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Mental Health and Adults: Aging Will Drive System

August 2008

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About this paper

This report is one of a series published by the NH Center for Public Policy Studies on the broad topic of mental health in New Hampshire. The Concord-based Endowment for Health has sponsored this work.

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Mental Health and Adults: Aging Will Drive System

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Executive Summary

This paper is one of a series of reports commissioned by the Mental Health Commission¹ to inform policy-makers about the status of adult mental health in New Hampshire. Nationally, approximately 26% of the population over the age of 18 has a mental health disorder. If New Hampshire is consistent with the rest of the nation, this suggests that more than 250,000 adults in New Hampshire have a diagnosable mental health disorder and slightly more than 150,000 would have a mental illness that significantly affects their ability to engage in daily living. Understanding who is using mental health services, what services are being provided, and what the service delivery system looks like is important to understanding what policies are necessary to ensure that the mental health system in New Hampshire is prepared for the future.

Major Findings

One of the most important functions of the public Medicaid insurance system – as measured by total expenditures – is the provision of mental health services to vulnerable populations. Forty-four percent of all Medicaid enrolled adults accessed services for a mental illness in 2005 – at a cost of \$162 million, which accounted for almost one-third of the total non-pharmacy Medicaid medical expenditures for adults. Much of this care is designed to provide long term-care services to the severe and persistently mentally ill through community based care options, community mental health clinics, and – for those with Alzheimer’s disease– nursing homes throughout the state.

The private insurance system plays a much smaller – and very different – role in the mental health service system. In total, in 2005, there were approximately \$43 million in payments for mental health services provided to privately insured adults. Moreover, whereas individuals in the public system are receiving services through multiple systems of care, the expenditures for the private system were predominately for office-based individual psychotherapy rather than long-term care services. It is clear that the population being served by the private system of insurance is very different from that being served via the Medicaid program.

From this analysis, it is clear that the aging of the population will have significant implications for the system of mental health services and both the state and county budgets. The elderly account for a surprisingly significant share of the Medicaid funded mental health services. Over \$100 million in mental health expenditures – or 38% of all Medicaid mental health expenditures – were provided to those over the age of 60. One third of these expenditures were for Alzheimer’s patients being served in a nursing home. As the population ages, how best to provide geriatric mental health services will be an increasingly important policy question.

The state, insurers, and county governments will all need to develop strategies to manage the staffing, budgetary and systems implications of this aging population. The population over the age of 65 is anticipated to double in the next 20 years. Absent changes in the existing system, this trend will create severe competition for workforce and other resources, which currently supply care to children and others under the age of 65. The legislature, the Mental Health

¹ An Executive Office sponsored group of policy-makers, experts in mental health, and advocates commissioned to develop a state-wide plan for mental health services.

Commission, and the Department of Health and Human Services (DHHS) need to make a proactive effort to begin to coordinate the various systems of care, and design new systems for the future demographics of New Hampshire.

Data Sources

In this analysis, we use administrative claims data to describe the mental health service system for insured adults in New Hampshire. For the analysis of the private sector, the Center relied on data from the Comprehensive Healthcare Information System (CHIS). This system was designed to collect health care claims information from all private insurers covering people in New Hampshire.²

For the analysis of the public Medicaid system, the Center relied on claims files developed from the Dartmouth Psychiatric Research Center (PRC). The Department of Health and Human Services provided the PRC with claims level data for all Medicaid recipients receiving a service during calendar year 2005 and monthly eligibility files identifying who was eligible for Medicaid during that period. The Center used these files – and encrypted individual identifiers – to create analytic files at the claim level and the individual level, as well as creating analytic files which described eligibility across all Medicaid recipients.^{3,4}

To identify claims that were mental health services, the Center did a search of all New Hampshire Medicaid fee schedules and selected any code with specific mention of psychiatric or substance abuse issues, including inpatient admissions, rehabilitation, counseling and therapy. These codes included CPT codes (the industry standard in describing procedures) as well as local codes (used by states to supplement national codes). A full list of the mental health procedures codes used in the analysis is available upon request. Two exceptions were made to this methodology. In those cases where the primary diagnosis was a mental health diagnosis, but the claim was not a known mental health procedure, the claim was assumed to be a mental health service. In the case of the private claims data, special codes based on provider type were used to identify a mental health service, a methodology used to identify mental health claimants used by the Substance Abuse and Mental Health Services Administration (SAMHSA).⁵

To classify claims based on diagnoses, we created a diagnostic grouper based on a methodology developed by SAMHSA in 2003.⁶ Each claim was assigned to a diagnostic category based on the given type of diagnosis. An implicit hierarchy was established based on the diagnosis in the appendix beginning with schizophrenia and ending with mental retardation. This hierarchy is included in the Appendix.

² Neither pharmaceutical expenditures nor dental expenditures were included in the analysis files and therefore were not part of this analysis. Therefore, these data would exclude cases with medical treatment only.

³ Ibid.

⁴ The Medicaid claim level files provided by the PRC were straightforward with one exception: They included administrative adjustments. The Center cleaned these files in two steps. First, to the extent possible given the data, the Center eliminated duplicate claims by matching each individual duplicate claim with its duplicate. In addition, any claim that had a zero paid amount was deleted, as these claims likely reflected administrative adjustments.

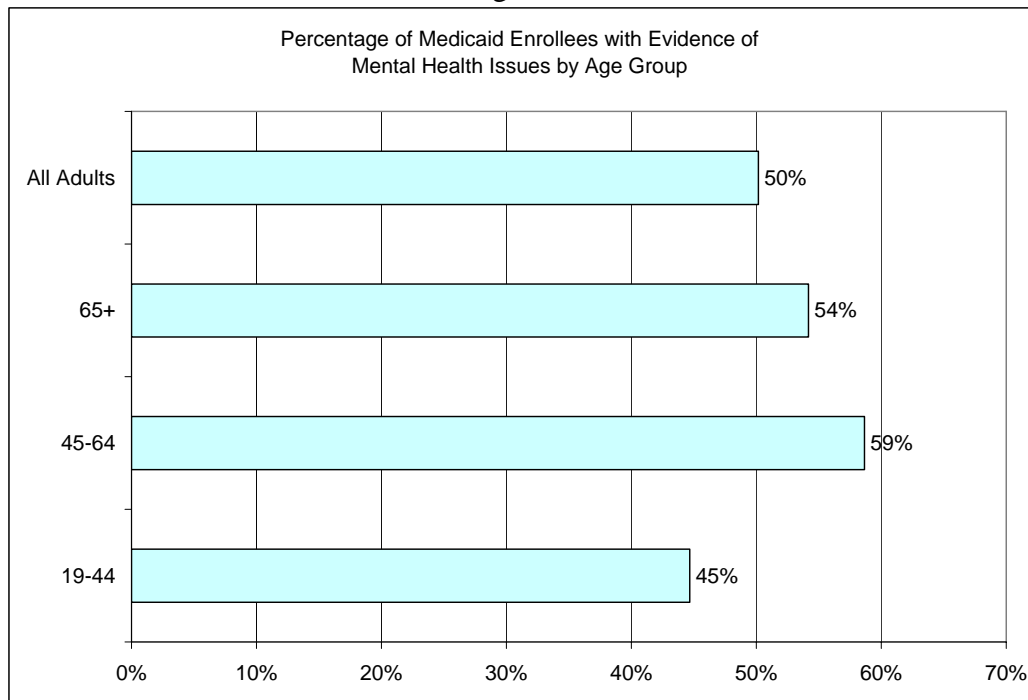
⁵ RIT International. “Defining Mental Health and/or Substance Abuse (MH/SA) Claimants. The Medicare, Medicaid and Managed Care Analyses Project. October 2003. Hereafter referred to as, *Defining MH/SA Claimants, 2003*.

⁶ Ibid.

The Public System

The Medicaid program provides services to a variety of different populations including the elderly with little income, those that are physically and/or mentally disabled and low-income pregnant women. As shown in Figure 1 below, almost half of the adult Medicaid enrollees had documented evidence of mental health issues. Those ages 19-44 – many of whom are low-income pregnant women – had the lowest rates of service use prevalence. Not surprisingly, those ages 45-64, which are most likely to be mentally or physically disabled had the highest rates of service use prevalence. What is striking, however, is that half of adults in the Medicaid system have documented issues with a mental illness.

Figure 1



Not surprisingly, these high rates of service prevalence translate into a large number of people and a significant share of the total Medicaid expenditures for adults. As discussed in other work by the Center,⁷ over 33,000 Medicaid enrolled adults accessed services for mental health issues in 2005. And these 33,000 individuals accounted for slightly more than 50% of total medical expenditures for adults in the Medicaid program. Figure 2 illustrates the overall Medicaid expenditures for all adults, aged 19 years and older, in 2005. Over half of all Medicaid expenditures were related to services for a mental health diagnosis or for care of an adult with mental retardation.

⁷ New Hampshire Center for Public Policy Studies. "Adults and Mental Health in New Hampshire." Concord, NH. September 2007.

Figure 2

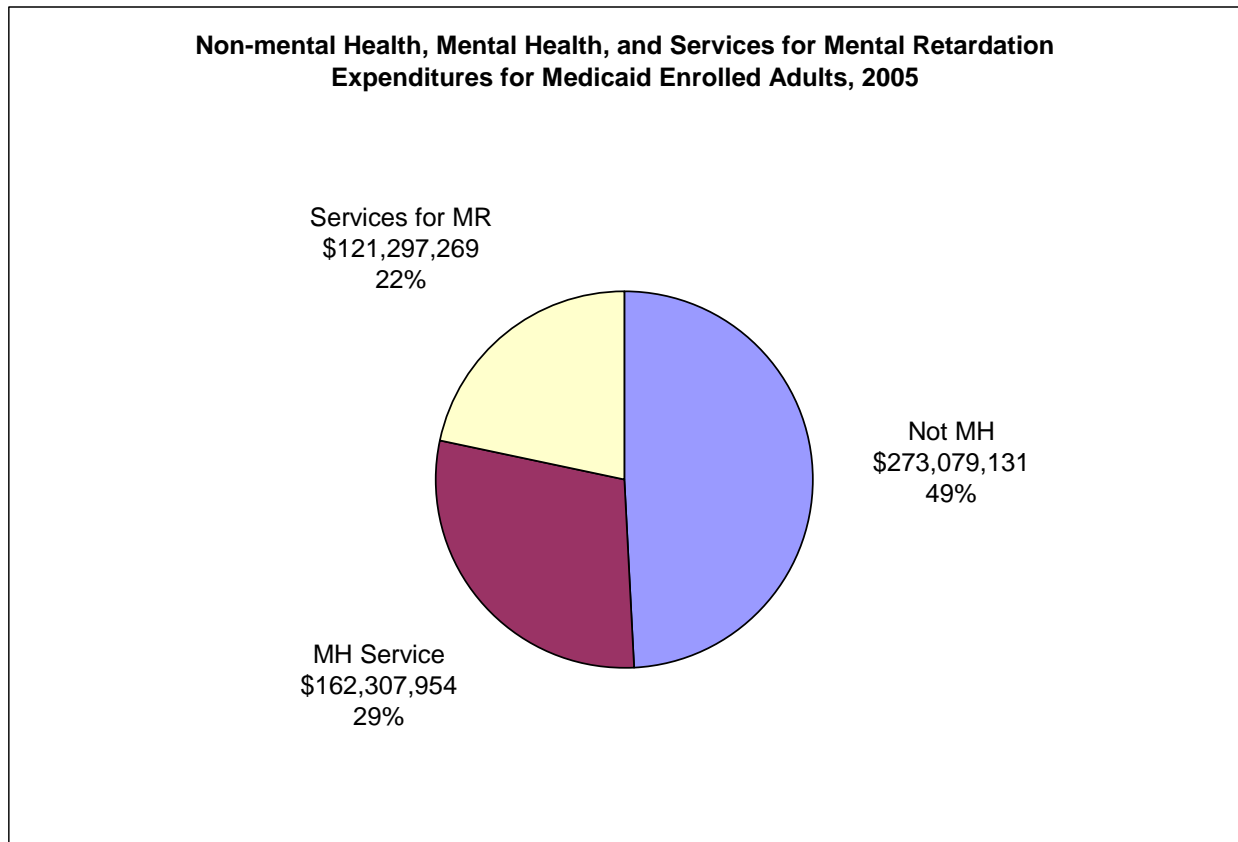


Table 1 presents an overview of how mental health expenditures are distributed across adults who access services for mental illness, access care for adults with mental retardation, and access other medical services.

Table 1
Total Expenditures for Mental Health and Non-MH Services for Medicaid Enrollees, ages 19 and up

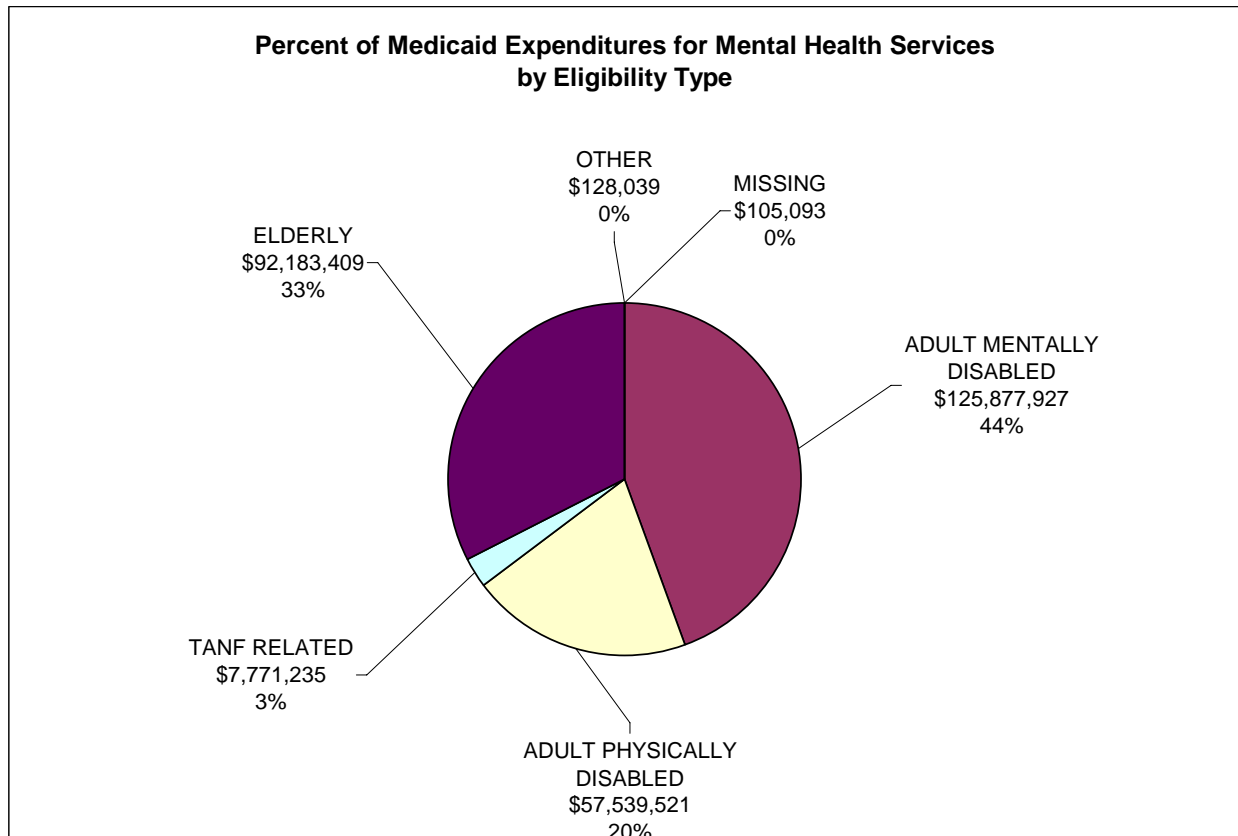
	Total Expenditures	Service Count	Average Cost per Service	Total Individuals Served	Average Cost per Individual	Average Number of Services per Individual
Non MH Service	\$273,079,131	1,439,538	\$190	43,857	\$6,227	33
Mental Health	\$162,307,954	937,299	\$173	21,525	\$7,540	44
Services for MR	\$121,297,269	821,024	\$148	2,689	\$45,109	305
Any service	\$556,684,355	3,197,861	\$174	48,562	\$11,463	66

The average cost per adult for mental health services is approximately 20% higher than for general medical services with less than half of the enrolled adults in Medicaid accessed services for a mental illness (see figure 1). Furthermore, services for adults with mental retardation, on average, are seven times the cost per adult than general medical services with only 6 percent of the total Medicaid population. With more than half the total expenditures going to mental health and/or mental retardation services, the care for these adults is clearly a cost-driver to the state's Medicaid program.

Who is receiving services?

As shown in Figure 3, the largest costs associated with mental health are among adults who are mentally disabled, at 44% of total expenditures. This is also the eligibility category with the highest number of enrollees, at over 11,000 individuals. The second largest cost driver is for the care of elderly enrollees, whose care totals a third of Medicaid expenditures.

Figure 3⁸



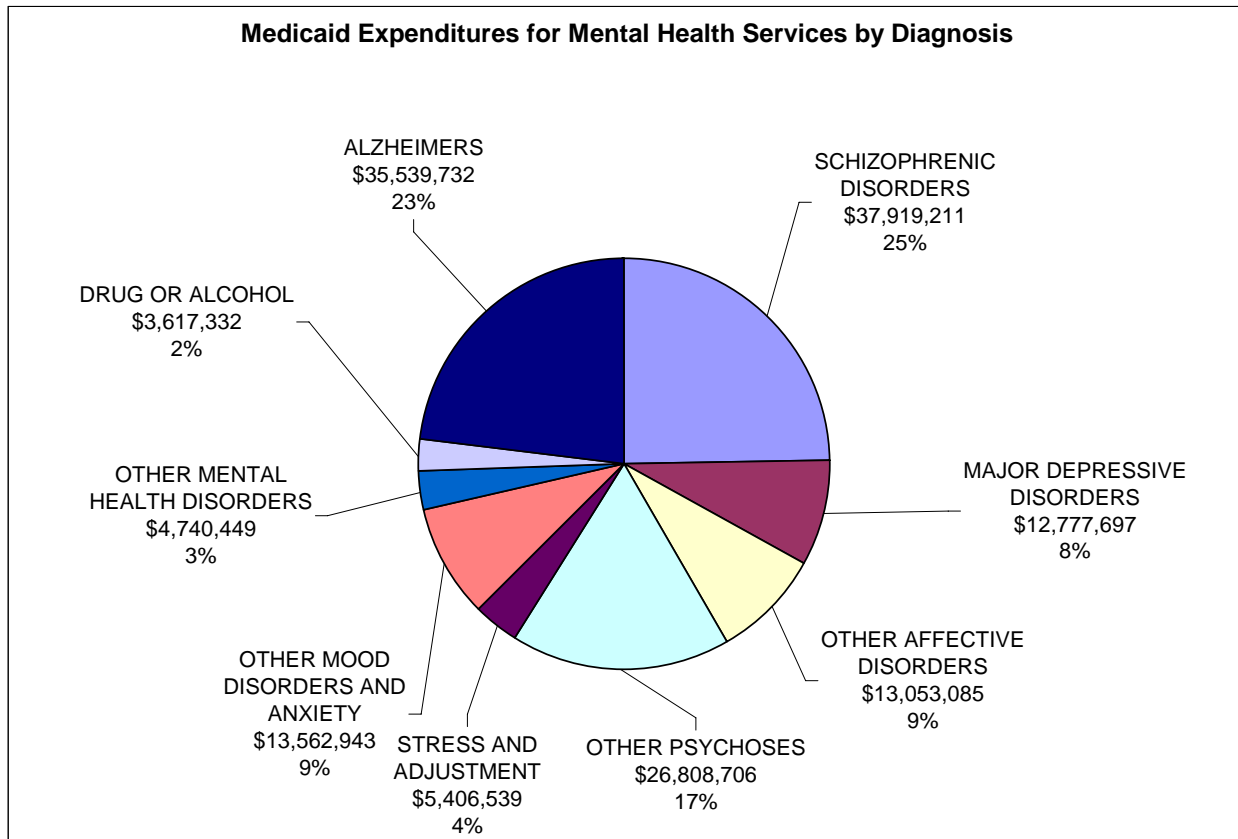
Among the adults enrolled in Medicaid via a mental disability, on average, cost \$11,300 per adult per year. Likewise, elderly enrollees, totaling 8,028 adults in 2005, share the highest cost of care per person – at \$11,500 on average. This is not surprising given that the majority of services for these individuals enrolled via both these categories are long-term care related expenses, which will be further discussed later in this report.

⁸ Eligibility via Adult Physical or Mental Disability is based on condition. Eligibility via Elderly is based on age. And, eligibility via TANF(Temporary Aid to Needy Families) is based on income and other requirement for that program.

Why are Medicaid eligible adults receiving services?

In previous work, the Center estimated the most prevalent mental illnesses to be Major Depressive Disorders and Other Mood and Anxiety Disorders. However, Schizophrenic Disorders and Alzheimer’s Dementia comprise the majority of the costs of mental health care for Medicaid enrollees due to the long-term care needs for these individuals. Figure 4 presents the distribution of expenditures of adults with a mental health problem by the diagnosis type.

Figure 4

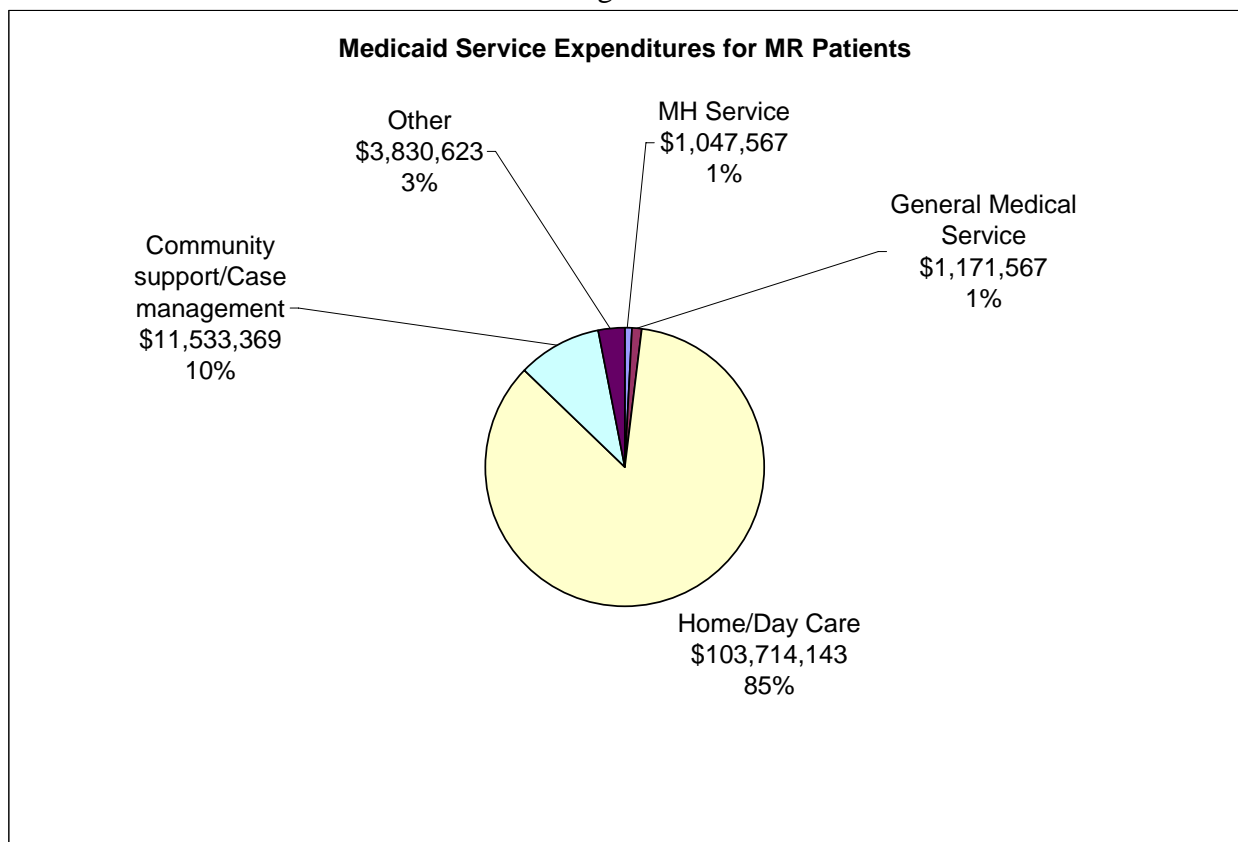


Services for adults with mental retardation

Persons with mental retardation develop mental illness or emotional disturbances about twice as frequently as persons not similarly labeled.⁹ Estimates suggest that 20-39% of persons with mental retardation suffer from some form of diagnosable emotional disturbance compared to a general population's prevalence rate of 20%.¹⁰ Because of the relatively high incidence of mental health service use among those labeled as mentally retarded, we look at these individuals, their service use, the system that serves them, and their associated expenditures separately.

Figure 5 shows the distribution of services provided to adults with mental retardation enrolled in Medicaid in 2005. The figure clearly shows the vast majority of costs for care to adults with mental retardation to be home and day care services.

Figure 5



⁹ Eaton LF and Menolascino FJ. "Psychiatric Disorders in the Mentally Retarded: Types, Problems, and Challenges." *American Journal of Psychiatry*. 139(10):1297-1303. October 1982.

¹⁰ Menolascino FJ. "Model Services for Treatment/Management of the Mentally Retarded-Mentally Ill." *Journal of Community Mental Health*. 25(2):145-55. Summer 1989.

Table 2 displays the expenditures for those diagnosed with mental retardation and the home care services they received by the specific provider in the state. Not surprisingly given the distribution of the population in the state, the Moore Center in Manchester is the single largest provider of services. What is interesting, however, is the degree of variation in per service costs across the various providers. This variation suggests that the underlying case mix of clients, the service models used, or the underlying cost structures of the organizations vary. Further analysis would be necessary to understand why this variation exists.

Table 2
Total Expenditures for Home Care Services
for Medicaid Enrolled Adults with MR Diagnosis age 19 and up

Provider	Total Expenditures	Service Count	Average Cost per Service
MOORE CENTER SERVICES, INC	\$18,120,971	136,881	\$132
MONADNOCK DEVELOPMENTAL SERVICES	\$14,348,977	90,463	\$159
COMMUNITY BRIDGES, INC	\$14,270,106	88,953	\$160
AREA AGENCY OF GREATER NASHUA	\$13,476,402	91,017	\$148
DEVELOPMENTAL SERVICES OF STRAFFORD COUNTY	\$13,018,948	88,040	\$148
LAKES REGION COMMUNITY SERVICES COUNCIL	\$11,746,955	89,217	\$132
COMMUNITY DEVELOPMENTAL SERVICES	\$9,816,657	64,922	\$151
REGION 10 COMMUNITY SUPPORT SERVICES	\$8,951,129	54,334	\$165
NORTHERN HUMAN SERVICES	\$6,057,079	47,412	\$128
THE CENTER OF HOPE, INC	\$5,320,466	46,254	\$115
UNITED DEVELOPMENTAL SERVICES	\$3,889,062	14,154	\$275
INTERIM HEALTHCARE	\$32,755	215	\$152
CONNECTICUT VALLEY HOME CARE	\$22,347	684	\$33
CROTCHED MT COMMUNITY CARE	\$5,102	142	\$36
TENDER CARE HOME NURSING SERVICES	\$3,211	43	\$75
PERSONAL TOUCH HOMEAIDES OF GREATER PORTSMOUTH	\$2,922	130	\$22
HERITAGE CASE MANAGEMENT, INC	\$2,547	110	\$23
EASTER SEALS SOCIETY OF NH	\$2,115	66	\$32
MAXIM HEALTHCARE SERVICES, INC	\$2,079	51	\$41
COMPASS CARE	\$200	20	\$10
CITY OF BERLIN HEALTH DEPARTMENT	\$99	2	\$50
Total	\$119,090,130	813,110	\$146

What mental health services are being provided?

Table 3 lists the top 20 Medicaid mental health services provided to adults with a mental illness ranked by total expenditures (excluding services for mental retardation). The primary expenditure of behavioral health services provided is for nursing services associated with Alzheimer's disease and other dementias in the nursing home setting. The second largest group of services is H0036, community psychiatric support treatment provided in New Hampshire's Community Mental Health Centers (CMHC). Overall, the majority of services provided to adults for mental health, by the number of services provided, are for face-to-face psychiatric and psychotherapeutic services.

Table 3
Total Expenditures for Mental Health Services for Medicaid Enrolled Adults age 19 and up
for the Top 20 CPT Codes (services for mental retardation is not included)

CPT Code	Description	Total Expenditure	Service Count	Total Individuals	Average Cost per Adult
NURS	Nursing Services	\$76,035,390	27,148	2,275	\$33,422
H0036	Community psychiatric supportive treatment, face to face, per 15 min.	\$22,396,743	185,486	3,864	\$5,796
T1016	Case Management	\$20,546,769	208,419	7,917	\$2,595
INPT	Inpatient Services	\$6,116,788	1,231	726	\$8,425
H0037	Community psychiatric supportive treatment program, per diem	\$5,428,500	51,305	301	\$18,035
T1020	Personal Care Services, per diem, (not for inpatient, nursing facility, ICF/MR or IMD)	\$4,291,765	19,298	79	\$54,326
90804	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 20 to 30 min. face-to-face with the patient	\$3,741,826	50,808	5,404	\$692
H2018	Psychosocial rehabilitation services, per diem	\$2,368,731	22,578	188	\$12,600
S5102	Day care services, adult; per diem	\$2,090,860	41,692	462	\$4,526
90806	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 45 to 50 min. face-to-face with the patient	\$1,811,546	43,189	4,642	\$390
OTH S	Other	\$1,668,091	31,715	6,183	\$270
T2021	Day Habilitation, Waiver, per 15 minutes	\$1,629,409	15,961	71	\$22,949
XOV	Medicare/Medicaid Cross Over Services	\$1,545,866	6,746	2,607	\$593
90862	Pharmacologic management, including prescription, use, and review of medication with no more than minimal medical psychotherapy	\$1,500,088	47,403	6,984	\$215
S9485	Crisis intervention, mental health services, per diem (existing)	\$1,155,877	3,226	226	\$5,115
H2017	Psychosocial rehabilitation services, per 15 min.	\$966,106	10,320	152	\$6,356
99213	Office or other outpatient visit for the evaluation and management of an established patient. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family.	\$875,537	15,769	4,061	\$216
H0020	Alcohol and/or drug services; methadone administration and/or service (provision of the drug by a licensed program)	\$843,778	40,468	310	\$2,722
H2011	Crisis intervention service, per 15 min.	\$813,272	3,884	1,320	\$616
H0043	Supported housing, per diem	\$775,278	1,094	57	\$13,601

Who is providing services?

While the previous discussion of what services are being provided gives an initial sense of the mental health system, an analysis of the providers themselves gives a much clearer picture. Table 4 shows the distribution of all identified Medicaid mental health claims by expenditure and counts of services by provider type. The three largest providers of services based on expenditures are the Community Mental Health Clinics, nursing homes, public and privately funded, and home and community based care. These three provider types represent the Medicaid service network for several systems of care.

Table 4
Total Expenditures for Mental Health Services for Medicaid Enrolled adults age 19 and up
by Top 20 Provider Type (services for mental retardation is not included)

Provider Type	Total Expenditures	Service Count	Total Individuals	Average Cost per Adult	Average Cost per Service	Average Number of Services per Adult
Mental Health Clinic	\$56,919,439	504,986	10,551	\$5,395	\$113	48
Nursing Home – General	\$50,188,586	20,021	1,546	\$32,464	\$2,507	13
Nursing Home - County	\$26,390,323	8,592	878	\$30,057	\$3,071	10
Home and Community Based Care	\$14,751,524	258,807	2,961	\$4,982	\$57	87
Distinct Part. Unit - Rehabilitation	\$4,943,381	1,215	813	\$6,080	\$4,069	1
General Hospital	\$1,389,974	4,458	1,908	\$728	\$312	2
Psychologist	\$1,244,827	20,653	2,013	\$618	\$60	10
School Health Services	\$1,020,968	11,771	208	\$4,908	\$87	57
Adult Medical Day Care	\$908,332	21,744	235	\$3,865	\$42	93
Medical Services Clinic	\$852,724	40,835	391	\$2,181	\$21	104
Physician- Group	\$802,954	24,266	6,191	\$130	\$33	4
Mental Hospital	\$758,041	139	85	\$8,918	\$5,454	2
Private Non-Medical Institution for Children	\$645,024	356	25	\$25,801	\$1,812	14
DCYF Services	\$331,981	411	15	\$22,132	\$808	27
Rural Health Clinic	\$256,258	2,678	1,055	\$243	\$96	3
Home Health Agency	\$242,834	4,464	158	\$1,537	\$54	28
Planned Parenthood Clinic	\$227,443	350	159	\$1,430	\$650	2
Ambulance Service – Wheelchair	\$135,241	2,048	587	\$230	\$66	3
Advanced Registered Nurse Practitioner	\$98,901	2,245	368	\$269	\$44	6
Physician - Individual	\$74,852	1,909	509	\$147	\$39	4

It is clear that the Community Mental Health Centers serve the most individuals. Over 10,500 adults received services at one of these clinics, costing, on average, \$5,395 per person. However, nursing homes have the largest per individual cost, at over \$30,000. Both of these systems of care will be discussed in greater detail in turn.

The Community Mental Health Centers

Table 5 provides a listing of the services provided by community mental health centers, showing the top 10 services comprising the majority of Medicaid expenditures. Twenty-eight percent of the expenditures for mental health services are for case management services. The remaining costs are for psychiatric, psychotherapeutic, or crisis intervention services.

Table 5
Total Expenditures for Mental Health Services for Medicaid Enrolled Adults age 19 and up
By Top 10 CPT Codes for Services at a Mental Health Clinic

CPT Code	Description	Total Expenditures	Percent	Service Count	Percent
H0036	Community psychiatric supportive treatment, face to face, per 15 min.	\$22,396,743	39%	185,486	37%
T1016	Case Management	\$15,935,260	28%	44,407	9%
H0037	Community psychiatric supportive treatment program, per diem	\$5,428,500	10%	51,305	10%
90804	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 20 to 30 min. face-to-face with the patient	\$3,695,645	6%	50,452	10%
H2018	Psychosocial rehabilitation services, per diem	\$2,368,731	4%	22,578	4%
90862	Pharmacologic management, including prescription, use, and review of medication with no more than minimal medical psychotherapy	\$1,431,624	3%	43,312	9%
S9485	Crisis intervention, mental health services, per diem (existing)	\$1,155,877	2%	3,226	1%
99213	Office or other outpatient visit for the evaluation and management of an established patient. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family.	\$744,043	1%	12,166	2%
90806	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 45 to 50 min. face-to-face with the patient	\$723,991	1%	24,105	5%
H2011	Crisis intervention service, per 15 min.	\$639,325	1%	3,330	1%

Nursing Homes

Nursing homes care for older adults eligible for Medicaid with a wide range of mental illnesses. As was shown in Figure 4, however, 23% of Medicaid expenditures for mental health services were to care for patients with an Alzheimer's diagnosis, not including other organic brain syndromes causing long-term dementia. Table 6 shows the 10 major mental health diagnoses among Medicaid enrolled nursing home residents.

Table 6
Total Expenditures for Mental Health Services for Medicaid Enrolled Adults age 19 and up
By Top 10 Diagnoses for Services in Nursing Homes

Diagnosis	Total Expenditures	Service Count	Total Individuals	Average Cost per Adult
Alzheimer's disease	\$34,606,998	14,134	1,270	\$27,250
Other chronic organic psychoses	\$13,785,269	5,785	527	\$26,158
Schizophrenic disorders	\$8,283,016	1,587	142	\$58,331
Depressive disorders	\$5,753,324	2,195	228	\$25,234
Bipolar affective disorders	\$3,220,619	795	90	\$35,785
Neurotic disorders	\$2,338,499	936	88	\$26,574
Major depressive disorder	\$2,060,816	792	66	\$31,224
Other non-organic psychoses	\$1,741,097	595	67	\$25,987
Mental retardation	\$1,177,641	269	30	\$39,255
Mental disorders due to organic brain damage	\$939,959	584	53	\$17,735

Nursing home residents with a mental illness cost Medicaid over \$77 million in 2005, and at a cost of over \$30,000 per adult on average. Although both public and private nursing homes provide services to Medicaid eligible persons, much of the mental health services that are being provided are being provided by county-owned facilities. Table 7 below shows the total amount of services provided to those with a mental health diagnosis, excluding care services for mental retardation.

Table 7
Expenditures for Nursing Home Care Services for Medicaid Enrolled Adults
with a Mental Health Diagnosis (not including MR) age 19 and up over \$1 million in 2005

Provider	Total Expenditures	Service Count
GLENCLIFF HOME FOR ELDERLY	\$9,973,134	1,280
MCKERLEY HEALTH CARE CENTERS	\$8,029,726	2,879
SUNBRIDGE CARE AND REHABILITATION	\$7,398,869	5,424
HILLSBOROUGH COUNTY NURSING HOME	\$5,049,074	1,595
MERRIMACK COUNTY NURSING HOME	\$4,454,162	1,603
STRAFFORD COUNTY/RIVERSIDE REST HOME	\$3,602,656	1,065
ROCKINGHAM COUNTY NURSING HOME	\$2,896,334	979
CHESHIRE COUNTY NURSING HOME	\$2,474,554	700
SULLIVAN COUNTY HOME	\$2,251,638	802
COOS COUNTY NURSING HOME	\$1,902,970	615
EPSOM MANOR	\$1,783,809	702
BELKNAP COUNTY NURSING HOME	\$1,463,814	442
HANOVER HILL NURSING HOME	\$1,376,077	1,269
GRAFTON COUNTY NURSING HOME	\$1,317,890	438
GREENBRIAR TERRACE HEALTHCARE	\$1,299,845	529
MAPLE LEAF HEALTH CARE CENTER	\$1,280,632	474
MT CARMEL NURSING HOME	\$1,163,804	419
MOUNTAIN VIEW NURSING HOME	\$1,156,394	427
FAIRVIEW NURSING HOME, INC	\$1,092,552	383
TOTAL (all nursing homes combined statewide, not including MR)	\$76,578,910	28,613

Demographics are changing in New Hampshire, and the rate of Alzheimer's disease and other dementia illnesses are on the rise.¹¹ The costs for providing care in the public system will increase at least as quickly as the population of the state ages. With recent changes in the financial responsibility for Medicaid services to the elderly shifting to the counties, how much is spent on nursing homes for mental health services and how that will grow becomes critically important to county delegations and, therefore, to the state legislature.

Within the state, Grafton County had the highest expenditures per adult than all the other counties at about \$63,000 per adult per year, almost twice the overall state average of \$32,800. This was due to the fact that Glencliff Home for the Elderly – a state-run home for acutely ill patients – is located in Grafton County. There remains, however, an almost 20% variation in the average mental health costs for mental health services in nursing homes. Further analysis would be necessary to understand the reasons for this. However it is likely that some of the variation is due to differences in the underlying diagnoses for each nursing home's residents.

¹¹ Brookmeyer R, Gray S, and Kawas C. "Projections of Alzheimer's Disease in the United States and the Public Health Impact of Delaying Disease Onset." *American Journal of Public Health*. 88(9). Sept 1998.

Table 8
Total Expenditures for Mental Health Services for Medicaid Enrolled Adults
age 19 and up by NH County for Services in Nursing Homes

County	Total Expenditures	Service Count	Total Individuals	Average Cost per Adult
HILLSBOROUGH	\$18,094,096	7,240	691	\$26,185
GRAFTON	\$13,321,284	2,351	210	\$63,435
ROCKINGHAM	\$9,938,173	4,592	321	\$30,960
MERRIMACK	\$9,408,942	3,356	349	\$26,960
CARROLL	\$5,669,924	3,498	144	\$39,374
STRAFFORD	\$5,414,374	2,010	189	\$28,647
CHESHIRE	\$4,930,535	1,564	164	\$30,064
BELKNAP	\$3,855,932	1,281	126	\$30,603
COOS	\$3,809,810	1,553	151	\$25,231
SULLIVAN	\$3,081,797	1,412	98	\$31,447
OUT OF STATE	\$231,685	25	2	\$115,842
Total	\$77,756,551	28,882	2,445	\$31,802

The Private System

Unlike the care provided for mental illnesses in the public system, the vast majority of the private system's expenditures are to cover the costs of care for diagnoses mainly treated on an outpatient basis. Table 9 presents the data for mental health services covered by private insurance by type of diagnosis.

Table 9
Total Expenditures for Mental Health Services for Privately Insured Adults
age 19 and up by Diagnosis

Diagnosis	Total Expenditures	Cost-Sharing	Percent Cost-Sharing	Service Count
MAJOR DEPRESSIVE DISORDERS	\$11,899,344	\$1,789,535	15%	135,879
OTHER MOOD DISORDERS AND ANXIETY	\$9,914,258	\$2,018,741	20%	151,398
STRESS AND ADJUSTMENT	\$6,293,732	\$1,443,277	23%	104,132
ANY ALCOHOL OR DRUG DIAGNOSIS	\$5,767,753	\$608,960	11%	41,941
OTHER AFFECTIVE DISORDER	\$4,303,544	\$511,274	12%	40,111
OTHER MENTAL DISORDERS	\$1,147,891	\$161,127	14%	14,481
OTHER PSYCHOSES	\$1,065,788	\$111,127	10%	9,539
SCHIZOPHRENIC DISORDERS	\$895,450	\$75,069	8%	4,916
CHILDHOOD DISORDERS	\$876,127	\$206,119	24%	14,990
NON-MENTAL HEALTH	\$630,005	\$188,059	30%	33,058
PERSONALITY DISORDERS	\$226,633	\$32,220	14%	2,579
ALZHEIMER'S DISEASE	\$157,595	\$7,883	5%	2,243
MENTAL RETARDATION	\$22,098	\$1,509	7%	181
TOTAL	\$43,200,218	\$7,154,898	17%	555,448

In contrast to the public system of mental health care, the private system rarely pays for services in nursing homes or for home care services. The major component of costs to the private insurers is office-based psychotherapeutic services. Table 10 illustrates the distribution of these costs by facility type and Table 11 presents the distribution of costs by the service rendered.

Table 10
Total Expenditures for Mental Health Services for Privately Insured Adults
age 19 and up by Provider Facility

Provider Facility	Total Expenditures	Cost-Sharing	Percent Cost-Sharing	Service Count
OFFICE	\$22,816,340	\$4,985,743	22%	392,594
INPATIENT HOSPITAL	\$7,656,251	\$510,347	7%	21,012
MISSING	\$4,175,992	\$300,937	7%	10,037
OUTPATIENT HOSPITAL	\$4,098,116	\$561,113	14%	58,090
PSYCH RESIDENTIAL TREATMENT CENTER	\$1,232,143	\$216,381	18%	20,378
EMERGENCY DEPARTMENT	\$873,127	\$143,146	16%	10,162
COMMUNITY MENTAL HEALTH CENTER	\$632,435	\$156,345	25%	12,233
UNKNOWN (INVALID CODE)	\$546,285	\$116,276	21%	8,831
OTHER UNLISTED	\$463,774	\$81,721	18%	5,012
AMBULANCE	\$309,723	\$43,525	14%	1,926
INDEPENDENT LAB	\$186,115	\$18,804	10%	12,289
HOME BASED CARE	\$71,190	\$5,550	8%	787
INPATIENT PSYCHIATRIC WARD	\$53,976	\$5,481	10%	651
SKILLED NURSING FACILITY	\$45,241	\$1,965	4%	922
AMBULATORY SURGICAL CENTER	\$17,272	\$1,966	11%	132
NURSING FACILITY	\$7,767	\$1,360	18%	212
PARTIAL HOSPITAL PSYCIATRIC UNIT	\$5,530	\$2,712	49%	113
CUSTODIAL CARE	\$5,390	\$653	12%	23
RESIDENTIAL SUBSTANCE ABUSE	\$2,279	\$308	14%	26
PUBLIC HEALTH CLIIC	\$496	\$407	82%	4
RURAL HEALTH CLINIC	\$309	\$61	20%	7
AMBULANCE – OTHER	\$228	\$70	31%	4
INPATIENT REHABILITATION	\$90	\$0	0%	1
FQHC	\$86	\$0	0%	1
OUTPATIENT REHABILITATION	\$63	\$27	43%	1
TOTAL	\$43,200,218	\$7,154,898	17%	555,448

As stated above, the majority of services covered by private insurance are for services rendered in an outpatient setting. More than half of total expenditures paid by private insurance for mental health services were for office visits, where one-fifth of the total cost was shared in the form of deductibles and co-insurance. Furthermore, one-quarter of the cost of an individual psychotherapy session is shared by the patient.

Table 11
Total Expenditures for Mental Health Services for Privately Insured Adults age 19 and up
for the Top 20 CPT Codes

CPT Code	Description	Total Expenditures	Cost-Sharing	Percent Cost-Sharing	Service Count
90806	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 45 to 50 min. face-to- face with the patient	\$12,137,854	\$2,934,828	24%	218,431
OTH S	Other Services	\$10,889,263	\$948,705	9%	103,262
INP S	Inpatient Services	\$7,340,257	\$531,192	7%	8,013
90862	Pharmacologic management, including prescription, use, and review of medication with no more than minimal medical psychotherapy	\$2,184,240	\$650,103	30%	53,762
90801	Psychiatric diagnostic interview examination	\$2,101,054	\$397,114	19%	26,730
90807	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility with medical evaluation and management services, approx. 45 to 50 min. face-to- face with the patient	\$1,972,980	\$357,101	18%	24,060
99213	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: An expanded problem focused history; An expanded problem focused examination; Medical decision making of low	\$1,321,775	\$345,531	26%	25,563
99214	Office or other outpatient visit for the evaluation and management of an established patient. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family.	\$1,297,730	\$197,778	15%	14,613
90847	Family psychotherapy (conjoint psychotherapy) (with patient present)	\$985,017	\$230,592	23%	16,619
90782	Medication Administration	\$568,344	\$177,381	31%	32,751
90853	Group psychotherapy (other than of a multiple-family group)	\$419,564	\$84,042	20%	6,957
90808	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility, approx. 75 to 80 min. face-to-face with the patient	\$384,180	\$75,402	20%	4,557
90899	Unlisted psychiatric service or procedure	\$267,612	\$13,364	5%	1,553
S9485	Crisis intervention, mental health services, per diem (existing)	\$209,982	\$25,180	12%	1,191
90805	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility with medical evaluation and management services, approx. 20 to 30 min. face-to-face with the patient	\$174,267	\$55,790	32%	3,533
90870	Electroconvulsive therapy (includes necessary monitoring); single seizure	\$162,699	\$4,901	3%	690
H0014	Methadone Maintenance	\$123,285	\$10,088	8%	1,850
H0035	Substance Abuse Partial Hospitalization	\$93,701	\$3,534	4%	250
96100	Psychological testing, per hour of the psychologist's or physician's time, both face-to-face time administering tests to the patient and time interpreting these test results and preparing the report	\$76,473	\$8,004	10%	440
90809	Individual psychotherapy, insight oriented, behavior modifying and/or supportive, in an office or outpatient facility with medical evaluation and management services, approx. 75 to 80 min. face-to-face with the patient	\$68,320	\$8,167	12%	550
TOTAL		\$42,778,597	\$7,058,799	17%	545,375

Overall, approximately 17% of the total payments of mental health services were borne by the consumer in the form of deductibles or co-insurance. As a comparison, approximately 8% of total medical expenditures excluding mental health were borne by consumers.

Table 12
Total Payments and Cost-Sharing for Mental Health and Other Medical Services for
Adults Age 19 and Up, 2005

	Total Payments	Cost-Sharing	Cost-Sharing as a Percent of Total Payments
Mental Health Services	\$43,200,218	\$7,154,898	16.6%
Other Medical Services	\$1,471,542,710	\$123,389,112	8.4%
Total Services	\$1,514,742,928	\$130,544,011	8.6%

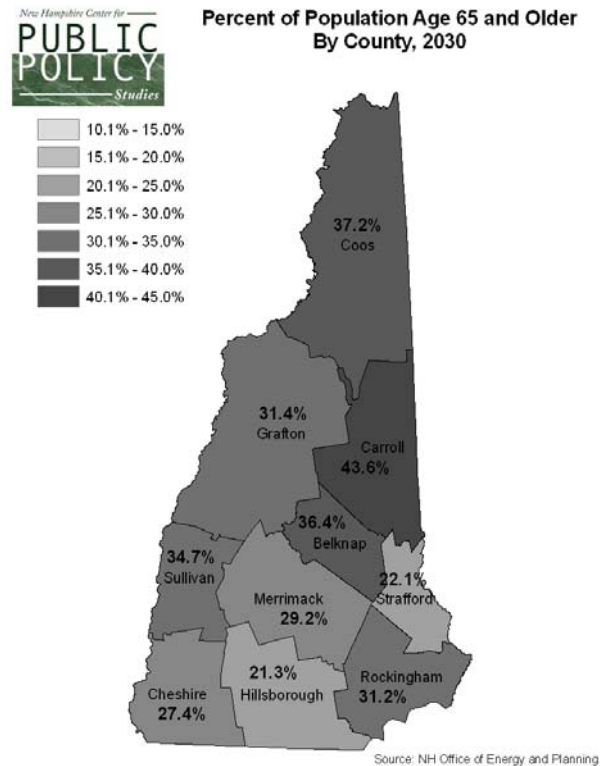
Discussion

When thinking about mental health services and adults in New Hampshire, the most important trends to be aware of are the aging of the population and the implications for the public system of care. The New Hampshire Office of Energy and Planning estimates that the proportion of the population over the age of 65 will almost double by the year 2030, with nearly 40% of the population over the age of 65 in certain counties (see Figure 6). If participation rates in the Medicaid program remain the same, one can expect to see the existing mental health system pressured with the increasing mental health demands of an aging population, and nursing homes – including county homes – struggling to find ways to manage a large pool of the elderly with mental illness, including those with Alzheimer's.

System change takes time and policy discussions regarding how the mental health system should evolve as a result of these trends need to begin now. For the past 10 years, DHHS and the legislature have invested significant resources in the development of home and community based-care options. Their recent efforts include rate increases for providers as a means for shifting the focus from nursing homes to residential care and home and community based care. The de-institutionalization of the mental health system in the late 1980s and early 1990s represented a revolution in the provision of mental health services in New Hampshire. The large share of Medicaid services being provided to those with Alzheimer's in nursing homes, combined with a rapidly aging population, raises important questions about how the state can lay the groundwork for a similar policy evolution among the elderly with mental illness and Alzheimer's dementia. One critical question for policy-makers to grapple with is the future relationship between the community mental health system and the long-term care system.

Our analysis of the private mental health system suggests that there is not yet parity between the mental health and medical systems of care, at least measured by cost-sharing. The private system provides a smaller amount of services – approximately \$43 million in payments in 2005 – largely through individual psychotherapy rather than long-term care services. Individuals accessing mental health services through the private sector face cost-sharing that is significantly greater than those seeking traditional medical services. Out of pocket expenditures accounted for 8.4% of total medical services expenditures. Those seeking mental health services experienced out of pocket costs representing almost 17% of total expenditures. This raises important questions about how successful the state's efforts to implement mental health parity have been.

Figure 6



Appendix

Table A-1: Diagnosis included in this analysis

Description and ICD-9-CM Codes	
Description	Code
Serious Mental Illnesses (SMI)	
Schizophrenic disorders	295
Major depressive disorder	296.2, 296.3
Other affective psychoses	
<i>Manic disorders</i>	296.0, 296.1
<i>Bipolar affective disorders</i>	296.4 - 296.7
<i>Other & unspecified manic-depressive psychoses</i>	296.8
<i>Other & unspecified affective psychoses</i>	296.9
Other psychoses	
<i>Transient organic psychotic conditions</i>	293
<i>Other organic psychotic conditions, chronic</i>	294
<i>Paranoid states or delusional disorders</i>	297
<i>Other non-organic psychoses</i>	298
<i>Psychoses with origin specific to childhood</i>	299
Other Mental Illnesses (OMI)	
Stress & adjustment disorders	
<i>Acute reaction to stress</i>	308
<i>Adjustment reaction</i>	309
Personality disorders	301, excluding 301.13
Childhood disorders	
<i>Disturbance of conduct, not elsewhere specified</i>	312
<i>Disturbance of emotions, specific to childhood & adolescence</i>	313
<i>Hyperkinetic syndrome of childhood</i>	314
Other mood disorders & anxiety	
<i>Neurotic disorders</i>	300
<i>Cyclothymic disorder</i>	301.13
<i>Depressive disorder, not elsewhere specified</i>	311
Other mental disorders	
<i>Sexual deviations & disorders</i>	302
<i>Physiological malfunction arising from mental factors</i>	306
<i>Special symptoms or syndromes, not elsewhere specified</i>	307
<i>Specific non-psychotic mental disorders due to organic brain damage</i>	310
<i>Psychotic factors associated with diseases specified elsewhere</i>	316
<i>Mental disorders in pregnancy, ante partum & post partum</i>	648.4
Any Alcohol Diagnosis	
Alcoholic psychoses	291
Alcohol dependence/nondependent abuse	303, 305.0
Any Drug Diagnosis	
Drug psychoses	292
Drug dependence/nondependent abuse	304,305.2-305.9
Other Alcohol & Drug-related Disorders & Conditions	
Pellagra	265.2
Alcoholic polyneuropathy	357.5
Polyneuropathy due to drugs	357.6
Alcoholic cardiomyopathy	425.5
Alcoholic gastritis	535.3
Chronic liver disease & cirrhosis with mention of alcohol	571.0-571.3
Pregnancy- & childbirth-related conditions	
<i>Drug dependence in pregnancy, ante partum & post partum</i>	648.3
<i>Suspected damage to fetus from drugs</i>	655.5
<i>Noxious influences affecting fetus via placenta or breast milk</i>	760.7
<i>Drug withdrawal syndrome in newborn</i>	779.5
<i>Excessive blood level of alcohol</i>	790.3
Drug poisoning	
<i>Poisoning by adrenal cortical steroids</i>	962.0
<i>Poisoning by opiates & related narcotics</i>	965.0
<i>Poisoning by sedatives & hypnotics</i>	967
<i>Poisoning by other central nervous system depressants & anesthetics</i>	968
<i>Poisoning by psychotropic agents</i>	969
<i>Poisoning by central nervous system stimulants</i>	970
<i>Poisoning by dietetics</i>	977.0
<i>Poisoning by alcohol deterrents</i>	977.3
Toxic effect of alcohol	980
Tobacco Use Disorder	305.1
Alzheimer's disease	290, 331.0
Mental Retardation or Developmental Delays	315, 317-319

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