30.1 percent of Medicaid expenditures.

- Beneficiaries with mental illness had annual Medicaid expenditures for all services that were 2.5 times greater than beneficiaries in general.

- Compared with beneficiaries in general, the group of beneficiaries with mental illness includes proportionally more males, fewer children, more whites, fewer Hispanics, and more individuals who are receiving SSI disability payments and who are dually enrolled in Medicaid and Medicare.

Detailed findings are presented in the two parts of this chapter: (1) Number of beneficiaries with mental illness and co-occurring mental disorders and the overall expenditures for the services they used and (2) characteristics of beneficiaries with mental illness compared with beneficiaries in general.

A. Number of Beneficiaries with Mental Illness and Overall Costs of Care

A total of 868,106 individuals were Medicaid beneficiaries in New Jersey in 1999. Of these, were 99,976 (11.5 percent) had mental illness, including those with co-occurring mental disorders (Table III.1 and Table III.2). This group accounted for 30.1 percent of the costs of all Medicaid expenditures. Other key findings shown in the tables include the following:

- A total of $1.1 billion dollars were spent on mental health services for beneficiaries with mental illness in New Jersey in 1999.

- Mean costs of care for Medicaid services overall and for mental health services were higher for beneficiaries who had mental illness than for the beneficiaries in general. Beneficiaries with mental illness had annual costs of care for all services that were 2.5 times more than beneficiaries in general ($16,540 vs $6,504).

- Slightly more than 8 percent of all Medicaid beneficiaries had only a mental illness and no other co-occurring mental disorder, and this subgroup accounted for about 15.6 percent of the costs for all Medicaid services and 21.6 percent of the costs for Medicaid mental health services.

- Different co-occurring mental disorders have different implications for costs of care. For example, the co-occurring disorder that has the greatest impact on costs of care is MR/DD. Only 1.5 percent of all Medicaid beneficiaries have mental illness and MR/DD, but these individuals account for 17.5 percent of the costs of mental health services.

TABLE III.1. Medicaid Beneficiaries with Mental Illness in New Jersey: Population Size and Annual Medicaid Expenditures for All Services and For Mental Health Services, 1999

	Number	Annual Expenditures			
		All Services		Mental Health Services Only	
		Total (in $1,000s)	Mean	Total (in $1,000s)	Mean
All Medicaid Beneficiaries	868,106	$5,358,079	$6,504	$2,270,448	$2,721
Beneficiaries with:					
Mental Illness and Any Co-occurring SA, MR/DD, or OBD	99,976	$1,645,200	$16,540	$1,120,905	$11,202
Mental Illness Only	70,659	$833,569	$11,694	$490,968	$6,747
Mental Illness and SA	8,109	$155,197	$18,860	$105,175	$12,550
Mental Illness and MR/DD	12,778	$449,917	$35,512	$394,121	$31,107
Mental Illness and OBD	10,162	$273,293	$26,618	$181,026	$17,459
Any Mental, SA, MR/DD, or OBD	126,989	$2,585,498	$20,459	$1,812,785	$14,259
SA only, MR/DD only, and OBD only	27,013	$940,298	$35,860	$691,880	$26,272

SOURCE: New Jersey MSIS Files, 1999.
NOTE: SA is Substance Abuse; MR/DD is Mental Retardation/Developmental Disabilities; OBD is Organic Brain Disorder. Expenditures are adjusted for person-years.

As Table III.1 shows, individuals with *any* mental disorder--including mental illness, substance abuse, mental retardation/developmental disorders, or organic disorders--constitute 14.6 percent of the population and account for 79.8 percent of the expenditures for mental health services. The remaining 20 percent of expenditures for

mental health services result from either (1) individuals who are not identified as having a mental disorder but who in fact do and are using mental health services or psychiatric medications that were not used for identification purposes (see Chapter II) or (2) individuals who do not have a mental disorder but who are using psychiatric medications for selected conditions (such as epilepsy).

Additional information on annual and mean costs of care for major groups of beneficiaries can be found in Appendix A.

B. Characteristics of Beneficiaries with Mental Illness

We found important differences in demographic characteristics and eligibility status of beneficiaries with mental illness compared with beneficiaries in general (Table III.2). Demographic differences include the following:

- Males comprise a somewhat greater percentage of the group of beneficiaries with mental illness compared with beneficiaries in general (44.5 vs. 39.3 percent).

- Beneficiaries with mental illness tend to be older than beneficiaries in general; for example, slightly more than half of all beneficiaries (51.9 percent) are under 18 years of age but less than a third (31.7 percent) of beneficiaries with mental illness are in this age group.

- The racial composition of the group of beneficiaries with mental illness is somewhat different compared with beneficiaries overall. For example, there are proportionally more Whites and fewer Hispanics in the group of beneficiaries with mental illness.

We also found major differences in eligibility status between beneficiaries in general and beneficiaries with mental illness:

- Overall, 11.3 percent of all Medicaid beneficiaries in New Jersey in 1999 were receiving SSI payments; in contrast, 36.0 percent of beneficiaries with mental illness were receiving these payments.

- Children comprised 54.2 percent of all Medicaid beneficiaries in New Jersey in 1999 (13.5 percent were AFDC children and 40.7 percent were other children) but only 25.7 percent of beneficiaries with mental illness were children.

- 18.6 percent of all beneficiaries and 23.7 of beneficiaries with mental illness were dually enrolled in Medicare.

TABLE III.2. Medicaid Beneficiaries with Mental Illness as Percent of All Beneficiaries and Annual Expenditures for Services As Percent of All Expenditures, New Jersey, 1999			
	Percent of Beneficiaries	Percent of Expenditures	
		All Services	Mental Health Services
All Medicaid Beneficiaries	100.0	100.0	100.0
Beneficiaries with:			
Mental Illness and Any Co-occurring SA, MR/DD, or OBD	11.5	30.1	49.4
Mental Illness Only	8.1	15.6	21.6
Mental Illness and SA	0.9	2.9	4.6
Mental Illness and MR/DD	1.5	8.4	17.4
Mental Illness and OBD	1.2	5.1	8.0
Any Mental, SA, MR/DD, or OBD	14.6	48.3	79.8
SA only, MR/DD only, and OBD only	3.1	17.5	30.5
SOURCE: New Jersey MSIS Files, 1999. NOTE: SA is Substance Abuse; MR/DD is Mental Retardation/Developmental Disabilities; OBD is Organic Brain Disorder. Expenditures are adjusted for person-years.			

The descriptive data in Table III.3 illustrate in a general way the differences between all Medicaid beneficiaries in New Jersey in 1999 and those with mental illness. Further analyses or “drill downs” could be used to identify more precisely the subgroups that are at greatest risk of having mental health problems. For example, gender and race cross tabulations (see Appendix A) provide further insight into the beneficiaries who are most likely to have mental illness. Other cross-tabulations (for example, race by program eligibility) could provide program administrators with additional information useful for developing targeted mental health services.

TABLE III.3. Characteristics of All Medicaid Beneficiaries and Medicaid Beneficiaries with Mental Illness, New Jersey, 1999				
	All Beneficiaries		Beneficiaries with Mental Illness	
	Number	Percent	Number	Percent
Total	868,106	100.0	99,976	100.0
Gender				
Females	526,760	60.7	55,490	55.5
Males	341,346	39.3	44,486	44.5
Age				
0-17	450,268	51.9	31,696	31.7
18-21	47,855	5.5	3,994	4.0
22-29	64,414	7.4	6,801	6.8
30-39	67,855	7.8	15,302	15.3
40-44	26,912	3.1	8,699	8.7
45-49	19,586	2.4	6,793	6.8
50-59	33,352	3.8	9,753	9.8
60-64	16,156	1.9	3,475	3.5
65+	141,706	16.3	13,463	13.5
Race				
White	261,212	30.1	44,646	44.7
Black	299,904	24.5	29,440	29.4
Hispanic	194,266	22.4	13,364	13.4
Other	112,724	13.0	12,526	12.5
Program Eligibility				
SSI Aged	50,158	5.8	4,796	4.8
Other Aged	91,548	10.5	8,667	8.7
SSI Disabled	97,855	11.3	35,968	36.0
Other Disabled	27,221	3.1	6,776	6.8
AFDC Adults	39,759	4.6	4,962	5.0
Other Adults	91,092	10.5	13,090	13.1
AFDC Children	116,943	13.5	7,614	7.6
Other Children	353,528	40.7	18,103	18.1
Dual Status				
Aged, Full Medicaid	100,403	11.6	11,271	11.3
Disabled, Full Medicaid	35,200	4.1	12,090	12.1
Aged & Disabled, Lim. Medicaid	24,873	2.9	270	0.3
Disabled Non-Duals	86,761	10.0	31,147	31.2
Non-Duals	620,869	71.5	45,198	45.2

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged & Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

IV. USE AND COSTS OF SERVICES

In addition to knowing the characteristics and eligibility status of beneficiaries with mental illness, program administrators and policy makers would benefit from understanding what services were used by these beneficiaries and how much these services cost. MSIS data files include extensive information on services and expenditures, and can be used to identify the dollars spent on specific services for specific subgroups of individuals within the group of beneficiaries with mental illness. In this chapter, we first examine the percent of beneficiaries with mental illness that use selected types of services. We then "drill down" somewhat further and examine service use for males and females in two age groups. In the chapter's final section, we present findings on expenditures for services by age, gender, racial, and program eligibility subgroups.

A. Percent of Beneficiaries Using Selected Types of Services

To illustrate patterns of service use, we present information related to three types of mental health services: inpatient, outpatient, and psychopharmacological services. Overall, of the 99,976 beneficiaries with mental illness in New Jersey in 1999, 13.5 percent used inpatient mental health services, 36.8 percent used outpatient mental health services, and 53.2 percent were given psychiatric medications (Table IV.1). These data underscore the frequency of psychiatric treatment that is based on medication only.

We found that a slightly higher percent of females compared with males were inpatients (14.1 percent vs 12.7 percent) and were given psychiatric medications (55.2 percent vs 50.7 percent). The pattern was reversed for outpatient services, where proportionally fewer females used these services compared with males (31.0 percent vs 44.0 percent). Overall, adult males are far less likely than adult females to be covered by Medicaid unless they are disabled; hence, it is possible that a larger proportion of male beneficiaries are eligible because of serious mental illness that leads to hospitalizations. Additional analyses and possibly fieldwork to gather more qualitative data would be needed to identify other reasons behind these results.

We found substantial differences across age groups (Table III.1). For example, children are far less likely to use inpatient services than adults and somewhat more likely to use outpatient services. The percent of each age group that use psychiatric medications increases consistently with age, from 23.3 percent for children to 83.4 for beneficiaries aged 60-64.

TABLE IV.1. Percent of Medicaid Beneficiaries with Mental Illness Using Selected Mental Health Services by Demographic Characteristics and Program Status, New Jersey, 1999

	Number of Beneficiaries	Percent Using		
		Inpatient Mental Health Services	Outpatient Mental Health Services	Medicaid-Covered Medications
Total	99,976	13.5	36.8	53.2
Gender				
Females	55,490	14.1	31.0	55.2
Males	44,486	12.7	44.0	50.7
Age				
0-17	31,696	7.5	46.7	23.3
18-21	3,994	16.9	39.3	35.4
22-29	6,801	16.2	38.8	49.4
30-39	15,302	16.1	44.1	57.7
40-44	8,699	16.4	40.6	69.0
45-49	6,793	15.9	37.7	74.0
50-59	9,753	15.7	27.4	80.4
60-64	3,475	15.5	17.7	83.4
65+	13,463	17.1	12.3	77.4
Race				
White	44,646	15.4	34.8	63.1
Black	29,440	13.3	44.7	41.8
Hispanic	13,364	7.8	33.6	29.3
Other	12,526	13.3	28.6	70.2
Program Eligibility				
SSI Aged	4,796	18.8	8.9	84.7
Other Aged	8,667	16.2	14.1	73.4
SSI Disabled	35,968	16.6	33.7	72.8
Other Disabled	6,776	19.4	25.5	82.3
AFDC Adults	4,962	8.0	41.7	14.2
Other Adults	13,090	9.7	65.8	44.7
AFDC Children	7,614	4.2	43.2	6.0
Other Children	18,103	10.4	40.4	22.1
Dual Status				
Aged, Full Medicaid	11,271	18.0	11.3	78.7
Disabled, Full Medicaid	12,090	20.7	26.3	87.3
Aged & Disabled, Lim. Medicaid	270	3.3	63.3	35.2
Disabled Non-Duals	31,147	15.8	34.2	69.6
Non-Duals	45,198	8.9	47.5	26.5

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged & Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

Patterns of service use differ by race. For example, a smaller percentage of Hispanic beneficiaries use inpatient services (7.8 percent) and receive psychiatric medications (29.3 percent) compared with other racial groups and a larger percentage of Black beneficiaries use outpatient services (44.7 percent).

Service utilization patterns also vary by program eligibility group (Table IV.1). Proportionally more beneficiaries with mental illness who are aged or disabled received inpatient services and psychiatric medications compared to other eligibility categories, and were less likely to have received outpatient mental health services. We found a similar pattern in groups based on dual status, where proportionally more of the aged and disabled duals who had full Medicaid coverage received inpatient care and psychiatric medications and proportionally fewer received outpatient services compared with the non-duals. This finding reflects two familiar patterns of coverage: (1) Medicare pays before Medicaid for Medicare-covered services (such as outpatient psychiatric services) and (2) Medicare does not cover most pharmaceuticals and hence Medicaid covers the major share of prescription drug costs for the dually enrolled.

B. Inpatient Services for Two Age Groups by Gender

To illustrate how MSIS data can be used to identify different service use patterns for different subgroups of beneficiaries with mental illness, we examined inpatient care data for two age groups (Table IV.2). A total of 31,696 beneficiaries aged 0 to 17 had mental illness in New Jersey in 1999 and, of these, 2,364 (7.5 percent) received some inpatient services. In contrast, a total of 15,302 beneficiaries aged 30 to 39 had mental illness and, of these, 2,460 (16.1 percent) received some inpatient services. This information, coupled with additional data found in Appendix A, suggests that older groups of Medicaid beneficiaries include proportionally more individuals who require inpatient psychiatric care compared to younger groups.

New Jersey covers the costs of psychiatric institutional care provided to Medicaid-enrolled children but, like all states, it does not cover such costs for adults.[5] Table IV.2 reflects these different policies for children and adults. Of the 2,364 children who received inpatient care:

- 326 (13.8 percent) were in institutions for mental disorders for 30 days or less and 786 (33.3 percent) were in these settings for more than 30 days;
- 1,211 (51.2 percent) received services in acute inpatient settings for 30 days or less and 274 received services in these settings for more than 30 days; and
- Less than one percent were in other types of inpatient settings.

In contrast, no adult received care in institutions for mental disorders. Virtually all of the adults aged 30 to 39 who received inpatient care in 1999 were hospitalized in

[5] Institutions for Mental Diseases (IMDs) are defined as having more than 16 beds and over half of their patients with mental illness diagnoses. Federal Medicaid law stipulates that patients in IMDs who are between 22 and 64 years of age cannot receive Medicaid coverage for any services.

acute inpatient facilities and most of these individuals had short stays. Of these 2,460 beneficiaries:

- 2,132 (86.7 percent) were in acute inpatient facilities for 30 days or less and 263 (10.7 percent) were in for more than 30 days; and
- About 3 percent were in other types of inpatient settings.

Further analyses reveal differences in the use of inpatient services for females and males in the two age groups (Table IV.3). In the younger age group, of those children who receive inpatient care, proportionally more are males (61.3 percent, compared with 38.7 percent of females). Furthermore, boys comprise a greater percentage of the children with long stays. Of all children who stay in institutions for mental disorders for longer than 30 days, 65.8 percent are boys and of all children who stay in acute care facilities for longer than 30 days, 63.1 percent are boys.

In the older age group, of those individuals who receive inpatient care, proportionally more are females (56.6 percent compared with 43.4 percent). Of these adults who stay in acute care facilities for longer than 30 days, about half are women and half are men.

Overall our analyses of inpatient service use suggest that:

- The extent of inpatient care increases proportionally as age increases; i.e., a greater percentage of older age groups are likely to receive inpatient services.

- About two-thirds of children who receive inpatient services are hospitalized in acute inpatient facilities (for example, the psychiatric unit of a children's hospital) and slightly less than one-half are inpatients in institutions for mental disorders, where many of them stay longer than a month.

- Within the childhood group, boys are disproportionately represented in the group that stays for more than a month in all types of psychiatric inpatient facilities.

- Medicaid does not pay for inpatient services to adults with mental illness, except when adults are hospitalized in acute care facilities, where stays are likely to be less than 30 days.

These analyses illustrate how MSIS data can be used to establish initial benchmarks against which to assess subsequent program changes or as an aid in defining specific measurable targets or objectives for policy initiatives. For example, if a state were to expand or strengthen home and community-based mental health services for children, including hospital diversion and or intensive family support programs, the effect of these initiatives on service use could be measured over time using MSIS data.

TABLE IV.2. Medicaid Beneficiaries in Two Age Groups Who Received Inpatient Services, New Jersey, 1999

Beneficiaries with Mental Illness		Beneficiaries Receiving Inpatient Services In												
		Any Inpatient Setting	Institutions for Mental Disorders				Acute Care Facilities				Other Inpatient Settings			
			30 Days or Less		More Than 30 Days		30 Days or Less		More Than 30 Days		30 Days or Less		More Than 30 Days	
Age	Number	Number	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-17	31,696	2,364	326	13.8	786	33.3	1,211	51.2	274	11.6	13	0.6	0	--
30-39	15,302	2,460	0	--	0	--	2,132	86.7	263	10.7	74	3.0	3	0.1

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Percent columns refer to percentages of beneficiaries in any inpatient setting. Percents add to more than 100 because some beneficiaries received services in more than one type of setting during the year.

TABLE IV.3. Female and Male Medicaid Beneficiaries in Two Age Groups Who Received Inpatient Services, New Jersey, 1999

	Beneficiaries Receiving Inpatient Services In													
	Any Inpatient Setting		Institutions for Mental Disorders				Acute Care Facilities				Other Inpatient Settings			
			30 Days or Less		More Than 30 Days		30 Days or Less		More Than 30 Days		30 Days or Less		More Than 30 Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-17	2,364	100.0	326	100.0	786	100.0	1,211	100.0	274	100.0	13	100.0	0	–
Females	914	38.7	146	44.8	269	34.2	504	41.6	101	36.9	4	30.8	0	–
Males	1,450	61.3	180	55.2	517	65.8	707	58.4	173	63.1	9	69.2	0	–
30-39	2,460	100.0	0	–	0	–	2,123	100.0	263	100.0	74	100.0	3	100.0
Females	1,392	56.6	0	–	0	–	1,230	57.7	135	51.0	32	43.2	1	33.3
Males	1,068	43.4	0	–	0	–	902	42.3	129	49.0	42	56.4	2	66.7

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged& Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

C. Service Expenditures

Total expenditures for all Medicaid services used by Medicaid beneficiaries with mental illness in New Jersey in 1999 were $1.5 billion, with an average of $15,243 (Table IV.4). The data on total expenditures provides a somewhat different picture compared with the data on mean expenditures. Overall, total expenditures for females are higher than for males ($859,316,000 versus $664,553,000) but average expenditures are quite similar ($15,486 versus $14,939). The amount of total expenditures on health services provided to children with mental health conditions ($263,563,000) is quite high relative to the other age groups, but the average expenditure is quite low ($8,316). Total expenditures for white beneficiaries were more than twice the total expenditures for black beneficiaries, but the average expenditure was 50 percent higher. Similar differences are evident for the different eligibility groups and for the dual groups.

Table IV.4 also shows mean expenditures for all Medicaid services provided in 1999 to individuals with mental illness who used selected types of mental health services. The mean Medicaid expenditure was $26,940 for beneficiaries with mental illness who used inpatient services, $17,907 for beneficiaries who used outpatient services, and $20,374 for those who were prescribed psychiatric medications.

Mean expenditures for all Medicaid services were quite similar for female and male beneficiaries who had mental illness and who used outpatient mental health services and received psychiatric medications. However, males who used inpatient mental health services had somewhat higher mean Medicaid expenditures compared with females ($29,930 versus $24,749), possibly because of slightly longer lengths of stay in some age groups.

Substantially different cost patterns are evident across the age groups and across service types (Table IV.4). For example, mean Medicaid expenditures:

- Increase consistently with age for those who use outpatient mental health services, from $10,033 for children to $24,752 for beneficiaries over 65.

- Are high for children who use inpatient mental health services ($37,765), decrease for adults in their twenties who use inpatient services ($20,354), and increase again for the elderly who use inpatient services ($29,215).

- Are lower for children who use psychiatric medications ($15,526), increase somewhat for young adults who use psychiatric medications ($18,596) for the 20-29 year old group) and stay at that level through adulthood, and then increase again for beneficiaries over 65 who use psychiatric medications ($25,567).

TABLE IV.4. Expenditures for Medicaid Services for all Beneficiaries with Mental Illness and Beneficiaries with Mental Illness Who Used Selected Mental Health Services, by Demographic Characteristics and Eligibility Status, New Jersey, 1999					
	Expenditures for All Health Services by Beneficiaries with Mental Illness		Mean Expenditures for All Health Services by Beneficiaries with Mental Illness Who Used		
	Total Expenditures (in 1,000s)	Mean Expenditures	Inpatient Mental Health Services	Outpatient Mental Health Services	Psychiatric Medications
Total	$1,523,870	$15,243	$26,940	$17,907	$20,374
Gender					
Females	$859,316	$15,486	$24,794	$17,658	$20,418
Males	$664,553	$14,939	$29,930	$18,126	$20,314
Age					
0-17	$263,563	$8,316	$37,765	$10,033	$15,536
18-21	$42,918	$10,746	$28,158	$11,940	$17,390
22-29	$91,811	$13,500	$20,354	$21,921	$18,596
30-39	$243,559	$15,917	$20,460	$21,462	$20,025
40-44	$151,787	$17,449	$22,701	$23,455	$19,766
45-49	$130,074	$19,148	$24,656	$26,577	$20,485
50-59	$191,492	$19,634	$26,458	$29,334	$19,994
60-64	$70,798	$20,374	$28,408	$30,447	$20,742
65+	$337,867	$25,096	$29,215	$24,752	$25,567
Race					
White	$876,118	$19,624	$27,708	$24,246	$23,192
Black	$385,191	$13,084	$27,551	$13,619	$20,459
Hispanic	$92,263	$6,904	$22,164	$8,249	$11,989
Other	$170,297	$13,596	$25,337	$18,213	$14,969
Program Eligibility					
SSI Aged	$89,791	$18,722	$25,366	$19,798	$18,946
Other Aged	$248,076	$28,623	$31,698	$26,492	$29,800
SSI Disabled	$522,172	$14,518	$24,100	$17,504	$16,139
Other Disabled	$142,717	$21,062	$22,529	$16,608	$21,456
AFDC Adults	$26,398	$5,320	$11,890	$6,662	$6,951
Other Adults	$308,549	$23,571	$27,579	$31,701	$32,811
AFDC Children	$32,242	$4,235	$14,824	$5,594	$5,700
Other Children	$153,925	$8,503	$41,046	$9,794	$18,899
Dual Status					
Aged, Full Medicaid	$294,523	$26,131	$28,539	$25,174	$26,319
Disabled, Full Medicaid	$189,415	$15,667	$16,630	$16,567	$15,927
Aged & Disabled, Lim. Medicaid	$2,736	$10,135	$13,298	$11,147	$10,034
Disabled Non-Duals	$487,511	$15,652	$27,811	$17,730	$17,780
Non-Duals	$549,684	$12,162	$31,508	$17,816	$24,661

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged & Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

Mean Medicaid expenditures for all racial groups who use inpatient services are similar, but there are wide variations in mean Medicaid expenditures for users of outpatient mental health services and psychiatric medications across racial groups.

Mean expenditures for Hispanic beneficiaries, however, are consistently less than mean expenditures for white or black beneficiaries.

In general, beneficiaries in the “other aged” and “other adults” groups have higher mean Medicaid expenditures compared with beneficiaries in the other eligibility groups. Variation also is evident across groups of beneficiaries with and without Medicare.

V. CHARACTERISTICS OF HIGH-COST BENEFICIARIES

In general, a small proportion of the population of individuals enrolled in health plans account for a large proportion of the expenditures. Program administrators and policy makers are naturally interested in identifying the individuals who are likely to use many services (i.e., the high-cost beneficiaries) because of the possible fiscal benefits that can ensue from efforts, such as care coordination, that aim to track and reduce their expenditures.

To examine characteristics of the high-cost beneficiaries with mental illness in New Jersey in 1999, we first divided the population of beneficiaries with mental illness into five groups, each with an equal number of individuals, where the first group included all those with the smallest total Medicaid expenditures and the last group included all those with the highest total Medicaid expenditures. Figure V.1 presents the total expenditures for each quintile and shows that the total expenditures for the fifth quintile ($1.1 billion) is 3.3 times more than the total expenditures for the fourth quintile ($336 million) and 49.6 times more than the total expenditures for the lowest quintile ($22,079).

FIGURE V.1

TOTAL MEDICAID EXPENDITURES IN THOUSANDS FOR BENEFICIARIES WITH MENTAL ILLNESS BY COST QUINTILES, NEW JERSEY, 1999

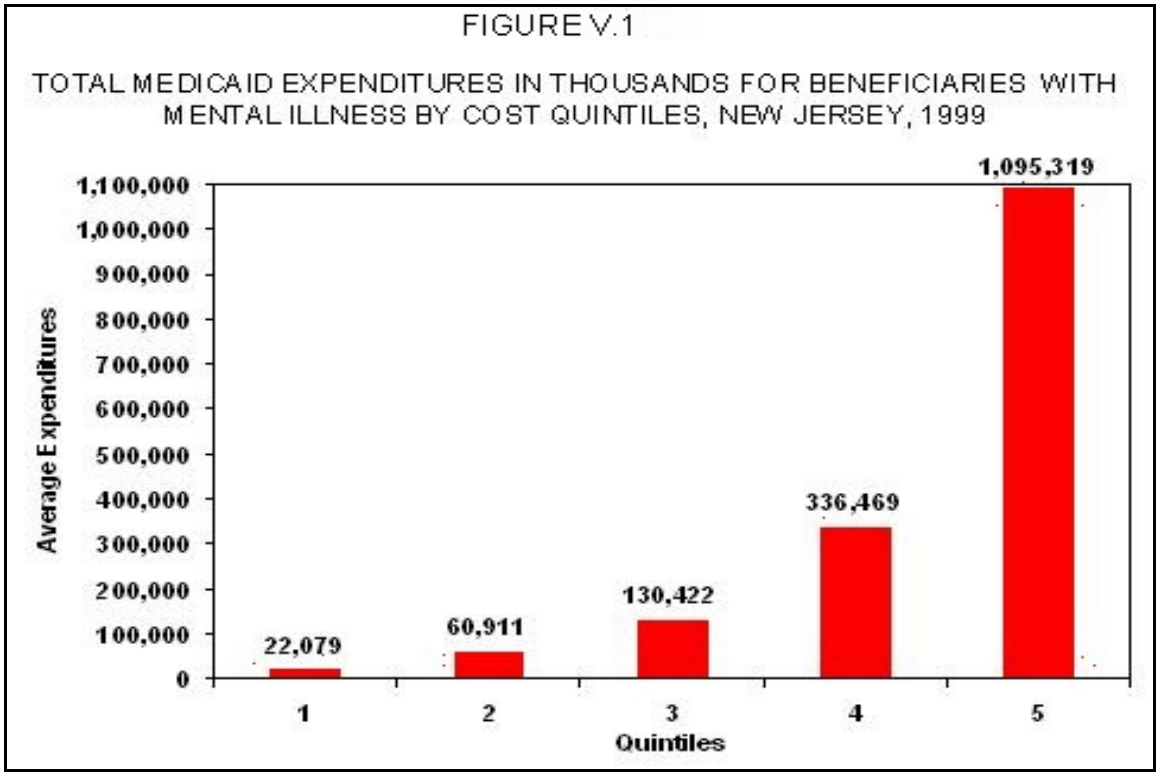

TABLE V.1. Characteristics of Beneficiaries with Mental Illness in the Highest Cost Quintile, New Jersey, 1999				
	Beneficiaries with Mental Illness		Beneficiaries with Mental Illness in the Highest Cost Quintile	
	Number	Percent	Number	Percent
Total	99,976	100.0	19,995	100.0
Gender				
Females	55,490	55.5	11,655	58.3
Males	44,486	44.5	8,340	41.7
Age				
0-17	31,696	31.7	2,292	11.5
18-21	3,994	4.0	446	2.2
22-29	6,801	6.8	1,060	5.3
30-39	15,302	15.3	2,805	14.0
40-44	8,699	8.7	1,791	9.0
45-49	6,793	6.8	1,569	7.8
50-59	9,753	9.8	2,363	11.8
60-64	3,475	3.5	975	4.9
65+	13,463	13.5	6,694	33.5
Race				
White	44,646	44.7	12,734	63.7
Black	29,440	29.4	4,561	22.8
Hispanic	13,364	13.4	744	3.7
Other	12,526	12.5	1,956	9.8
Program Eligibility				
SSI Aged	4,796	4.8	1,195	6.0
Other Aged	8,667	8.7	5,499	27.5
SSI Disabled	35,968	36.0	5,432	27.2
Other Disabled	6,776	6.8	1,681	8.4
AFDC Adults	4,962	5.0	114	0.6
Other Adults	13,090	13.1	4,456	22.3
AFDC Children	7,614	7.6	118	0.6
Other Children	18,103	18.1	1,500	7.5
Dual Status				
Aged, Full Medicaid	11,271	11.3	5,988	29.9
Disabled, Full Medicaid	12,090	12.1	1,967	9.8
Aged & Disabled, Lim. Medicaid	270	0.3	15	0.1
Disabled Non-Duals	31,147	31.2	5,325	26.6
Non-Duals	45,198	45.2	6,700	33.5

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged & Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

Characteristics of the group of beneficiaries in the highest cost quintile (i.e., the fifth quintile) are different from the characteristics of all beneficiaries with mental illness

(Table V.1). Specifically, compared with the group of beneficiaries with mental illness overall, the highest cost quintile subgroup has:

- Slightly more females,
- Substantially more individuals in the older age groups,
- Substantially more white beneficiaries,
- Fewer individuals from the child-related eligibility groups and more individuals from the aged eligibility groups,
- Substantially more aged individuals with Medicare.

Medicaid expenditures for the 19,995 individuals in the highest quintile of beneficiaries with mental illness total to more than $1 billion (Table V.2). As this table shows, patterns of total and mean expenditures vary substantially across subgroups. For example, Medicaid expenditures for the 6,694 individuals in the over-65 age group totaled $274 million, with an average of $40,932. In contrast, expenditures for the 2,292 individuals in the childhood group totaled $132 million, with an average of $57,592.

The information in Table V.2 could be used to select an appropriate group for a care management intervention. For example, of the 19,995 beneficiaries in the highest quintile, 1,681 were in the “Other Disabled” group. Average Medicaid expenditures for these beneficiaries were $63,058, which is well above the mean for the total group of beneficiaries in the highest cost quintile ($51,492), suggesting that these individuals are probably receiving multiple health services and possibly multiple or frequent psychiatric medications. It would be of considerable interest to determine whether a focused service coordination program directed specifically at the Other Disabled group could improve their overall care and potentially reduce costs. A five percent reduction in total expenditures for this group alone would save New Jersey’s program over $5 million (1,691 multiplied by $3,153). Even after accounting for the cost of operating the service coordination program, New Jersey would be saving a substantial sum.

Developing a feasible care coordination program necessarily would depend on many factors other than cost. However, analysis of MSIS data can provide a method for identifying target groups who might benefit from special programs and for developing initial financial objectives for these programs.

TABLE V.2. Expenditures for Medicaid Services for Beneficiaries with Mental Illness in the Highest Cost Quintile by Demographic Characteristics and Eligibility Status, New Jersey, 1999			
	Number of Beneficiaries and Expenditures for All Health Services		
	Beneficiaries	Total Dollars (in millions)	Mean Dollars
Total	19,995	$1,016	$50,813
Gender			
Females	11,655	$576	$49,421
Males	8,340	$441	$52,878
Age			
0-17	2,292	$132	$57,592
18-21	446	$26	$58,296
22-29	1,060	$57	$53,774
30-39	2,805	$157	$55,971
40-44	1,791	$100	$55,835
45-49	1,569	$89	$56,724
50-59	2,363	$132	$55,861
60-64	975	$50	$51,282
65+	6,694	$274	$40,932
Race			
White	12,734	$646	$50,730
Black	4,561	$236	$51,743
Hispanic	744	$37	$49,731
Other	1,956	$98	$50,102
Program Eligibility			
SSI Aged	1,195	$58	$48,536
Other Aged	5,499	$215	$39,098
SSI Disabled	5,432	$294	$54,124
Other Disabled	1,681	$106	$63,058
AFDC Adults	114	$4	$35,088
Other Adults	4,456	$242	$54,309
AFDC Children	118	$5	$42,373
Other Children	1,500	$92	$61,333
Dual Status			
Aged, Full Medicaid	5,988	$243	$40,581
Disabled, Full Medicaid	1,967	$115	$58,465
Aged & Disabled, Lim. Medicaid	15	$1	$66,667
Disabled Non-Duals	5,325	$294	$55,211
Non-Duals	6,700	$363	$54,179

SOURCE: New Jersey MSIS Files, 1999.
NOTE: Aged groups include beneficiaries who are 65 years old or older. Aged & Disabled with Limited Medicaid are beneficiaries for whom Medicaid pays Medicare premiums only.

VI. LESSONS LEARNED, POLICY IMPLICATIONS, AND POTENTIAL NEXT STEPS

MSIS data provide valuable opportunities to examine service use and expenditures for Medicaid beneficiaries with mental illness. This study examined MSIS data from one state to illustrate how such data can be used to address important policy issues. Our analyses provide two sets of findings. The first pertains to our policy results on service use and expenditures. The second involves the methodological results on the strengths and weaknesses of using MSIS data. In this chapter, we first summarize our findings on patterns of service use and cost and then suggest potential next steps for the application of MSIS data to the study of service use by Medicaid beneficiaries with mental illness. The final section of the chapter describes our findings regarding the utility of MSIS data.

A. Patterns of Service Use and Expenditures

Our analyses provided substantial information on the services used by Medicaid beneficiaries with mental illness in New Jersey in 1999. Our findings include the following:

- Overall, of the 99,976 beneficiaries with mental illness in New Jersey in 1999, 13.5 percent used inpatient mental health services, 36.8 percent used outpatient mental health services, and 53.2 percent were given psychiatric medications.

- A slightly higher percent of females compared with males were inpatients (14.1 percent vs 12.7 percent) and were given psychiatric medications (55.2 percent vs 50.7 percent), but the pattern was reversed for outpatient services, where proportionally fewer females used these services compared with males (31.0 percent vs 44.0 percent).

- There are substantial differences across age groups in service use; children are far less likely to use inpatient services than adults and somewhat more likely to use outpatient services.

- Patterns of service use also differ by race; fewer Hispanic beneficiaries use inpatient services and receive psychiatric medications compared to other racial groups and a larger percentage of Black beneficiaries use outpatient services.

- Service patterns vary by program eligibility group and dual status; proportionally more beneficiaries with mental illness who are aged or disabled and who had

Medicare received inpatient services and psychiatric medications compared with other program categories.

To illustrate how MSIS data can be used to identify different service use patterns for different subgroups of beneficiaries with mental illness, we examined inpatient care data first for two age groups and then for males and females in each of these age groups. Key findings from this analysis include:

- A total of 31,696 beneficiaries aged 0 to 17 had mental illness in New Jersey in 1999 and, of these, 7.5 percent received some inpatient services; in contrast, a total of 15,302 beneficiaries aged 30 to 39 had mental illness and, of these, 16.1 percent received some inpatient services.

- Of the 7,458 children who received inpatient care, 47.1 percent were in institutions for mental disorders and 62.8 percent received services in acute inpatient settings; in contrast, no adult received care in institutions for mental disorders, which means that virtually all (97.4 percent) of the adults aged 30 to 39 who received inpatient care in 1999 were hospitalized in acute inpatient facilities.

- Of all children who received inpatient care, proportionally more are males (61.3 percent, compared with 38.7 percent of females); in the group of beneficiaries aged 30 to 39, of those individuals who received inpatient care, proportionally more were females (56.6 percent, compared with 43.4 percent of males).

Analyses of expenditures indicated the following:

- Total expenditures for all Medicaid services used by Medicaid beneficiaries with mental illness in New Jersey in 1999 were $1.5 billion, with an average of $15,243.

- Overall, total expenditures for females are higher than for males ($859,316 versus $664,553) but average expenditures are quite similar ($15,486 versus $14,939).

- The amount of total expenditures on health services provided to children with mental health conditions ($263,563,000) is quite high relative to the other age groups, but the average expenditure is quite low ($8,316).

- Total expenditures for white beneficiaries were more than twice the total expenditures for black beneficiaries, but the average expenditure was 50 percent higher.

- The mean Medicaid expenditure was $26,940 for beneficiaries with mental illness who used inpatient services, $17,907 for beneficiaries who used outpatient services, and $20,374 for those who were prescribed psychiatric medications.

- Mean Medicaid expenditures increase consistently with the age for those who use outpatient mental health services, from $10,033 for children to $24,752 for beneficiaries over 65.

- Mean Medicaid expenditures are high for children who use inpatient mental health services ($37,765), decrease for adults in their twenties who use inpatient services ($20,354), and increase again for the elderly who use inpatient services ($29,215).

- In general, beneficiaries in the "other aged" and "other adults" groups have higher mean Medicaid expenditures compared with beneficiaries in the other eligibility groups.

Our analyses of the characteristics of the high-cost beneficiaries with mental illness indicated the following:

- Total expenditures for the highest quintile ($1.1 billion) is 3.3 times more than the total expenditures for the fourth quintile ($336 million) and 49.6 times more than the total expenditures for the lowest quartile ($22,079).

- Compared with all beneficiaries, the highest cost quintile group has slightly more females, substantially more individuals in the older age groups, more white beneficiaries, fewer individuals from the child-related eligibility groups, more individuals from the aged eligibility groups, and substantially more aged individuals with Medicare.

B. Next Steps

This report summarizes only a portion of the data included in the tables in Appendix A because the primary purpose of this study was to assess the feasibility of using MSIS data to examine patterns of service use and expenditures for beneficiaries with mental illness. Therefore, one possible next step could be to address selected questions regarding particular subgroups of beneficiaries or particular services by examining further the data already prepared. For example, it would be possible to develop tables specifically illustrating patterns of service use and cost for gender by age subgroups. These tables could help determine whether male and female beneficiaries of the same age had different patterns of service use.

In addition, using the analytical files from which the tables were generated, analyses similar to the ones presented in this report could be completed for beneficiaries (1) with mental illness and specific co-occurring conditions and (2) with any one of the conditions alone (for example, beneficiaries with only substance abuse). It would be of interest to compare outpatient service use with rates of inpatient service use for subgroups of individuals with mental illness with and without co-occurring

conditions. These analyses would assist policy makers and program administrators to identify subgroups within the Medicaid population who are at particularly high risk for using substantial amounts of mental health services.

Finally, we examined data from only one state for only one year. Mental health policy makers, program administrators, and researchers would have considerable interest in examining data from other states over a longer period of time. For example, considerable attention is now being focused on developing community-based services as alternatives to residential care for youth with serious emotional disorders. MSIS files could be used to identify longitudinal patterns in the use of community services in relation to inpatient services for this group of children.

C. Utility of MSIS Data

Our analyses of MSIS data underscore their usefulness for documenting patterns of service use and expenditures for Medicaid beneficiaries with mental illness. Our approach suggests several specific strengths of MSIS data. First, MSIS eligibility and claims files provide information on the demographic characteristics, program eligibility, and dual status of beneficiaries. This information can be used to identify strategically selected subgroups of individuals, such as Hispanic males and females in their twenties, and these different subgroups can be compared in relation to service use or expenditures. The flexibility of these data allow for a large number of subgroup analyses, which can be used to address a wide range of specific policy questions.

A second benefit of MSIS data involves information on services. Just as the individuals in the population can be sorted into policy relevant subgroups, so can different services be grouped into selected categories. In this study, for example, we grouped mental health services into inpatient, community-based, and pharmaceutical service categories. Numerous other combinations of physical and mental health services could be generated, depending on the policy issue.

Third, MSIS data files provide information on both service use and expenditures. Both types of data are useful for policy analyses because together they can clarify the underlying reasons for expenditure patterns. For example, a particular subgroup may have high total expenditures because they use a few services that are extremely costly or because they use many services that are moderately costly. This difference can have different program and policy implications. Our analysis of subgroups within the highest cost quintile further demonstrates how service use and expenditure data can be combined to suggest what groups could be selected for quality-of-care or cost-reduction initiatives.

Although MSIS data offer important opportunities for policy research, they also have critical drawbacks with respect to methods and content. Specifically, preparing

MSIS files requires substantial experience with Medicaid data in order to avoid errors in downloading and aggregating data for beneficiary subgroups. In addition, MSIS data provide information only on (1) services used and not services needed by a beneficiary and (2) Medicaid-covered services and not all health-related services. In this respect, they present only a partial picture of health services provided to beneficiaries. Furthermore, they do not include any out-of-pocket payments that beneficiaries make for health services, and hence do not account fully for the cost of all health services that these individuals receive.

Finally, MSIS data can be more or less useful depending on the extent of managed care penetration. For example, some states have large managed care enrollments; data reporting systems that include encounter data for beneficiaries in managed care plans are still poorly developed in most of these states. Hence, analyses of policy issues regarding mental health service use may not be possible in these states.

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APPENDIX A:

DETAILED DATA TABLES

TABLE A.1

NUMBER OF MEDICAID USERS WITH MENTAL DISORDERS, NEW JERSEY, CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	868,106	126,989	99,976	70,659	8,109	12,778	10,162	27,013
Age								
0-17	450,268	34,135	31,696	23,546	794	3,686	4,070	2,439
18-21	47,855	4,504	3,994	2,701	454	530	397	510
22-29	64,414	7,925	6,801	4,524	902	1,294	230	1,124
30-39	67,855	17,539	15,302	9,988	2,471	2,612	561	2,237
40-44	26,912	9,924	8,699	5,903	1,409	1,204	377	1,225
45-49	19,586	7,890	6,793	4,783	812	1,031	305	1,097
50-59	33,352	11,495	9,753	7,247	831	1,318	567	1,742
60-64	16,156	4,271	3,475	2,701	207	313	317	796
65 or older	141,706	29,306	13,463	9,266	229	790	3,338	15,843
Gender by Age: Females								
0-17	222,231	12,390	11,390	8,524	304	1,314	1,387	1,000
18-21	33,405	2,255	2,017	1,491	191	210	158	238
22-29	54,346	4,873	4,220	3,120	547	512	103	653
30-39	51,134	10,650	9,544	6,693	1,544	1,205	275	1,106
40-44	17,431	5,693	5,173	3,711	748	629	166	520
45-49	11,742	4,462	4,064	3,052	388	535	147	398
50-59	20,703	7,054	6,420	5,133	366	709	305	634
60-64	10,213	2,698	2,372	1,960	76	176	185	326
65 or older	105,555	22,467	10,290	7,183	109	510	2,573	12,177
Gender by Age: Males								
0-17	228,037	21,745	20,306	15,022	490	2,372	2,683	1,439
18-21	14,450	2,249	1,977	1,210	263	320	239	272
22-29	10,068	3,052	2,581	1,404	355	782	127	471
30-39	16,721	6,889	5,758	3,295	927	1,407	286	1,131
40-44	9,481	4,231	3,526	2,192	661	575	211	705
45-49	7,844	3,428	2,729	1,731	424	496	158	699
50-59	12,649	4,441	3,333	2,114	465	609	262	1,108
60-64	5,943	1,573	1,103	741	131	137	132	470
65 or older	36,151	6,839	3,173	2,083	120	280	765	3,666
Gender								
Females	526,760	72,542	55,490	40,867	4,273	5,800	5,299	17,052
Males	341,346	54,447	44,486	29,792	3,836	6,978	4,863	9,961
Race								
White	261,212	61,652	44,646	29,507	3,196	8,016	4,785	17,006
Black	299,904	35,396	29,440	21,034	3,389	2,741	2,799	5,956
Hispanic	194,266	14,507	13,364	10,748	713	883	1,136	1,143
Other	112,724	15,434	12,526	9,370	811	1,138	1,442	2,908
Dual Status								
Aged Duals with Full Medicaid	100,403	25,237	11,271	7,665	184	661	2,888	13,966
Disabled Duals with Full Medicaid	35,200	15,286	12,090	9,727	1,308	750	425	3,196
Aged and Disabled Duals with Limited Medicaid	24,873	383	270	243	2	-	25	113
Disabled Non-Duals	86,761	35,935	31,147	22,335	3,566	2,675	3,396	4,788
Non-Duals	620,869	50,148	45,198	30,689	3,049	8,692	3,428	4,950
Eligibility Group								
SSI Aged	50,158	7,136	4,796	3,832	114	118	780	2,340
Other Aged	91,548	22,170	8,667	5,434	115	672	2,558	13,503
SSI Disabled	97,855	40,947	35,968	26,545	4,164	2,797	3,287	4,979
Other Disabled	27,221	9,636	6,776	5,147	680	618	435	2,860
AFDC Adults	39,759	5,413	4,962	4,025	907	10	39	451
Other Adults	91,092	14,375	13,090	5,506	1,191	6,153	692	1,285
AFDC Children	116,943	7,885	7,614	6,068	265	530	785	271
Other Children	353,528	19,427	18,103	14,102	673	1,880	1,586	1,324

TABLE A.2

TOTAL MEDICAID EXPENDITURES FOR MEDICAID USERS WITH MENTAL DISORDERS, IN THOUSANDS OF DOLLARS, NEW JERSEY, CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	$5,358,079	$2,585,498	$1,645,200	$833,569	$155,197	$449,917	$273,293	$940,298
Age								
0-17	$985,877	$339,154	$290,359	$176,182	$12,486	$57,019	$55,682	$48,795
18-21	$190,999	$60,076	$49,821	$25,374	$7,727	$12,453	$7,091	$10,256
22-29	$362,079	$136,178	$99,667	$39,293	$14,512	$42,751	$7,487	$36,511
30-39	$576,297	$366,003	$260,550	$100,802	$42,420	$108,518	$22,762	$105,452
40-44	$308,830	$229,011	$160,646	$71,095	$28,285	$54,349	$15,936	$68,365
45-49	$266,366	$196,357	$137,807	$63,143	$18,378	$50,305	$12,243	$58,550
50-59	$442,585	$281,430	$202,635	$102,929	$20,139	$65,834	$23,292	$78,795
60-64	$203,536	$103,064	$74,968	$44,224	$5,095	$15,890	$12,597	$28,096
65 or older	$2,021,506	$874,225	$368,748	$210,527	$6,156	$42,799	$116,203	$505,477
Gender by Age: Females								
0-17	$453,733	$124,581	$103,222	$62,166	$5,979	$20,471	$18,715	$21,359
18-21	$137,325	$26,156	$21,392	$11,841	$3,243	$4,646	$2,849	$4,764
22-29	$265,571	$66,019	$50,067	$23,779	$8,144	$16,732	$3,221	$15,952
30-39	$340,510	$177,823	$139,705	$57,891	$24,200	$54,037	$11,247	$38,118
40-44	$158,917	$108,761	$85,432	$39,328	$13,121	$30,640	$6,155	$23,329
45-49	$137,920	$97,194	$77,721	$37,601	$8,020	$28,996	$5,745	$19,473
50-59	$250,291	$150,314	$123,370	$68,982	$8,001	$39,097	$11,631	$26,944
60-64	$120,704	$58,716	$47,471	$30,425	$1,503	$9,515	$7,034	$11,245
65 or older	$1,540,394	$668,820	$280,066	$162,680	$2,743	$30,488	$87,888	$388,755
Gender by Age: Males								
0-17	$532,144	$214,572	$187,136	$114,016	$6,507	$36,548	$36,967	$27,436
18-21	$53,673	$33,921	$28,428	$13,532	$4,484	$7,807	$4,242	$5,492
22-29	$96,508	$70,159	$49,600	$15,515	$6,368	$26,019	$4,267	$20,559
30-39	$235,787	$188,179	$120,845	$42,911	$18,220	$54,481	$11,515	$67,334
40-44	$149,913	$120,251	$75,214	$31,767	$15,163	$23,709	$9,781	$45,037
45-49	$128,446	$99,163	$60,086	$25,542	$10,358	$21,309	$6,498	$39,077
50-59	$192,294	$131,116	$79,266	$33,947	$12,138	$26,737	$11,661	$51,851
60-64	$82,832	$44,348	$27,497	$13,799	$3,592	$6,375	$5,563	$16,851
65 or older	$481,112	$205,405	$88,682	$47,847	$3,413	$12,311	$28,316	$116,723
Gender								
Females	$3,405,366	$1,478,384	$928,445	$494,694	$74,955	$234,622	$154,485	$549,939
Males	$1,952,713	$1,107,114	$716,755	$338,876	$80,242	$215,295	$118,808	$390,359
Race								
White	$2,832,609	$1,614,321	$943,417	$425,044	$61,382	$340,623	$152,106	$670,904
Black	$1,350,907	$586,100	$418,561	$231,653	$68,211	$71,347	$67,806	$167,539
Hispanic	$568,790	$127,907	$103,144	$69,362	$9,598	$12,508	$14,569	$24,763
Other	$605,773	$257,170	$180,078	$107,510	$16,005	$25,439	$38,812	$77,092
Dual Status								
Aged Duals with Full Medicaid	$1,761,989	$772,251	$318,976	$183,057	$4,688	$36,171	$100,209	$453,275
Disabled Duals with Full Medicaid	$541,357	$395,840	$193,322	$119,647	$17,010	$48,409	$11,384	$202,518
Aged and Disabled Duals with Limited Medicaid	$13,711	$4,612	$2,845	$2,502	$1	-	$342	$1,767
Disabled Non-Duals	$1,022,556	$682,789	$505,292	$288,566	$86,712	$76,339	$82,805	$177,497
Non-Duals	$2,018,466	$730,005	$624,764	$239,798	$46,785	$288,998	$78,552	$105,241
Eligibility Group								
SSI Aged	$425,498	$152,034	$90,397	$58,240	$2,205	$7,176	$24,655	$61,637
Other Aged	$1,596,008	$722,191	$278,351	$152,287	$3,951	$35,623	$91,549	$443,840
SSI Disabled	$1,035,322	$691,359	$535,578	$323,763	$90,515	$73,758	$74,855	$155,781
Other Disabled	$494,350	$370,271	$150,841	$77,449	$12,293	$50,468	$14,837	$219,430
AFDC Adults	$119,740	$33,464	$29,536	$20,183	$9,006	$95	$487	$3,928
Other Adults	$766,918	$378,356	$343,815	$60,124	$23,407	$245,224	$37,809	$34,541
AFDC Children	$175,328	$35,837	$34,125	$23,169	$2,169	$3,721	$5,598	$1,713
Other Children	$744,910	$201,985	$182,557	$118,355	$11,651	$33,853	$23,504	$19,428

TABLE A.3

MEAN ANNUAL MEDICAID EXPENDITURES FOR MEDICAID USERS WITH MENTAL DISORDERS, NEW JERSEY, CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	$6,504	$20,459	$16,540	$11,694	$18,860	$35,512	$26,618	$35,860
Age								
0-17	$2,204	$9,763	$8,994	$7,195	$15,353	$15,561	$13,726	$19,895
18-21	$4,009	$13,320	$12,436	$9,087	$16,712	$23,633	$17,715	$20,364
22-29	$5,764	$17,851	$15,169	$8,749	$16,015	$33,099	$32,904	$34,108
30-39	$9,421	$21,564	$17,481	$10,178	$16,927	$41,642	$40,133	$49,688
40-44	$12,470	$23,491	$18,762	$12,146	$19,974	$45,449	$41,315	$57,144
45-49	$14,284	$25,012	$20,324	$13,079	$21,805	$48,998	$39,764	$54,548
50-59	$13,552	$24,293	$20,647	$13,953	$23,455	$49,961	$39,915	$45,246
60-64	$12,576	$23,728	$21,300	$16,087	$23,327	$51,006	$38,975	$34,762
65 or older	$14,234	$30,193	$27,458	$22,641	$26,622	$54,433	$34,968	$32,728
Gender by Age: Females								
0-17	$2,023	$9,819	$8,839	$6,952	$19,220	$15,542	$13,581	$21,072
18-21	$3,907	$11,776	$10,711	$7,858	$16,662	$22,253	$18,178	$21,083
22-29	$4,597	$14,039	$12,239	$7,648	$14,740	$32,440	$31,258	$26,038
30-39	$7,081	$17,213	$14,998	$8,699	$15,194	$44,735	$39,888	$37,061
40-44	$9,957	$19,591	$16,930	$10,781	$17,462	$49,224	$36,589	$46,296
45-49	$12,393	$21,951	$19,196	$12,227	$19,981	$54,356	$38,838	$50,495
50-59	$12,333	$21,255	$19,230	$13,312	$21,631	$54,834	$37,782	$42,444
60-64	$11,915	$21,515	$19,874	$15,398	$17,908	$54,299	$37,231	$33,913
65 or older	$14,548	$30,067	$27,237	$22,526	$24,245	$59,911	$34,309	$32,665
Gender by Age: Males								
0-17	$2,379	$9,731	$9,081	$7,332	$12,991	$15,571	$13,802	$19,073
18-21	$4,214	$14,807	$14,129	$10,556	$16,748	$24,519	$17,411	$19,772
22-29	$10,593	$23,432	$19,600	$11,013	$17,849	$33,530	$34,215	$43,872
30-39	$15,543	$28,028	$21,461	$13,101	$19,711	$38,996	$40,373	$61,038
40-44	$16,835	$28,668	$21,414	$14,430	$22,772	$41,331	$45,087	$64,982
45-49	$17,103	$29,030	$22,014	$14,595	$23,508	$43,215	$40,636	$56,875
50-59	$15,611	$29,203	$23,423	$15,545	$24,905	$44,215	$42,489	$46,849
60-64	$13,752	$27,612	$24,419	$17,947	$26,530	$46,742	$41,461	$35,359
65 or older	$13,283	$30,615	$28,184	$23,043	$28,804	$44,384	$37,198	$32,946
Gender								
Females	$6,785	$20,511	$16,882	$12,086	$17,221	$40,658	$28,979	$33,140
Males	$6,086	$20,392	$16,117	$11,159	$20,646	$31,220	$24,076	$40,367
Race								
White	$11,843	$26,640	$21,408	$14,339	$18,775	$42,776	$31,799	$41,434
Black	$4,690	$16,442	$14,136	$10,882	$19,807	$26,224	$23,604	$28,222
Hispanic	$2,620	$8,686	$7,657	$6,324	$13,752	$14,354	$12,650	$21,380
Other	$5,488	$16,469	$14,298	$11,341	$19,519	$22,553	$26,733	$26,178
Dual Status								
Aged Duals with Full Medicaid	$17,467	$30,994	$28,384	$23,806	$25,624	$54,981	$34,953	$33,271
Disabled Duals with Full Medicaid	$15,497	$26,016	$15,968	$12,272	$12,918	$64,631	$26,632	$63,714
Aged and Disabled Duals with Limited Medicaid	$553	$12,231	$10,720	$10,477	$630	-	$13,963	$15,927
Disabled Non-Duals	$11,934	$18,902	$16,131	$12,805	$24,088	$28,536	$24,187	$37,033
Non-Duals	$3,073	$14,403	$13,945	$7,283	$14,198	$33,654	$22,333	$19,331
Eligibility Group								
SSI Aged	$8,668	$21,379	$18,943	$15,273	$19,393	$60,817	$31,748	$26,379
Other Aged	$17,885	$33,546	$32,793	$28,612	$34,663	$53,272	$36,073	$34,065
SSI Disabled	$10,688	$16,833	$14,843	$12,151	$21,554	$26,427	$22,671	$31,266
Other Disabled	$18,715	$38,965	$22,232	$14,793	$17,645	$81,747	$33,451	$77,456
AFDC Adults	$3,072	$5,982	$5,834	$4,934	$9,588	$9,539	$11,472	$7,697
Other Adults	$9,873	$28,387	$28,734	$10,802	$18,421	$40,000	$54,167	$23,769
AFDC Children	$1,476	$4,485	$4,427	$3,766	$8,071	$6,865	$7,141	$6,178
Other Children	$1,992	$10,067	$9,815	$7,932	$17,076	$18,306	$14,944	$13,706

TABLE A.4

TOTAL MEDICAID EXPENDITURES FOR MENTAL HEALTH SERVICES FOR MEDICAID USERS WITH MENTAL DISORDERS, IN THOUSANDS OF DOLLARS, NEW JERSEY CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	$2,270,448	$1,812,785	$1,120,905	$490,968	$105,175	$394,121	$181,026	$691,880
Age								
0-17	$322,385	$219,730	$198,607	$127,713	$10,911	$35,051	$31,968	$21,123
18-21	$80,355	$43,765	$36,567	$18,331	$6,415	$9,369	$4,606	$7,198
22-29	$178,299	$105,993	$75,926	$24,539	$11,091	$38,307	$5,783	$30,067
30-39	$343,023	$286,533	$193,162	$58,570	$28,657	$100,755	$16,246	$93,370
40-44	$192,821	$174,826	$114,694	$42,354	$17,332	$50,799	$10,988	$60,132
45-49	$161,736	$146,451	$96,017	$34,526	$10,868	$47,319	$8,053	$50,434
50-59	$234,235	$199,481	$135,144	$54,118	$12,574	$60,730	$15,129	$64,337
60-64	$86,131	$63,979	$44,056	$20,775	$3,153	$14,282	$7,904	$19,923
65 or older	$671,463	$572,028	$226,731	$110,041	$4,174	$37,508	$80,349	$345,296
Gender by Age: Females								
0-17	$127,628	$78,050	$69,359	$44,137	$5,167	$11,452	$11,091	$8,691
18-21	$49,742	$17,411	$14,262	$7,260	$2,734	$3,400	$1,802	$3,149
22-29	$110,992	$46,088	$33,998	$12,643	$5,616	$14,811	$2,453	$12,090
30-39	$176,284	$129,787	$97,723	$29,725	$15,903	$50,204	$7,905	$32,064
40-44	$87,401	$77,851	$58,777	$21,215	$7,689	$28,590	$4,202	$19,073
45-49	$78,470	$70,211	$53,620	$19,841	$4,767	$27,428	$3,569	$16,591
50-59	$121,595	$101,137	$80,298	$34,895	$4,847	$36,478	$7,538	$20,838
60-64	$45,804	$33,686	$26,689	$13,493	$1,064	$8,587	$4,306	$6,996
65 or older	$502,029	$436,806	$172,117	$85,264	$1,899	$26,979	$60,771	$264,690
Gender by Age: Males								
0-17	$194,758	$141,680	$129,248	$83,576	$5,743	$23,600	$20,877	$12,432
18-21	$30,613	$26,354	$22,305	$11,072	$3,681	$5,969	$2,803	$4,049
22-29	$67,307	$59,905	$41,929	$11,897	$5,475	$23,496	$3,331	$17,977
30-39	$166,739	$156,745	$95,439	$28,845	$12,754	$50,552	$8,341	$61,306
40-44	$105,420	$96,975	$55,916	$21,139	$9,643	$22,210	$6,786	$41,058
45-49	$83,266	$76,240	$42,397	$14,685	$6,101	$19,891	$4,484	$33,843
50-59	$112,641	$98,344	$54,845	$19,223	$7,727	$24,251	$7,592	$43,499
60-64	$40,327	$30,293	$17,366	$7,282	$2,090	$5,696	$3,598	$12,927
65 or older	$169,434	$135,221	$54,615	$24,777	$2,274	$10,529	$19,578	$80,607
Gender								
Females	$1,299,944	$991,027	$606,845	$268,472	$49,686	$207,927	$103,637	$384,183
Males	$970,504	$821,757	$514,060	$222,496	$55,488	$186,193	$77,389	$307,697
Race								
White	$1,362,559	$1,229,843	$698,010	$264,319	$46,059	$307,819	$109,570	$531,833
Black	$493,281	$371,373	$264,966	$134,591	$42,684	$59,612	$41,915	$106,407
Hispanic	$193,536	$74,935	$59,869	$37,386	$6,577	$9,198	$8,771	$15,067
Other	$221,072	$136,633	$98,060	$54,673	$9,855	$17,491	$20,769	$38,574
Dual Status								
Aged Duals with Full Medicaid	$571,612	$504,797	$196,480	$95,998	$3,107	$31,640	$69,737	$308,317
Disabled Duals with Full Medicaid	$335,661	$322,505	$136,272	$74,872	$11,544	$45,389	$6,784	$186,233
Aged and Disabled Duals with Limited Medicaid	$2,825	$2,705	$1,540	$1,351	$1	-	$189	$1,165
Disabled Non-Duals	$518,754	$432,068	$306,251	$161,337	$57,039	$58,687	$48,536	$125,817
Non-Duals	$841,596	$550,711	$480,362	$157,409	$33,483	$258,404	$55,781	$70,349
Eligibility Group								
SSI Aged	$108,852	$75,441	$44,171	$23,589	$1,272	$5,913	$14,632	$31,270
Other Aged	$562,611	$496,586	$182,560	$86,452	$2,902	$31,595	$65,717	$314,027
SSI Disabled	$514,132	$435,587	$328,711	$187,282	$59,647	$56,200	$43,914	$106,876
Other Disabled	$328,175	$310,213	$107,631	$46,131	$8,368	$47,571	$8,501	$202,582
AFDC Adults	$22,368	$14,984	$12,699	$7,034	$5,405	$71	$357	$2,286
Other Adults	$449,828	$307,046	$284,502	$31,070	$15,375	$226,936	$30,586	$22,544
AFDC Children	$36,128	$23,062	$22,085	$14,869	$1,687	$2,500	$3,483	$977
Other Children	$248,354	$149,865	$138,545	$94,541	$10,520	$23,334	$13,836	$11,320

TABLE A.5

MEAN MEDICAID EXPENDITURES FOR MENTAL HEALTH SERVICES FOR MEDICAID USERS WITH MENTAL DISORDERS, NEW JERSEY, CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	$2,721	$14,259	$11,202	$6,747	$12,550	$31,107	$17,459	$26,272
Age								
0-17	$687	$6,176	$6,042	$5,119	$13,329	$9,514	$7,839	$7,941
18-21	$1,609	$9,531	$8,964	$6,432	$13,575	$17,663	$11,386	$14,048
22-29	$2,789	$13,944	$11,600	$5,435	$12,131	$29,596	$25,321	$28,156
30-39	$5,741	$17,028	$13,040	$5,894	$11,261	$38,628	$28,721	$44,500
40-44	$7,885	$18,007	$13,430	$7,182	$12,135	$42,507	$28,715	$50,576
45-49	$8,686	$18,683	$14,148	$7,048	$12,509	$46,049	$26,100	$47,255
50-59	$7,122	$17,185	$13,717	$7,198	$14,307	$46,079	$25,496	$37,117
60-64	$5,144	$14,610	$12,413	$7,377	$14,215	$45,868	$24,109	$24,592
65 or older	$4,584	$19,364	$16,620	$11,498	$17,703	$47,670	$23,846	$21,907
Gender by Age: Females								
0-17	$525	$5,952	$5,805	$4,811	$16,501	$8,597	$8,036	$7,642
18-21	$1,222	$7,730	$7,045	$4,732	$13,857	$16,116	$11,527	$13,716
22-29	$1,667	$9,833	$8,338	$4,015	$9,955	$28,600	$23,603	$19,795
30-39	$3,646	$12,669	$10,553	$4,427	$9,759	$41,475	$28,034	$31,638
40-44	$5,606	$14,096	$11,690	$5,781	$10,132	$45,954	$24,829	$38,238
45-49	$7,049	$15,851	$13,209	$6,307	$11,674	$51,341	$24,152	$43,227
50-59	$5,939	$14,312	$12,512	$6,657	$12,997	$51,128	$24,305	$33,150
60-64	$4,450	$12,302	$11,135	$6,750	$12,443	$49,055	$22,510	$21,117
65 or older	$4,617	$19,247	$16,461	$11,469	$16,340	$52,992	$23,364	$21,805
Gender by Age: Males								
0-17	$845	$6,303	$6,175	$5,293	$11,391	$10,022	$7,737	$8,150
18-21	$2,385	$11,266	$10,849	$8,464	$13,374	$18,655	$11,293	$14,321
22-29	$7,433	$19,964	$16,531	$8,355	$15,263	$30,248	$26,690	$38,272
30-39	$11,220	$23,505	$17,027	$8,794	$13,675	$36,193	$29,391	$56,061
40-44	$11,844	$23,200	$15,951	$9,528	$14,366	$38,746	$31,816	$59,490
45-49	$11,127	$22,399	$15,554	$8,367	$13,289	$40,339	$27,934	$49,568
50-59	$9,121	$21,829	$16,078	$8,543	$15,348	$40,125	$26,932	$39,385
60-64	$6,378	$18,660	$15,210	$9,073	$15,262	$41,742	$26,389	$27,034
65 or older	$4,483	$19,754	$17,142	$11,599	$18,953	$37,907	$25,477	$22,258
Gender								
Females	$2,510	$13,627	$10,962	$6,414	$11,195	$36,012	$19,221	$22,900
Males	$3,036	$15,087	$11,498	$7,202	$14,026	$27,016	$15,561	$31,862
Race								
White	$5,814	$20,254	$15,798	$8,739	$13,870	$38,664	$22,758	$32,852
Black	$1,662	$10,303	$8,854	$6,205	$12,159	$21,871	$14,423	$17,706
Hispanic	$670	$5,006	$4,388	$3,329	$9,355	$10,533	$7,609	$12,630
Other	$1,850	$8,589	$7,674	$5,655	$11,793	$15,526	$14,056	$12,680
Dual Status								
Aged Duals with Full Medicaid	$5,545	$19,951	$17,269	$12,201	$16,874	$48,055	$24,066	$22,290
Disabled Duals with Full Medicaid	$9,625	$21,197	$11,227	$7,653	$8,702	$60,580	$15,665	$58,600
Aged and Disabled Duals with Limited Medicaid	$117	$7,078	$5,699	$5,557	$457	-	$7,539	$10,452
Disabled Non-Duals	$5,998	$11,880	$9,693	$7,062	$15,657	$21,912	$14,125	$26,194
Non-Duals	$1,218	$10,881	$10,790	$4,684	$9,921	$30,109	$15,796	$11,867
Eligibility Group								
SSI Aged	$2,213	$10,602	$9,261	$6,183	$11,195	$50,112	$18,856	$13,354
Other Aged	$6,138	$22,697	$21,231	$15,804	$24,940	$47,226	$25,558	$23,709
SSI Disabled	$5,262	$10,557	$9,060	$6,980	$14,053	$20,130	$13,274	$21,417
Other Disabled	$12,510	$32,701	$15,777	$8,626	$11,839	$77,013	$18,687	$71,631
AFDC Adults	$490	$2,516	$2,378	$1,601	$5,575	$7,165	$8,293	$4,114
Other Adults	$6,055	$23,546	$24,277	$5,154	$11,494	$36,990	$44,478	$13,804
AFDC Children	$273	$2,860	$2,841	$2,398	$6,230	$4,547	$4,430	$3,441
Other Children	$609	$7,352	$7,359	$6,297	$15,388	$12,591	$8,703	$7,243

TABLE A.6

NUMBER OF PERSON-YEAR-ADJUSTED MEDICAID USERS WITH MENTAL DISORDERS, NEW JERSEY, CALENDAR YEAR 1999

	All Medicaid Enrollees	Beneficiaries with Any Mental, SA, MRDD, Organic Disorder	Beneficiaries with Mental Disorders	Beneficiaries with Only Mental Disorders	Beneficiaries with Mental Disorders and Substance Abuse	Beneficiaries with Mental Disorders and MRDD	Beneficiaries with Mental Disorders and Organic Disorders	Beneficiaries with Substance Abuse, MR/DD or Organic Disorders Only
Total	688,829	115,581	92,134	64,482	7,396	12,405	9,523	23,448
Age								
0-17	358,092	31,525	29,304	21,576	714	3,509	3,896	2,222
18-21	31,893	3,885	3,451	2,270	383	506	379	433
22-29	43,051	7,051	6,052	3,920	792	1,264	221	998
30-39	50,610	15,955	13,933	8,916	2,233	2,571	530	2,023
40-44	22,274	9,227	8,090	5,439	1,309	1,173	355	1,137
45-49	16,935	7,416	6,400	4,477	758	1,011	286	1,016
50-59	29,442	10,888	9,275	6,848	794	1,295	539	1,614
60-64	14,383	4,056	3,324	2,577	199	309	298	732
65 or older	122,148	25,578	12,305	8,458	215	767	3,019	13,273
Gender by Age: Females								
0-17	176,102	11,405	10,492	7,778	271	1,250	1,330	913
18-21	21,281	1,906	1,710	1,236	159	198	150	196
22-29	34,672	4,190	3,643	2,637	467	500	98	547
30-39	36,614	9,537	8,579	5,921	1,376	1,185	262	957
40-44	14,135	5,263	4,786	3,405	690	612	157	477
45-49	10,137	4,209	3,839	2,867	366	525	139	371
50-59	18,497	6,727	6,140	4,884	351	701	295	587
60-64	9,203	2,583	2,281	1,881	74	175	175	302
65 or older	91,875	19,707	9,431	6,584	103	497	2,330	10,275
Gender by Age: Males								
0-17	181,991	20,120	18,812	13,798	443	2,259	2,566	1,308
18-21	10,612	1,979	1,741	1,034	224	308	229	238
22-29	8,379	2,861	2,409	1,283	325	764	123	452
30-39	13,996	6,419	5,354	2,995	856	1,386	269	1,065
40-44	8,139	3,965	3,305	2,035	619	561	197	660
45-49	6,799	3,207	2,561	1,611	392	486	147	645
50-59	10,945	4,161	3,134	1,965	442	594	244	1,027
60-64	5,180	1,472	1,043	696	125	135	123	430
65 or older	30,273	5,872	2,874	1,874	112	271	689	2,998
Gender								
Females	412,514	65,527	50,902	37,192	3,857	5,641	4,936	14,625
Males	276,314	50,055	41,232	27,290	3,539	6,764	4,586	8,823
Race								
White	205,925	55,398	40,925	26,657	2,884	7,806	4,405	14,473
Black	243,199	32,583	27,249	19,323	3,111	2,654	2,663	5,334
Hispanic	144,627	13,025	12,049	9,628	628	835	1,071	976
Other	95,078	14,575	11,911	8,874	772	1,110	1,384	2,664
Dual Status								
Aged Duals with Full Medicaid	88,501	22,273	10,377	7,066	173	643	2,618	11,897
Disabled Duals with Full Medicaid	34,406	15,024	11,862	9,551	1,275	738	415	3,162
Aged and Disabled Duals with Limited Medicaid	22,721	360	255	230	2	-	24	104
Disabled Non-Duals	81,181	34,840	30,222	21,605	3,455	2,639	3,334	4,618
Non-Duals	462,019	43,085	39,418	26,031	2,491	8,386	3,133	3,667
Eligibility Group								
SSI Aged	48,381	7,049	4,740	3,786	113	118	771	2,309
Other Aged	73,767	18,529	7,565	4,672	102	649	2,248	10,964
SSI Disabled	93,288	40,029	35,180	25,940	4,055	2,762	3,237	4,850
Other Disabled	25,208	9,210	6,420	4,853	645	605	413	2,791
AFDC Adults	34,086	4,916	4,525	3,657	840	10	37	391
Other Adults	50,310	11,544	10,738	3,677	843	6,029	615	806
AFDC Children	103,164	7,532	7,283	5,797	247	508	763	249
Other Children	260,624	16,772	15,683	12,101	551	1,724	1,438	1,088

TABLE A.7

NUMBER OF MEDICAID BENEFICIARIES WITH A MENTAL DISORDER WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 199

	Psychiatric Inpatient							Community Mental Health					
	Total Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or fewer days						
Total	13,475	1,090	549	1,221	10,486	66	501	36,774	15,067	30,102	53,184	22,818	99,976
Age													
0-17	2,364	786	326	274	1,211	-	13	14,797	8,221	11,211	7,395	11,451	31,696
18-21	674	165	78	38	432	-	9	1,569	730	1,132	1,415	1,216	3,994
22-29	1,102	2	5	118	947	2	35	2,636	809	2,332	3,361	1,841	6,801
30-39	2,460	-	-	263	2,132	3	74	6,747	2,535	5,712	8,830	2,769	15,302
40-44	1,423	-	-	149	1,224	4	54	3,529	1,284	2,953	6,002	1,182	8,699
45-49	1,080	-	-	114	922	4	48	2,559	829	2,163	5,024	827	6,793
50-59	1,527	-	-	141	1,287	11	109	2,673	555	2,397	7,838	1,020	9,753
60-64	540	-	-	47	452	10	47	614	58	577	2,897	375	3,475
65 or older	2,305	137	140	77	1,879	32	112	1,650	46	1,625	10,422	2,137	13,463
Gender by Age: Females													
0-17	914	269	146	101	504	-	4	5,169	2,897	3,806	2,162	4,500	11,390
18-21	307	57	38	17	214	-	4	692	339	485	619	769	2,017
22-29	601	-	3	55	530	1	13	1,452	647	1,212	1,612	1,518	4,220
30-39	1,392	-	-	134	1,230	1	32	3,951	1,990	3,143	4,633	2,259	9,544
40-44	826	-	-	82	722	1	24	1,872	832	1,504	3,284	915	5,173
45-49	633	-	-	64	542	3	29	1,252	424	1,053	2,947	606	4,064
50-59	1,019	-	-	87	865	5	74	1,374	240	1,262	5,269	714	6,420
60-64	380	-	-	36	316	5	31	323	21	309	2,040	237	2,372
65 or older	1,772	94	94	55	1,467	24	86	1,126	22	1,114	8,056	1,627	10,290
Gender by Age: Males													
0-17	1,450	517	180	173	707	-	9	9,628	5,324	7,405	5,233	6,951	20,306
18-21	367	108	40	21	218	-	5	877	391	647	796	447	1,977
22-29	501	2	2	63	417	1	22	1,184	162	1,120	1,749	323	2,581
30-39	1,068	-	-	129	902	2	42	2,796	545	2,569	4,197	510	5,758
40-44	597	-	-	67	502	3	30	1,657	452	1,449	2,718	267	3,526
45-49	447	-	-	50	380	1	19	1,307	405	1,110	2,077	221	2,729
50-59	508	-	-	54	422	6	35	1,299	315	1,135	2,569	306	3,333
60-64	160	-	-	11	136	5	16	291	37	268	857	138	1,103
65 or older	533	43	46	22	412	8	26	524	24	511	2,366	510	3,173
Gender													
Females	7,844	420	281	631	6,390	40	297	17,211	7,412	13,888	30,622	13,145	55,490
Males	5,631	670	268	590	4,096	26	204	19,563	7,655	16,214	22,562	9,673	44,486
Race													
White	6,856	544	300	580	5,282	49	325	15,554	4,007	13,912	28,158	8,215	44,646
Black	3,914	405	164	415	2,991	9	84	13,147	6,741	10,170	12,311	7,475	29,440
Hispanic	1,045	94	49	100	807	-	26	4,487	2,723	3,116	3,922	5,399	13,364
Other	1,660	47	36	126	1,406	8	66	3,586	1,596	2,904	8,793	1,729	12,526
Dual Status													
Aged Duals with Full Medicaid	2,032	105	129	62	1,681	26	82	1,274	36	1,256	8,866	1,741	11,271
Disabled Duals with Full Medicaid	2,501	4	3	191	2,290	7	14	3,179	715	2,844	10,553	987	12,090
Aged and Disabled Duals with Limited Medicaid	9	1	-	-	3	1	4	171	4	167	95	54	270
Disabled Non-Duals	4,907	161	98	647	3,913	12	202	10,666	4,822	8,753	21,673	4,117	31,147
Non-Duals	4,026	819	319	321	2,599	20	199	21,484	9,490	17,082	11,997	15,919	45,198
Eligibility Group													
SSI Aged	904	37	41	32	800	1	16	429	33	413	4,064	606	4,796
Other Aged	1,401	100	99	45	1,079	31	96	1,221	13	1,212	6,358	1,531	8,667
SSI Disabled	5,987	122	91	720	4,960	9	193	12,121	5,124	10,061	26,176	4,367	35,968
Other Disabled	1,314	36	6	106	1,159	8	17	1,728	412	1,538	5,577	683	6,776
AFDC Adults	398	-	-	17	377	-	4	2,067	1,730	1,366	704	2,152	4,962
Other Adults	1,267	-	1	89	1,016	17	166	8,614	1,890	7,844	5,853	2,354	13,090
AFDC Children	318	22	48	23	240	-	-	3,289	1,987	2,274	460	3,761	7,614
Other Children	1,886	773	263	189	855	-	9	7,305	3,878	5,394	3,992	7,364	18,103

TABLE A.8

ALL MEDICAID BENEFICIARIES -- BOTH THOSE WITH AND WITHOUT A MENTAL DISORDER -- WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
		Institution for Mental		Acute Inpatient Facility		All Other Residential							
	Total Users of Psychiatric Inpatient Services	More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or fewer days	Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
Total	13,829	1,179	570	1,221	10,486	128	683	38,801	15,079	32,129	125,622	716,577	99,976
Age													
0-17	2,421	832	334	274	1,211	-	16	16,789	8,221	13,203	12,075	423,521	31,696
18-21	688	179	78	38	432	-	9	1,571	730	1,134	2,331	44,148	3,994
22-29	1,109	2	5	118	947	2	42	2,644	813	2,340	5,613	57,197	6,801
30-39	2,466	-	-	263	2,132	4	79	6,757	2,538	5,722	13,719	50,424	15,302
40-44	1,427	-	-	149	1,224	6	56	3,535	1,285	2,959	9,321	16,071	8,699
45-49	1,085	-	-	114	922	6	51	2,563	831	2,167	8,240	10,402	6,793
50-59	1,541	-	-	141	1,287	15	119	2,678	557	2,402	14,951	17,500	9,753
60-64	550	-	-	47	452	10	57	614	58	577	6,988	8,962	3,475
65 or older	2,542	166	153	77	1,879	85	254	1,650	46	1,625	52,384	88,350	13,463
Gender by Age: Females													
0-17	936	285	152	101	504	-	4	5,987	2,897	4,624	4,002	212,761	11,390
18-21	313	63	38	17	214	-	4	694	339	487	1,082	31,688	2,017
22-29	602	-	3	55	530	1	14	1,455	647	1,215	2,831	50,423	4,220
30-39	1,395	-	-	134	1,230	1	35	3,956	1,992	3,148	7,216	41,261	9,544
40-44	828	-	-	82	722	3	24	1,872	832	1,504	5,089	11,367	5,173
45-49	635	-	-	64	542	3	31	1,255	425	1,056	4,743	6,487	4,064
50-59	1,022	-	-	87	865	6	76	1,375	240	1,263	9,862	10,403	6,420
60-64	384	-	-	36	316	5	35	323	21	309	4,820	5,297	2,372
65 or older	1,951	116	100	55	1,467	66	195	1,126	22	1,114	40,574	64,318	10,290
Gender by Age: Males													
0-17	1,485	547	182	173	707	-	12	10,802	5,324	8,579	8,073	210,760	20,306
18-21	375	116	40	21	218	-	5	877	391	647	1,249	12,460	1,977
22-29	507	2	2	63	417	1	28	1,189	166	1,125	2,782	6,774	2,581
30-39	1,071	-	-	129	902	3	44	2,801	546	2,574	6,503	9,163	5,758
40-44	599	-	-	67	502	3	32	1,663	453	1,455	4,232	4,704	3,526
45-49	450	-	-	50	380	3	20	1,308	406	1,111	3,497	3,915	2,729
50-59	519	-	-	54	422	9	43	1,303	317	1,139	5,089	7,097	3,333
60-64	166	-	-	11	136	5	22	291	37	268	2,168	3,665	1,103
65 or older	591	50	53	22	412	19	59	524	24	511	11,810	24,032	3,173
Gender													
Females	8,066	464	293	631	6,390	85	418	18,043	7,415	14,720	80,219	434,005	55,490
Males	5,763	715	277	590	4,096	43	265	20,758	7,664	17,409	45,403	282,572	44,486
Race													
White	7,095	585	312	580	5,282	95	465	16,074	4,017	14,432	68,912	183,482	44,646
Black	3,988	441	173	415	2,991	18	104	13,869	6,741	10,892	25,816	263,752	29,440
Hispanic	1,056	103	49	100	807	1	27	4,861	2,724	3,490	8,382	181,489	13,364
Other	1,690	50	36	126	1,406	14	87	3,997	1,597	3,315	22,512	87,854	12,526
Dual Status													
Aged Duals with Full Medicaic	2,218	130	140	62	1,681	74	184	1,274	36	1,256	45,446	54,241	11,271
Disabled Duals with Full Medicaic	2,505	4	3	191	2,290	9	16	3,182	716	2,847	20,876	13,769	12,090
Aged and Disabled Duals with Limited Medicaic	19	1	-	-	3	1	14	171	4	167	385	24,361	270
Disabled Non-Duals	4,937	162	98	647	3,913	17	226	11,356	4,822	9,443	34,877	45,948	31,147
Non-Duals	4,150	882	329	321	2,599	27	243	22,818	9,501	18,416	24,038	578,258	45,198
Eligibility Group													
SSI Aged	918	39	42	32	800	3	25	429	33	413	19,696	30,335	4,796
Other Aged	1,624	127	111	45	1,079	82	229	1,221	13	1,212	32,688	58,015	8,667
SSI Disabled	6,012	123	91	720	4,960	11	215	12,758	5,124	10,698	42,583	49,314	35,968
Other Disabled	1,322	36	6	106	1,159	12	21	1,784	413	1,594	11,990	14,664	6,776
AFDC Adults	398	-	-	17	377	-	4	2,068	1,730	1,367	1,415	36,237	4,962
Other Adults	1,283	-	1	89	1,016	20	179	8,642	1,901	7,872	9,402	76,793	13,090
AFDC Children	319	23	48	23	240	-	-	3,491	1,987	2,476	1,097	112,259	7,614
Other Children	1,953	831	271	189	855	-	10	8,408	3,878	6,497	6,751	338,958	18,103

TABLE A.9

TOTAL ANNUAL EXPENDITURES FOR MEDICAID BENEFICIARIES WITH A MENTAL DISORDER WHO USED SPECIFIED SERVICES, IN THOUSANDS OF DOLLARS, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Total Expenditures for Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days						
Total	$362,993	$80,535	$13,606	$50,679	$222,622	$3,412	$18,315	$658,503	$162,441	$606,513	$1,083,566	$140,837	$1,523,870
Age													
0-17	$89,239	$58,073	$8,397	$15,331	$23,702	-	$255	$148,455	$72,405	$130,471	$114,816	$30,859	$263,563
18-21	$18,979	$10,970	$1,183	$1,582	$7,579	-	$305	$18,734	$5,367	$16,287	$24,606	$3,976	$42,918
22-29	$22,430	$89	$180	$4,421	$15,925	$230	$1,972	$57,783	$8,590	$55,148	$62,503	$7,155	$91,811
30-39	$50,332	-	-	$9,409	$36,796	$321	$4,438	$144,801	$28,419	$135,557	$176,822	$15,019	$243,559
40-44	$32,304	-	-	$5,076	$24,672	$307	$2,725	$82,773	$19,064	$75,107	$118,638	$9,151	$151,787
45-49	$26,628	-	-	$4,689	$19,679	$285	$2,218	$68,011	$15,903	$61,518	$102,914	$8,026	$130,074
50-59	$40,401	-	-	$5,564	$31,423	$792	$3,505	$78,411	$10,791	$73,999	$156,715	$12,461	$191,492
60-64	$15,340	-	-	$2,050	$12,442	$513	$919	$18,695	$1,139	$18,082	$60,089	$5,238	$70,798
65 or older	$67,340	$11,402	$3,846	$2,557	$50,405	$964	$1,978	$40,841	$763	$40,344	$266,463	$48,952	$337,867
Gender by Age: Females													
0-17	$30,082	$19,753	$2,599	$5,174	$9,305	-	$115	$51,848	$24,237	$45,198	$37,250	$12,134	$92,737
18-21	$7,260	$3,451	$619	$799	$3,742	-	$47	$8,282	$2,642	$6,820	$10,305	$2,417	$18,316
22-29	$11,396	-	$128	$2,021	$8,524	$101	$637	$24,724	$5,058	$23,046	$27,883	$5,596	$44,586
30-39	$27,053	-	-	$4,946	$20,710	$108	$1,585	$70,027	$18,141	$63,589	$88,254	$11,774	$128,669
40-44	$17,607	-	-	$2,707	$14,229	$96	$704	$39,964	$9,392	$36,115	$61,271	$6,672	$81,023
45-49	$15,667	-	-	$2,789	$11,491	$252	$1,301	$31,711	$7,160	$28,916	$59,146	$5,700	$73,689
50-59	$25,784	-	-	$3,469	$20,291	$263	$2,170	$40,970	$4,713	$39,338	$98,654	$8,757	$118,080
60-64	$9,953	-	-	$1,533	$7,919	$241	$433	$9,899	$302	$9,727	$40,026	$2,962	$45,335
65 or older	$49,682	$7,468	$2,349	$1,894	$38,424	$650	$1,345	$26,487	$376	$26,197	$202,454	$39,948	$256,881
Gender by Age: Males													
0-17	$59,156	$38,320	$5,799	$10,157	$14,398	-	$140	$96,607	$48,168	$85,273	$77,566	$18,725	$170,826
18-21	$11,719	$7,520	$564	$783	$3,837	-	$258	$10,452	$2,725	$9,467	$14,301	$1,559	$24,603
22-29	$11,033	$89	$52	$2,400	$7,401	$129	$1,335	$33,059	$3,532	$32,102	$34,620	$1,559	$47,224
30-39	$23,279	-	-	$4,463	$16,086	$213	$2,853	$74,774	$10,278	$71,968	$88,569	$3,245	$114,889
40-44	$14,696	-	-	$2,368	$10,443	$210	$2,021	$42,809	$9,671	$38,992	$57,367	$2,479	$70,764
45-49	$10,961	-	-	$1,900	$8,188	$33	$917	$36,300	$8,743	$32,602	$43,768	$2,326	$56,385
50-59	$14,618	-	-	$2,096	$11,132	$528	$1,335	$37,440	$6,078	$34,660	$58,061	$3,703	$73,413
60-64	$5,387	-	-	$517	$4,522	$272	$486	$8,795	$837	$8,355	$20,063	$2,276	$25,463
65 or older	$17,658	$3,934	$1,497	$662	$11,981	$314	$633	$14,354	$387	$14,147	$64,009	$9,004	$80,986
Gender													
Females	$194,485	$30,672	$5,695	$25,333	$134,634	$1,712	$8,337	$303,911	$72,022	$278,947	$625,242	$95,960	$859,316
Males	$168,508	$49,863	$7,911	$25,346	$87,988	$1,700	$9,978	$354,591	$90,419	$327,567	$458,324	$44,876	$664,553
Race													
White	$189,939	$39,846	$6,148	$23,702	$117,109	$2,077	$13,030	$377,127	$50,796	$363,435	$653,052	$71,447	$876,118
Black	$107,833	$30,340	$3,028	$17,350	$63,516	$737	$2,887	$179,053	$68,713	$154,008	$251,866	$40,765	$385,191
Hispanic	$23,162	$6,941	$702	$4,414	$12,891	-	$515	$37,012	$17,885	$30,859	$47,022	$16,379	$92,263
Other	$42,059	$3,408	$3,728	$5,212	$29,106	$598	$1,883	$65,311	$25,047	$58,211	$131,626	$12,246	$170,297
Dual Status													
Aged Duals with Full Medicaid	$57,991	$9,226	$3,426	$1,787	$43,900	$660	$1,428	$32,072	$591	$31,695	$233,344	$43,790	$294,523
Disabled Duals with Full Medicaid	$41,591	$349	$25	$4,399	$36,669	$448	$223	$52,667	$9,225	$48,496	$168,076	$16,144	$189,415
Aged and Disabled Duals with Limited Medicaid	$120	$21	-	-	$22	$25	$52	$1,906	$46	$1,861	$953	$422	$2,736
Disabled Non-Duals	$136,471	$11,702	$2,169	$29,343	$94,207	$888	$4,637	$189,105	$72,744	$164,510	$385,334	$35,312	$487,511
Non-Duals	$126,821	$59,236	$7,987	$15,150	$47,824	$1,391	$11,975	$382,753	$79,836	$359,951	$295,859	$45,168	$549,684
Eligibility Group													
SSI Aged	$22,931	$3,462	$836	$1,080	$18,403	$116	$416	$8,493	$533	$8,210	$76,997	$9,864	$89,791
Other Aged	$44,409	$7,940	$3,010	$1,477	$32,001	$849	$1,563	$32,347	$230	$32,134	$189,466	$39,088	$248,076
SSI Disabled	$144,289	$9,428	$1,886	$29,511	$104,056	$542	$4,205	$212,171	$75,906	$186,360	$422,445	$33,566	$522,172
Other Disabled	$29,603	$2,190	$76	$3,567	$23,813	$581	$422	$28,699	$6,026	$25,729	$119,658	$17,044	$142,717
AFDC Adults	$4,732	-	-	$471	$4,171	-	$90	$13,770	$10,854	$9,713	$4,894	$7,892	$26,398
Other Adults	$34,943	-	$69	$2,920	$20,724	$1,325	$11,365	$273,076	$27,129	$266,697	$192,040	$8,332	$308,549
AFDC Children	$4,714	$1,211	$525	$1,016	$2,586	-	-	$18,398	$10,538	$15,172	$2,622	$9,507	$32,242
Other Children	$77,372	$56,303	$7,204	$10,638	$16,866	-	$254	$71,547	$31,224	$62,499	$75,444	$15,544	$153,925

TABLE A.10

TOTAL ANNUAL EXPENDITURES FOR ALL MEDICAID BENEFICIARIES -- BOTH THOSE WITH AND WITHOUT A MENTAL DISORDER -- WHO USED SPECIFIED SERVICES, IN THOUSANDS OF DOLLARS, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Total Expenditures for Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days						
Total	$373,894	$85,257	$14,073	$50,679	$222,622	$5,487	$21,953	$686,399	$163,209	$634,410	$2,410,670	$1,746,977	$1,523,870
Age													
0-17	$91,452	$60,241	$8,413	$15,331	$23,702	-	$285	$175,044	$72,405	$157,060	$162,244	$488,684	$263,563
18-21	$19,429	$11,421	$1,183	$1,582	$7,579	-	$305	$18,744	$5,367	$16,298	$36,657	$76,589	$42,918
22-29	$22,817	$89	$180	$4,421	$15,925	$230	$2,360	$58,158	$8,849	$55,523	$101,988	$123,819	$91,811
30-39	$50,589	-	-	$9,409	$36,796	$412	$4,604	$145,140	$28,563	$135,896	$286,394	$138,407	$243,559
40-44	$32,483	-	-	$5,076	$24,672	$377	$2,834	$82,982	$19,129	$75,315	$198,287	$55,298	$151,787
45-49	$27,042	-	-	$4,689	$19,679	$516	$2,400	$68,225	$16,073	$61,732	$173,471	$49,272	$130,074
50-59	$41,124	-	-	$5,564	$31,423	$1,051	$3,968	$78,572	$10,920	$74,160	$280,259	$96,195	$191,492
60-64	$15,509	-	-	$2,050	$12,442	$513	$1,087	$18,695	$1,139	$18,082	$120,732	$54,614	$70,798
65 or older	$73,449	$13,506	$4,297	$2,557	$50,405	$2,388	$4,110	$40,841	$763	$40,344	$1,050,639	$664,098	$337,867
Gender by Age: Females													
0-17	$30,771	$20,428	$2,613	$5,174	$9,305	-	$115	$62,815	$24,237	$56,165	$57,495	$246,550	$92,737
18-21	$7,481	$3,671	$619	$799	$3,742	-	$47	$8,292	$2,642	$6,831	$15,495	$61,929	$18,316
22-29	$11,406	-	$128	$2,021	$8,524	$101	$647	$24,755	$5,058	$23,077	$44,133	$104,119	$44,586
30-39	$27,146	-	-	$4,946	$20,710	$108	$1,678	$70,156	$18,216	$63,717	$131,744	$98,784	$128,669
40-44	$17,677	-	-	$2,707	$14,229	$166	$704	$39,964	$9,392	$36,115	$94,382	$33,236	$81,023
45-49	$15,840	-	-	$2,789	$11,491	$252	$1,474	$31,811	$7,216	$29,016	$90,360	$26,404	$73,689
50-59	$25,942	-	-	$3,469	$20,291	$340	$2,252	$40,972	$4,713	$39,340	$163,123	$54,332	$118,080
60-64	$9,995	-	-	$1,533	$7,919	$241	$474	$9,899	$302	$9,727	$76,746	$30,536	$45,335
65 or older	$54,035	$8,939	$2,509	$1,894	$38,424	$1,768	$2,950	$26,487	$376	$26,197	$808,635	$512,201	$256,881
Gender by Age: Males													
0-17	$60,681	$39,814	$5,801	$10,157	$14,398	-	$170	$112,228	$48,168	$100,895	$104,750	$242,135	$170,826
18-21	$11,949	$7,750	$564	$783	$3,837	-	$258	$10,452	$2,725	$9,467	$21,162	$14,660	$24,603
22-29	$11,411	$89	$52	$2,400	$7,401	$129	$1,713	$33,403	$3,791	$32,446	$57,855	$19,700	$47,224
30-39	$23,443	-	-	$4,463	$16,086	$304	$2,926	$74,984	$10,348	$72,179	$154,650	$39,623	$114,889
40-44	$14,806	-	-	$2,368	$10,443	$210	$2,130	$43,018	$9,737	$39,200	$103,905	$22,062	$70,764
45-49	$11,201	-	-	$1,900	$8,188	$264	$926	$36,414	$8,856	$32,715	$83,111	$22,867	$56,385
50-59	$15,182	-	-	$2,096	$11,132	$711	$1,717	$37,600	$6,206	$34,820	$117,136	$41,863	$73,413
60-64	$5,514	-	-	$517	$4,522	$272	$613	$8,795	$837	$8,355	$43,986	$24,078	$25,463
65 or older	$19,413	$4,566	$1,788	$662	$11,981	$620	$1,160	$14,354	$387	$14,147	$242,004	$151,898	$80,986
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Gender	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Females	$200,294	$33,038	$5,869	$25,333	$134,634	$2,977	$10,341	$315,150	$72,153	$290,185	$1,482,111	$1,168,090	$859,316
Males	$173,600	$52,218	$8,204	$25,346	$87,988	$2,510	$11,612	$371,249	$91,055	$344,224	$928,559	$578,886	$664,553
Race													
White	$196,607	$42,200	$6,526	$23,702	$117,109	$3,506	$15,537	$384,199	$51,416	$370,507	$1,533,904	$746,620	$876,118
Black	$110,803	$32,307	$3,117	$17,350	$63,516	$1,149	$3,388	$188,538	$68,713	$163,494	$487,564	$552,392	$385,191
Hispanic	$23,428	$7,174	$702	$4,414	$12,891	$23	$526	$40,682	$17,942	$34,529	$93,119	$253,856	$92,263
Other	$43,056	$3,575	$3,728	$5,212	$29,106	$808	$2,503	$72,980	$25,137	$65,881	$296,083	$194,110	$170,297
Dual Status													
Aged Duals with Full Medicaid	$63,078	$11,001	$3,846	$1,787	$43,900	$1,936	$3,045	$32,072	$591	$31,695	$942,278	$584,987	$294,523
Disabled Duals with Full Medicaid	$41,833	$349	$25	$4,399	$36,669	$518	$395	$52,747	$9,295	$48,576	$409,891	$117,866	$189,415
Aged and Disabled Duals with Limited Medicaid	$296	$21	-	-	$22	$25	$229	$1,906	$46	$1,861	$4,325	$6,778	$2,736
Disabled Non-Duals	$137,487	$11,720	$2,169	$29,343	$94,207	$1,242	$5,282	$204,311	$72,744	$179,717	$633,897	$258,176	$487,511
Non-Duals	$131,199	$62,166	$8,033	$15,150	$47,824	$1,766	$13,002	$395,363	$80,534	$372,561	$420,279	$779,170	$549,684
Eligibility Group													
SSI Aged	$23,335	$3,627	$837	$1,080	$18,403	$214	$556	$8,493	$533	$8,210	$259,136	$157,302	$89,791
Other Aged	$50,114	$9,878	$3,459	$1,477	$32,001	$2,174	$3,554	$32,347	$230	$32,134	$791,503	$506,796	$248,076
SSI Disabled	$145,109	$9,446	$1,886	$29,511	$104,056	$717	$4,832	$226,610	$75,906	$200,799	$669,629	$252,066	$522,172
Other Disabled	$29,988	$2,190	$76	$3,567	$23,813	$775	$613	$29,546	$6,096	$26,576	$351,597	$113,249	$142,717
AFDC Adults	$4,732	-	-	$471	$4,171	-	$90	$13,777	$10,854	$9,720	$7,088	$83,991	$26,398
Other Adults	$35,905	-	$69	$2,920	$20,724	$1,606	$12,047	$274,249	$27,827	$267,870	$238,654	$149,431	$308,549
AFDC Children	$4,738	$1,235	$525	$1,016	$2,586	-	-	$19,745	$10,538	$16,518	$3,825	$127,368	$32,242
Other Children	$79,973	$58,880	$7,220	$10,638	$16,866	-	$262	$81,631	$31,224	$72,583	$89,238	$356,772	$153,925

TABLE A.11

MEAN ANNUAL EXPENDITURES FOR MEDICAID BENEFICIARIES WITH A MENTAL DISORDER WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days						
Total	$26,940	$73,885	$24,784	$41,506	$21,230	$51,699	$36,558	$17,907	$10,781	$20,149	$20,374	$6,172	$15,243
Age													
0-17	$37,765	$73,884	$25,759	$55,953	$19,572	-	$19,613	$10,033	$8,807	$11,638	$15,526	$2,695	$8,316
18-21	$28,158	$66,488	$15,165	$41,622	$17,544	-	$33,918	$11,940	$7,352	$14,388	$17,390	$3,270	$10,746
22-29	$20,354	$44,545	$36,015	$37,467	$16,817	$114,965	$56,352	$21,921	$10,618	$23,649	$18,596	$3,886	$13,500
30-39	$20,460	-	-	$35,775	$17,259	$107,017	$59,979	$21,462	$11,211	$23,732	$20,025	$5,424	$15,917
40-44	$22,701	-	-	$34,066	$20,157	$76,698	$50,457	$23,455	$14,847	$25,434	$19,766	$7,742	$17,449
45-49	$24,656	-	-	$41,135	$21,344	$71,300	$46,199	$26,577	$19,183	$28,441	$20,485	$9,705	$19,148
50-59	$26,458	-	-	$39,464	$24,416	$71,961	$32,154	$29,334	$19,443	$30,871	$19,994	$12,216	$19,634
60-64	$28,408	-	-	$43,612	$27,526	$51,321	$19,551	$30,447	$19,638	$31,338	$20,742	$13,968	$20,374
65 or older	$29,215	$83,228	$27,473	$33,204	$26,825	$30,136	$17,665	$24,752	$16,597	$24,827	$25,567	$22,907	$25,096
Gender by Age: Females													
0-17	$32,913	$73,430	$17,799	$51,229	$18,461	-	$28,792	$10,031	$8,366	$11,875	$17,229	$2,697	$8,142
18-21	$23,648	$60,538	$16,284	$46,986	$17,484	-	$11,702	$11,968	$7,794	$14,063	$16,648	$3,143	$9,081
22-29	$18,963	-	$42,657	$36,755	$16,084	$100,624	$49,012	$17,027	$7,818	$19,015	$17,297	$3,687	$10,566
30-39	$19,435	-	-	$36,910	$16,837	$107,878	$49,535	$17,724	$9,116	$20,232	$19,049	$5,212	$13,482
40-44	$21,316	-	-	$33,017	$19,708	$96,370	$29,323	$21,348	$11,289	$24,013	$18,657	$7,292	$15,663
45-49	$24,751	-	-	$43,581	$21,202	$84,142	$44,859	$25,328	$16,887	$27,461	$20,070	$9,406	$18,132
50-59	$25,303	-	-	$39,868	$23,457	$52,638	$29,326	$29,818	$19,638	$31,171	$18,724	$12,265	$18,393
60-64	$26,193	-	-	$42,587	$25,061	$48,291	$13,961	$30,647	$14,379	$31,480	$19,621	$12,500	$19,113
65 or older	$28,037	$79,451	$24,995	$34,444	$26,192	$27,081	$15,643	$23,523	$17,094	$23,516	$25,131	$24,553	$24,964
Gender by Age: Males													
0-17	$40,826	$74,121	$32,214	$58,711	$20,364	-	$15,534	$10,034	$9,047	$11,516	$14,823	$2,694	$8,413
18-21	$31,931	$69,628	$14,101	$37,280	$17,603	-	$51,691	$11,918	$6,970	$14,632	$17,966	$3,488	$12,444
22-29	$22,023	$44,545	$26,052	$38,090	$17,748	$129,305	$60,690	$27,922	$21,800	$28,663	$19,794	$4,825	$18,297
30-39	$21,797	-	-	$34,596	$17,834	$106,586	$67,936	$26,743	$18,858	$28,014	$21,103	$6,364	$19,953
40-44	$24,617	-	-	$35,350	$20,802	$70,140	$67,364	$25,836	$21,397	$26,909	$21,107	$9,284	$20,069
45-49	$24,522	-	-	$38,004	$21,548	$32,776	$48,245	$27,774	$21,587	$29,371	$21,073	$10,525	$20,661
50-59	$28,775	-	-	$38,813	$26,380	$88,063	$38,134	$28,822	$19,295	$30,538	$22,601	$12,103	$22,026
60-64	$33,668	-	-	$46,967	$33,252	$54,351	$30,381	$30,225	$22,623	$31,174	$23,411	$16,490	$23,085
65 or older	$33,130	$91,484	$32,537	$30,103	$29,079	$39,301	$24,351	$27,393	$16,142	$27,686	$27,054	$17,655	$25,524
Gender													
Females	$24,794	$73,028	$20,267	$40,147	$21,070	$42,797	$28,071	$17,658	$9,717	$20,086	$20,418	$7,300	$15,486
Males	$29,930	$74,423	$29,520	$42,959	$21,482	$65,393	$48,913	$18,126	$11,812	$20,203	$20,314	$4,639	$14,939
Race													
White	$27,708	$73,246	$20,495	$40,866	$22,171	$42,398	$40,094	$24,246	$12,677	$26,124	$23,192	$8,697	$19,624
Black	$27,551	$74,912	$18,464	$41,808	$21,236	$81,857	$34,367	$13,619	$10,193	$15,143	$20,459	$5,454	$13,084
Hispanic	$22,164	$73,843	$14,329	$44,143	$15,974	-	$19,797	$8,249	$6,568	$9,903	$11,989	$3,034	$6,904
Other	$25,337	$72,514	$103,553	$41,367	$20,701	$74,738	$28,537	$18,213	$15,694	$20,045	$14,969	$7,083	$13,596
Dual Status													
Aged Duals with Full Medicaid	$28,539	$87,865	$26,557	$28,821	$26,116	$25,394	$17,420	$25,174	$16,409	$25,235	$26,319	$25,152	$26,131
Disabled Duals with Full Medicaid	$16,630	$87,331	$8,259	$23,032	$16,013	$64,010	$15,948	$16,567	$12,902	$17,052	$15,927	$16,357	$15,667
Aged and Disabled Duals with Limited Medicaid	$13,298	$21,189	-	-	$7,327	$24,699	$12,954	$11,147	$11,420	$11,141	$10,034	$7,809	$10,135
Disabled Non-Duals	$27,811	$72,684	$22,134	$45,352	$24,076	$74,002	$22,955	$17,730	$15,086	$18,795	$17,780	$8,577	$15,652
Non-Duals	$31,508	$72,328	$25,037	$47,196	$18,401	$69,553	$60,176	$17,816	$8,413	$21,072	$24,661	$2,837	$12,162
Eligibility Group													
SSI Aged	$25,366	$93,565	$20,395	$33,742	$23,004	$115,665	$25,994	$19,798	$16,152	$19,880	$18,946	$16,278	$18,722
Other Aged	$31,698	$79,403	$30,404	$32,821	$29,658	$27,377	$16,277	$26,492	$17,727	$26,513	$29,800	$25,531	$28,623
SSI Disabled	$24,100	$77,281	$20,727	$40,987	$20,979	$60,187	$21,790	$17,504	$14,814	$18,523	$16,139	$7,686	$14,518
Other Disabled	$22,529	$60,843	$12,597	$33,654	$20,546	$72,589	$24,824	$16,608	$14,627	$16,729	$21,456	$24,955	$21,062
AFDC Adults	$11,890	-	-	$27,683	$11,065	-	$22,566	$6,662	$6,274	$7,111	$6,951	$3,667	$5,320
Other Adults	$27,579	-	$69,366	$32,806	$20,398	$77,962	$68,465	$31,701	$14,354	$34,000	$32,811	$3,539	$23,571
AFDC Children	$14,824	$55,033	$10,933	$44,174	$10,776	-	-	$5,594	$5,304	$6,672	$5,700	$2,528	$4,235
Other Children	$41,046	$72,837	$27,393	$56,285	$19,727	-	$28,219	$9,794	$8,052	$11,587	$18,899	$2,111	$8,503

TABLE A.12

MEAN ANNUAL EXPENDITURES FOR MEDICAID BENEFICIARIES -- BOTH THOSEWITH AND WITHOUT A MENTAL DISORDER-- WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days						
Total	$27,039	$72,313	$24,690	$41,506	$21,230	$42,866	$32,142	$17,690	$10,824	$19,746	$19,190	$2,764	$15,243
Age													
0-17	$37,790	$72,405	$25,190	$55,953	$19,572	-	$17,793	$10,426	$8,807	$11,896	$13,436	$1,236	$8,316
18-21	$28,240	$63,805	$15,165	$41,622	$17,544	-	$33,918	$11,931	$7,352	$14,372	$15,726	$1,943	$10,746
22-29	$20,575	$44,545	$36,015	$37,467	$16,817	$114,965	$56,184	$21,996	$10,884	$23,728	$18,170	$2,449	$13,500
30-39	$20,515	-	-	$35,775	$17,259	$103,009	$58,282	$21,480	$11,254	$23,750	$20,876	$3,144	$15,917
40-44	$22,763	-	-	$34,066	$20,157	$62,756	$50,609	$23,474	$14,887	$25,453	$21,273	$4,126	$17,449
45-49	$24,923	-	-	$41,135	$21,344	$86,051	$47,053	$26,619	$19,342	$28,487	$21,052	$6,018	$19,148
50-59	$26,687	-	-	$39,464	$24,416	$70,052	$33,348	$29,340	$19,604	$30,874	$18,745	$7,326	$19,634
60-64	$28,197	-	-	$43,612	$27,526	$51,321	$19,075	$30,447	$19,638	$31,338	$17,277	$8,183	$20,374
65 or older	$28,894	$81,359	$28,083	$33,204	$26,825	$28,095	$16,180	$24,752	$16,597	$24,827	$20,057	$10,816	$25,096
Gender by Age: Females													
0-17	$32,875	$71,676	$17,190	$51,229	$18,461	-	$28,792	$10,492	$8,366	$12,146	$14,367	$1,239	$8,142
18-21	$23,900	$58,277	$16,284	$46,986	$17,484	-	$11,702	$11,948	$7,794	$14,027	$14,320	$2,151	$9,081
22-29	$18,948	-	$42,657	$36,755	$16,084	$100,624	$46,220	$17,013	$7,818	$18,993	$15,589	$2,289	$10,566
30-39	$19,460	-	-	$36,910	$16,837	$107,878	$47,949	$17,734	$9,145	$20,241	$18,257	$2,650	$13,482
40-44	$21,349	-	-	$33,017	$19,708	$55,371	$29,323	$21,348	$11,289	$24,013	$18,546	$3,296	$15,663
45-49	$24,945	-	-	$43,581	$21,202	$84,142	$47,548	$25,347	$16,980	$27,478	$19,051	$4,814	$18,132
50-59	$25,383	-	-	$39,868	$23,457	$56,602	$29,629	$29,798	$19,638	$31,148	$16,541	$6,594	$18,393
60-64	$26,028	-	-	$42,587	$25,061	$48,291	$13,551	$30,647	$14,379	$31,480	$15,922	$7,527	$19,113
65 or older	$27,696	$77,064	$25,089	$34,444	$26,192	$26,795	$15,126	$23,523	$17,094	$23,516	$19,930	$11,470	$24,964
Gender by Age: Males													
0-17	$40,890	$72,785	$31,871	$58,711	$20,364	-	$14,127	$10,390	$9,047	$11,761	$12,975	$1,233	$8,413
18-21	$31,863	$66,807	$14,101	$37,280	$17,603	-	$51,691	$11,918	$6,970	$14,632	$16,943	$1,380	$12,444
22-29	$22,506	$44,545	$26,052	$38,090	$17,748	$129,305	$61,165	$28,093	$22,837	$28,841	$20,796	$3,893	$18,297
30-39	$21,889	-	-	$34,596	$17,834	$101,385	$66,501	$26,771	$18,952	$28,042	$23,781	$5,867	$19,953
40-44	$24,717	-	-	$35,350	$20,802	$70,140	$66,573	$25,868	$21,494	$26,942	$24,552	$6,645	$20,069
45-49	$24,892	-	-	$38,004	$21,548	$87,961	$46,286	$27,839	$21,814	$29,447	$23,766	$8,463	$20,661
50-59	$29,253	-	-	$38,813	$26,380	$79,019	$39,922	$28,857	$19,579	$30,571	$23,017	$8,559	$22,026
60-64	$33,215	-	-	$46,967	$33,252	$54,351	$27,862	$30,225	$22,623	$31,174	$20,289	$9,201	$23,085
65 or older	$32,848	$91,323	$33,732	$30,103	$29,079	$32,610	$19,661	$27,393	$16,142	$27,686	$20,492	$9,070	$25,524
Gender													
Females	$24,832	$71,203	$20,029	$40,147	$21,070	$35,018	$24,739	$17,467	$9,731	$19,714	$18,476	$3,049	$15,486
Males	$30,128	$73,033	$29,619	$42,959	$21,482	$58,379	$43,820	$17,885	$11,881	$19,773	$20,452	$2,324	$14,939
Race													
White	$27,715	$72,138	$20,916	$40,866	$22,171	$36,910	$33,413	$23,902	$12,800	$25,673	$22,259	$4,590	$19,624
Black	$27,784	$73,259	$18,019	$41,808	$21,236	$63,842	$32,574	$13,594	$10,193	$15,010	$18,886	$2,253	$13,084
Hispanic	$22,186	$69,650	$14,329	$44,143	$15,974	$22,801	$19,465	$8,369	$6,587	$9,894	$11,109	$1,502	$6,904
Other	$25,477	$71,501	$103,553	$41,367	$20,701	$57,743	$28,765	$18,259	$15,740	$19,874	$13,152	$3,517	$13,596
Dual Status													
Aged Duals with Full Medicaid	$28,439	$84,623	$27,473	$28,821	$26,116	$26,161	$16,547	$25,174	$16,409	$25,235	$20,734	$11,989	$26,131
Disabled Duals with Full Medicaid	$16,700	$87,331	$8,259	$23,032	$16,013	$57,534	$24,696	$16,577	$12,982	$17,062	$19,635	$9,801	$15,667
Aged and Disabled Duals with Limited Medicaid	$15,602	$21,189	-	-	$7,327	$24,699	$16,326	$11,147	$11,420	$11,141	$11,235	$8,166	$10,135
Disabled Non-Duals	$27,848	$72,343	$22,134	$45,352	$24,076	$73,055	$23,372	$17,992	$15,086	$19,032	$18,175	$7,048	$15,652
Non-Duals	$31,622	$70,483	$24,416	$47,196	$18,401	$65,426	$53,508	$17,327	$8,476	$20,230	$17,484	$1,460	$12,162
Eligibility Group													
SSI Aged	$25,419	$93,012	$19,935	$33,742	$23,004	$71,212	$22,222	$19,798	$16,152	$19,880	$13,157	$5,856	$18,722
Other Aged	$30,858	$77,780	$31,166	$32,821	$29,658	$26,517	$15,520	$26,492	$17,727	$26,513	$24,214	$14,672	$28,623
SSI Disabled	$24,137	$76,794	$20,727	$40,987	$20,979	$65,201	$22,474	$17,762	$14,814	$18,770	$15,725	$6,306	$14,518
Other Disabled	$22,684	$60,843	$12,597	$33,654	$20,546	$64,607	$29,176	$16,562	$14,761	$16,673	$29,324	$15,259	$21,062
AFDC Adults	$11,890	-	-	$27,683	$11,065	-	$22,566	$6,662	$6,274	$7,110	$5,009	$2,438	$5,320
Other Adults	$27,985	-	$69,366	$32,806	$20,398	$80,315	$67,300	$31,734	$14,638	$34,028	$25,383	$2,222	$23,571
AFDC Children	$14,854	$53,707	$10,933	$44,174	$10,776	-	-	$5,656	$5,304	$6,671	$3,487	$1,186	$4,235
Other Children	$40,970	$70,854	$26,644	$56,285	$19,727	-	$26,174	$9,709	$8,052	$11,172	$13,219	$1,135	$8,503

TABLE A.13

NUMBER OF PERSON-YEAR-ADJUSTED MEDICAID BENEFICIARIES WITH A MENTAL DISORDER WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
		Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities							
	Total Users of Psychiatric Inpatient Services	More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days	Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
Total	12,383	954	481	1,143	9,684	61	470	34,323	13,925	28,252	64,715	20,213	92,134
Age													
0-17	2,112	691	285	255	1,100	-	13	13,850	7,822	10,484	12,702	10,477	29,304
18-21	579	136	67	35	378	-	8	1,414	655	1,018	2,202	987	3,451
22-29	995	2	5	113	847	2	33	2,403	673	2,156	4,164	1,533	6,052
30-39	2,259	-	-	246	1,949	3	71	6,236	2,238	5,340	10,088	2,357	13,933
40-44	1,327	-	-	139	1,139	4	52	3,311	1,161	2,808	6,562	1,023	8,090
45-49	1,022	-	-	109	870	4	47	2,422	761	2,067	5,528	740	6,400
50-59	1,444	-	-	131	1,216	10	106	2,561	518	2,310	8,497	912	9,275
60-64	518	-	-	45	435	10	44	593	54	559	3,163	343	3,324
65 or older	2,128	125	125	70	1,749	29	96	1,533	43	1,511	11,809	1,841	12,305
Gender by Age: Females													
0-17	803	233	127	93	449	-	4	4,854	2,762	3,569	4,370	4,092	10,492
18-21	266	49	35	17	185	-	3	615	301	427	1,052	614	1,710
22-29	531	-	3	53	464	1	12	1,280	525	1,090	2,103	1,248	3,643
30-39	1,269	-	-	124	1,118	1	31	3,584	1,751	2,884	5,354	1,927	8,579
40-44	774	-	-	78	674	1	24	1,752	749	1,436	3,575	790	4,786
45-49	603	-	-	62	514	3	29	1,187	391	1,009	3,198	546	3,839
50-59	972	-	-	81	826	5	73	1,326	222	1,227	5,610	644	6,140
60-64	366	-	-	34	305	5	29	314	20	301	2,187	217	2,281
65 or older	1,641	85	84	52	1,371	22	72	1,044	21	1,032	9,068	1,409	9,431
Gender by Age: Males													
0-17	1,309	458	158	162	652	-	9	8,995	5,060	6,915	8,332	6,385	18,812
18-21	313	87	32	19	193	-	5	799	354	591	1,150	372	1,741
22-29	464	2	2	60	384	1	21	1,124	148	1,066	2,061	286	2,409
30-39	990	-	-	123	831	2	40	2,652	486	2,456	4,734	430	5,354
40-44	553	-	-	62	466	3	28	1,559	412	1,371	2,987	233	3,305
45-49	419	-	-	47	356	1	18	1,235	370	1,058	2,330	194	2,561
50-59	471	-	-	50	391	5	33	1,235	296	1,083	2,887	268	3,134
60-64	152	-	-	10	130	5	15	279	34	258	976	127	1,043
65 or older	487	40	40	18	379	7	24	489	22	478	2,741	432	2,874
Gender													
Females	7,225	367	249	593	5,904	38	277	15,957	6,742	12,977	36,516	11,487	50,902
Males	5,158	587	233	550	3,780	24	193	18,366	7,183	15,276	28,199	8,727	41,232
Race													
White	6,274	464	260	539	4,875	45	300	14,584	3,661	13,107	32,555	7,070	40,925
Black	3,607	365	146	391	2,762	9	80	12,249	6,234	9,531	16,354	6,750	27,249
Hispanic	940	83	42	93	726	-	25	4,071	2,491	2,844	5,205	4,807	12,049
Other	1,562	42	34	121	1,321	8	65	3,420	1,539	2,771	10,601	1,587	11,911
Dual Status													
Aged Duals with Full Medicaic	1,893	98	115	56	1,574	24	75	1,200	34	1,183	10,038	1,509	10,377
Disabled Duals with Full Medicaic	2,453	4	3	187	2,247	7	14	3,109	705	2,779	11,232	960	11,862
Aged and Disabled Duals with Limited Medicai	9	1	-	-	3	1	4	163	4	159	141	50	255
Disabled Non-Duals	4,725	152	94	627	3,763	11	200	10,388	4,752	8,514	26,213	3,931	30,222
Non-Duals	3,303	700	269	273	2,097	18	178	19,463	8,429	15,617	17,092	13,764	39,418
Eligibility Group													
SSI Aged	894	37	39	31	792	1	16	425	32	410	4,632	597	4,740
Other Aged	1,234	88	86	38	957	28	80	1,108	11	1,101	7,177	1,244	7,565
SSI Disabled	5,815	117	88	702	4,813	8	191	11,881	5,058	9,859	31,024	4,211	35,180
Other Disabled	1,257	32	5	100	1,113	8	16	1,618	398	1,434	5,892	627	6,420
AFDC Adults	355	-	-	16	336	-	4	1,916	1,619	1,271	1,017	2,013	4,525
Other Adults	939	-	1	62	725	16	155	7,800	1,389	7,280	7,581	1,564	10,738
AFDC Children	295	20	45	21	223	-	-	3,182	1,937	2,195	1,020	3,605	7,283
Other Children	1,594	660	217	172	724	-	8	6,392	3,480	4,703	6,372	6,352	15,683

TABLE A.14

NUMBER OF PERSON-YEAR-ADJUSTED MEDICAID BENEFICIARIES -- BOTH THOSE WITH AND WITHOUT A MENTAL DISORDER -- WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Total Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facilities		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Beneficiaries with a Mental Disorder
		More than 30 days	30 or less days	More than 30 days	30 or less days	More than 30 days	30 or less days						
Total	12,671	1,018	497	1,143	9,684	119	621	34,323	13,925	28,252	255,895	550,639	92,134
Age													
0-17	2,147	720	288	255	1,100	-	16	13,850	7,822	10,484	57,510	333,626	29,304
18-21	588	145	67	35	378	-	8	1,414	655	1,018	9,611	28,641	3,451
22-29	1,002	2	5	113	847	2	40	2,403	673	2,156	15,059	36,534	6,052
30-39	2,265	-	-	246	1,949	4	76	6,236	2,238	5,340	22,098	34,658	13,933
40-44	1,331	-	-	139	1,139	6	54	3,311	1,161	2,808	12,639	12,196	8,090
45-49	1,027	-	-	109	870	6	50	2,422	761	2,067	11,134	8,327	6,400
50-59	1,456	-	-	131	1,216	14	115	2,561	518	2,310	21,826	14,521	9,275
60-64	528	-	-	45	435	10	54	593	54	559	11,466	7,618	3,324
65 or older	2,327	152	137	70	1,749	78	208	1,533	43	1,511	94,552	74,517	12,305
Gender by Age: Females													
0-17	816	242	130	93	449	-	4	4,854	2,762	3,569	26,507	167,461	10,492
18-21	269	52	35	17	185	-	3	615	301	427	6,517	19,802	1,710
22-29	532	-	3	53	464	1	13	1,280	525	1,090	9,982	31,240	3,643
30-39	1,272	-	-	124	1,118	1	34	3,584	1,751	2,884	12,759	27,698	8,579
40-44	776	-	-	78	674	3	24	1,752	749	1,436	6,916	8,517	4,786
45-49	605	-	-	62	514	3	31	1,187	391	1,009	6,283	5,197	3,839
50-59	975	-	-	81	826	6	75	1,326	222	1,227	13,922	8,742	6,140
60-64	370	-	-	34	305	5	33	314	20	301	7,546	4,545	2,281
65 or older	1,789	105	90	52	1,371	61	157	1,044	21	1,032	71,708	54,818	9,431
Gender by Age: Males													
0-17	1,331	478	159	162	652	-	12	8,995	5,060	6,915	31,002	166,165	18,812
18-21	319	93	32	19	193	-	5	799	354	591	3,095	8,839	1,741
22-29	470	2	2	60	384	1	27	1,124	148	1,066	5,077	5,294	2,409
30-39	993	-	-	123	831	3	42	2,652	486	2,456	9,339	6,961	5,354
40-44	555	-	-	62	466	3	30	1,559	412	1,371	5,723	3,680	3,305
45-49	422	-	-	47	356	3	19	1,235	370	1,058	4,851	3,130	2,561
50-59	481	-	-	50	391	8	40	1,235	296	1,083	7,904	5,778	3,134
60-64	158	-	-	10	130	5	21	279	34	258	3,920	3,073	1,043
65 or older	538	47	47	18	379	17	51	489	22	478	22,844	19,699	2,874
Gender													
Females	7,404	399	257	593	5,904	79	373	15,957	6,742	12,977	162,141	328,020	50,902
Males	5,267	619	240	550	3,780	39	247	18,366	7,183	15,276	93,754	222,618	41,232
Race													
White	6,466	493	270	539	4,875	87	411	14,584	3,661	13,107	111,028	135,966	40,925
Black	3,668	392	152	391	2,762	18	100	12,249	6,234	9,531	69,148	209,754	27,249
Hispanic	948	89	42	93	726	1	26	4,071	2,491	2,844	28,333	133,207	12,049
Other	1,589	44	34	121	1,321	13	84	3,420	1,539	2,771	47,386	71,712	11,911
Dual Status													
Aged Duals with Full Medicaic	2,054	120	126	56	1,574	68	158	1,200	34	1,183	80,683	46,786	10,377
Disabled Duals with Full Medicaic	2,457	4	3	187	2,247	9	16	3,109	705	2,779	30,328	13,357	11,862
Aged and Disabled Duals with Limited Medicai	19	1	-	-	3	1	14	163	4	159	756	22,239	255
Disabled Non-Duals	4,754	153	94	627	3,763	16	223	10,388	4,752	8,514	61,333	41,757	30,222
Non-Duals	3,387	741	274	273	2,097	24	210	19,463	8,429	15,617	82,795	426,498	39,418
Eligibility Group													
SSI Aged	908	39	40	31	792	3	25	425	32	410	43,317	28,881	4,740
Other Aged	1,419	113	97	38	957	75	183	1,108	11	1,101	51,236	45,636	7,565
SSI Disabled	5,839	118	88	702	4,813	10	212	11,881	5,058	9,859	72,589	45,889	35,180
Other Disabled	1,265	32	5	100	1,113	12	20	1,618	398	1,434	16,825	13,246	6,420
AFDC Adults	355	-	-	16	336	-	4	1,916	1,619	1,271	5,087	31,072	4,525
Other Adults	954	-	1	62	725	19	168	7,800	1,389	7,280	17,190	38,906	10,738
AFDC Children	296	21	45	21	223	-	-	3,182	1,937	2,195	10,981	98,797	7,283
Other Children	1,635	696	221	172	724	-	9	6,392	3,480	4,703	38,670	248,211	15,683

TABLE A.15

DISTRIBUTIONAL ANALYSIS -- TOTAL MEDICAID EXPENDITURES ADJUSTED FOR TIME ENROLLED IN MEDICAID FOR EACH QUINTILE BY ALL MENTAL HEALTH SERVICE USER WITH COMORBID MENTAL HEALTH OR MENTAL HEALTH ONLY STATUS, IN THOUSANDS OF DOLLARS, NEW JERSEY, CALENDAR YEAR 1999

	Quintile 1 (1% - 20%)		Quintile 2 (21% - 40%)		Quintile 3 (41% - 60%)		Quintile 4 (61% - 80%)		Quintile 5 (81% - 100%)	
	Low	High	Low	High	Low	High	Low	High	Low	High
Quintile Cut Points (distributional range)	$3	$2,019	$2,020	$4,319	$4,320	$9,592	$9,593	$26,681	$26,682	$3,123,168
	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars
All Mental Health Service Users	18,268	$22,079	18,308	$60,911	18,489	$130,422	18,455	$336,469	18,613	$1,095,319
Age										
0-17	11,078	$13,278	6,410	$20,635	5,641	$39,325	4,105	$68,623	2,070	$148,497
18-21	809	$1,051	896	$3,046	816	$5,983	542	$10,108	389	$29,633
22-29	927	$1,074	1,641	$5,659	1,291	$9,583	1,196	$22,456	998	$60,894
30-39	1,535	$1,970	3,358	$11,451	3,250	$23,303	3,136	$56,921	2,655	$166,906
40-44	949	$1,181	1,687	$5,700	1,773	$12,396	1,978	$35,955	1,703	$105,414
45-49	688	$813	1,191	$4,087	1,412	$9,846	1,627	$28,790	1,483	$94,271
50-59	1,013	$1,221	1,508	$5,016	2,160	$14,805	2,348	$41,634	2,245	$139,960
60-64	372	$433	516	$1,705	693	$4,692	823	$14,742	920	$53,396
65 or older	897	$1,058	1,102	$3,613	1,455	$10,489	2,701	$57,239	6,150	$296,348
Gender by Age: Females										
0-17	3,785	$4,647	2,500	$8,082	2,068	$14,422	1,424	$23,995	716	$52,076
18-21	280	$417	555	$1,894	452	$3,380	274	$5,250	150	$10,451
22-29	414	$550	1,325	$4,602	862	$6,531	609	$11,579	434	$26,804
30-39	739	$1,016	2,599	$8,877	2,263	$16,252	1,686	$30,367	1,292	$83,193
40-44	489	$619	1,202	$4,074	1,168	$8,200	1,069	$18,826	858	$53,712
45-49	353	$438	837	$2,907	951	$6,555	910	$15,850	788	$51,971
50-59	640	$784	1,103	$3,711	1,587	$10,795	1,519	$26,215	1,292	$81,865
60-64	246	$301	365	$1,191	537	$3,641	555	$9,630	577	$32,708
65 or older	676	$810	860	$2,792	1,149	$8,234	2,007	$42,061	4,740	$226,168
Gender by Age: Males										
0-17	7,294	$8,631	3,910	$12,552	3,572	$24,903	2,681	$44,628	1,354	$96,421
18-21	529	$634	341	$1,152	364	$2,603	268	$4,858	239	$19,182
22-29	514	$524	316	$1,057	429	$3,052	587	$10,877	564	$34,090
30-39	796	$954	759	$2,574	986	$7,050	1,450	$26,554	1,362	$83,713
40-44	460	$561	485	$1,626	605	$4,195	909	$17,129	846	$51,703
45-49	335	$375	354	$1,180	461	$3,291	717	$12,940	695	$42,300
50-59	373	$437	405	$1,305	574	$4,010	829	$15,419	954	$58,096
60-64	125	$132	151	$514	155	$1,051	268	$5,112	343	$20,688
65 or older	221	$249	242	$820	307	$2,255	694	$15,178	1,409	$70,180
Gender										
Females	7,621	$9,582	11,346	$38,131	11,036	$78,012	10,052	$183,774	10,847	$618,946
Males	10,646	$12,496	6,963	$22,780	7,453	$52,410	8,403	$152,695	7,767	$476,373
Race										
White	6,525	$7,819	6,393	$21,570	7,168	$51,157	8,995	$169,642	11,843	$693,228
Black	6,042	$7,209	5,941	$19,567	5,736	$40,529	5,287	$93,880	4,244	$257,375
Hispanic	3,414	$4,483	3,738	$12,592	2,750	$19,401	1,471	$25,484	675	$41,185
Other	2,286	$2,568	2,236	$7,182	2,835	$19,334	2,702	$47,463	1,852	$103,532
Dual Status										
Aged Duals with Full Medicaid	702	$829	866	$2,820	1,135	$8,112	2,137	$45,587	5,537	$261,626
Disabled Duals with Full Medicaid	1,961	$2,181	2,438	$7,780	2,730	$18,132	2,813	$47,449	1,921	$117,781
Aged and Disabled Duals with Limited Medicaid	34	$30	33	$104	68	$514	105	$1,744	15	$453
Disabled Non-Duals	5,002	$5,446	5,058	$15,984	7,526	$50,872	7,500	$126,485	5,136	$306,505
Non-Duals	10,569	$13,592	9,914	$34,222	7,031	$52,792	5,900	$115,203	6,005	$408,955
Eligibility Group										
SSI Aged	635	$722	759	$2,393	911	$6,028	1,246	$22,837	1,190	$58,416
Other Aged	262	$337	343	$1,219	545	$4,461	1,455	$34,402	4,960	$237,932
SSI Disabled	6,046	$6,574	6,297	$19,873	8,756	$58,620	8,792	$147,351	5,289	$303,160
Other Disabled	888	$1,012	1,140	$3,689	1,404	$9,768	1,397	$24,399	1,591	$111,973
AFDC Adults	256	$538	2,432	$7,766	1,309	$8,861	433	$7,485	95	$4,887
Other Adults	503	$894	1,878	$7,963	1,525	$13,607	2,712	$57,187	4,121	$264,165
AFDC Children	3,191	$4,059	2,047	$6,251	1,304	$8,500	633	$9,637	108	$5,678
Other Children	6,488	$7,944	3,413	$11,757	2,736	$20,577	1,787	$33,171	1,260	$109,108

TABLE A.16

DISTRIBUTIONAL ANALYSIS -- MEAN MEDICAID EXPENDITURES ADJUSTED FOR TIME ENROLLED IN MEDICAID FOR EACH QUINTILE BY ALL MENTAL HEALTH SERVICE USERS WITH COMORBID MENTAL HEALTH OR MENTAL HEALTH ONLY STATUS, NEW JERSEY, CALENDAR YEAR 1999

	Quintile 1	(1% - 20%)	Quintile 2	(21% - 40%)	Quintile 3	(41% - 60%)	Quintile 4	(61% - 80%)	Quintile 5	(81% - 100%)
	Low	High	Low	High	Low	High	Low	High	Low	High
Quintile Cut Points (distributional range)	$3	$2,019	$2,020	$4,319	$4,320	$9,592	$9,593	$26,681	$26,682	$3,123,168
	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars	N	Mean Dollars
All Mental Health Service Users	18,268	$1,209	18,308	$3,327	18,489	$7,054	18,455	$18,232	18,613	$58,847
Age										
0-17	11,078	$1,199	6,410	$3,219	5,641	$6,972	4,105	$16,719	2,070	$71,732
18-21	809	$1,299	896	$3,400	816	$7,333	542	$18,664	389	$76,112
22-29	927	$1,159	1,641	$3,449	1,291	$7,425	1,196	$18,773	998	$61,032
30-39	1,535	$1,284	3,358	$3,410	3,250	$7,171	3,136	$18,153	2,655	$62,875
40-44	949	$1,244	1,687	$3,378	1,773	$6,993	1,978	$18,176	1,703	$61,884
45-49	688	$1,181	1,191	$3,433	1,412	$6,974	1,627	$17,696	1,483	$63,582
50-59	1,013	$1,205	1,508	$3,327	2,160	$6,853	2,348	$17,730	2,245	$62,341
60-64	372	$1,165	516	$3,306	693	$6,774	823	$17,904	920	$58,013
65 or older	897	$1,180	1,102	$3,278	1,455	$7,207	2,701	$21,195	6,150	$48,189
Gender by Age: Females										
0-17	3,785	$1,228	2,500	$3,233	2,068	$6,973	1,424	$16,855	716	$72,748
18-21	280	$1,489	555	$3,416	452	$7,475	274	$19,197	150	$69,711
22-29	414	$1,330	1,325	$3,474	862	$7,581	609	$19,003	434	$61,808
30-39	739	$1,375	2,599	$3,415	2,263	$7,181	1,686	$18,015	1,292	$64,382
40-44	489	$1,268	1,202	$3,389	1,168	$7,021	1,069	$17,611	858	$62,619
45-49	353	$1,240	837	$3,473	951	$6,897	910	$17,416	788	$65,953
50-59	640	$1,225	1,103	$3,364	1,587	$6,805	1,519	$17,257	1,292	$63,383
60-64	246	$1,221	365	$3,264	537	$6,775	555	$17,347	577	$56,645
65 or older	676	$1,198	860	$3,247	1,149	$7,169	2,007	$20,960	4,740	$47,712
Gender by Age: Males										
0-17	7,294	$1,183	3,910	$3,210	3,572	$6,971	2,681	$16,646	1,354	$71,195
18-21	529	$1,199	341	$3,375	364	$7,157	268	$18,121	239	$80,120
22-29	514	$1,021	316	$3,346	429	$7,112	587	$18,535	564	$60,435
30-39	796	$1,199	759	$3,391	986	$7,148	1,450	$18,314	1,362	$61,444
40-44	460	$1,219	485	$3,353	605	$6,940	909	$18,840	846	$61,138
45-49	335	$1,119	354	$3,337	461	$7,134	717	$18,052	695	$60,893
50-59	373	$1,170	405	$3,226	574	$6,988	829	$18,595	954	$60,929
60-64	125	$1,054	151	$3,407	155	$6,769	268	$19,057	343	$60,315
65 or older	221	$1,125	242	$3,386	307	$7,348	694	$21,873	1,409	$49,794
Gender										
Females	7,621	$1,257	11,346	$3,361	11,036	$7,069	10,052	$18,282	10,847	$57,064
Males	10,646	$1,174	6,963	$3,272	7,453	$7,032	8,403	$18,171	7,767	$61,337
Race										
White	6,525	$1,198	6,393	$3,374	7,168	$7,137	8,995	$18,859	11,843	$58,534
Black	6,042	$1,193	5,941	$3,294	5,736	$7,065	5,287	$17,759	4,244	$60,649
Hispanic	3,414	$1,313	3,738	$3,368	2,750	$7,054	1,471	$17,321	675	$61,029
Other	2,286	$1,123	2,236	$3,212	2,835	$6,820	2,702	$17,565	1,852	$55,918
Dual Status										
Aged Duals with Full Medicaid	702	$1,182	866	$3,257	1,135	$7,146	2,137	$21,333	5,537	$47,252
Disabled Duals with Full Medicaid	1,961	$1,112	2,438	$3,191	2,730	$6,643	2,813	$16,866	1,921	$61,326
Aged and Disabled Duals with Limited Medicaid	34	$871	33	$3,150	68	$7,535	105	$16,614	15	$30,536
Disabled Non-Duals	5,002	$1,089	5,058	$3,161	7,526	$6,760	7,500	$16,865	5,136	$59,674
Non-Duals	10,569	$1,286	9,914	$3,452	7,031	$7,509	5,900	$19,525	6,005	$68,108
Eligibility Group										
SSI Aged	635	$1,137	759	$3,152	911	$6,620	1,246	$18,336	1,190	$49,107
Other Aged	262	$1,286	343	$3,557	545	$8,188	1,455	$23,641	4,960	$47,969
SSI Disabled	6,046	$1,087	6,297	$3,156	8,756	$6,695	8,792	$16,761	5,289	$57,315
Other Disabled	888	$1,140	1,140	$3,237	1,404	$6,959	1,397	$17,460	1,591	$70,372
AFDC Adults	256	$2,101	2,432	$3,194	1,309	$6,769	433	$17,270	95	$51,710
Other Adults	503	$1,777	1,878	$4,241	1,525	$8,924	2,712	$21,085	4,121	$64,105
AFDC Children	3,191	$1,272	2,047	$3,054	1,304	$6,516	633	$15,216	108	$52,617
Other Children	6,488	$1,225	3,413	$3,444	2,736	$7,520	1,787	$18,566	1,260	$86,622

TABLE A.17

NUMBER OF MEDICAID USERS WITH A MENTAL DISORDER IN THE HIGHEST QUINTILE OF TOTAL MEDICAID EXPENDITURES WHO USED SPECIFIED SERVICES, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
	Total Users of Psychiatric Inpatient Services	Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facility		Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Users with a Mental Disorder
		More than 30 days	30 or fewer days	More than 30 days	30 or fewer days	More than 30 days	30 or fewer days						
Total	4,987	1,007	183	803	3,052	48	225	7,841	1,412	7,391	15,148	1,750	19,995
Age													
0-17	1,070	732	73	212	249	0	3	1,194	428	1,104	1,249	146	2,292
18-21	242	147	18	25	82	0	4	203	38	190	289	18	446
22-29	293	1	3	78	186	2	27	752	91	727	753	38	1,060
30-39	632	-	0	155	427	3	55	1,850	269	1,770	2,121	98	2,805
40-44	399	-	0	85	284	4	33	1,101	219	1,020	1,407	81	1,791
45-49	356	-	0	82	244	4	31	908	204	819	1,246	73	1,569
50-59	549	-	0	93	420	11	37	1,072	139	1,014	1,946	125	2,363
60-64	234	-	0	32	189	8	14	247	12	242	839	68	975
65 or older	1,212	127	89	41	971	16	21	514	12	505	5,298	1,103	6,694
Gender by Age: Females													
0-17	370	251	33	70	97	0	1	417	142	391	430	55	800
18-21	85	48	8	12	33	0	0	83	21	73	114	7	167
22-29	147	-	2	37	99	1	8	307	48	291	330	25	471
30-39	337	-	0	78	241	1	21	853	155	800	1,047	63	1,380
40-44	213	-	0	43	163	1	8	514	96	477	703	52	898
45-49	205	-	0	47	139	3	19	421	90	381	677	44	829
50-59	324	-	0	57	247	5	20	557	59	537	1,132	80	1,346
60-64	151	-	0	23	121	5	6	130	4	129	542	35	606
65 or older	908	85	54	29	749	10	12	317	5	312	4,068	903	5,158
Gender by Age: Males													
0-17	700	481	40	142	152	0	2	777	286	713	819	91	1,492
18-21	157	99	10	13	49	0	4	120	17	117	175	11	279
22-29	146	1	1	41	87	1	19	445	43	436	423	13	589
30-39	295	-	0	77	186	2	34	997	114	970	1,074	35	1,425
40-44	186	-	0	42	121	3	25	587	123	543	704	29	893
45-49	151	-	0	35	105	1	12	487	114	438	569	29	740
50-59	225	-	0	36	173	6	17	515	80	477	814	45	1,017
60-64	83	-	0	9	68	3	8	117	8	113	297	33	369
65 or older	304	42	35	12	222	6	9	197	7	193	1,230	200	1,536
Gender													
Females	2,740	384	97	396	1,889	26	95	3,599	620	3,391	9,043	1,264	11,655
Males	2,247	623	86	407	1,163	22	130	4,242	792	4,000	6,105	486	8,340
Race													
White	2,728	506	121	369	1,706	31	156	4,945	463	4,831	9,743	1,105	12,734
Black	1,450	374	47	279	828	9	40	1,917	637	1,684	3,346	449	4,561
Hispanic	289	89	6	69	144	0	6	273	84	241	523	57	744
Other	520	38	9	86	374	8	23	706	228	635	1,536	139	1,956
Dual Status													
Aged Duals with Full Medicaid	1,064	98	83	28	866	11	13	401	9	394	4,754	1,003	5,988
Disabled Duals with Full Medicaid	460	4	0	58	394	6	3	547	89	507	1,767	162	1,967
Aged and Disabled Duals with Limited Medicaid	-	-	-	-	0	-	0	9	1	8	4	4	15
Disabled Non-Duals	1,791	140	31	479	1,163	12	58	2,136	734	1,894	4,411	307	5,325
Non-Duals	1,672	765	69	238	629	19	151	4,748	579	4,588	4,212	274	6,700
Eligibility Group													
SSI Aged	318	32	11	16	267	1	8	78	7	74	1,037	131	1,195
Other Aged	894	95	78	25	704	15	13	436	5	431	4,261	972	5,499
SSI Disabled	1,803	107	28	471	1,210	8	55	2,359	764	2,101	4,579	274	5,432
Other Disabled	385	32	0	56	301	8	1	305	58	281	1,434	184	1,681
AFDC Adults	43	-	0	8	33	0	2	60	38	48	41	21	114
Other Adults	539	-	1	65	333	16	142	3,933	350	3,838	2,895	71	4,456
AFDC Children	50	20	4	17	17	-	0	42	17	40	24	31	118
Other Children	955	721	61	145	187	0	4	628	173	578	877	66	1,500

TABLE A.18

TOTAL EXPENDITURES FOR MEDICAID USERS WITH A MENTAL DISORDER IN THE HIGHEST QUINTILE OF TOTAL MEDICAID EXPENDITURES WHO USED SPECIFIED SERVICES, IN MILLIONS OF DOLLARS, NEW JERSEY, CALENDAR YEAR 1999

	Psychiatric Inpatient							Community Mental Health					
		Institution for Mental Disorders		Acute Inpatient Facility		All Other Residential Facility							
	Total Users of Psychiatric Inpatient Services	More than 30 days	30 or fewer days	More than 30 days	30 or fewer days	More than 30 days	30 or fewer days	Total Users of Community Mental Health Services	Individual Clinical Services	Therapeutic Services	Total Users of Medicaid-Covered Psycho-pharmacology	Total Users of Other Health Care Services	Total Medicaid Users with a Mental Disorder
Total	$273	$79	$10	$44	$146	$3	$15	$408	$75	$385	$780	$80	$1,016
Age													
0-17	$76	$57	$6	$14	$14	-	$0	$60	$24	$54	$80	$7	$132
18-21	$15	$11	$1	$1	$4	-	$0	$10	$2	$9	$17	$1	$26
22-29	$14	$0	$0	$4	$9	$0	$2	$40	$5	$38	$43	$2	$57
30-39	$32	-	-	$8	$20	$0	$4	$97	$14	$94	$123	$6	$157
40-44	$21	-	-	$4	$15	$0	$3	$57	$11	$53	$80	$5	$100
45-49	$18	-	-	$4	$12	$0	$2	$49	$11	$44	$71	$5	$89
50-59	$29	-	-	$5	$22	$1	$3	$57	$7	$54	$107	$9	$132
60-64	$12	-	-	$2	$9	$0	$1	$13	$1	$13	$43	$4	$50
65 or older	$56	$11	$3	$2	$41	$1	$1	$25	$1	$25	$217	$41	$274
Gender by Age: Females													
0-17	$25	$19	$1	$5	$5	-	$0	$21	$7	$19	$26	$3	$46
18-21	$5	$3	$0	$1	$2	-	-	$4	$1	$4	$7	$0	$9
22-29	$7	-	$0	$2	$5	$0	$1	$16	$2	$15	$19	$1	$25
30-39	$16	-	-	$4	$11	$0	$1	$44	$7	$42	$61	$4	$78
40-44	$11	-	-	$2	$8	$0	$1	$27	$4	$25	$40	$4	$51
45-49	$11	-	-	$3	$7	$0	$1	$22	$5	$21	$40	$3	$49
50-59	$18	-	-	$3	$13	$0	$2	$30	$3	$29	$65	$6	$78
60-64	$7	-	-	$1	$6	$0	$0	$7	$0	$7	$28	$2	$31
65 or older	$41	$7	$2	$2	$31	$0	$0	$16	$0	$15	$164	$35	$209
Gender by Age: Males													
0-17	$51	$38	$4	$10	$9	-	$0	$39	$17	$35	$54	$4	$87
18-21	$10	$7	$0	$1	$2	-	$0	$6	$1	$6	$10	$1	$16
22-29	$7	$0	$0	$2	$4	$0	$1	$24	$3	$24	$24	$1	$33
30-39	$16	-	-	$4	$9	$0	$3	$53	$7	$52	$62	$2	$80
40-44	$10	-	-	$2	$6	$0	$2	$30	$7	$28	$39	$2	$49
45-49	$8	-	-	$2	$5	$0	$1	$26	$6	$24	$30	$2	$39
50-59	$11	-	-	$2	$8	$1	$1	$27	$4	$26	$42	$3	$53
60-64	$4	-	-	$0	$4	$0	$0	$6	$1	$6	$15	$2	$19
65 or older	$15	$4	$1	$1	$10	$0	$0	$10	$0	$10	$52	$7	$65
Gender													
Females	$140	$30	$4	$22	$88	$1	$6	$187	$30	$177	$450	$58	$576
Males	$133	$49	$6	$23	$58	$2	$9	$222	$45	$208	$329	$22	$441
Race													
White	$146	$39	$4	$20	$80	$2	$11	$265	$27	$258	$497	$52	$646
Black	$81	$30	$2	$15	$41	$1	$2	$93	$31	$81	$179	$20	$236
Hispanic	$16	$7	$0	$4	$7	-	$0	$12	$4	$11	$26	$3	$36
Other	$30	$3	$3	$5	$18	$1	$1	$38	$14	$34	$78	$6	$97
Dual Status													
Aged Duals with Full Medicaid	$48	$9	$3	$1	$36	$0	$0	$20	$0	$19	$193	$38	$243
Disabled Duals with Full Medicaid	$23	$0	-	$3	$20	$0	$0	$22	$4	$20	$100	$13	$115
Aged and Disabled Duals with Limited Medicaid	-	-	-	-	-	-	-	$0	$0	$0	$0	$0	$0
Disabled Non-Duals	$96	$11	$1	$26	$60	$1	$3	$104	$37	$91	$247	$19	$294
Non-Duals	$258	$0	$20	$272	$46	$17	$333	$263	$34	$255	$239	$10	$363
Eligibility Group													
SSI Aged	$17	$3	$1	$1	$13	$0	$0	$3	$0	$3	$49	$7	$58
Other Aged	$39	$8	$3	$1	$28	$1	$0	$22	$0	$22	$167	$35	$215
SSI Disabled	$95	$9	$1	$25	$61	$1	$3	$112	$38	$98	$251	$16	$294
Other Disabled	$21	$2	-	$3	$16	$1	$0	$13	$3	$12	$88	$15	$106
AFDC Adults	$2	-	-	$0	$1	-	$0	$2	$1	$2	$1	$1	$4
Other Adults	$29	-	$0	$3	$15	$1	$11	$220	$20	$217	$162	$3	$242
AFDC Children	$2	$1	$0	$1	$1	-	-	$2	$1	$1	$1	$2	$5
Other Children	$68	$55	$5	$10	$11	-	$0	$34	$12	$30	$59	$3	$92

APPENDIX B:

DEFINITIONS OF TERMS IN THE TABLES

APPENDIX B

DEFINITIONS FOR TERMS ON TABLES IN APPENDIX A

Term	Definition	Location(s)
DEMOGRAPHICS		
Age	Age at beginning of year according to MSIS data file.	All tables
Gender	Gender as listed in MSIS data file.	All tables
Race	Recode of MSIS Race variable: "Other" on our tables includes MSIS codes for: "American Indian or Alaska Native," "Asian, Hawaiian/Pacific Islander," and "Unknown."	All tables
Dual Status	Enrollment status of enrollee on MSIS data file, using most common or most recent status according to both (monthly) restricted benefits flag and (quarterly) dual eligible flag. Individuals who were QMB-only or SLMB-only were categorized as having restricted Medicaid benefits.	All tables
Eligibility Group	Reason for individual's Medicaid eligibility, created by combining enrollee age and annual (most frequent/last) maintenance assistance status/basis of eligibility (MAS/BOE). We included in "Aged" both all individuals with BOE "Aged" and anyone on the file whose age was > or = 65. Basis of Eligibility also defined "Disabled," "Adults," and "Children." Maintenance Assistance Status defined "SSI," "AFDC," and "Other."	All tables

Term	Definition	Location(s)
MENTAL HEALTH TABLES		
All Medicaid Enrollees	All Medicaid enrollees in calendar year 1999.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Any Mental, Substance Abuse, Mental Retardation and/or Developmental Disability, Organic Disorder	Medicaid enrollees who have at least one diagnosis code from a designated set of codes on any MSIS claim or who have a claim with a specified state specific procedure code. The set of diagnosis codes includes mental health, organic disorders, substance abuse, and mental retardation and/or developmental disability diagnoses. The procedure codes are for treatment of mental disorders. For the complete list of diagnosis and state specific procedure codes, see Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F

Term	Definition	Location(s)
Beneficiaries with Mental Disorders	Medicaid enrollees identified as having a mental disorder (based on diagnosis codes and state specific procedure codes, as identified in Appendix C) regardless of other comorbidities.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Only Mental Disorders	Medicaid enrollees identified as having only a mental disorder other than organic disorders, substance abuse, or mental retardation and/or developmental disability based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Mental Disorders and Substance Abuse	Medicaid enrollees identified as having a mental disorder and substance abuse issues but not organic disorders or mental retardation and/or developmental disability based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Mental Disorders and Mental Retardation and/or Developmental Disability	Medicaid enrollees identified as having a mental disorder and mental retardation and/or developmental disability but not organic disorders or substance abuse based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Mental Disorders and Organic Disorders	Medicaid enrollees identified as having a mental disorder and organic disorders but not mental retardation and/or developmental disability or substance abuse based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Beneficiaries with Substance Abuse, Mental Disorders, or Organic Disorders Only	Medicaid enrollees identified as having only substance abuse issues, a mental disorder, and/or organic disorders but not mental retardation and/or developmental disability based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH1A, MH1B, MH1C, MH1D, MH1E, MH1F
Total Users of Psychiatric Inpatient Services	Medicaid enrollees who used psychiatric inpatient services in calendar year 1999. Inpatient services included stays in IMDs or stays in acute-care hospitals or other residential care facilities when the primary diagnosis is for a mental disorder. Appendix C details the specific codes for identifying the inpatient users.	MH2A, MH2B, MH2C, MH2F
PSYCHIATRIC INPATIENT		
Institution for Mental Disorders More than 30 Days	Medicaid enrollees who used institutional psychiatric inpatient services for more than 30 days in calendar year 1999. Stays need not have been contiguous. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F
Institution for Mental Disorders 30 or Fewer Days	Medicaid enrollees who used institutional psychiatric inpatient services for 30 days or fewer in calendar year 1999. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F

Term	Definition	Location(s)
Acute Inpatient Facility More than 30 Days	Medicaid enrollees who used acute inpatient psychiatric services for more than 30 days in calendar year 1999. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F
Acute Inpatient Facility 30 or Fewer Days	Medicaid enrollees who used acute inpatient psychiatric services for 30 days or fewer in calendar year 1999. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F
All Other Residential Facilities More than 30 Days	Medicaid enrollees who used other residential psychiatric services for more than 30 days in calendar year 1999. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F
All Other Residential Facilities 30 or Fewer Days	Medicaid enrollees who used other residential psychiatric services for 30 days or fewer in calendar year 1999. Appendix C details the specific codes for identifying the inpatient users and for counting days.	MH2A, MH2B, MH2C, MH2F
COMMUNITY MENTAL HEALTH		
Total Users of Community Mental Health Services	Medicaid enrollees who used any community mental health services in calendar year 1999. They include all individuals in the two groups described immediately below.	MH2A, MH2B, MH2C, MH2F
Individual Clinical Services	Medicaid enrollees who used individual clinical mental health services as shown in Appendix C. These clinical services are meant to include evaluation, diagnostic, and treatment services	MH2A, MH2B, MH2C, MH2F
Therapeutic Services	Medicaid enrollees who used therapeutic community mental health services, also described in Appendix C. Supportive services are meant to include all other psychological and other services provided to mental health patients including case management, family, and group counseling	MH2A, MH2B, MH2C, MH2F
Total Users of Medicaid-Covered Psychopharmacology	Medicaid enrollees who were already identified as users of other who used psychopharmacology in calendar year 1999. Prescription drugs identified as psychopharmacological were defined as shown in Appendices F and G.	MH2A, MH2B, MH2C, MH2F
Total Users of Other Health Care Services	Medicaid enrollees identified as having a mental disorder who used Medicaid-covered health care services other than services for their mental disorder.	MH2A, MH2B, MH2C, MH2F
Total Medicaid Beneficiaries with a Mental Disorder	Medicaid enrollees identified as having a mental disorder (with or without additional related disorders) based on diagnosis codes and state specific procedure codes, as identified in Appendix C.	MH2A, MH2B, MH2C, MH2F

NOTES: Medicaid beneficiaries who were enrolled in capitated managed care for some or all months of enrollment during 1999 are included in both the LT and MD studies because for the most part the care of particular interest was not capitated. Premium payments are included in expenditure data. On all tables, total expenditures are shown in thousands of dollars, while mean expenditures are shown as whole dollars.

APPENDIX C:

PROCEDURES FOR IDENTIFYING INDIVIDUALS WITH MENTAL ILLNESS

DEFINITION OF "INPATIENT STAYS"

PROCEDURES FOR DISTINGUISHING CLINICAL VS. SUPPORTIVE SERVICES

PHARMACEUTICAL GROUPS USED TO DEFINE PSYCHIATRIC MEDICATIONS

Appendix C

Procedures for Identifying Individuals with Mental Illness, Definition of "Inpatient Stays," Procedures for Distinguishing Clinical vs Supportive Services, and Pharmaceutical Groups Used to Define Psychiatric Medications

I. Identification of Population of Users of Services for Mental Disorders

Primary Identifiers

A person with any service identified as a "Primary Identifier" is automatically included in the mental disorder care (MDC) user population.

Secondary Identifiers

A person with no primary identifier services, but with secondary services is not included in the user population. However, both primary identified services and secondary identified services are included as care for mental disorders services for anyone who has at least one primary identified service.

RULE #1: DIAGNOSIS CODE

Table C-1
Presence of One of the Following as the first three Digits of any Diagnosis Code on Any MSIS Claim
Is a Primary Identifier for Inclusion in the MH Population

Group 1: Mental Health (psychiatric diagnoses)	
Schizophrenia	295
Affective Psychoses	296
Paranoid States	297
Other Non-organic Psychoses	298
Childhood Psychoses	299
Neurotic Disorders	300
Personality Disorders	301
Sexual Disorders	302
Physiological Malfunction Arising from Mental Factors	306
Special Symptoms, Not Classified Elsewhere	307
Acute Reaction to Stress	308
Adjustment Reaction	309
Depressive Disorders, Not Classified Elsewhere	311
Disturbances of Conduct, Not Classified Elsewhere	312
Child and Adolescent Emotional Disorders	313
Hyperkinetic Syndrome of Childhood	314
Factors Associated with Other Diseases	316

GROUP 2: ORGANIC DISORDERS, DEMENTIA AND ALZHEIMER'S	
Senile and Presenile Organic Psychotic Condition	290
Transient Organic Psychotic Conditions	293
Other Organic Psychotic Conditions (Chronic)	294
Conditions due to Organic Brain Damage	310
Other Cerebral Degenerations	331
GROUP 3: SUBSTANCE ABUSE	
Nondependent Abuse of Drug	305
Alcohol	
Alcoholic Psychosis	291
Alcohol Dependence	303
Drug	
Drug Psychosis	292
Drug Dependence	304
GROUP 4: MR/DD	
Mental Retardation	317-319
Developmental Delay	315

Rule #2: State-specific Procedure Codes (PCs)

Table C-2 PCs that are primary identifiers of the New Jersey MH population[1]	
W9114	INDIVIDUAL PSYCHOTHERAPY, BY A PSYCH
W9134	CATTEL INFANT INTELLIGENCE SCALE
W9161	OTHER (BY REPORT)
Y7557	TBI,COG THERAPY PER VISIT
Y7559	TBI,COUNSELING (INDIV'L FAMILY)
Y7564	TBI,BEHAVIOR PROGRAM(ASSESSMENT)
Y7565	TBI,BEHAVIOR PROGRAM CONTINUING
Y7566	TBI,BEHAVIOR SPECIALIST
Y9433	SCHOOL,BASED REHAB: EVALUATION
Y9434	SCHOOL,BASED REHAB: IN,DISTRICT
Y9435	SCHOOL,BASED REHAB: OUT OF DISTRICT
Y9436	SCHOOL,BASED: NON,PUBLIC
Y9439	SCHOOL REHAB , STATE FACILITY
Z0100	OFF,SITE CRISIS INTERVENTION
Z0130	COMPLETE PSYCHOLOGICAL TESTING, PSYC
Z0160	PARTIAL HOSPITALIZATION, FULL DAY (5
Z0170	PARTIAL CARE, HALF DAY (3 HOURS MINI
Z0180	PARTIAL CARE, FULL DAY (5 HOURS MINI
Z0310	INITIAL COMPREHENSIVE SPEECH/LANGUAG
Z1339	HOME HEALTH AIDE/HOUR CCPED/HCEP
Z1400	CASE MANAGEMENT DDD\CCW
Z1405	HABILITATION, AA DDDÀ$ ÀCCW
Z1410	PERSONAL CARE, GROUP HOME, DDDÀ$ ÀCCW
Z1413	PERSONAL CARE INDEPENDENT LIVING
Z1435	PERSONAL CARE, SD HOME, DDDÀ$ ÀCCW
Z1467	HABILITATION, NON,AA, DDDÀ$ ÀCCW
Z1481	RESPITE, HOURLY, DDDÀ$ ÀCCW
Z1520	PERSONAL CARE, SSD HOME, DDDÀ$ ÀCCW
Z2000	FAMILY THERAPY RENDERED IN A NARCOTI
Z2001	FAMILY CONFERENCE RENDERED IN A NARC
Z2002	PRESCRIPTION VISIT RENDERED IN A NAR
Z2003	PSYCHOTHERAPY RENDERED IN A NARCOTIC
Z2004	GROUP THERAPY RENDERED IN A NARCOTIC
Z2005	PSYCHOLOGICAL TESTING RENDERED IN A
Z2006	METHADONE TREATMENT RENDERED IN A NA
Z2007	PSYCHOTHERAPY ,HALF SESSION, RENDERE
Z2010	URINE ANALYSIS FOR DRUG ADDICTION
Z3333	COMPREHENSIVE INTAKE EVALUATION
Z3334	SUB ACUTE RESIDENTIAL DETOXIFICATION
Z3335	SHORT TERM RESIDENTIAL SA TREATMENT
Z3337	THERAPEUTIC COMMUNITY SA TREATMENT
Z3339	SA HALFWAY HOUSE

[1] Definitions for procedure codes are taken verbatim from state formulary lists. Many descriptions are abbreviated or truncated in the source material.

Table C-2 PCs that are primary identifiers of the New Jersey MH population[1]	
Z3343	SA HALFWAY HOUSE , CHILD
Z3344	SA PARTIAL CARE
Z3345	SA PARTIAL CARE , CHILD
Z3346	INTENSIVE OUTPATIENT SA
Z3347	INTENSIVE OUTPATIENT SA , CHILD
Z3353	PRESCRIPTION VISIT IN SA CENTER
Z3354	PSYCHOTHERAPY IN SA CENTER , FULL
Z3355	GROUP THERAPY IN SA CENTER / PERSON
Z3357	METHADONE TREATMENT IN DRUG CENTER
Z3358	PSYCHOTHERAPY IN SA CENTER , HALF
Z3359	URINALYSIS FOR DRUG ADDICTION
Z3363	CASE MANAGEMENT SERVICES

[1] Definitions for procedure codes are taken verbatim from state formulary lists. Many descriptions are abbreviated or truncated in the source material.

II. Definition of Inpatient Stays

For several tables, we identify users of inpatient psychiatric care. Within the broad category of inpatient psychiatric care, we identified recipients of three separate subtypes of care:

1) Users of an Institution for Mental Disorders (IMD)

We defined this group as anyone with a claim with one of these two state-supplied type of service codes for institutional care.

02 – Mental Hospital for the Aged
04 – Inpatient Psychiatric Facility for Beneficiaries Under Age 22

2) Users of an Acute Inpatient Hospital with a Mental Disorder Diagnosis

Anyone with an acute inpatient claim, defined by the type of service 01 (Inpatient) that also had as the primary diagnosis any of the codes listed in Rule #1 shown above.

3) All Other Residential Facilities

We defined these users as those with a claim with a "SMRF Type of Service" (coded by MPR for the MAX files) of either 52 (Residential Care) with a psychiatric diagnosis or 53 (Psychiatric Services) that appear from the description to be for residential care.

We then categorized users as those with "more than 30 days" of care or "30 or less days of care" by counting total days within the span dates of the claims in each category and then summing these days across claims for each person. For neither group do the resultant days need to be consecutive.

III. Procedures for Distinguishing Clinical vs Supportive Services

For non-institutional care, we developed the following algorithm to identify two subgroups of community care use, identified as follows:

Clinical – evaluation, diagnostic, and treatment services to the individual
Therapeutic – all other psychiatric supportive services, including some case management, and family or group counseling

Table C-3 PCs that are Clinical Services[2]	
W9114	INDIVIDUAL PSYCHOTHERAPY, BY A PSYCH
W9134	CATTEL INFANT INTELLIGENCE SCALE
Y7557	TBI,COG THERAPY PER VISIT
Y7564	TBI,BEHAVIOR PROGRAM(ASSESSMENT)
Y7565	TBI,BEHAVIOR PROGRAM CONTINUING
Y7566	TBI,BEHAVIOR SPECIALIST
Y9433	SCHOOL,BASED REHAB: EVALUATION
Z0100	OFF,SITE CRISIS INTERVENTION
Z0130	COMPLETE PSYCHOLOGICAL TESTING, PSYC
Z0310	INITIAL COMPREHENSIVE SPEECH/LANGUAG
Z2002	PRESCRIPTION VISIT RENDERED IN A NAR
Z2003	PSYCHOTHERAPY RENDERED IN A NARCOTIC
Z2005	PSYCHOLOGICAL TESTING RENDERED IN A
Z2006	METHADONE TREATMENT RENDERED IN A NA
Z2007	PSYCHOTHERAPY ,HALF SESSION, RENDERE
Z3333	COMPREHENSIVE INTAKE EVALUATION
Z3346	INTENSIVE OUTPATIENT SA
Z3347	INTENSIVE OUTPATIENT SA , CHILD
Z3353	PRESCRIPTION VISIT IN SA CENTER
Z3354	PSYCHOTHERAPY IN SA CENTER , FULL
Z3357	METHADONE TREATMENT IN DRUG CENTER
Z3358	PSYCHOTHERAPY IN SA CENTER , HALF
Y7554	TBI,PHSICAL THERAPY PER VISIT
Y7555	TBI,OCCUPATIONAL THERAPY VISIT
Y7556	TBI,SPEECH THERAPY PER VISIT

[2] Definitions for procedure codes are taken verbatim from state formulary lists. Many descriptions are abbreviated or truncated in the source material.

Table C-4 PCs that are Therapeutic Services[3]	
Y7559	TBI,COUNSELING (INDIV'L FAMILY)
Y9434	SCHOOL,BASED REHAB: IN,DISTRICT
Y9435	SCHOOL,BASED REHAB: OUT OF DISTRICT
Y9436	SCHOOL,BASED: NON,PUBLIC
Y9439	SCHOOL REHAB , STATE FACILITY
Z1339	HOME HEALTH AIDE/HOUR CCPED/HCEP
Z1400	CASE MANAGEMENT DDD\CCW
Z1405	HABILITATION, AA DDDÀ$ ÀCCW
Z1410	PERSONAL CARE, GROUP HOME, DDDÀ$ ÀCCW
Z1413	PERSONAL CARE INDEPENDENT LIVING
Z1435	PERSONAL CARE, SD HOME, DDDÀ$ ÀCCW
Z1467	HABILITATION, NON,AA, DDDÀ$ ÀCCW
Z1481	RESPITE, HOURLY, DDDÀ$ ÀCCW
Z1520	PERSONAL CARE, SSD HOME, DDDÀ$ ÀCCW
Z2000	FAMILY THERAPY RENDERED IN A NARCOTI
Z2001	FAMILY CONFERENCE RENDERED IN A NARC
Z2004	GROUP THERAPY RENDERED IN A NARCOTIC
Z2010	URINE ANALYSIS FOR DRUG ADDICTION
Z3355	GROUP THERAPY IN SA CENTER / PERSON
Z3359	URINALYSIS FOR DRUG ADDICTION
Z3363	CASE MANAGEMENT SERVICES
Y7433	TBI,CASE MANAGEMENT,INITAL MONTH
Y7434	TBI,CASE MANAGEMENT,CONTINUING
Y7435	TBI,COMMUNITY RESID'L 2,4 HRS
Y7436	TBI,COMMUNITY RESID'AL 4,8 HRS
Y7437	TBI,COMMUNITY RESID'L >8 HRS
Y7438	TBI,STRUCTURED DAY PROG. FULL DAY
Y7439	TBI,STRUCTURED DAY PROGRAM HALF DAY
Y7443	TBI,SUPPORTED DAY PROGRAM
Y7444	TBI,PERSONAL CARE WEEKDAY HRLY
Y7445	TBI,PERSONAL CARE WEEKENDS HRLY
Y7454	TBI,PCA RN INITIAL RN ASSESSMENT
Y7455	TBI,PCA RN REASSESSMENT
Y7568	TBI,ENVIRONMENTAL MODIFICATION
Y9333	EARLY INTERVENTION: MULTI REHAB
Y9334	EARLY INTERVENTION: REHAB W/EVALUATI
Y9336	EARLY INTERVENTION: TCM
Y9337	EARLY INTERVENTION: TCM W/EVALUATION
Y9437	SCHOOL REHAB, INDISTRICT TRANS ROUND
Z0160	PARTIAL HOSPITALIZATION, FULL DAY (5
Z0170	PARTIAL CARE, HALF DAY (3 HOURS MINI

[3] Definitions for procedure codes are taken verbatim from state formulary lists. Many descriptions are abbreviated or truncated in the source material.

Z0180	PARTIAL CARE, FULL DAY (5 HOURS MINI
Z3334	SUB ACUTE RESIDENTIAL DETOXIFICATION
Z3335	SHORT TERM RESIDENTIAL SA TREATMENT
Z3337	THERAPEUTIC COMMUNITY SA TREATMENT
Z3339	SA HALFWAY HOUSE
Z3343	SA HALFWAY HOUSE , CHILD
Z3344	SA PARTIAL CARE
Z3345	SA PARTIAL CARE , CHILD
Y9438	SCHOOL REHAB, SPECIAL TRANS ROUND

IV. Pharmaceutical Groups Used to Define Psychiatric Medications

We used the Multum prescription drug categorization software (obtained from www.Multum.com) to identify psychoactive pharmaceuticals. For users otherwise identified as MDC users, we included all prescriptions for drugs in the following classes as psychopharmaceuticals:

Barbiturates
Benzodiazepines
Miscellaneous Anxiolytics, Sedatives and Hypnotics
CNS Stimulants
Miscellaneous Antidepressants
Miscellaneous Antipsychotic agents
Psychotherapeutic Combinations
Psychotherapeutic Combinations
Miscellaneous Central Nervous System Agents
SSRI Antidepressants
Tricyclic Antidepressants
Phenothiazine Antipsychotics
Psychotherapeutic agents
Antidepressants
Monoamine oxidase inhibitors
Antipsychotics

APPENDIX D:

SPECIFIC DRUGS IDENTIFIED AS PSYCHIATRIC MEDICATIONS

Appendix D. Pharmaceutical Groups Used to Define Psychiatric Medications			
Multum_Category	**Category_Name**	**Multum**	**Drug_Name**
68	Barbiturates	d00171	Amobarbitol
68	Barbiturates	d00335	Pentobarbital
68	Barbiturates	d00340	Phenobarbital
68	Barbiturates	d00368	Secobarbital
68	Barbiturates	d00919	Mephobarbital
68	Barbiturates	d00923	Butabarbital
68	Barbiturates	d03061	Butalbital
68	Barbiturates	d04005	Amobarbital-Secobarbital
69	Benzodiazepines	d00040	Oxazepam
69	Benzodiazepines	d00148	Diazepam
69	Benzodiazepines	d00149	Lorazepam
69	Benzodiazepines	d00168	alprazolam
69	Benzodiazepines	d00189	Chlordiazepoxide
69	Benzodiazepines	d00197	Clonazepam
69	Benzodiazepines	d00198	Clorazepate
69	Benzodiazepines	d00238	Flurazepam
69	Benzodiazepines	d00301	Midazolam
69	Benzodiazepines	d00384	Temazepam
69	Benzodiazepines	d00397	Triazolam
69	Benzodiazepines	d00904	Halazepam
69	Benzodiazepines	d00915	Estazolam
69	Benzodiazepines	d00917	Quazepam
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00147	Chloral Hydrate
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00182	Buspirone
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00212	Diphenhydramine
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00217	Doxepin
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00226	Ethchlorvynol
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00288	Meprobamate
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00782	Pyrilamine
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00907	Hydroxyzine
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00909	Chlormezanone
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00910	Zolpidem
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00911	Paraldehyde
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00912	Acetylcarbromal
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d00914	Propiomazine
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d03068	Dichloralphenazone
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d03154	Doxylamine
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d04452	Zaleplon
70	Miscellaneous Anxiolytics, Sedatives and Hypnotics	d04505	Dexmedetomidine
71	CNS Stimulants	d00801	Caffeine
71	CNS Stimulants	d00802	Doxapram
71	CNS Stimulants	d00803	Amphetamine
71	CNS Stimulants	d00804	Dextroamphetamine
71	CNS Stimulants	d00805	Methamphetamine
71	CNS Stimulants	d00806	Phentermine
71	CNS Stimulants	d00807	Benzphetamine
71	CNS Stimulants	d00809	Phendimetrazine

Appendix D. Pharmaceutical Groups Used to Define Psychiatric Medications			
Multum_Category	**Category_Name**	**Multum**	**Drug_Name**
71	CNS Stimulants	d00810	Diethylpropion
71	CNS Stimulants	d00811	Mazindol
71	CNS Stimulants	d00812	Fenfluramine
71	CNS Stimulants	d00900	Methylphenidate
71	CNS Stimulants	d00901	Pemoline
71	CNS Stimulants	d04035	Amphetamine-DextroAmphetamine
71	CNS Stimulants	d04036	Caffeine-Sodium Benzoate
71	CNS Stimulants	d04378	Modafinil
71	CNS Stimulants	d04777	Dexmethylphenidate
76	Miscellaneous Antidepressants	d00181	Bupropion
76	Miscellaneous Antidepressants	d00395	Trazodone
76	Miscellaneous Antidepressants	d00877	Maprotiline
76	Miscellaneous Antidepressants	d03181	Venlafaxine
76	Miscellaneous Antidepressants	d03808	Nefazodone
76	Miscellaneous Antidepressants	d04025	Mirtazapine
76	Miscellaneous Antidepressants	d04408	St. John's Wort
76	Miscellaneous Antidepressants	d04726	5-Hydroxytryptophan
77	Miscellaneous Antipsychotic agents	d00027	Haloperidol
77	Miscellaneous Antipsychotic agents	d00061	Lithium
77	Miscellaneous Antipsychotic agents	d00199	Clozapine
77	Miscellaneous Antipsychotic agents	d00896	Molindone
77	Miscellaneous Antipsychotic agents	d00897	Loxapine
77	Miscellaneous Antipsychotic agents	d00898	Pimozide
77	Miscellaneous Antipsychotic agents	d03180	Risperidone
77	Miscellaneous Antipsychotic agents	d04050	Olanzapine
77	Miscellaneous Antipsychotic agents	d04220	Quetiapine
77	Miscellaneous Antipsychotic agents	d04747	Ziprasidone
79	Psychotherapeutic Combinations	d03462	Amitriptyline-Chlordiazepoxide
79	Psychotherapeutic Combinations	d03463	Amitriptyline-Perphenazine
80	Miscellaneous Central Nervous system agents	d00902	Ergoloid Mesylates
80	Miscellaneous Central Nervous system agents	d03176	Tacrine
80	Miscellaneous Central Nervous system agents	d04031	Pilocarpine
80	Miscellaneous Central Nervous system agents	d04099	Donepezil
80	Miscellaneous Central Nervous system agents	d04512	Cevimeline
80	Miscellaneous Central Nervous system agents	d04537	Rivastigmine
80	Miscellaneous Central Nervous system agents	d04750	Galantamine
208	SSRI Antidepressants	d00236	Fluoxetine
208	SSRI Antidepressants	d00880	Sertraline
208	SSRI Antidepressants	d03157	Paxil
208	SSRI Antidepressants	d03804	Paroxetine
208	SSRI Antidepressants	d04332	Citalopram
209	Tricyclic Antidepressants	d00144	Nortriptyline
209	Tricyclic Antidepressants	d00145	Desipramine
209	Tricyclic Antidepressants	d00146	Amitriptyline
209	Tricyclic Antidepressants	d00217	Doxepin
209	Tricyclic Antidepressants	d00259	Imipramine
209	Tricyclic Antidepressants	d00873	Trimipramine

Appendix D. Pharmaceutical Groups Used to Define Psychiatric Medications			
Multum_Category	**Category_Name**	**Multum**	**Drug_Name**
209	Tricyclic Antidepressants	d00874	Amoxapine
209	Tricyclic Antidepressants	d00875	Protriptyline
209	Tricyclic Antidepressants	d00876	Clomipramine
210	Phenothiazine AntiPsychotics	d00064	Chlorpromazine
210	Phenothiazine AntiPsychotics	d00237	Fluphenazine
210	Phenothiazine AntiPsychotics	d00355	Prochlorperazine
210	Phenothiazine AntiPsychotics	d00356	Promazine
210	Phenothiazine AntiPsychotics	d00389	Thioridazine
210	Phenothiazine AntiPsychotics	d00855	Perphenazine
210	Phenothiazine AntiPsychotics	d00889	Mesoridazine
210	Phenothiazine AntiPsychotics	d00890	Trifluoperazine
210	Phenothiazine AntiPsychotics	d03152	Triflupromazine
242	Psychotherapeutic agents	only Nitroglycerine was coded in this category, and we decided not to include this as a Psychotropic medicine	
249	Antidepressants	only Nitroglycerine was coded in this category, and we decided not to include this as a Psychotropic medicine	
250	Monoamine oxidase inhibitors	d00882	Isocarboxazid
250	Monoamine oxidase inhibitors	d00883	Phenelzine
250	Monoamine oxidase inhibitors	d00884	Tranylcypromine
251	Antipsychotics	only Nitroglycerine was coded in this category, and we decided not to include this as a Psychotropic medicine	

APPENDIX E:

FILE LAYOUT

CONTENTS OF NJ FINAL MH DATASET

THE CONTENTS PROCEDURE

DATA SET NAME: ALL.NJMHFINAL OBSERVATIONS: .
MEMBER TYPE: DATA VARIABLES: 142
ENGINE: V8TAPE INDEXES: 0
CREATED: 1:31 SATURDAY, MAY 24, 2003 OBSERVATION LENGTH: 879
LAST MODIFIED: 1:31 SATURDAY, MAY 24, 2003 DELETED OBSERVATIONS: 0
PROTECTION: COMPRESSED: NO
DATA SET TYPE: SORTED: NO
LABEL:

-----Engine/Host Dependent Information-----

DATA SET PAGE SIZE: 32760
PHYSICAL NAME: TR88.@BF32960.NJ.MHFINAL.SSD
RELEASE CREATED: 8.0202M0
CREATED BY: TR88NJ87

-----Alphabetic List of Variables and Attributes-----

Variable Name	Type	Length	Label
DT_BIRTH	NUM	8	DATE OF BIRTH, CCYYMMDD
SEX	CHAR	1	SEX
RACE	CHAR	1	RACE
SSN	CHAR	9	SOCIAL SECURITY NUMBER
COUNTY	CHAR	3	COUNTY CODE
ZIP	CHAR	5	ZIP CODE
DUAL_E	CHAR	2	DUAL ELIGIBLE FLAG
HIC	CHAR	12	HIC NUMBER
TEMP_ID	CHAR	20	TEMP IDENTIFICATION NUMBER
MSIS_ID	CHAR	20	MSIS ID
SS01	CHAR	6	MONTH 1: ELIG GROUP
MAS01	CHAR	1	MONTH 1: MAS
BOE01	CHAR	1	MONTH 1: BOE
SS02	CHAR	6	MONTH 2: ELIG GROUP
MAS02	CHAR	1	MONTH 2: MAS
BOE02	CHAR	1	MONTH 2: BOE
SS03	CHAR	6	MONTH 3: ELIG GROUP
MAS03	CHAR	1	MONTH 3: MAS
BOE03	CHAR	1	MONTH 3: BOE
SS04	CHAR	6	MONTH 4: ELIG GROUP
MAS04	CHAR	1	MONTH 4: MAS
BOE04	CHAR	1	MONTH 4: BOE
SS05	CHAR	6	MONTH 5: ELIG GROUP
MAS05	CHAR	1	MONTH 5: MAS
BOE05	CHAR	1	MONTH 5: BOE
SS06	CHAR	6	MONTH 6: ELIG GROUP
MAS06	CHAR	1	MONTH 6: MAS
BOE06	CHAR	1	MONTH 6: BOE
SS07	CHAR	6	MONTH 7: ELIG GROUP
MAS07	CHAR	1	MONTH 7: MAS
BOE07	CHAR	1	MONTH 7: BOE
SS08	CHAR	6	MONTH 8: ELIG GROUP
MAS08	CHAR	1	MONTH 8: MAS
BOE08	CHAR	1	MONTH 8: BOE
SS09	CHAR	6	MONTH 9: ELIG GROUP
MAS09	CHAR	1	MONTH 9: MAS
BOE09	CHAR	1	MONTH 9: BOE
SS10	CHAR	6	MONTH 10: ELIG GROUP
MAS10	CHAR	1	MONTH 10: MAS
BOE10	CHAR	1	MONTH 10: BOE
SS11	CHAR	6	MONTH 11: ELIG GROUP
MAS11	CHAR	1	MONTH 11: MAS
BOE11	CHAR	1	MONTH 11: BOE
SS12	CHAR	6	MONTH 12: ELIG GROUP
MAS12	CHAR	1	MONTH 12: MAS
BOE12	CHAR	1	MONTH 12: BOE

Variable Name	Type	Length	Label
STATE	CHAR	2	State
YEAR	CHAR	4	Calendar Year
AGE	NUM	8	AGE AS OF END OF YEAR 1999
AGEGRP	CHAR	1	AGE GROUP
TEMP_F	CHAR	1	TEMP FLAG
DUAL	CHAR	1	EVER DUAL DURING YEAR
MTHELIG	NUM	8	MONTHS ENROLLED IN MEDICAID
MTHCAP	NUM	8	MONTHS ENROLLED IN CAP PLAN
MH_1	NUM	8	Bene has Mental Disorder Claim
MH_2	NUM	8	Bene has Organic Disorder Claim
MH_3	NUM	8	Bene has SA Claim
MH_4	NUM	8	Bene has MR/DD Claim
MH_5	NUM	8	Bene has no Mental Dis but has Organic,SA or MR/DD
RULE_1P	NUM	8	Bene has a Rule 1 Primary Claim
RULE_2P	NUM	8	Bene has a Rule 2 Primary Claim
RULE_2S	NUM	8	Bene has a Rule 2 Secondary Claim
INRES	NUM	8	All Other Residential Facilities
INPSY	NUM	8	Acute Inpatient Facility
INIMD	NUM	8	Institution for Mental Disorders
mhstudy	NUM	8	Study Eligibility
eligible	NUM	8	Medicaid Eligible
mhcat1	NUM	8	Benes w/Any Mental, SA, MR/DD, or Organic Disorders
mhcat2	NUM	8	Benes w/ Mental Disorders
mhcat3	NUM	8	Benes w/ Only Mental Disorders
mhcat4	NUM	8	Benes w/ Mental Disorders & Substance Abuse
mhcat5	NUM	8	Benes w/ Mental Disorders & MR/DD
mhcat6	NUM	8	Benes w/ Mental Disorders & Organic Disorders
mhcat7	NUM	8	Benes w/ SA, MR/DD or Organic Disorder Only
FFS_MOS	NUM	8	Number of Months FFS
HMO_MOS	NUM	8	Number of Months HMO
PHP_MOS	NUM	8	Number of Months PHP
BHP_MOS	NUM	8	Number of Months BHP
LTC_PACE_MOS	NUM	8	Number of Months LTC/PACE
FFS_SUM	CHAR	12	FFS Monthly Enr Summary
HMO_SUM	CHAR	12	HMO Monthly Enr Summary
PHP_SUM	CHAR	12	PHP Monthly Enr Summary
BHP_SUM	CHAR	12	BHP Monthly Enr Summary
LTC_PACE_SUM	CHAR	12	LTC/PACE Monthly Enr Summary
AGE_MH	CHAR	1	AGE RECODED FOR MH
fem_age	CHAR	1	Age Groups for Females
male_age	CHAR	1	Age Groups for Males

Variable Name	Type	Length	Label
MAS_CNT0	NUM	8	Months with MAS=0
MAS_CNT1	NUM	8	Months with MAS=1
MAS_CNT2	NUM	8	Months with MAS=2
MAS_CNT3	NUM	8	Months with MAS=3
MAS_CNT4	NUM	8	Months with MAS=4
MAS_CNT5	NUM	8	Months with MAS=5
MAS_CNT9	NUM	8	Months with MAS=9
BOE_CNT0	NUM	8	Months with BOE=0
BOE_CNT1	NUM	8	Months with BOE=1
BOE_CNT2	NUM	8	Months with BOE=2
BOE_CNT4	NUM	8	Months with BOE=4
BOE_CNT5	NUM	8	Months with BOE=5
BOE_CNT6	NUM	8	Months with BOE=6
BOE_CNT7	NUM	8	Months with BOE=7
BOE_CNT8	NUM	8	Months with BOE=8
BOE_CNT9	NUM	8	Months with BOE=9
BOE_CNTA	NUM	8	Months with BOE=A
MAS	CHAR	1	Annual Maintenance Assistance Status
BOE	CHAR	1	Annual Basis of Eligibility
MASBOE	CHAR	2	Annual MASBOE
DUALSTAT	CHAR	1	Dual Status
ELIGCAT	CHAR	1	Eligibility Group
PERSYEAR	NUM	8	Medicaid ELigible - Person Year Weighted
rule_1p_paid	NUM	8	Rule 1-Primary Expenditures
rule_2p_paid	NUM	8	Rule 2-Primary Expenditures
rule_2s_paid	NUM	8	Rule 2-Secondary Expenditures
mh_ot_paid	NUM	8	Total Outpat Medicaid Exp for Mental Health Svcs
imd_paid	NUM	8	IMD Exp, Source 1
ot_amt_paid	NUM	8	Total Medicaid Outpatient/Other Expenditures
incmh	NUM	8	Users of Community Mental Health Services
inclin	NUM	8	Individual Clinical Services
intxsv	NUM	8	Support Services
mh_ip_paid	NUM	8	Total Inpatient Medicaid Exp for Mental Health Svcs
psy_paid	NUM	8	Total Inpt Psych Exp
ip_amt_paid	NUM	8	Total Medicaid Inpatient Expenditures
mpsydays	NUM	8	Number of Acute Inpt Days
apsydays	NUM	8	D91 Number of Any Hosp Days
mresdays	NUM	8	Number of Other Residential Days
mpsygt30	NUM	8	Duration of Acute Inpt Use
apsygt30	NUM	8	Duration of Any Hosp Days
mresgt30	NUM	8	Duration of Other Residential Fac Use
MH_LT_PAID	NUM	8	Total LTC Medicaid Exp for Mental Health Svcs
IMDx_PAID	NUM	8	IMD Exp, Source 2
LT_AMT_PAID	NUM	8	Total Medicaid LTC Expenditures
mimddays	NUM	8	Number of IMD Days
mimdgt30	NUM	8	Duration of IMD Use
RX	NUM	8	Users of Medicaid Covered Psychopharmacology

Variable Name	Type	Length	Label
MH_RX_PAID	NUM	8	Total Medicaid Exp Pharmacology
RX_AMT_PAID	NUM	8	Total Medicaid Drug Expenditures
TOT_AMT_PAID	NUM	8	Total Medicaid Expenditures
mh_AMT_PAID	NUM	8	Total Mental Health Expenditures
inpsyip	NUM	8	Users of Psychiatric Inpt Services
oth	NUM	8	Users of Other Health Care Services
tot_amt_paid_in_m	NUM	8	Total Medicaid Exp(in million $)
mh_amt_paid_in_m	NUM	8	Total Mental Health Exp(in Million $)