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Comparison of Mental Health Care Utilization Profiles of Adult Respondents and Non-Respondents to the Iowa Medicaid Managed Mental Health Care Pre-Implementation Survey

Introduction

In an effort to control escalating mental health care costs, many states have adopted managed care models for the delivery of these services to Medicaid recipients. Prior to March, 1995, Medicaid mental health care services in Iowa were reimbursed on a fee-for-service basis. Since then, the Medco Behavioral Corporation (MBC), under a contractual agreement with the state of Iowa, has assumed full responsibility for the delivery of mental health services to Medicaid enrollees in Iowa. In an effort to measure the impact of this new service delivery model with respect to consumer rated levels of satisfaction, a pre-implementation survey, commissioned by the Iowa Department of Human Service, was conducted prior to the implementation of managed mental health care. In late 1994 and early 1995, a questionnaire was mailed to a sample of Iowans who had received Medicaid reimbursed mental health services in 1993. This study was restricted to adults, 18- 64 years of age. Designed by the consortium, the survey instrument documented selected characteristics of the study group, including demographic data, patient self-report of the need and use of outpatient services, and satisfaction with specified characteristics of service providers.[1] It is the intention of the Iowa Consortium of Mental Health Services, Training, and Research, to re-survey these respondents two years after the implementation of managed mental health care and identify and measure changes, if any, in consumers' perceptions of service delivery characteristics between fee-for-service and managed care models of service.

Since there is an inherent concern that a sample of survey respondents may not accurately represent the general targeted population, the purpose of this study was to compare demographic and mental health care utilization profiles of respondents and non-respondents who were mailed the managed mental health care pre-implementation survey. A comparison will enhance the descriptive profile of mental health care for the Medicaid population in Iowa, that is, to define in greater detail the baseline from which changes under the managed care model will be measured in two years time.

Methods

[1] Iowa Consortium for Mental Health Services Training and Research, "Characteristics of the Medicaid Population of Iowa Who Receive Mental health Services: A Managed Mental Health Care Pre-Implementation Survey," University of Iowa, July 1995.

The study sample, obtained from the Iowa Department of Human Services, consisted of individuals who had received mental health services in FY 1993 that were reimbursed by Medicaid. A questionnaire requesting demographic data, patient self-report of need, access, and utilization of services, and patient self-report of satisfaction with providers and current quality of life was mailed to 4216 selected Iowans. The surveys were coded so that each returned one could be matched to a Medicaid identification number. The Medicaid numbers were then coded by the Iowa Consortium of Mental Health Services, Training, and Research to distinguish respondents, non-respondents, and those eliminated from the study. Respondent and non-respondent identification numbers were then linked to the 1993 Medicaid claims files to profile and compare inpatient and outpatient mental health service utilization. Non-respondents who could not be located (i.e., moved without a forwarding address, had moved with an out of state forwarding address, or had died) and respondents who returned surveys that were not usable (i.e., incomplete or incoherent, late arrival, had out of state addresses, did not have a specified diagnosis) were eliminated from this comparison study. Also, only inpatient and outpatient claims which had a mental health diagnosis as the primary diagnosis (i.e., ICD9 coding 290 - 312) were analyzed in this study. The final sample totaled 2,123 adults, of whom 808 were respondents and 1,315 were non-respondents. Names and addresses of individuals were removed from the files before the linkage. Because Medicaid eligibility can be transitory, linkage to mental health claims in years previous to 1993 did not provide data that could be used in this study.

Results

Table 1 reports the mean age of the survey respondents to be 35.3 years of age, which is 2.8 years older than those who did not respond. Females were more likely to respond and a higher percentage of persons living in rural areas responded to the survey as compared to those who did not (i.e., 45.3% vs. 38.5%). Whites comprised only a slightly higher proportion of the respondent group (92.7%) as compared to the non-respondent group (90.7%). Persons of ethnicities other than white were proportionately not as likely to respond to the survey.

Table 2 profiles the Iowa Medicaid mental health care utilization in 1993 for respondents and non-respondents. On average, respondents had slightly more outpatient visits and inpatient admissions per year than non-respondents. Respondents' average length of inpatient stay was 11.6 days as compared to 10.8 days for non-respondents. However, 64.1% of the non-respondents experienced one or more hospitalizations, compared to 61.2% of the respondents.

Tables 3 and 4 list the most frequently occurring mental health primary diagnoses as indicated on the Medicaid claims file for FY 1993 for this study sample. Those with schizophrenic disorders and affective psychoses were more heavily represented in the respondent group for outpatient and inpatient claims, while those with adjustment reactions were more heavily represented in the non-respondent group for both types of claims. Non-

respondents with neurotic disorders were significantly more likely to receive outpatient rather than inpatient services for their conditions.

Discussion

On average, respondents tended to be several years older than non-respondents, and were more likely to be female. Since women tend to seek health care services more often than men, their higher response rate to this survey may be related to a heightened perception of survey importance. Rural residents, proportionately, were more likely to respond to the survey than to not do so, and indicates that this relatively inexpensive method of gathering data has the potential of effectively reaching residents that, because of access issues, have traditionally been more difficult to reach. The ethnic composition of both groups was quite similar, and reflects the ethnic mix of Iowa's general population.

Survey respondents, on average, had slightly more mental health outpatient and inpatient visits per person per year. Although proportionately fewer people were hospitalized in the respondent group, those that were had longer average length of stays than the non-respondents. However, the high standard deviation for this variable indicates a wide range of inpatient stays, and confirms the difficulty of developing standardized length of stay expectations for mental health hospitalizations. (Note: This study only reviewed utilization of services directly related to a person's mental health needs. Medical care services rendered for physical conditions were not included in this analysis.)

The respondents and non-respondents had similar diagnostic groupings, with schizophrenic disorders and affective psychoses the most frequently occurring diagnoses for both inpatient and outpatient mental health care. Although some differences between the groups were noted and the large sample numbers in each group make even small differences statistically significant, it appears that the respondents and non-respondents to this pre-implementation survey were, in general, quite similar with respect to demographics, mental health care utilization, and primary diagnoses. Therefore, this study supports the generalizability of data reported by the sample of survey participants and analyzed by the Iowa Consortium for Mental Health Services, Training, and Research, and establishes additional confidence that those who did respond to this survey did not unduly bias or skew the results. In two years, a similar questionnaire will be sent to those individuals who responded to the initial survey. The purpose will be to collect data regarding their perceptions of Iowa's new managed mental health care delivery model. Researchers can use the results of the pre-implementation survey as a basis for measuring, comparing, and evaluating future changes resulting from the implementation of a statewide Medicaid managed mental health care program in Iowa. Many health care professionals and researchers have speculated on how the functioning of a large-scale manage care mental health car program will compare with the traditional fee-for-service system. Will it produce the results promised by its promoters, delivering comparable or even better health care, while controlling utilization and costs? Or will it lead to lower quality health care and

declining satisfaction on the part of consumers? Mental health researchers in the state of Iowa now have some significant baseline data gleaned from the pre-implementation survey and will be able to more definitively answer these questions when a post-implementation survey is conducted two years hence.

Table 1. Comparison of demographic characteristics between respondents and non-respondents of the Iowa Medicaid Managed Mental Health Care Pre-Implementation Survey, 1993

	Respondents n = 808	**Non-Respondents** n = 1315
Age		
Mean	35.3 yr. (SD 11.5)	32.5 yr. (SD 11.6)
Gender		
Female	71.5%	64.4%
Male	28.5%	35.6%
Geographic Distribution		
Rural	45.3%	38.5%
Urban	54.7%	61.5%
Ethnicity		
White	92.7%	90.7%
Black	5.8%	6.6%
Other (Native American/Alaskan, Indo-Chinese Hispanic, Asian/Pacific Islander)	1.5%	2.7%

Table 2: Comparison of mental health care utilization between respondents and non-respondents of the Iowa Medicaid Managed Mental Health Care Pre-Implementation Survey, 1993

	Respondents	**Non-Respondents**
Mental Health Care Utilization		
Average outpatient visits/person	4.1 visits (SD 4.7) range 0 - 40 visits	3.3 visits (SD 4.2) 3.4 range 0 - 34 visits
Average inpatient admissions/person	1.9 admissions (SD 2.5) range 0 - 18 admissions	1.8 admissions (SD 2.7) range 0 - 29 admissions
Persons with at least one inpatient admission	61.2%	64.1%
Inpatient average length of stay	11.6 days (SD 12.5)	10.8 days (SD 13.3)

Table 3: Most Frequently Occurring Mental Health Outpatient Primary Diagnoses as recorded on the Medicaid Claims File, 1993

	Respondents (2781 paid claims)	**Non-Respondents** (3394 paid claims)
1. Schizophrenic Disorders (ICD9 #295)	37.1%	32.8%
2. Affective Psychoses (ICD9 #296)	30.2%	26.4%
3. Neurotic Disorders (ICD9 #300)	10.0%	13.4%
4. Adjustment Reaction (ICD9 #309)	8.3%	9.3%
5. Others (ICD9 # 290-4, 297-9, 301-8, 310-12)[2]	18.1%	14.4%

Table 4: Most Frequently Occurring Mental Health Inpatient Primary Diagnoses as recorded on the Medicaid Claims File, 1993

	Respondents (1,259 paid claims)	**Non-Respondents** (1,825 paid claims)
1. Schizophrenic Disorders (ICD9 #295)	39.5%	37.8%
2. Affective Psychoses (ICD9 #296)	22.6%	21.7%
3. Neurotic Disorders (ICD9 #300)	10.7%	8.2%
4. Adjustment Reaction (ICD9 #309)	8.7%	10.2%
5. Others (ICD9 # 290-4, 297-9, 301-8, 310-12)[1]	18.5%	22.1%

[2] 290 - Senile and presenile organic psychotic conditions, 291 - Alcoholic psychosis, 292 - Drug psychosis, 293 - Transient organic psychotic conditions, 294 - Other psychotic conditions (chronic), 297 - Paranoid states, 298 - Other nonorganic psychoses, 299 - Psychoses with origin specific to childhood, 301 - Personality disorders, 302 - Sexual deviations and disorders, 303 - Alcohol dependence syndrome, 304 - Drug dependence, 305 - Nondependent abuse of drugs, 306 - Physiological malfunction arising grom mental factors, 307 - Special symptoms or syndromes, not elsewhere specified, 308 - Acute reaction to stress, 310 - Specific nonpsychotic mental, disorders due to organic brain damage, 311 - Depressive disorder, not classified elsewhere, 312 - Disturbance of conduct, not elsewhere specified

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