



Depression Among New Hampshire Medicaid Members

A report prepared for the
New Hampshire Department of Health and Human Services
By the
Maine Health Information Center

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About the New Hampshire Comprehensive Health Care Information System

The New Hampshire Comprehensive Health Care Information System (NH CHIS) is a joint project between the New Hampshire Department of Health and Human Services (NH DHHS) and the New Hampshire Insurance Department (NHID). The NH CHIS was created by state statute (RSA 420-G:11-a) to make health care data “available as a resource for insurers, employers, providers, purchasers of health care, and state agencies to continuously review health care utilization, expenditures, and performance in New Hampshire and to enhance the ability of New Hampshire consumers and employers to make informed and cost-effective health care choices.” For more information about the CHIS, please visit www.nhchis.org or contact Andrew Chalsma, NH DHHS, achalsma@dhhs.state.nh.us.

About the Study

This study was conducted by the Maine Health Information Center (MHIC) under a contract with the State of New Hampshire Department of Health and Human Services, Office of Medicaid Business and Policy, titled New Hampshire Comprehensive Health Care Information System. The views expressed are those of the authors and do not necessarily represent the views of the MHIC, or the New Hampshire DHHS. For more information contact Bill Perry, Vice President of Research and Data Applications, Maine Health Information Center, 207-430-0646, bperry@mhic.org.

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Executive Summary

Depression is one of the most common psychological problems and a leading cause of disability. In the United States, over 17 million adults and 2 million adolescents report having a major depressive episode annually. Once identified, depression is treatable; however, over two thirds of people with depression do not get proper treatment. Depression can interact with other medical and mental health conditions in many ways. Medical illness can cause or aggravate depression through the direct biologic effects of medical conditions, medications and treatments, or through the distress of dealing with a prognosis, pain, or incapacity. Conversely, depression can significantly increase the overall burden of illness in patients with chronic medical conditions and it can diminish a patient's ability or will to adhere to a doctor's treatment recommendations. Studies have shown a 50 to 100% increase in health service use and costs for individuals with chronic medical conditions and depression.

This study was designed to identify the extent of depression among NH Medicaid members. Specifically this study sought to answer the following:

- What is the prevalence of depression among members of New Hampshire Medicaid? Does prevalence of depression vary by member characteristics or location?
- How do service use and expenditures compare for members with and without depression?
- What types of mental health treatments are members with depression receiving?
- What is the relationship of depression to other chronic medical and mental health conditions? How does depression affect expenditures in members with chronic conditions?

This study profiled NH Medicaid members' health care experience during the period of January 1, 2005 – December 31, 2005 (CY2005) based on claims paid by fall 2006. Person-level summary files were created to include demographics, health conditions, costs, and utilization. We used two methods to identify members with depression from the claims data: diagnosis of depression and use of an antidepressant. The latter method may overstate the prevalence of depression since antidepressants are sometimes used to treat conditions other than depression. Lack of a complete claims profile for dually eligible members prompted us to include these members even in the absence of a primary diagnosis.

Overall Findings

Over half of continuously enrolled adult Medicaid members and 5% of continuously enrolled children had some evidence of depression. Overall, 20% of NH Medicaid members had some evidence of depression – 10% identified by diagnosis and another 10% identified by antidepressant use. In contrast, studies estimate that 8% of the general population suffers from depression.

Prevalence of depression varied by the age and gender of the NH Medicaid members. Depression was more prevalent in women than men with 25% of women and 14% of men hav-

ing any evidence of depression. The prevalence of depression varied by age groups with the highest percentages observed in males in their early forties at 42% and women in their early fifties at 62%.

Prevalence of depression varied by eligibility groups, from 5% among low income children to a high of 57% of those with permanent disability due to mental illness. While the prevalence rate in children is the lowest of the eligibility groups, over 57% of NH Medicaid members are children (78,230). Thus, 3,949 members or 15% of those with evidence of depression were children.

In CY2005, one in three NH Medicaid members were enrolled for less than a year. To provide for more accurate utilization and cost analysis, the analysis was limited to members continuously enrolled 11 or more months. The continuously enrolled population had a higher proportion with evidence of depression than the entire population, 25% of members compared with 15% overall. The continuously enrolled population is made up of a higher percentage of the permanently disabled than the overall population and as discussed above, evidence of depression is very prevalent in the disabled groups.

Most NH Medicaid members with evidence of depression received treatment for depression, primarily antidepressant therapy (88%). The majority of members with depression (61%) were also seen by a mental health therapist. Only 3% of members with some evidence of depression, had no indications of treatment based on the Medicaid claims data.

NH Medicaid members with evidence of depression have substantially higher costs than those without depression. While some of this difference might be expected based on the treatment for the disease (i.e., medication and therapy costs), in CY2005, members with evidence of depression averaged payments 3.8 times higher than members with no evidence. In all service categories, payments per member month (PMPM) were higher for those with evidence of depression than without. Hospitalization rates were 4.7 times higher for members with depression than those without depression. Use of the emergency room was 2.5 times the rate for those with depression than for those without. Ninety one percent of hospitalizations related to mental illness were for members with evidence of depression.

Medicaid members with depression and other comorbid medical or mental health conditions had substantially higher costs than members with the same comorbid condition without depression. Comorbid medical and mental health related conditions were common (60%) in members with any evidence of depression. A two-fold increase in payments was observed in members with a comorbid condition when evidence of depression was also present. Chronic conditions, including congestive heart failure, diabetes and chronic pulmonary diseases had payment rates ranging from 1.5 to 2.8 times higher when the member had evidence of depression.

There was wide variation in evidence of depression, utilization, and treatment by health analysis areas. However, no area was consistently identified as high in terms of prevalence, payments, utilization, or treatment. Notably, a three-fold per member per month payment difference emerged across areas and warrants further examination.

Limitations

Claims and eligibility data are constructed primarily for administrative purposes, which poses some limitations. Expenditures (paid claims) are registered very completely, but do not include off-claim adjustments, resulting in slight over or under estimate of the true provider payment cost to Medicaid (the data also do not include the administrative costs associated with operating NH Medicaid). Other information, especially diagnoses, may be under-reported on claims (and are not recorded at all for pharmacy claims). Using both diagnosis and antidepressant use provided a broad definition under which to examine depression among members, although this likely resulted in including people with other disorders also treated with antidepressants, such as anxiety.

Many members are covered by other third parties, in particular those who are dually eligible for both Medicare and Medicaid. These members will have limited claims experience and thus may be under-reported in this analysis; however, their Medicaid experience is fully represented.

Conclusion and Next Steps

Depression is common among all members of NH Medicaid and is not limited to individuals with a mental health disability or individuals traditionally served by behavioral health programs. Members with evidence of depression are observed in all age groups and women had twice the prevalence of men. Over half of continuously enrolled adult Medicaid members and 5% of continuously enrolled children had some evidence of depression. Members with depression receive treatment, primarily use of antidepressants, however the majority also see a mental health specialist. Members with depression have substantially higher payments and utilization than members with no evidence of depression. The majority of members with depression have other chronic conditions. For members with chronic conditions and depression a two-fold increase in payments was observed.

The relationship between health care utilization and depression in this group may be explained in a variety of ways. Depression as defined here may be a marker of higher physical illness severity, higher illness-related distress and service seeking, lower social support, or a combination of these and other unidentified factors.

Understanding what drives the increased use of services and payments for members with depression and particularly those with other comorbid conditions is an important next step. It would also be useful to better understand the extent to which depression contributes to higher costs and the degree to which costly comorbid conditions contribute to depression. Finally, a comparative analysis with the commercially insured population would provide helpful benchmarks for NH Medicaid.

Introduction

Depression is one of the most common psychological problems and a leading cause of disability. In the United States, over 17 million adults and 2 million adolescents report having a major depressive episode annually. Depression can interfere with normal functioning, and frequently causes problems with work, social and family adjustment. It causes pain and suffering not only to those who have the disorder, but also to those who care about them. Serious depression can destroy family life as well as the life of the depressed person. While depression strikes all people it is more prevalent in women, individuals with low incomes, those with chronic illnesses and the elderly – the primary populations served by Medicaid. A study by the Substance Abuse and Mental Health Services Administration (SAMHSA) of ten state Medicaid programs found 17% of adult enrollees were treated for major depression and 32% for minor depression and anxiety disorder.¹

Once identified, depression is treatable, but nationally over two thirds of people with depression do not get proper treatment. Symptoms of depression often go unrecognized or may be treated as a physical illness. Symptoms of depression often leave the individual unable to seek help and the social stigma attached to the disease may cause them to avoid treatment. However, with proper treatment nearly 80% of individuals with depression can be helped.

The cost of depression is significant. One study estimated the economic impact in the United States at \$83.1 billion dollars.² Medical costs accounted for \$26.1 billion (21%), while lost productivity and absences from work were responsible for 63% of depression-related costs.

Depression can interact with other medical and mental health conditions in many ways. Medical illness can cause or aggravate depression through the direct biologic effects of medical conditions, medications and treatments, or through the distress of dealing with a prognosis, pain, or incapacity.

Conversely, depression can significantly increase the overall burden of illness in patients with chronic medical conditions and it can diminish a patient's ability or will to adhere to a doctor's treatment recommendations. Studies have shown a 50 to 100% increase in health service use and costs for individuals with chronic medical conditions and depression,³ increases that are consistent with the evidence we found in New Hampshire's Medicaid claims.

Overview and Purpose of Report

This study was designed to identify the extent of depression among NH Medicaid members and report on their Medicaid payments and utilization of services. Specifically this study sought to answer the following:

- What is the prevalence of depression among members of New Hampshire Medicaid?
- Does prevalence of depression vary by member characteristics or location?

- How do service use and expenditures compare for members with and without depression?
- What types of mental health treatments are members with depression receiving?
- What is the relationship of depression with other chronic medical and mental health conditions?
- How does depression affect expenditures in members with chronic conditions?

The study also provided an opportunity to develop and document techniques and issues when using the Medicaid portion of the NH CHIS to support analyses of service use, quality and efficiency.

Population Studied in the Report

The NH Medicaid program provides health care coverage to a diverse group of individuals including low-income children and adults, the elderly and individuals with mental and physical disabilities. Medicaid provides coverage for individuals through various eligibility pathways. We classified these eligibility pathways into six groups -- elderly, disabled due to physical condition, disabled due to mental condition, severely disabled children, low income adult, and low income children.

The low-income groups included families eligible under the Temporary Assistance for Needy Families (TANF) and related programs. Children were defined as members age 18 or less. Appendix 2 classifies all the NH Medicaid aid categories along with their Medicaid Eligibility Groups developed for analytic use in NH CHIS. The study omitted Medicaid members who have limited or no Medicaid benefits (e.g., those only covered by Medicare Buy-In programs).*

This diverse population varied significantly in their demographics, health status, service utilization, and costs. Individual periods of enrollment varied widely as well. To minimize variation due to periods of eligibility during the study year we limited our analyses to members with 11 or more months of continuous eligibility.

Differences in payments, inpatient hospitalizations, emergency room use, office visits, mental health specialist encounters, and antidepressant medication use rates are reported. We evaluated the relationship between depression and a variety of comorbid medical conditions. Finally, differences are reported in rates of prevalence, utilization, and cost by the Health Analysis Area (HAA) of the member's residence.†

Data Sources and Methods

In the fall of 2005, the NH CHIS began collecting health care claims and eligibility information from all insurers covering people in New Hampshire. NH Medicaid submits claims and eligibility data to the NH CHIS. The analytic file for this study was derived from the NH

* For more detailed explanation see McGuire, C. (2005). *New Hampshire Comprehensive Health Information System Special Project: Defining Medicaid Eligibility Groups* The New Hampshire Comprehensive Health Information System Project. New Hampshire Department of Health and Human Services. April 2005.

† Health Analysis Areas were developed by NH DHHS as part of the CHIS project for analyzing claims data.

CHIS system and represents one of the first studies to be completed using the data from this source.

This study profiled Medicaid members' health care experience during the period of January 1, 2005 to December 31, 2005 (CY2005) based on claims paid by fall 2006. Person-level summary files were created to include demographics, health conditions, costs, and utilization.

We used two methods to identify members with depression from the claims—diagnosis and use of an antidepressant. The first method identified members who had any claim with a primary diagnosis of depression. We defined a depression diagnosis as any of the ICD-9-CM diagnosis codes appearing on the Health Plan Employer Data and Information Set (HEDIS)⁴ list of diagnoses for major depression and milder depression* (see Table 1). This method may understate the prevalence of depression due to the stigma attached to mental health disorders and a member's reluctance to reveal his or her emotional problems to a health care professional. This method may also understate the prevalence of depression among dually eligible members (Medicaid members who are also eligible for Medicare), since we did not have access to their Medicare claims diagnoses. The reader should also be aware that the use of diagnoses obtained from administrative data sets has limitations and that different methodologies may yield different results.

To identify persons with depression who may have been missed in our examination of claims diagnoses, we also identified members who had any pharmacy claims for a Selective Serotonin Reuptake Inhibitor (SSRI) or other antidepressant medication based on the National Drug Code (NDC) Therapeutic Class of Antidepressants.⁵ This method may overstate the prevalence of depression since antidepressants are used to treat conditions other than depression such as anxiety, attention deficit disorder, and other medical and psychiatric problems. Lack of a complete claims profile for dually eligible members prompted us to include these members even in the absence of a primary diagnosis.

Table 1: New Hampshire Medicaid Depression Study HEDIS Criteria Used for Identifying Depression

Depression Diagnosis (based on HEDIS criteria)	ICD-9-CM Codes
<i>Major Depression</i>	
Major depressive disorder, single episode	296.2
Major depressive disorder, recurrent episode	296.3
Depressive disorder, not elsewhere classified	311
<i>Milder Depression</i>	
Depressive type psychoses	298
Neurotic depression (includes dysthymic disorder)	300.4
Prolonged depressive reaction	309.1

Once we had identified Medicaid members with depression, we then analyzed utilization and costs for CY2005. Detailed information on the measures developed and the coding specifications may be found in Appendix 1.

* Because the trends observed for mild and major depression were similar, presentation of the data combined the two groups.

Interpretation of Results

Studies estimate that 8% of the general population suffers from depression⁶. Estimates from two national surveys found one in five Medicaid members suffered from depression during a twelve month period.⁷ We used the New Hampshire Medicaid claims data to examine the prevalence of depression using different measures. A diagnosis of depression was identified for 10.4% of members – 8.8% major depression, 1.6% milder (Table 2). Another 9.6% of members filled a prescription during the year for an SSRI or other antidepressant. Approximately one fifth (19.9%) of Medicaid members had either a diagnosis of depression or filled a prescription for antidepressant medications.

Throughout the rest of this report, “depression” will refer to any evidence of depression, unless otherwise specified.

Table 2: Comparison of Prevalence of Depression in New Hampshire Medicaid by Various Definitions CY 2005

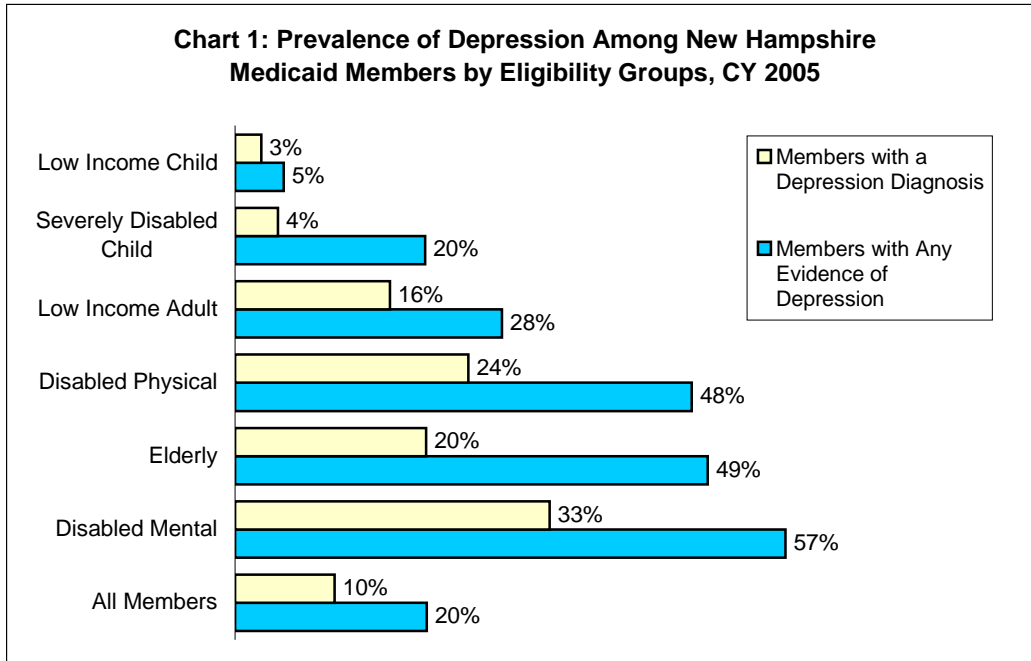
Depression Measure	Prevalence	
	N	Percent
Total Members*	136,091	100.0%
Diagnosis of Depression		
Milder Depression	2,136	1.6%
Major Depression	11,960	8.8%
Any Depression Diagnosis	14,096	10.4%
Anti-Depressant Use	13,034	9.6%
Any Evidence of Depression	27,130	19.9%

Depression prevalence varies by eligibility group. As shown in Chart 1, the greatest prevalence of depression was found among members eligible due to a mental disability – 33% were identified by a depression diagnosis and 57% had any evidence of depression. Members who were elderly or had a physical disability were next, 20% and 24% respectively by diagnosis, 49% and 48% by using any evidence.* We found any evidence of depression among 28% of low-income adults. Prevalence was lowest in children. Only 3% of children had a diagnosis, a figure that rose to 5% when medications were included. While the prevalence rate in children is low, over 57% of NH Medicaid members are children (78,230*). Thus, 3949 members or 15% of those with evidence of depression were children.

* Number of people enrolled in Medicaid at all during the year.

* Elderly members and members with disabilities are most likely to be eligible for both Medicare and Medicaid, often referred to as “dual eligibility.” Since Medicaid is the medical claims payor of last resort for dually eligible members, their claims experience will be understated. However, since the study year preceded the introduction of the Medicare Part D drug coverage program, Medicaid would have paid for all of their prescription drugs.

* Number of children eligible at any time during the year.

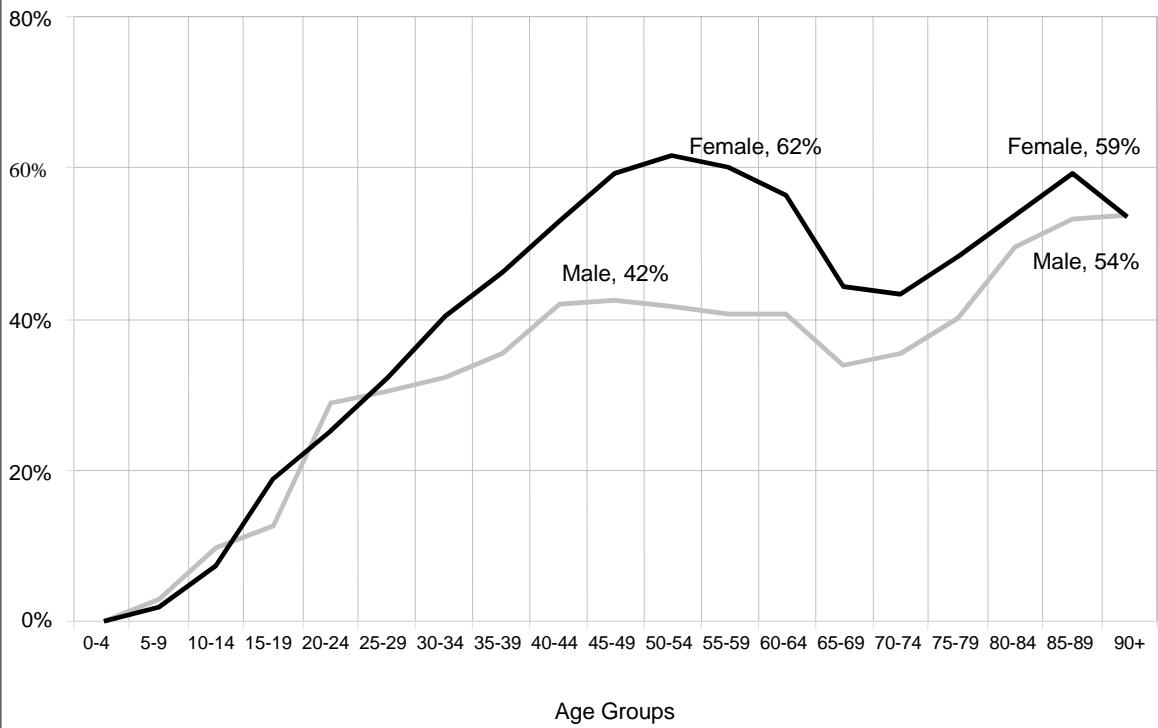


Prevalence of depression by health analysis areas varied from a low of 15% in Peterborough, 16% in Plymouth and Wolfeboro, to a high of 26% in the Portsmouth area (see Map 3A in Appendix 3).

The prevalence of depression differs for men and women. Estimates indicate that 25% of women and 10% of men are affected by depression at some point in their lives.⁸ Among NH Medicaid members, 25% of women had any evidence of depression compared to 14% of men.

The average age of members with a depression diagnosis was older (44 years of age) compared to those without a diagnosis (18 years). Prevalence of depression varies over the life span. Chart 2 shows the relationship of any evidence of depression by age and gender. While prevalence of depression stabilizes in young men for several years before peaking at 42% in the early forties group, the prevalence for women continues to climb to a high of 62% in the early fifties group. Prevalence of depression for both men and women declines after fifty, but increases again after age 65 for males and 70 for females.

Chart 2: Percent of All NH Medicaid Members with any Evidence of Depression, by Gender and Age CY 2005 (N=136,091)



Impact of Depression on Cost and Utilization

During CY2005, the 136,091 NH Medicaid members incurred \$850 million in total Medicaid claim payments.* Summarized in Table 3, the 27,130 members with any evidence of depression accounted for 20% of members covered and 54% (\$457 million) of the claim payments. The PMPM payment rate for members with depression, \$1,616, was four times the rate for members with no evidence of depression, \$402.

Table 3: Summary Comparison by Any Evidence of Depression in Continuously Enrolled New Hampshire Medicaid, CY 2005

Measure	All Medicaid Members	No Evidence of Depression	Evidence of Depression
Members			
All Members	136,091	108,961	27,130
(Percent of all Members)	(100%)	(80%)	(20%)
Member Months	1,260,630	977,435	283,195
Average Age	23.3	18.0	44.6
Continuously Enrolled Members	79,541	59,816	19,725
(Percent of all Continuously Enrolled)	(100%)	(75%)	(25%)
Continuously Enrolled as a Percent of all Members	58%	55%	73%
Member Months	948,677	713,225	235,452
Member Months as a Percent of Member Months for all Members	75%	73%	83%
Average Age	24.2	17.4	44.8
Claim Payments			
For All Members	\$850,343,34	\$392,749,68	\$457,593,66
(Percent of Payments for all Members)	5	3	2
Claim Payments (PMPM)	(100%)	(46%)	(54%)
	\$675	\$402	\$1,616
For Continuously Enrolled Members	\$727,886,89	\$324,450,55	\$403,436,34
(Percent of Payments)	9	7 (45%)	2
Payments for Continuously Enrolled as a Percent of Payments for all Members	(100%)		(55%)
	86%	83%	88%
Claim Payments (PMPM)	\$767	\$445	\$1,713

“Churning” a pattern of breaks and lapses in health insurance coverage is common in Medicaid. In CY2005, 42% of NH Medicaid members were enrolled for less than a year. Other studies have shown that there is a significant correlation of increased expenditures for Medicaid beneficiaries who have a diagnosis of depression that experience an interruption

* Expenditures shown are based on claim payments and do not reflect any off-claim settlements, drug rebates or other non-claim related adjustments. As such, numbers may vary for information shown with these adjustments.

in coverage⁹. As a result, we limited our examination of utilization, health conditions, and expenditures to individuals with more stable Medicaid coverage. Thus, we included only those members who were continuously enrolled, defined as enrolled for 11 or more months in CY2005. All members with continuous enrollment were included regardless of Medicare enrollment or other insurance.*

During CY2005, NH Medicaid had 79,541 (58%) continuously enrolled members. Among any members with evidence of depression, 73% were continuously enrolled compared to 55% of members with no evidence of depression. The prevalence of any evidence of depression is slightly higher (25%) in the continuously enrolled population than observed in the total population (20%). However, the continuously enrolled members with depression accounted for 55% (\$406 million) of all expenditures attributed to continuously enrolled members (Table 3).

The PMPM payments for the continuously enrolled with depression (\$1,713) was 3.8 times that of those without depression (\$445). Long-term care nursing facilities, pharmacy, and home-based care services for the developmentally disabled are the largest payments for both those with and without evidence of depression. Across all service categories, those with depression have a higher payment (see complete listing in Appendix Table 4B). The nursing facility costs for members with depression (\$459.47) are 7.4 times that of those without (\$62.14). The pharmacy costs for members with depression (\$336.54) are 5.8 times that of those without (\$57.70).

Table 4: PMPM Payments by Service Categories: Comparison by Any Evidence of Depression, New Hampshire Medicaid Members with Continuous Enrollment, CY2005

Service Group	No Depression	Percent of Total PMPM	Any Evidence of Depression	Percent of Total PMPM
Intermediate Care Nursing Facilities	\$62.14	14%	\$459.47	27%
Pharmacy	\$57.70	13%	\$336.54	20%
Home and Community Based Care, Developmentally Impaired	\$103.56	23%	\$269.38	16%
Mental Health Center	\$37.20	8%	\$188.37	11%
General Outpatient	\$31.44	7%	\$87.77	5%
Home and Community Based Care, Elderly & Chronic	\$14.57	3%	\$66.34	4%
General Inpatient	\$16.13	4%	\$63.48	4%
Physician	\$19.85	4%	\$41.31	2%
Private Non-Medical Institutions (PNMI)	\$11.18	3%	\$36.84	2%
Clinic	\$27.54	6%	\$22.10	1%
All Other	\$73.61	16%	\$141.87	8%
Total	\$454.91	100%	\$1,713.45	100.0%

* NH Medicaid members with other insurance including Medicare will have limited claims experience and this may under-count utilization that is paid for by the other insurer with no payment expected from Medicaid. Algorithms for identifying third party liability and duals in the NH CHIS are under development and were not available for this study. All utilization and expenditures reflect only the experience of NH Medicaid as captured on paid claims.

Table 5 (below) displays selected utilization and cost information for NH Medicaid members. Greater detail can be found in Table 4A in Appendix 4 at the end of this report. NH Medicaid members with evidence of depression had 2.5 times the rate of emergency department visits (1,509.9 versus 612.1 per thousand members) and nearly five times as many inpatient hospitalizations (334.4 versus 71.7 per thousand members) compared to members with no evidence of depression. Members with depression had 1,713 mental health hospitalizations during CY2005 accounting for 91% of all mental health hospitalizations during the year.

Table 5: Selected Utilization Comparison by Any Evidence of Depression New Hampshire Medicaid Members with Continuous Enrollment CY2005

Selected Utilization	All Continuously Enrolled Members	No Evidence of Depression	Evidence of Depression
Emergency Department Visit Rate per 1000*	834.9	612.1	1,509.9
Hospitalization Rate per 1000	136.9	71.7	334.4
Total Hospitalizations with a Primary Diagnosis of Mental Health or Substance Abuse	1,880	167	1,713
Percent of Members with Mental Health Specialist Encounter	26%	14%	61%
Percent of Members with Mental Health Related PCP Visit	11%	6%	25%

Utilization and Cost by Eligibility Group

Utilization and costs for members with depression varied by eligibility groups. Table 6 presents information by eligibility group for continuously enrolled members with any evidence of depression. The prevalence rates for depression by group ranged from 7% for children to 62% for members with mental disabilities. The PMPM costs varied from \$572 for low-income adults to \$2,822 in the elderly. Emergency department visit rates varied from 397.2 per thousand for the severely disabled children to 2079.0 per thousand for the low-income adults. Mental health inpatient hospitalization rates varied from 29 per thousand for the elderly* to 173.4 per thousand for members with mental disabilities. Overall, 88% of members with evidence of depression used an antidepressant. Variation by eligibility group ran from a low prevalence of 73% in children to a high of 93% in the elderly. See Appendix 4, Table 4D at the end of this report for complete results.

* The rate per thousand is calculated as the rate per thousand full-year-equivalent (FYE) members. (FYE=total member months/12).

* Hospital costs would be routinely covered by the Medicare program therefore numbers for duals would be under counted.

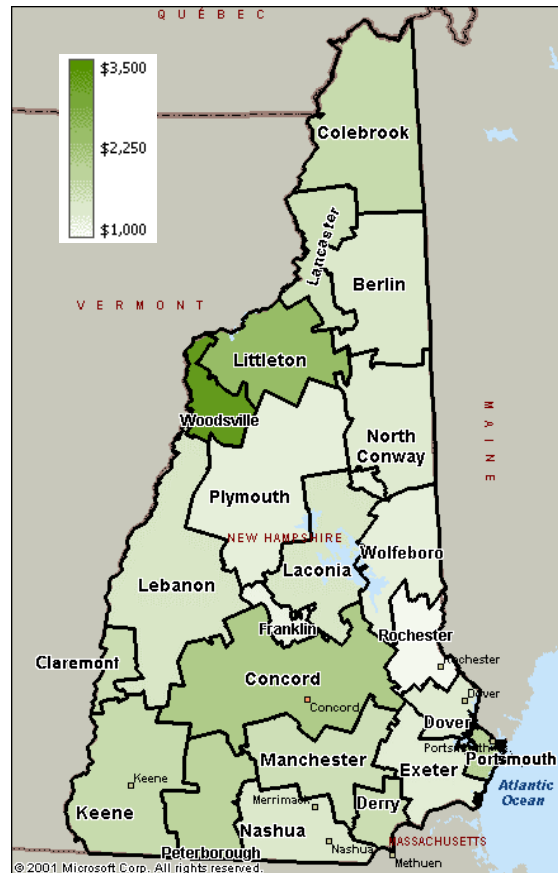
Table 6: Summary of Utilization by Eligibility Group for Continuously Enrolled Members with Any Evidence of Depression, New Hampshire Medicaid, CY 2005

Measure	Low Income Children	Low Income Adult	Severely Disabled Children	Disabled Physical	Disabled Mental	Elderly
Continuously Enrolled Members	47,297	9,614	1,064	6,232	7,373	7,961
Percent with Any Evidence of Depression	7%	43%	21%	54%	62%	55%
Per Member Per Month Cost	\$908	\$572	\$2,006	\$2,123	\$1,910	\$2,822
ED Visit Rate per 1,000	932.5	2079.0	397.2	1819.6	1955.9	752.6
Mental Health Hospitalization Rate per 1,000	87.8	67.2	57.4	73.0	173.4	29.0
Antidepressant Use (%)	73%	88%	92%	92%	90%	93%

Utilization and Cost by Health Analysis Area

Cost and service use variations were also observed by health analysis area (HAA), but no area is consistently high or low across all measures. Complete results can be found in Appendix 4, Table 4D at the end of this report. The prevalence of comorbid conditions ranged from 54% in Plymouth to 69% for individuals for whom a region could not be identified. The average PMPM is 2.8 times higher in Woodsville (\$3,291) than in Rochester (\$1,170). Map 1 displays the range of PMPMs by HAA. Emergency department visit rates were 2.4 times higher in Laconia (2148.0) compared to Woodsville (881.4). A four-fold difference was observed for mental health hospitalizations ranging from a low of 39.8 per thousand in Laconia to a high of 157.7 per thousand in Nashua. Use of antidepressants however was relatively consistent across HAAs with a range from 85% in Colebrook, North Conway, and Rochester to a high of 92% in Woodsville.

Total Payments per Member per Month in 2005 for NH Medicaid Members Who Had Any Evidence of Depression



Among the 19,725 NH Medicaid members with evidence of depression, 17,313 (88%) used an antidepressant drug during the year. These members averaged 10.5 scripts and 301.9 days supply of antidepressants during the year (Appendix 4, Table 4A at end of this report).

There were 603 (3%) members with evidence of depression who had no antidepressant use nor any mental health specialist encounters during the year. Among members with depression but no evidence of treatment, 30% were low-income adults, 29% were elderly, and 19% were low-income children.

Comorbidities

In addition to depression, members may have other medical conditions. Comorbid medical conditions often result in significant additional burden in the use of health services and cost. Information developed for this study on the comorbid status of members with depression is provided in Appendix 4, Table 4B at the end of this report. Definitions were based on Elixhauser's¹⁰ specifications for medical conditions or SAMSHA¹¹ specifications for other mental health conditions (see Appendix 1, Table 1A and 1B for complete definitions).

Based on Elixhauser's criteria, 11,777 (60%) of the 19,725 continuously enrolled NH Medicaid members with evidence of depression had at least one comorbidity. Hypertension (25%) was the most common comorbid medical condition followed by diabetes (17%) and chronic pulmonary disease (CPD) (17%). In addition, 415 members with depression had renal failure and 83 had AIDS. Prevalence of comorbid conditions varies by eligibility category—ranging from a low of 24% in low-income children to a high of 86% among the elderly. CPD was consistently high across all eligibility categories. Among low-income adults and children with depression, 8% and 5% respectively had a diagnosis of obesity.

Comorbid Medical Conditions

Depression influenced payments for members with comorbid medical conditions. As observed previously in Table 2, average annual Medicaid expenditures for members with evidence of depression (\$1,713 PMPM) were 3.8 times more costly than for members without depression (\$445 PMPM). Chart 4 examines PMPM payments for members with and without chronic conditions and evidence of depression. Among members with no medical comorbidities, those with evidence of depression had average Medicaid costs of \$1,169 PMPM, or 4.6 times the payment rate of members with neither any evidence of depression nor any comorbidity (\$257 PMPM). Among members who did have a medical comorbid condition average costs for those with depression (\$2,080 PMPM) were nearly twice as high as the average costs for members without depression (\$1,111 PMPM).

We also compared the differences in average monthly Medicaid payments between members with and without depression in the presence of specific chronic conditions. Among members with congestive heart failure (CHF) or diabetes, the average monthly Medicaid payments were about 1.5 times higher for members with depression than for members without (for CHF they were \$2,947 PMPM versus \$1,989 PMPM and for diabetes \$2,315 PMPM versus \$1,537 PMPM). For members with chronic pulmonary disease the average monthly Medicaid costs were 2.8 times higher for members with depression (\$1,639 PMPM) than for members without evidence of depression (\$586 PMPM).

As with comparison of the total PMPM payments, we examined the various categories of service for members with or without any evidence of depression and with or without medical comorbidities (results are provided in Appendix Table 4E). Here again we observed those with depression had higher PMPM payments than those without in every service category, although the variance between members with medical comorbidities and depression tended to be smaller than those observed in the groups with no medical comorbidities.

Not surprising the cost categories driving the PMPM are consistent with those observed in the overall costs – nursing facility, home-based care for the developmentally delayed, pharmacy and mental health centers. Pharmacy ranges from a low of \$25.45 PMPM, representing 9.9% of the total PMPM, for those with no depression and no comorbidity to a high of \$433.40, representing 20.8% of the total PMPM for those with both depression and comorbid medical conditions.

Comorbid Mental Health Conditions

Comorbid mental health conditions occurred in 11,896 or 60% of members with any evidence of depression – ranging from a low of 30% among the elderly to a high of 79% among severely disabled children (see complete table in Appendix 4, Table 4C). The diagnosis of other mental illness which includes stress and adjustment disorders, and personality, childhood, or other mood disorders, occurred in 44% of members with depression. Twenty percent of members with evidence of depression had a substance abuse diagnosis and 20% had another serious mental health diagnosis. Substance abuse varied across eligibility categories from a high of 32% in low-income adults to a low of 1% in the severely disabled children. Serious mental illness ranged from a high of 48% for severely disabled children, and 43% for members with a mental disability, to a low of 10% in the elderly.

Similar to the differences in Medicaid payment rates between members with and without depression who had the same medical condition, payment rates for members with comorbid mental health conditions were also higher for members with depression. The average monthly payments for members with depression and any mental health condition (\$1,597 PMPM) were 1.9 times higher (see Chart 5) than for those with a mental health condition but no depression (\$836 PMPM). The cost ratios between persons with and without depression were greater in the presence of conditions categorized by SAMHSA as “other mental illness” (2.4 times higher) than in the presence of conditions categorized as “serious mental illness” (0.1 times higher).

Discussion and Next Steps

Depression is common among NH Medicaid members. Of the 10% of members who had a diagnosis of depression, 9% were diagnosed with major depression. An additional 10% of members used antidepressant therapy, in the absence of any primary diagnosis for depression in the CY2005 claims data (we included all of those members in our “any evidence of depression” category even though some of them may have been prescribed antidepressants for treatments of other disorders and symptoms). In total, 20% of NH Medicaid members met the study criteria for some evidence of depression.

Within the NH Medicaid population, the prevalence of depression varied by age and gender. Evidence of depression was more prevalent in women (25% of members) than men (14%). After age 14, prevalence of depression increased for both men and women, peaking at 42% of males in their early 40s and at 62% of women age 50. The prevalence of depression then declined as age increased beyond the male and female peaks, but increases again after age 65 for males and age 70 for females.

Prevalence of depression also varied by eligibility groups, from 5% among low income children to a high of 57% among those with disability due to mental illness. Despite their low prevalence rate, children represent over half (57%) of all NH Medicaid members, and thus still accounted for 3,949 (15%) of all NH Medicaid members with depression.

Most Medicaid members with evidence of depression received treatment for their condition—primarily antidepressant therapy (88%). The majority of members with depression (61%) were also seen by a mental health therapist. Only 3% of members with evidence of depression (603) lacked any claims-based indication of treatment for depression.

Medicaid members with evidence of depression have substantially higher costs than those without depression. While some of this difference might be expected based on the treatment for the disease (i.e., medication and therapy costs), average payments for members with evidence of depression were 3.8 times higher in CY2005 than for members with no evidence. Per member per month payments averaged \$1,713 for members with evidence of depression, compared to \$445 PMPM for those without evidence. All service categories had higher PMPM payments for those with evidence of depression than those without. Hospitalization rates were five times higher for members with depression than those without depression. Use of the emergency room was over twice the rate for those with depression than for those without. Ninety-one percent of hospitalizations related to mental illness were for members with evidence of depression.

Medicaid members with depression and other comorbid medical or mental health conditions had substantially higher overall health costs than members with the same comorbid condition without depression. Comorbid medical and mental health-related conditions were common among members with any evidence of depression. Among members with a comorbid condition, we observed an average two-fold increase in payments when evidence of depression was also present. Chronic conditions, including congestive heart failure, diabetes, and chronic pulmonary diseases had payment rates averaging from 1.5 to 2.8 times higher when the member had evidence of depression.

There was wide geographical variation in evidence of depression, utilization, and treatment by health analysis areas. Peterborough had the lowest prevalence at 15%, compared to a quarter of the members in Portsmouth. Payments varied nearly three-fold from \$1,170 per member per month in Rochester to \$3,291 in Woodsville. We found a four-fold difference in mental health hospitalizations when comparing Nashua's 157.7 per thousand rate to the 39.8 per thousand rate in Laconia. In Wolfeboro, 42% of members with evidence of depression had an encounter with a mental health specialist, compared to 71% in Claremont. Antidepressant use however, was fairly consistent across all HAAs ranging from a low of 85% in Colebrook, North Conway, and Wolfeboro to a high of 92% in Woodsville.

Depression is common among all members enrolled in NH Medicaid and is not limited to individuals with a mental health disability or to individuals traditionally served by behavioral services programs. While members with evidence of depression were observed across all age groups, women had twice the prevalence of men. Over half of continuously enrolled adult Medicaid members and 5% of continuously enrolled children had some evidence of depression. Nearly all of the members identified by claims data as having depression did receive treatment, primarily antidepressant therapy. The majority of them had also seen a mental health specialist. Members with depression had substantially higher payments and utilization rates than members with no evidence of depression. The majority of members with depression have other chronic conditions. Among members with chronic conditions, we observed an average two-fold increase in payments for those who also had depression.

The relationship between health care utilization and depression in this group may be explained in a variety of ways. Depression as defined here may be a marker of higher physical illness severity, higher illness-related distress and service seeking, lower social support, or a combination of these and other unidentified factors.

Understanding what drives the increase used of services and payments for members with depression and particularly those with other comorbid conditions is an important next step. It would also be useful to further understand the extent to which depression contributes to higher costs and the degree to which costly comorbid conditions contribute to depression. Finally, a comparative analysis with the commercially insured population would provide helpful benchmarks for NH Medicaid.

Appendices

Appendix 1: New Hampshire Medicaid Depression Study Methods

Table 1A: Diagnosis and Pharmacy Coding Used for Evidence of Depression

Depression Diagnosis	ICD-9-CM Codes
Major Depression	(Based on HEDIS criteria)
Major depressive disorder, single episode	296.2
Major depressive disorder, recurrent episode	296.3
Depressive disorder, not elsewhere classified	311
Milder Depression	
Depressive type psychoses	298
Neurotic depression (includes dysthymic disorder)	300.4
Prolonged depressive reaction	309.1
Serious Mental Illness Excluding Depression	(Based on SAMSHA criteria¹²)
Schizophrenic disorders and other psychoses	295-299 excluding 296.2, 296.3 & 298
Other Mental Illness Excluding Depression	(Based on SAMSHA criteria)
Stress and adjustment disorders	308, 309
Personality disorders	301, excluding 301.13
Childhood disorders	312-314
Other mood disorders and anxiety	300, 301.3, excluding 300.4
Other mental disorders	302, 306, 307, 310, 316, 648.4
Substance Abuse Disorders	(Based on SAMSHA criteria)
Any Alcohol Diagnosis	291, 303, 305.0
Any Drug Diagnosis	292, 304, 305.2-305.9
Other Alcohol and Drug-related Disorders and Conditions	265.2, 357.5, 357.6, 425.5, 535.3, 571.0– 571.3, 648.3, 655.5, 760.7, 779.5, 790.3, 962.0, 965.0, 967-970, 977.0, 977.3, 980
Tobacco use disorder	305.1
Antidepressant Medications	Therapeutic code
FDC National Drug Code (NDC)	Red Book Drug by Thomson MICROMEDEX, Select Abstract, Version 2006. First 6 characters of Therapeutic Class Code = 281604.

Table A2: ICD-9-CM Codes Used to Identify Comorbid Medical Conditions¹³

Comorbidity	ICD-9-CM Codes
1. Congestive heart failure	398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0-428.9
2. Alular disease	093.20-093.24, 394.0-397.1, 397.9, 424.0-424.99, 746.3-746.6, V42.2, V43.3
3. Pulmonary circulation disorders	416.0-416.9, 417.9
4. Peripheral vascular disorders	440.0-440.9, 441.00-441.9, 442.0-442.9, 443.1-443.9, 447.1, 557.1, 557.9, V43.4
5. Hypertension (uncomplicated and complicated combined)	401.0, 401.1, 401.9, 402.00-405.99, 642.00-642.04, 642.10-642.24, 642.70-642.94
6. Paralysis	342.0-344.9, 438.20-438.53
7. Other neurological disorders	330.0-331.9, 332.0, 333.4, 333.5, 334.0-335.9, 340, 341.1-341.9, 345.00-345.11, 345.2-345.3, 345.40-345.91, 347.00-347.01, 347.10-347.11, 780.3, 780.39, 784.3
8. Chronic pulmonary disease	490-492.8, 493.00-493.92, 494-494.1, 495.0-505, 506.4
9. Diabetes without chronic complications	250.00-250.33, 648.00-648.04
10. Diabetes with chronic complications	250.40-250.93, 775.1
11. Hypothyroidism	243-244.2, 244.8, 244.9
12. Renal failure	403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585.3, 585.4, 585.5, 585.6, 585.9, 586, V42.0, V45.1, V56.0-V56.32, V56.8
13. Liver disease	070.22, 070.23, 070.32, 070.33, 070.44, 070.54, 456.0, 456.1, 456.20, 456.21, 571.0, 571.2, 571.3, 571.40-571.49, 571.5, 571.6, 571.8, 571.9, 572.3, 572.8, V42.7
14. Chronic peptic ulcer disease (includes bleeding only if obstruction is also present)	531.41, 531.51, 531.61, 531.70, 531.71, 531.91, 532.41, 532.51, 532.61, 532.70, 532.71, 532.91, 533.41, 533.51, 533.61, 533.70, 533.71, 533.91, 534.41, 534.51, 534.61, 534.70, 534.71, 534.91
15. HIV and AIDS (acquired immune deficiency syndrome)	042-044.9
16. Lymphoma	200.00-202.38, 202.50-203.01, 203.8-203.81, 238.6, 273.3
17. Metastatic cancer	196.0-199.1
18. Solid tumor without metastasis	140.0-172.9, 174.0-175.9, 179-195.8
19. Rheumatoid arthritis/ collagen vascular diseases	701.0, 710.0-710.9, 714.0-714.9, 720.0-720.9, 725
20. Coagulation deficiency	286.0-286.9, 287.1, 287.3-287.5
21. Obesity	278.0, 278.00, 278.01
22. Weight loss	260-263.9, 783.21, 783.22
23. Fluid and electrolyte disorders	276.0-276.9
24. Blood loss anemia	280.0, 648.20-648.24

Comorbidity		ICD-9-CM Codes
25	Deficiency anemias .	280.1-281.9, 285.21-285.29, 285.9
26	Alcohol abuse .	291.0-291.3, 291.5, 291.8, 291.81, 291.82, 291.89, 291.9, 303.00-303.93, 305.00-305.03
27	Drug abuse .	292.0, 292.82-292.89, 292.9, 304.00-304.93, 305.20- 305.93, 648.30-648.34
28	Psychoses .	295.00-298.9, 299.10, 299.11
29	Depression (not included in the definition of comorbidity in this study)	300.4, 301.12, 309.0, 309.1, 311

Table A3: NH Medicaid Utilization Coding

Measure	Codes
Emergency Department Visits (includes surgi-center)	Revenue code U450 (hospital surgi-center visits, U456, were not included)
Inpatient Hospitalizations – Mental & Substance	(Category of Service 3 or 103) OR (Category of Service 1 and ICD-9 diagnosis 290-319)
Inpatient Hospitalizations – Medical, Surgical, or Other	Category of Service 1 and ICD-9 diagnosis not 290-319
Office visit encounter codes (includes both standard CPT/HCPC and NH Medicaid non-standard codes)	<p><i>CPT codes:</i> 59400, 59410, 59425, 59426, 59430, 59610, 59618, 90000, 90010, 90015, 90020, 90040, 90050, 90070, 90757, 90801, 90802, 90804, 90805, 90806, 90807, 90808, 90809, 90810, 90811, 90812, 90813, 90814, 90815, 90842, 90843, 90844, 90846, 90847, 90849, 90853, 90857, 90862, 90865, 90875, 90880, 90882, 90885, 90899, 95115, 95117, 99058, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99354, 99355, 99382, 99383, 99384, 99385, 99386, 99387, 99391, 99392, 99393, 99394, 99395, 99396, 99397, 99401, 99402, 99403, 99404, 99411, 99412, 99429</p>
	<p><i>NH Local Codes for MH/SA-related procedures:</i> W0150, W0151, W0152, W0153, W0154, W0155, W0156, W2005, W9172, W9173, W9174, W9175, W9176, W9177, W9181, W9184, W9191, W9192, W9193, W9194, W9196, W9198, W9210, W9215, W9220, W9225, W9903, X9094, X9184, X9187, X9190, X9282, X9781, X9903</p>
	<p><i>NH Local Codes for other office visit encounters:</i> X9027, X9028, X9030, X9031, Y9023, Y9024, Y9025, Y9032, Y9034, Y9037, Y9038, Y9039, Y9040, Y9041, Y9042, Y9043, Y9044, T1015</p>
Mental Health Specialist Encounters	<p><i>Professional Provider Specialty codes:</i> 26-Psychiatry-Psychology, 27-Psychiatry-Neurology, 69-Mental Health</p> <p><i>Place of Service codes:</i> 53-Community Mental Health Center, 56-Psychiatric Residential Treatment Center, 51-Inpatient Psychiatric Facility, 55-Residential Substance Abuse Treatment Facility, 52-Psychiatric Facility - Partial Hospitalization</p> <p><i>Category of Service codes:</i> 8-Outpatient Hospital, Mental, 17-Mental Health Center, 48-Psychology, 100-Mental Health Services for the Aged</p>

* These measures and specifications were developed in consultation with staff at NH Medicaid to identify local codes and nuances in the data.

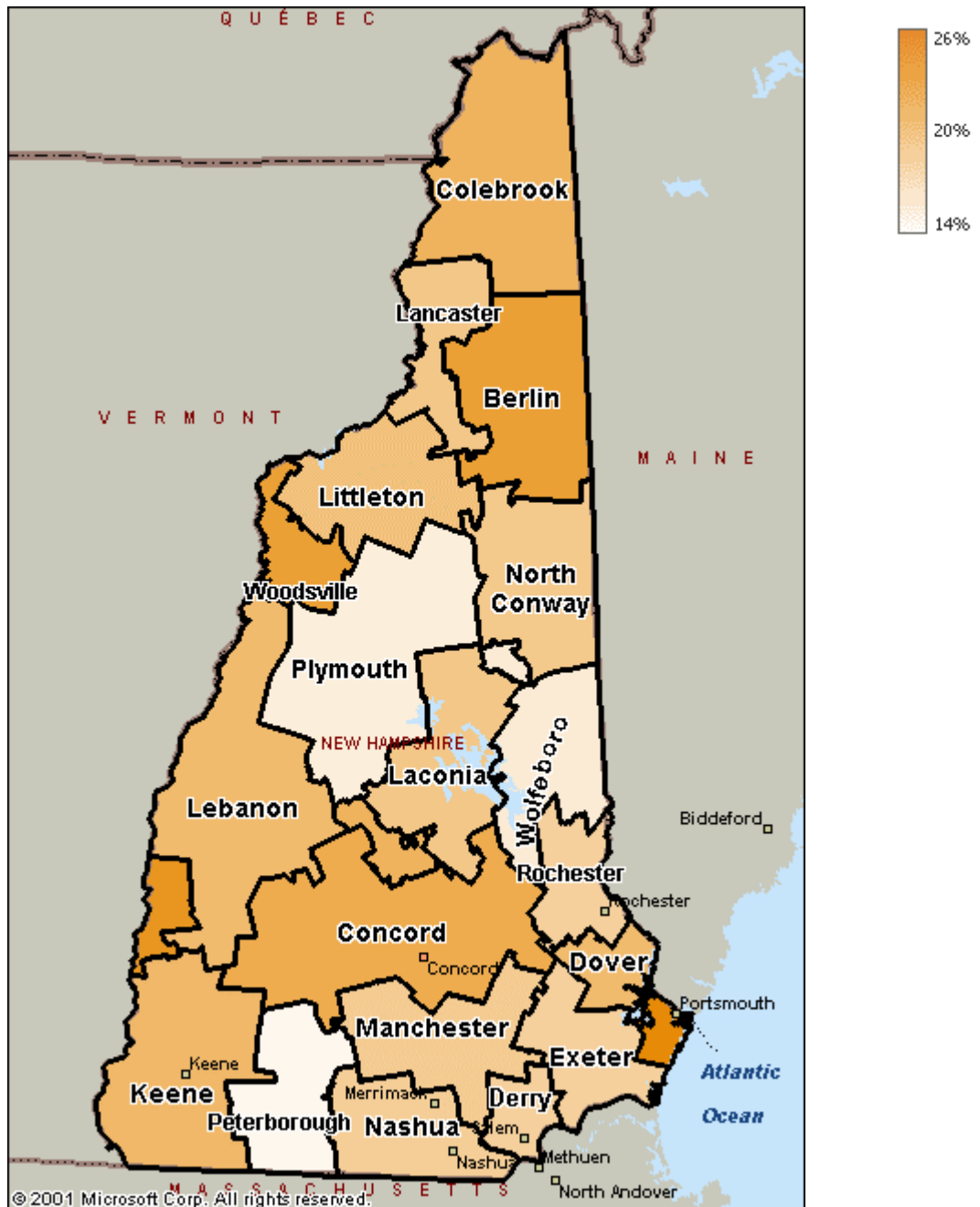
Appendix 2: New Hampshire Medicaid Aid Categories Collapsed Groupings

Code	Aid Category	Enrollment on 6/30/05
Low Income Adult or Low Income Child (<i>Members who were age 18-or-less at the start of the month are categorized as children, other members as adults</i>)		
21	AFDC/Money Payment/Categorically Needy	14,061
22	AFDC/Medically Needy	2,631
24	AFDC/Reg Pov Level/Cat Needy 185% FPL	23,711
28	AFDC/Pov Level Preg Woman/Child/Cat/Needy 170% FPL	575
2E	AFDC/Extended MA/1st 6-Month Period/Cat Needy	3,079
2F	AFDC/Extended MA/2nd 6-Month Period/Cat Needy	1,471
2H	AFDC/Pov Lvl Preg Wmn/Child/Cat Needy/Ref 170% FPL	794
2U	AFDC/AFDC-UP/Money Payment/Categorically Needy	477
2V	AFDC/AFDC-UP/Categorically Needy/MA	180
2W	AFDC/AFDC-UP/Medically Needy	16
2X	AFDC/Pov Level Preg. Women/Pov Level Child Cat Needy	21,639
20	AFDC/Categorically Needy	7,045
Low Income Child		
27	Healthy Kids Gold - Expanded Eligibility	266
40	IV-E-or-MA /Adopt Sub-Cat Needy	1,545
41	AFDC/FC or Money Payment/Categorically Needy	744
42	AFDC/FC or Medically Needy	0
Severely Disabled Child		
2B	AFDC/Home Care-Child/Severe Disa/Medi Needy	56
2C	AFDC/Child With Severe Disabilities/Cat Needy	4
2D	AFDC/Child With Severe Disabilities/Medi Needy	0
2K	AFDC/Home Care-Child Sev Dis/Cat. Needy for Insti	1,076
Disabled Physical		
30	ANB/Categorically Needy	119
31	ANB/Money Payment/Categorically Needy	261
32	ANB/Medically Needy	36
70	APTD/Physical/Categorically Needy	2,277
71	APTD/Physical/Money Payment	2,739
72	APTD-Physical/Medically Needy	1,120
80	Mead with ANB/APTD Approval – Blind	599
81	Mead with ANB/APTD Approval – Physical	172
83	Mead Only Approval – Blind	117
84	Mead Only Approval – Physical	52
Disabled Mental		
50	APTD/Mental/Categorically Needy	2,319
51	APTD/Mental/Money Payment/Categorically Needy	3,328
52	APTD/Mental/Medically Needy	1,432
82	Mead with ANB/APTD Approval – Mental	392
85	Mead Only Approval – Mental	76
Elderly		
10	OAA/Categorically Needy	4,166
11	OAA/Money Payment/Categorically Needy	1,432
12	OAA/Medically Needy	3,738
Omitted (<i>Persons receiving limited Medicaid benefits</i>)		
61	Healthy Kids Silver	6,486
66-69	Aid Categories for Qualified Medicare Beneficiaries	3,340
Unique Total Count		113,571

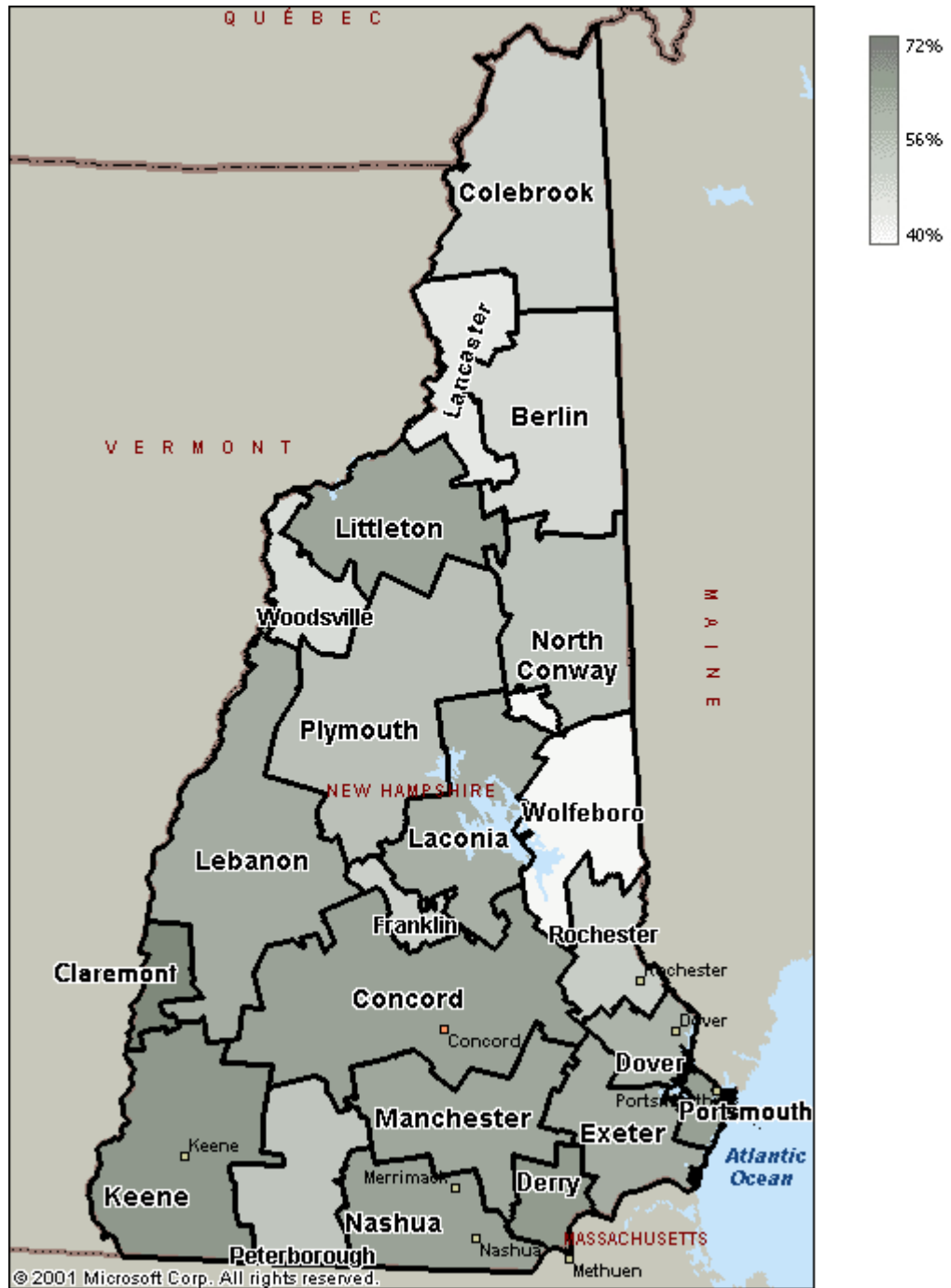
* This is a point in time count of members and will not match numbers shown elsewhere in this study.

Appendix 3: Health Analysis Area Maps

Appendix 3A: Percent of NH Medicaid Members with Any Evidence of Depression, 2005



Appendix 3B: Percent of NH Medicaid Members with Any Evidence of Depression Who Had One or More Claims for an Encounter with a Mental Health Specialist in 2005



Appendix 4: Complete Tables from Analyses

Table 4A: Utilization and Claim Payments for NH Medicaid Members with Any Claims-Based Evidence of Depression and Continuous Full Medicaid Enrollment, FY2005

Measure	All Medicaid Members	No Depression	Any Evidence of Depression		
			No Comorbidity	With Comorbidity	Total
Demographics					
Members	79,541	59,816	7,948	11,777	19,725
Member Months	948,677	713,225	94,792	140,660	235,452
Average Age	24.2	17.4	32.4	53.2	44.8
Claim Payments					
Claim Payments (in millions)	\$727,886,899	\$324,450,557	\$110,855,718	\$292,580,624	\$403,436,342
Claim Payments PMPM	\$767	\$455	\$1,169	\$2,080	\$1,713
Outpatient Use					
<i>Emergency Department (ED) Visits</i>					
Total ED Visits	66,006	36,380	7,906	21,720	29,626
Total ED Visit Rate per 1,000*	834.9	612.1	1,00.8	1,853.0	1,509.9
ED Visits with Primary Diagnosis of Depression	1,062	-	368	694	1,062
ED Visit Rate per 1,000* with a Primary Diagnosis of depression	13.4	-	496.6	59.2	54.1
ED Visits with Primary Diagnosis of Mental Illness or Substance Abuse (MH/SA)	3,819	516	1,138	2,165	3,303
ED Visit Rate per 1,000* with a Primary Diagnosis of MH/SA	48.3	8.7	144.1	184.7	168.3
<i>Office Visits</i>					
Total Office Visits	521,182	269,385	97,702	154,095	251,797
Office Visit Rate per 1,000*	6,592.5	4,532.4	12,368.4	13,146.2	12,833.0
<i>MH Specialist Visits</i>					
Number of Members with Any MH Specialist Encounter	20586	8,605	5,067	6,914	11,981
% of Members with Any MH Specialist Encounter	25.9%	14.4%	63.8%	58.7%	60.7%
Total Number of MH Specialist Encounters	569,038	213,329	149,491	206,218	355,709
Average Number of MH Specialist Encounters for Any Member with an MH Specialist Encounter	27.6	24.8	29.5	29.8	29.7
<i>MH-related PCP Encounters</i>					
Number of Members with Any MH-related PCP Encounter	8,503	3,632	1,854	3,017	4,871
% of Members with Any MH-related PCP Encounter	10.7%	6.1%	23.3%	25.6%	24.7%
Total Number of MH-related PCP Encounters	18,884	6,834	4,149	7,901	12,050
Average Number of MH-related PCP Encounters for Any Member with an MH-related PCP Encounter	2.2	1.9	2.2	2.6	2.5
<i>PCP Visits w/ a Primary Diagnosis of Depression</i>					
Number of Members with Any PCP Visits with a Primary Diagnosis of Depression	1,319	-	610	709	1,319

Measure	All Medicaid Members	No Depression	Any Evidence of Depression		
			No Comorbidity	With Comorbidity	Total
% of Members with Any PCP Visit with a Primary Diagnosis of Depression	1.7%	-	7.7%	6.0%	6.7%
Total Number of PCP Visits with a Primary Diagnosis of Depression	2,207	-	1,020	1,187	2,207
Average Number of Depression-related PCP Visits for Any Member with a Depression-related PCP Visit	1.7	-	1.7	1.7	1.7
Inpatient Use					
Hospitalizations with a Primary Diagnosis of MH/SA	1,880	167	462	1,251	1,713
Hospitalizations with a Primary Diagnosis of Depression	721	-	173	548	721
Other Hospitalizations	8,941	4,093	515	4,333	4,848
Total Hospitalization Rate per 1,000*	136.9	71.7	123.7	476.4	334.4
Pharmacy Use					
Members with any Antidepressant Use	17,313	-	6,647	10,666	17,313
Percent with any Antidepressant Use	21.8%	-	83.6%	90.6%	87.8%
Number of Antidepressant Scripts	181,846	-	58,050	123,796	181,846
Average Number of Antidepressant Scripts (30-day supply) for Members with Antidepressant Use	10.5	-	8.7	11.6	10.5
Total Days Supplied for Antidepressant Drugs	5,226,489	-	1,681,881	3,544,608	5,226,489
Average Days Supply for Members with Antidepressant Drug Use	301.9	-	253.0	332.3	301.9

Table 4B: PMPM Payments by Service Categories
Comparison by Any Evidence of Depression
New Hampshire Medicaid Members with Continuous Enrollment CY2005

Category of Service	Overall				
	No Depression	Percent of Total PMPM	Any Evidence of Depression	Percent of Total PMPM	Variation in Payment
Intermediate Care					
Facility Nursing Home	\$62.14	13.7%	\$459.47	26.8%	7.39
Pharmacy	\$57.70	12.7%	\$336.54	19.6%	5.83
Home & Community Based Care, Developmentally Impaired	\$103.56	22.8%	\$269.38	15.7%	2.60
Mental Health Center	\$37.20	8.2%	\$188.37	11.0%	5.06
Outpatient Hospital, General	\$31.44	6.9%	\$87.77	5.1%	2.79
Home & Community Based Care, Elderly & Chronically Ill	\$14.57	3.2%	\$66.34	3.9%	4.55
Inpatient Hospital, General	\$16.13	3.5%	\$63.48	3.7%	3.94
Physicians Services	\$19.85	4.4%	\$41.31	2.4%	2.08
Private Non-Medical Institutional for Children	\$11.18	2.5%	\$36.84	2.2%	3.30
Clinic Services	\$27.54	6.1%	\$22.10	1.3%	0.80
Skilled Nursing Facility Nursing Home	\$2.78	0.6%	\$15.41	0.9%	5.55
SNF Nursing Home Atypical Care	\$1.25	0.3%	\$14.88	0.9%	11.86
Furnished Medical Supplies or Durable Medical Equipment	\$6.87	1.5%	\$13.11	0.8%	1.91
ICF Nursing Home Atypical Care	\$1.59	0.4%	\$11.72	0.7%	7.35
Personal Care	\$3.29	0.7%	\$9.31	0.5%	2.83
Rural Health Clinic	\$5.72	1.3%	\$9.11	0.5%	1.59
Home Health Services	\$6.60	1.4%	\$7.86	0.5%	1.19
Dental Service	\$13.70	3.0%	\$7.51	0.4%	0.55
Inpatient Psychiatric Facility					
Services Under Age 22	\$0.82	0.2%	\$7.10	0.4%	8.69
Psychology	\$2.23	0.5%	\$6.77	0.4%	3.03
Wheelchair Van	\$1.10	0.2%	\$6.48	0.4%	5.90
Placement Services	\$2.34	0.5%	\$6.28	0.4%	2.68
Private Duty Nursing	\$6.93	1.5%	\$2.91	0.2%	0.42
Ambulance Service	\$0.60	0.1%	\$2.89	0.2%	4.81
Adult Medical Day Care	\$0.56	0.1%	\$2.50	0.1%	4.46
Medical Services Clinic	\$0.50	0.1%	\$2.39	0.1%	4.75
Optometric Services Eyeglasses	\$1.13	0.2%	\$1.83	0.1%	1.61
Intensive Home and Community Services	\$0.85	0.2%	\$1.79	0.1%	2.12
Home-based Therapy	\$1.38	0.3%	\$1.77	0.1%	1.28
Day Habilitation Center	\$7.38	1.6%	\$1.75	0.1%	0.24
Laboratory (Pathology)	\$0.47	0.1%	\$1.45	0.1%	3.07
ICF Services for the Mentally Retarded	\$2.63	0.6%	\$1.40	0.1%	0.53
Physical Therapy	\$0.49	0.1%	\$1.26	0.1%	2.56
I/P Hospital Swing Beds, SNF	\$0.08	0.0%	\$1.13	0.1%	13.50
Advanced Registered Nurse Practitioner	\$0.12	0.0%	\$0.87	0.1%	7.22

Table 4B: PMPM Payments by Service Categories
Comparison by Any Evidence of Depression
New Hampshire Medicaid Members with Continuous Enrollment CY2005

Category of Service	Overall				
	No Depression	Percent of Total PMPM	Any Evidence of Depression	Percent of Total PMPM	Variation in Payment
Family Planning Services	\$0.18	0.0%	\$0.79	0.0%	4.32
Child Health Support Service	\$1.20	0.3%	\$0.70	0.0%	0.59
Podiatrist Services	\$0.09	0.0%	\$0.33	0.0%	3.49
Occupational Therapy	\$0.22	0.0%	\$0.20	0.0%	0.94
X-Ray Services	\$0.03	0.0%	\$0.15	0.0%	5.65
Chiropractic	\$0.04	0.0%	\$0.07	0.0%	1.87
I/P Hospital Swing Beds, ICF	\$0.00	0.0%	\$0.07	0.0%	
Speech Therapy	\$0.10	0.0%	\$0.04	0.0%	0.40
Crisis Intervention	\$0.27	0.1%	\$0.02	0.0%	0.08
Audiology Services	\$0.04	0.0%	\$0.02	0.0%	0.50
Certified Midwife (Non-Nurse)	\$0.02	0.0%	\$0.01	0.0%	0.62
Outpatient Hospital, Mental	\$0.00	0.0%	\$0.00	0.0%	
Disability Determination Service	\$0.00	0.0%	\$0.00	0.0%	0.00
Total without Pharmacy	\$397.21	87.3%	\$1,376.92	80.4%	3.47
Total with Drugs	\$454.91	100.0%	\$1,713.45	100.0%	3.77

Table 4C: Comorbid Conditions for NH Medicaid Members with Any Claims-Based Evidence of Depression and Continuous Medicaid Enrollment, CY2005

Comorbidity	Low Income Child		Low Income Adult		Severely Disabled Child		Disabled Physical		Disabled Mental		Elderly		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Number of Members with Depression Diagnosis	3,145		4,087		227		3,369		4,532		4,365		19,725	
Any Medical Comorbid Condition	768	24%	1,898	46%	70	31%	2,630	78%	2,688	59%	3,723	85%	11,777	60%
<i>Medical comorbidities (Elixhauser)</i>														
Hypertension	33	1%	451	11%	4	2%	1,213	36%	1,049	23%	2,249	52%	4,999	25%
Diabetes, uncomplicated	50	2%	270	7%	8	4%	952	28%	752	17%	1,376	32%	3,408	17%
Chronic pulmonary disease	398	13%	708	17%	16	7%	833	25%	811	18%	613	14%	3,379	17%
Other neurological disorders	115	4%	150	4%	24	11%	581	17%	416	9%	559	13%	1,845	9%
Deficiency anemias	46	1%	217	5%	5	2%	377	11%	234	5%	701	16%	1,580	8%
Fluid and electrolyte disorders	52	2%	222	5%	5	2%	420	12%	327	7%	547	13%	1,573	8%
Obesity	150	5%	329	8%	10	4%	424	13%	458	10%	148	3%	1,519	8%
Hypothyroidism	23	1%	211	5%	5	2%	290	9%	392	9%	501	11%	1,422	7%
Congestive heart failure	2	0%	32	1%	3	1%	272	8%	108	2%	878	20%	1,295	7%
Peripheral vascular disorders	2	0%	40	1%	1	0%	257	8%	118	3%	650	15%	1,068	5%
Weight loss	10	0%	53	1%	6	3%	199	6%	101	2%	349	8%	718	4%
Valvular disease	44	1%	112	3%	4	2%	140	4%	164	4%	226	5%	690	3%
Solid tumor without metastasis	4	0%	44	1%	3	1%	208	6%	90	2%	287	7%	636	3%
Rheumatoid arthritis/collagen vascular diseases	3	0%	136	3%	2	1%	212	6%	101	2%	135	3%	589	3%
Liver disease	6	0%	93	2%	0	0%	206	6%	176	4%	53	1%	534	3%
Renal failure	2	0%	16	0%	2	1%	133	4%	48	1%	214	5%	415	2%
Paralysis	3	0%	6	0%	2	1%	87	3%	13	0%	146	3%	257	1%
Coagulopathy	14	0%	34	1%	1	0%	80	2%	38	1%	70	2%	237	1%

Comorbidity	Low Income Child		Low Income Adult		Severely Disabled Child		Disabled Physical		Disabled Mental		Elderly		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pulmonary circulation disorders	0	0%	7	0%	1	0%	68	2%	28	1%	90	2%	194	1%
Blood loss anemia	2	0%	51	1%	0	0%	33	1%	14	0%	72	2%	172	1%
Metastatic cancer	0	0%	7	0%	0	0%	51	2%	22	0%	41	1%	121	1%
AIDS: Acquired immune deficiency syndrome	0	0%	14	0%	0	0%	54	2%	11	0%	4	0%	83	0%
Lymphoma	0	0%	11	0%	1	0%	21	1%	16	0%	21	0%	70	0%
Peptic ulcer disease excluding bleeding	0	0%	4	0%	0	0%	9	0%	4	0%	8	0%	25	0%
Diabetes, complicated	1	0%	5	0%	0	0%	10	0%	1	0%	2	0%	19	0%
<i>MH/SA comorbidities (SAMSHA)</i>	2,309	73%	2,815	69%	180	79%	1,793	53%	3,479	77%	1,320	30%	11,896	60%
Other Mental Illness (excluding depression)	2,139	68%	2,229	55%	113	50%	1,166	35%	2,151	47%	883	20%	8,681	44%
Serious Mental Illness (excluding depression)	553	18%	476	12%	110	48%	424	13%	1,941	43%	445	10%	3,949	20%
Substance Abuse Disorders	216	7%	1,291	32%	3	1%	851	25%	1,301	29%	215	5%	3,877	20%

Table 4D: Medical Comorbidities and Service Use among Continuously Enrolled NH Medicaid Members with Any Evidence of Depression by Medicaid Eligibility Group and by Health Analysis Area (HAA), CY 2005

	N.H. Medicaid Members			Among Continuously Enrolled N.H. Medicaid Members with a Diagnosis of Depression or a Prescription Claim for Antidepressants													
	Number of all Continuously Enrolled Members	Number with any Evidence of Depression	Percent with any Evidence of Depression	Number with a Comorbid Condition	Percent with a Comorbid Condition	Number of Member Months	Payments (in millions)	Payments PMPM	Number of ED Visits	ED Visit Rate per 1,000*	Number of Mental Inpatient Hospitalizations	Mental Inpatient Rate per 1,000*	Any Encounter with a Mental Health Specialist		Average Encounters with a Mental Health Specialist		Number with Any Anti-depressant Drug Use
													N	%	Median	Mean	
Medicaid Totals	79,541	19,725	24.8%	11,777	59.7%	235,452	\$403,436,342	\$1,713	29,626	1509.9	1,713	87.3	11,981	61%	11.0	29.7	17,313
By Medicaid Eligibility Group																	
Low Income Child	47,297	3,145	6.6%	768	24.4%	37,604	\$34,130,070	\$908	2,922	932.5	275	87.8	2,378	76%	16.0	22.8	2,287
Low Income Adult	9,614	4,087	42.5%	1,898	46.4%	48,553	\$27,763,035	\$572	8,412	2079.0	272	67.2	2,117	52%	8.0	18.8	3,577
Severely Disabled Child	1,064	227	21.3%	70	30.8%	2,719	\$5,454,286	\$2,006	90	397.2	13	57.4	150	66%	24.0	34.9	208
Disabled Physical	6,232	3,369	54.1%	2,630	78.1%	40,275	\$85,520,249	\$2,123	6,107	1819.6	245	73.0	1,824	54%	7.0	22.5	3,114
Disabled Mental	7,373	4,532	61.5%	2,688	59.3%	54,131	\$103,367,937	\$1,910	8,823	1955.9	782	173.4	3,741	83%	24.0	50.8	4,073
Elderly	7,961	4,365	54.8%	3,723	85.3%	52,170	\$147,200,766	\$2,822	3,272	752.6	126	29.0	1,771	41%	2.0	14.0	4,054
By Health Analysis Area																	
Berlin	1,950	530	27.2%	360	67.9%	6,321	\$9,591,760	\$1,517	1,067	2025.6	79	150.0	263	50%	12.0	43.0	458
Claremont	2,191	660	30.1%	439	66.5%	7,888	\$13,892,342	\$1,761	1,340	2038.5	78	118.7	466	71%	15.0	32.0	586
Colebrook	615	169	27.5%	97	57.4%	2,015	\$3,664,076	\$1,818	320	1905.7	8	47.6	87	51%	14.0	45.8	143
Concord	8,164	2,244	27.5%	1,315	58.6%	26,795	\$58,651,429	\$2,189	3,473	1555.4	225	100.8	1,434	64%	13.0	39.7	1,938
Derry	3,293	791	24.0%	448	56.6%	9,445	\$16,498,258	\$1,747	752	955.4	60	76.2	521	66%	16.0	38.6	695
Dover	3,812	985	25.8%	608	61.7%	11,744	\$17,416,987	\$1,483	1,881	1922.0	70	71.5	590	60%	9.0	25.3	874
Exeter	4,384	1,016	23.2%	557	54.8%	12,129	\$17,065,765	\$1,407	1,167	1154.6	72	71.2	627	62%	10.0	21.5	906
Franklin	1,792	489	27.3%	284	58.1%	5,838	\$7,376,027	\$1,263	1,004	2063.7	29	59.6	257	53%	14.0	22.7	430
Keene	4,062	1,069	26.3%	625	58.5%	12,756	\$23,354,620	\$1,831	1,119	1052.7	65	61.1	715	67%	12.0	23.8	927
Laconia	3,826	910	23.8%	542	59.6%	10,866	\$16,825,426	\$1,548	1,945	2148.0	36	39.8	556	61%	12.0	23.5	792
Lancaster	924	219	23.7%	146	66.7%	2,619	\$4,502,341	\$1,719	361	1654.1	10	45.8	101	46%	14.0	30.5	191
Lebanon	2,976	776	26.1%	490	63.1%	9,255	\$14,615,277	\$1,579	963	1248.6	58	75.2	479	62%	15.0	30.5	704
Littleton	1,670	433	25.9%	288	66.5%	5,180	\$13,138,445	\$2,536	519	1202.3	34	78.8	274	63%	13.5	69.4	378
Manchester	14,599	3,442	23.6%	2,079	60.4%	41,114	\$69,493,440	\$1,690	4,728	1380.0	252	73.6	2,167	63%	9.0	26.1	3,004
Nashua	9,706	2,310	23.8%	1,311	56.8%	27,550	\$41,588,712	\$1,510	3,663	1595.5	362	157.7	1,482	64%	14.0	30.9	2,045
North Conway	1,596	379	23.7%	211	55.7%	4,515	\$6,671,519	\$1,478	447	1188.0	48	127.6	212	56%	14.0	30.7	323
Peterborough	1,753	322	18.4%	197	61.2%	3,845	\$7,500,306	\$1,951	412	1285.8	14	43.7	177	55%	8.0	17.7	288
Plymouth	2,043	380	18.6%	204	53.7%	4,524	\$6,045,374	\$1,336	640	1697.6	29	76.9	214	56%	9.5	19.0	335
Portsmouth	1,619	531	32.8%	316	59.5%	6,337	\$12,943,156	\$2,042	615	1164.6	52	98.5	343	65%	12.0	28.7	472
Rochester	4,432	1,010	22.8%	578	57.2%	12,061	\$14,109,227	\$1,170	1,945	1935.2	53	52.7	534	53%	9.0	21.2	856
Wolfboro	1,933	364	18.8%	207	56.9%	4,352	\$5,915,201	\$1,359	526	1450.4	27	74.4	152	42%	10.0	20.4	329
Woodsville	585	163	27.9%	106	65.0%	1,947	\$6,406,624	\$3,291	143	881.4	12	74.0	80	49%	6.0	26.0	150
Region Not Identified	1,616	533	33.0%	369	69.2%	6,356	\$16,170,030	\$2,544	596	1125.2	40	75.5	250	47%	6.0	19.8	489

† "Continuous enrollment" is defined as 11 or more months in the calendar year.

‡ The diagnoses include all primary or secondary diagnoses on a claim.

- The rate per thousand is calculated as the rate per thousand full-year-equivalent (FYE) members. (FYE = total member months / 12).

Table 4E: Comparison of PMPM Payments by Service Categories for New Hampshire Medicaid Members with Continuous Enrollment with and without Any Evidence of Depression and with or without Medical Comorbidities CY 2005

Category of Service		Average Claims Paid Amount PMPM							
		Members with No Medical Comorbidities				Members with any Medical Comorbidity			
		No Depression	Percent of PMPM	Any Evidence of Depression	Percent of PMPM	No Depression	Percent of PMPM	Any Evidence of Depression	Percent of PMPM
12	Intermediate Care Facility Nursing Home	\$15.84	6.17%	\$185.04	15.82%	\$215.53	19.40%	\$644.40	30.98%
30	Pharmacy Home & Community Based Care, Developmentally Impaired	\$25.45	9.91%	\$192.81	16.49%	\$164.54	14.81%	\$433.40	20.84%
65	Mental Health Center	\$58.94	22.95%	\$278.09	23.78%	\$251.41	22.62%	\$263.51	12.67%
17	Outpatient Hospital, General	\$31.06	12.10%	\$202.75	17.34%	\$57.52	5.18%	\$178.69	8.59%
7	Home & Community Based Care, Elderly & Chronically Ill	\$18.14	7.06%	\$45.11	3.86%	\$75.50	6.79%	\$116.52	5.60%
66	Inpatient Hospital, General	\$1.65	0.64%	\$9.66	0.83%	\$57.40	5.17%	\$104.54	5.03%
1	Physicians Services	\$4.68	1.82%	\$19.86	1.70%	\$54.05	4.86%	\$92.87	4.46%
43	Skilled Nursing Facility	\$14.34	5.59%	\$25.14	2.15%	\$38.10	3.43%	\$52.20	2.51%
11	Nursing Home Furnished Medical Supplies or Durable Medical Equipment	\$0.83	0.32%	\$2.57	0.22%	\$9.22	0.83%	\$24.06	1.16%
32	SNF Nursing Home Atypical Care	\$2.70	1.05%	\$3.59	0.31%	\$20.66	1.86%	\$19.53	0.94%
15	ICF Nursing Home Atypical Care	\$0.65	0.25%	\$10.31	0.88%	\$3.26	0.29%	\$17.95	0.86%
16	Private Non-Medical Institutional for Children	\$0.24	0.09%	\$5.56	0.48%	\$6.08	0.55%	\$15.87	0.76%
78	Personal Care	\$11.87	4.62%	\$68.38	5.85%	\$8.87	0.80%	\$15.59	0.75%
57	Clinic Services	\$1.33	0.52%	\$3.94	0.34%	\$9.77	0.88%	\$12.92	0.62%
25	Wheelchair Van	\$23.97	9.33%	\$36.78	3.14%	\$39.35	3.54%	\$12.20	0.59%
39	Home Health Services	\$0.08	0.03%	\$0.96	0.08%	\$4.48	0.40%	\$10.19	0.49%
26	Rural Health Clinic	\$3.76	1.47%	\$4.52	0.39%	\$15.98	1.44%	\$10.11	0.49%
80	Dental Service	\$4.96	1.93%	\$8.16	0.70%	\$8.24	0.74%	\$9.75	0.47%
45	Psychology	\$15.10	5.88%	\$11.22	0.96%	\$9.06	0.82%	\$5.02	0.24%
48	Inpatient Psychiatric Facility	\$2.36	0.92%	\$9.96	0.85%	\$1.80	0.16%	\$4.62	0.22%
10	Services Under Age 22	\$0.78	0.30%	\$11.07	0.95%	\$0.94	0.08%	\$4.42	0.21%
3	Ambulance Service	\$0.25	0.10%	\$1.15	0.10%	\$1.76	0.16%	\$4.07	0.20%
37	Adult Medical Day Care	\$0.07	0.03%	\$0.90	0.08%	\$2.17	0.20%	\$3.58	0.17%
63	Private Duty Nursing	\$0.07	0.03%	\$0.90	0.08%	\$2.17	0.20%	\$3.58	0.17%
49	Placement Services	\$2.54	0.99%	\$2.00	0.17%	\$21.46	1.93%	\$3.53	0.17%
77	ICF Services for the Mentally Retarded	\$2.42	0.94%	\$11.03	0.94%	\$2.08	0.19%	\$3.08	0.15%
10		\$0.39	0.15%	\$0.02	0.00%	\$10.07	0.91%	\$2.33	0.11%
2									

Average Claims Paid Amount PMPM

Category of Service	Members with No Medical Comorbidities				Members with any Medical Comorbidity			
	No Depression	Percent of PMPM	Any Evidence of Depression	Percent of PMPM	No Depression	Percent of PMPM	Any Evidence of Depression	Percent of PMPM
56 Medical Services Clinic	\$0.43	0.17%	\$2.66	0.23%	\$0.74	0.07%	\$2.20	0.11%
47 Optometric Services Eyeglasses	\$0.98	0.38%	\$1.53	0.13%	\$1.64	0.15%	\$2.03	0.10%
13 I/P Hospital Swing Beds, SNF	\$0.00	0.00%	\$0.07	0.01%	\$0.35	0.03%	\$1.84	0.09%
23 Laboratory (Pathology)	\$0.33	0.13%	\$1.17	0.10%	\$0.96	0.09%	\$1.64	0.08%
60 Day Habilitation Center	\$5.90	2.30%	\$2.19	0.19%	\$12.30	1.11%	\$1.46	0.07%
51 Physical Therapy	\$0.38	0.15%	\$1.09	0.09%	\$0.88	0.08%	\$1.38	0.07%
76 Home-based Therapy	\$1.44	0.56%	\$2.96	0.25%	\$1.19	0.11%	\$0.97	0.05%
44 Advanced Registered Nurse Practitioner	\$0.11	0.04%	\$0.78	0.07%	\$0.16	0.01%	\$0.93	0.04%
27 Family Planning Services	\$0.19	0.07%	\$1.04	0.09%	\$0.18	0.02%	\$0.63	0.03%
73 Intensive Home and Community Services	\$0.71	0.28%	\$3.68	0.31%	\$1.28	0.12%	\$0.52	0.02%
55 Podiatrist Services	\$0.06	0.02%	\$0.15	0.01%	\$0.20	0.02%	\$0.45	0.02%
74 Child Health Support Service	\$1.13	0.44%	\$1.13	0.10%	\$1.44	0.13%	\$0.42	0.02%
24 X-Ray Services	\$0.01	0.00%	\$0.06	0.00%	\$0.09	0.01%	\$0.21	0.01%
54 Occupational Therapy	\$0.21	0.08%	\$0.25	0.02%	\$0.23	0.02%	\$0.17	0.01%
14 I/P Hospital Swing Beds, ICF	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.11	0.01%
70 Chiropractic	\$0.04	0.01%	\$0.08	0.01%	\$0.05	0.00%	\$0.07	0.00%
53 Speech Therapy	\$0.10	0.04%	\$0.02	0.00%	\$0.10	0.01%	\$0.05	0.00%
42 Audiology Services	\$0.03	0.01%	\$0.02	0.00%	\$0.07	0.01%	\$0.02	0.00%
46 Certified Midwife (Non- Nurse)	\$0.02	0.01%	\$0.00	0.00%	\$0.01	0.00%	\$0.02	0.00%
8 Outpatient Hospital, Mental	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.01	0.00%
72 Crisis Intervention	\$0.33	0.13%	\$0.06	0.00%	\$0.08	0.01%	\$0.00	0.00%
11 Disability Determination Service	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Total without Pharmacy	\$231.34	90.09%	\$976.65	83.51%	\$946.71	85.19%	\$1,646.66	79.16%
Total for all Categories	\$256.79	100.0%	\$1,169.46	100.0%	\$1,111.25	100.0%	\$2,080.06	100.0%

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