Mental Health Services
Among Medicaid Recipients Residing in Long Term Care Facilities in Iowa

INTRODUCTION

Access to mental health care services for persons residing in long term care facilities, as access to health insurance in the general population, has recently gained the attention of American health policy makers. Unlike the well-known problems associated with extending coverage to our nation's many uninsured, however, the difficulties involved in providing mental health care to residents in long term care facilities are a vaguely defined and many are fundamentally different from the impediments to the financing and delivering of services in general.

Today the subject of mental health care for the elderly is as much a part of the current debate as it was in the mid-1980s when the National Nursing Home Survey reported that two-thirds of the study population had some degree of mental illness, while only slightly more than 2% of nursing home residents had contact with a mental health specialist (Burns et al., 1993). Part of this problem, of course, had evolved out of prior policy: In the 1970s and 1980s, for example, in the wake of the deinstitutionalization of mental patients, long term care facilities became a substitute for inpatient psychiatric care--an obviously inappropriate setting, as was subsequently demonstrated (Swan, 1987). The Nursing Home Reform Act of 1987 (part of the Omnibus Budget Reconciliation Act) sought to rectify this situation by establishing requirements for screening nursing home residents and applicants for mental health care needs as a routine part of Medicaid reimbursement policy (Freiman et al., 1990). (Medicaid remains the major third-party payor for long term care.) Under the terms of this legislation, Medicaid recipients found to require psychiatric treatment were to be provided appropriate care in appropriate settings; specifically, patients requiring residence in long term care facilities and, concomitantly needing mental health services, would be expected to receive mental health treatment in those facilities - simple custodial care was no longer acceptable. Such were the difficulties of implementation; however, that the translation of this legislation into workable programs did not unfold as policy makers had hoped it would. Consequently, the need for programs that provide mental health care for nursing home residents remains strong. Butler's observation, made over 20 years ago, that "individuals over 65 are the group most susceptible to mental illness," as easily applies in 1998 as it did then (Butler 1975).

What ought to be the nature of these programs in terms of treatment? While evidence indicates that psychosocial interventions produce good results, many current interventions involve the use of psychotropic medication. The types of intervention varies among long term care facilities, usually depending on type of ownership--public or private--and the financial resources of the resident. In nursing homes with 25-49 % Medicaid patients, for example, mental health services are provided less frequently than in nursing homes that have a lower Medicaid population (Burns et at., 1993). A primary obstacle to the implementation of psychosocial intervention appears to be the lack of financial resources and, more importantly, the lack of empirical evidence of what constitutes effective treatment.

Rising health care costs have challenged payers and purchasers of health care to develop innovative ways to control health care spending. Because mental health and chemical dependency services have registered cost increases of up to 60% per year, both the government and private insurers have looked to managed care for assistance in containing health care costs (England & Vaccaro, 1991). Some studies have found that patients with serious psychiatric disorders have similar access to care, but lower

treatment costs in HMOs than in fee-for-service plans. This is generally obtained by substituting less expensive provider types, treatment modalities, and sites of care (Norquist & Wells, 1991; Thompson, Burns, Goldman, & Smith, 1992). Another study used data from the RAND Health Insurance Experiment to measure whether prepaid group practices compared to similar fee-for-service plans led to different mental health outcomes for beneficiaries. The researchers observed no clinically meaningful differences in mental health outcomes for families randomly assigned to either plan. They concluded that the less intensive style of treatment in the prepaid group practice was not associated with noticeably worse mental health outcomes (Wells, Manning, & Valdez, 1990). The results of this study suggest that considerable cost savings can be achieved without jeopardizing a client's mental health status. Other potential advantages have been identified, including, perhaps, most significantly, increased service accessibility, flexibility, and continuity over a wider and more comprehensive continuum of care (e.g., inpatient and outpatient care, residential care, day or evening treatment programs, and in-home family counseling) (Fishel, Janzen, Bemak, Ryan, & McIntyre, 1993).

Despite the nationwide scope of this problem, little research has been carried out at either federal or state levels (Shea, Streit, and Smyer 1994). However, because of the current need to contain escalating health care costs, several states have or are currently implementing a change in the delivery of health care services, including mental health services, to their Medicaid populations. The major shift has been to a managed care model in the organization, financing, and delivery of health care services.

METHODOLOGY

Prior to March 1995, Medicaid mental health care services in Iowa were reimbursed on a fee-for-service basis. Since then, Iowa has implemented a managed care model for providing mental health services to its Medicaid recipients. Medco Behavioral Corporation, under a contractual agreement with the state of Iowa, has assumed full responsibilities for the delivery of this care. In an effort to measure the impact of this new service delivery model with respect to levels of utilization, the authors analyzed demographic and mental health service utilization data for patients residing in long term care facilities in Iowa during the calendar year 1993. (In addition to Medicaid residents of skilled nursing care homes, Medicaid residents in intermediate care facilities, including those facilities for persons with mental handicaps, were also included in this study.) These data were obtained from the Iowa Medicaid claims files. The purpose of this study is to obtain baseline information for future comparison with similarly recorded data, subsequent to the implementation of the mental health managed care program for Medicaid recipients in Iowa.

FINDINGS

In 1993, there was a total of 90,492 inpatient and outpatient paid health service claims for 22,571 Medicaid patients who resided in long term care facilities. Of these 22,571 patients, 93.8% (i.e., 21,166) had at least one inpatient or outpatient mental health service(s) or both. Basic demographic data for all patients and patients who received mental health services are provided in Table 1. In each case, a majority of the patients were female (approx. 70%) and white (approx. 95%). The average age for each case was approximately 77 years.

Table 1. Demographics for All Medicaid Patients and Medicaid Patients Who Received Mental Health Services in 1993.

	All Patients Who Received Health Care N=22,571 (100%)	Patients Who Received Mental Health Services N=21,166 (93.8%)
Gender: Male	6,617 (29.3%)	6,123 (28.9%)
Female	15,954 (70.7%)	15,043 (71.1%)
Race: White	21,470 (95.1%)	20,173 (95.3%)

Non-white	304 (1.3%)	262 (1.2%)
Not coded	797 (3.5%)	731 (3.5%)
Age: Mean	76.8 years	77.7 years
Range	0 to 113 years	0 to 113 years

Table 2 presents the distribution of types of claims for all claims and for mental health services claims (Table 2). Of all claims, 62.3% were institutional, whereas 97.7% of claims for mental health services were institutional. In addition, of the 90,492 claims 3.8% were emergency related (Table 3). In comparison, of the 54,699 mental health service claims, 0.2% were emergency related.

Table 2. Breakdown of All Claims and Mental Health Services Claims by Type of Claim

Type of Claim	All Claims n = 90,492	Mental Health Services Claims Only n = 54,699
Institutional	56,347 (62.3%)	53,457 (97.7%)
Medical	34,145 (37.7%)	1,242 (2.3%)

Table 3. Breakdown of All Claims and Mental Health Services Claims by Emergency Related Claim Status

Emergency Related Status	All Claims n = 90,492	Mental Health Services Claims Only n = 54,699
Non-Emergency Related	87,088 (96.2%)	54,575 (99.8%)
Emergency Related	3,404 (3.8%)	124 (0.2%)

Tables 4-28 specifically examine mental health aspects of the Medicaid data. For mental health medical claims, 737 patients produced the 1,242 claims; that is, about 1.7 claims per patient. The rate for institutional claims was slightly higher, about 2.5 claims per patient—53,457 claims for 21,069 patients. Demographics were produced for each type of claim, (Table 4). The typical person who had a medical mental health service claim was male (55.5%), white (94.0%), and approximately 50 years old. In contrast, the typical person who had an institutional mental health service claim was female (71.1%), white (95.3%), and approximately 78 years old.

Table 4. Demographics for Medical (outpatient) Mental Health Services versus Institutional Mental Health Services

	Patients Who Received Medical Mental Health Services, N = 737	Patients Who Received Institutional Mental Health Services, N = 21,069
Gender: Male	409 (55.5%)	6,080 (28.9%)
Female	328 (44.5%)	14,989 (71.1%)
Race: White	693 (94.0%)	20,088 (95.3%)
Non-white	22 (3.0%)	258 (1.2%)
Not coded	22 (3.0%)	723 (3.4%)
Age: Mean	50.3 years	77.8 years
Range	3 to 105 years	0 to 113 years

Upon examining emergency related status for mental health services claims, 99 (i.e., 8.0%) of the medical mental health services claims were emergency related and 25 (i.e., 0.0%) of the institutional mental heath services claims were emergency related (Table 5). To our surprise, the typical person with an emergency related medical mental health service claim was female (62.1%), white (93.9%), and approximately 36 years old (Table 6). For emergency related institutional mental health claims the typical person was male (52.6%), white (84.2%), and approximately 46 years old.

Table 5. Breakdown of Medical Mental Health Services Claims and Institutional Mental Health Services Claims by Emergency Related Claim Status

Emergency Related Status	Medical Mental Health Services Claims, n = 1,242	Institutional Mental Health Services Claims, n = 53,457
Non-Emergency Related	1,143 (92.0%)	53,432 (100%)
Emergency Related	99 (8.0%)	25 (0.0%)

Table 6. Demographics for Emergency Related Mental Health Services and Institutional Mental Health Services

	Mental Health Emergency Related Services Medical N = 66	Mental Health Emergency Related Services Institutional N = 19
Gender: Male	25 (37.9%)	10 (52.6%)
Female	41 (62.1%)	9 (47.4%)
Race: White	62 (93.9%)	16 (84.2%)
Non-white	1 (1.5%)	2 (10.5%)
Not coded	3 (4.5%)	1 (5.3%)
Age: Mean	36.3 years	46.1 years
Range	8 to 81 years	5 to 97 years

The most frequent provider categories for mental health related medical claims (i.e., outpatient) and mental health related institutional claims (i.e., inpatient) are provided in Tables 7 and 16, respectively. The two most frequent categories for mental health related medical claims are psychiatric (33.7%) and physician (33.2%). In contrast, the two most frequent categories for mental health related institutional claims are ICF services (79.3%) and ICF/MR services (20.4%). Demographics for mental health related medical claims by provider category are listed in Tables 8-15. Likewise, demographics for mental health related institutional claims by provider category are listed in Tables 17-22.

Table 7. Most Frequent Provider Categories for Mental Health Related Medical Claims

Provider Category	Number of Claims n = 1,242	Percent of Total
Psychiatric	418	33.7
Physician	412	33.2
Outpatient Hospital	132	10.6
ICF Services	100	8.1
ICF/MR Services	66	5.3
Medical Supply	42	3.4
Lab and Radiological	40	3.2
Enhanced Services	16	1.3

Table 8. Demographics for Mental Health Related Medical Claims for Psychiatric Provider Category

Demographic Variables	N = 272, Total Number of Claims: 418
Gender: Male	119 (43.8%)
Female	153 (56.3%)
Race: White	262 (96.3%)
Non-white	6 (2.2%)
Not coded	4 (1.5%)
Age: Mean	52.2 years
Range	5 to 93 years

Table 9. Demographics for Mental Health Related Medical Claims for Outpatient Hospital Provider Category

Demographic Variables	N = 273, Total Number of Claims: 412
Gender: Male	121 (44.3%)
Female	152 (55.7%)
Race: White	252 (92.3%)
Non-white	9 (3.6%)
Not coded	12 (4.4%)
Age: Mean	44.3 years
Range	4 to 96

Table 10. Demographics for Mental Health Related Medical Claims for Physician Provider Category

Demographic Variables	N = 81, Total Number of Claims: 132
Gender: Male	38 (46.9%)
Female	43 (53.1%)
Race: White	77 (95.1%)
Non-white	3 (3.7%)
Not coded	1 (1.2%)
Age: Mean	39.0 years
Range	6 to 81 years

Table 11. Demographics for Mental Health Related Medical Claims for ICF Services Provider Category

Demographic Variables	N = 97, Total Number of Claims: 100
Gender: Male	66 (68.0%)
Female	31 (32.0%)
Race: White	97 (97.9%)
Non-white	2 (2.1%)
Not coded	0 (0.0%)
Age: Mean	79.0 years
Range	40 to 105 years

Table 12. Demographics for Mental Health Related Medical Claims for ICF/MR Services Provider Category

Demographic Variables	N = 61, Total Number of Claims: 66
Gender: Male	41 (67.2%)
Female	20 (32.8%)
Race: White	56 (91.8%)
Non-white	3 (4.9%)
Not coded	2 (3.3%)
Age: Mean	28.4 years
Range	11 to 58 years

Table 13. Demographics for Mental Health Related Medical Claims for Medical Supply Provider Category

Demographic Variables	N = 25, Total Number of Claims: 42
Gender: Male	7 (28.0%)
Female	18 (72.0%)
Race: White	22 (88.0%)
Non-white	1 (4.0%)
Not coded	2 (8.0%)
Age: Mean	39.5 years
Range	3 to 91 years

Table 14. Demographics for Mental Health Related Medical Claims for Lab and Radiological Provider Category

Demographic Variables	N = 20, Total Number of Claims: 40	
Gender: Male	8	(40.0%)
Female	12	(60.0%)
Race: White	18	(90.0%)
Non-white	2	(10.0%)
Not coded	0	(0.0%)
Age: Mean	44.0 years	
Range	15 to 89 years	

Table 15. Demographics for Mental Health Related Medical Claims for Enhanced Services Provider Category

Demographic Variables	N = 3, Total Number of Claims: 16	
Gender: Male	2	(66.6%)
Female	1	(33.3%)
Race: White	3	(100%)
Non-white	0	(0.0%)
Not coded	0	(0.0%)
Age: Mean	58.7 years	
Range	35 to 71 years	

Table 16. Most Frequent Provider Categories for Mental Health Related Institutional Claims

Provider Category	Number of Claims N = 53,457	Percent of Total
ICF Services	42,399	79.3
ICF/MR Services	10,926	20.4
Inpatient Hospital	50	0.1
Skilled Nursing	33	0.1
Outpatient Hospital	28	0.1
Home Health (Federal MARS Hospice)	19	0.0

Table 17. Demographics for Mental Health Related Institutional Claims for ICF Services Provider Category

Demographic Variables	N = 18,950, Total Number of Claims: 42,399	
Gender: Male	4,824	(25.5%)
Female	14,126	(74.5%)
Race: White	18,074	(95.4%)
Non-white	190	(1.0%)
Not coded	686	(3.6%)
Age: Mean	82.6 years	
Range	0 to 113 years	

Table 18. Demographics for Mental Health Related Institutional Claims for ICF/MR Services Provider Category

Demographic Variables	N = 2,097, Total Number of Claims: 10,926	
Gender: Male	1,249	(59.6%)
Female	848	(40.4%)
Race: White	1,993	(95.0%)
Non-white	67	(3.2%)
Not coded	37	(1.8%)
Age: Mean	34.7 years	
Range	2 to 92 years	

Table 19. Demographics for Mental Health Related Institutional Claims for Inpatient Hospital Services Provider Category

Demographic Variables	N = 43, Total Number of Claims: 50	
Gender: Male	16	(37.2%)
Female	27	(62.8%)
Race: White	42	(97.7%)
Non-white	1	(2.3%)
Not coded	0	(0.0%)
Age: Mean	53.3 years	
Range	6 to 94 years	

**NOTE: 8 (16%) of the Mental Health Related Institutional Claims for Inpatient Hospital Services Provider Category were Emergency Related.

Table 20. Demographics for Mental Health Related Institutional Claims for Skilled Nursing Services Provider Category

Demographic Variables	N = 14, Total Number of Claims: 33	
Gender: Male	3	(21.4%)
Female	11	(78.6%)
Race: White	12	(85.7%)
Non-white	2	(14.3%)
Not coded	0	(0.0%)
Age: Mean	71.0 years	
Range	17 to 97 years	

Table 21. Demographics for Mental Health Related Institutional Claims for Outpatient Hospital Services Provider Category

Demographic Variables	N = 25, Total Number of Claims: 28	
Gender: Male	17	(68.0%)
Female	8	(32.0%)
Race: White	22	(88.0%)
Non-white	3	(12.0%)
Not coded	0	(0.0%)
Age: Mean	42.0 years	
Range	5 to 89 years	

Table 22. Demographics for Mental Health Related Institutional Claims for Home Health (Federal MARS Hospice) Services Provider Category

Demographic Variables	N = 14, Total Number of Claims: 19	
Gender: Male	4	(28.6%)
Female	10	(71.4%)
Race: White	14	(100%)
Non-white	0	(0.0%)
Not coded	0	(0.0%)
Age: Mean	50.6 years	
Range	1 to 87 years	

The frequencies of diagnoses (ICD9 codes) for mental health related institutional claims are provided in Table 23, and those for mental health related medical claims are provided in Table 26. Table 24 reports mental health related claims for patients admitted to the hospital for inpatient services. The two diagnoses, Affective Psychoses and Schizophrenic Disorders, were in the top five diagnoses for all three tables. The two diagnoses, Neurotic Disorders

and Specific Nonpsychotic Mental Disorders due to Organic Brain Damage, were in the top five diagnoses for two of the three tables. Table 25 lists the most frequent DRG codes for mental health patients admitted to the hospital for inpatient services. For DRG codes, the top two diagnoses were Psychoses and Organic Disturbances & Mental Retardation.

Table 23. Most Frequent Diagnoses for Mental Health Institutional Claims

ICD9 Code: Description	Frequency	Percent
1 Mental Health Services	53325	99.8
290: Senile and Presenile Organic Psychotic Conditions	19	0.0
296: Affective Psychoses	16	0.0
310: Specific Nonpsychotic Mental Disorders Due to Brain Damage	13	0.0
295: Schizophrenic Disorders	12	0.0
298: Other Nonorganic Psychoses	10	0.0

Table 24. Frequencies of Diagnoses for Mental Health Patients Admitted to Hospital for Inpatient Service

ICD9 Code: Description	Frequency	Percent
296: Affective Psychoses	10	20.0
295: Schizophrenic Disorders	7	14.0
290: Senile and Presenile Organic Psychotic Conditions	5	10.0
294: Other Nonorganic Psychoses	4	8.0
300: Neurotic Disorders	4	8.0
309: Adjustment Reaction	3	6.0
310: Specific Nonpsychotic Mental Disorders Due to Brain Damage	3	6.0
311: Depressive Disorder, Not Elsewhere Classified	3	6.0
312: Disturbance of Conduct, Not Elsewhere Classified	3	6.0
298: Other Nonorganic Psychoses	2	4.0
292: Drug Psychoses	1	2.0
293: Transient Organic Psychotic Conditions	1	2.0
301: Personality Disorders	1	2.0
307: Special Symptoms or Syndromes, Not Elsewhere Classified	1	2.0
316: Psychic Factors Associated with Diseases Classified Elsewhere	1	2.0
318: Other Specified Mental Retardation	1	2.0

Table 25. Five Most Frequent DRGs for Mental Health Patients Admitted to Hospital for Inpatient Service

DRG Code: Description	Frequency	Percent
430: Psychoses	15	30.0
429: Organic Disturbances & Mental Retardation	11	22.0
425: Acute Adjust React & Disturbances of Psychosocial Dysfunction	4	8.0
426: Depressive Neuroses	2	4.0
428: Disorders of Personality & Impulse Control	2	4.0

Table 26. The Fifteen Most Frequent Diagnoses for Mental Health Medical Claims

ICD9 Code: Description	Frequency	Percent
1 Mental Health Services	166	13.4
295: Schizophrenic Disorders	124	10.0
296: Affective Psychoses	115	9.3
310: Specific Nonpsychotic Mental Disorders Due to Brain Damage	100	8.1
300: Neurotic Disorders	86	6.9
312: Disturbance of Conduct, Not Elsewhere Classified	71	5.7
309: Adjustment Reaction	57	4.6
294: Other Nonorganic Psychoses	53	4.3
290: Senile and Presenile Organic Psychotic Conditions	43	3.5
293: Transient Organic Psychotic Conditions	43	3.5
319: Unspecified Mental Retardation	41	3.3
298: Other Nonorganic Psychoses	40	3.2
299: Psychoses with Origin Specific to Childhood	37	3.0
314: Hyperkinetic Syndrome of Childhood	28	2.3
311: Depressive Disorder, not Elsewhere Classified	26	2.1

Descriptive statistics for the length of stay for mental health related institutional claims are provided in Table 27, and descriptive statistics for the length of stay for mental health patients admitted to the hospital for inpatient service are provided in Table 28. For mental health related institutional claims, the mean length of stay was 25.4 days. In comparison, the mean length of stay for mental health patients admitted to the hospital for inpatient service was 19.6 days.

Table 27. Descriptive Statistics for Length of Stay for Mental Health Related Institutional Claims

N: 53457	Mean: 25.4 Days	St. Dev. : 8.5 Days
Minimum: 1 Day	Median: 29 Days	Maximum: 141 Days

Table 28. Descriptive Statistics for Length of Stay for Mental Health Patients Admitted to the Hospital for Inpatient Service

N: 50	Mean: 19.6 Days	St. Dev. : 29.6 Days
Minimum: 1 Day	Median: 8 Days	Maximum: 141 Days

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