SMI in Florida nursing homes: A study of resident, facility and cost characteristics

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BACKGROUND
Published data indicate that up to two-thirds of nursing home residents can be expected to have some type of documented mental disorder. Depression and symptoms associated with psychosis and dementia are the most common mental health problems of nursing home residents. As many as 40% of nursing home residents may suffer from depression, and between 3% and 20% report symptoms of anxiety. Despite the high prevalence of disruptive behaviors and mental illnesses found in most nursing facilities, numerous studies indicate that few nursing home residents receive appropriate treatment for their mental health needs.

THE STUDY
This study determined resident demographic and diagnostic characteristics, and examined Medicaid funded service costs incurred by Medicaid beneficiaries in nursing homes with high, average, and low percentages of Medicaid-enrolled residents with serious mental illnesses.

STUDY METHOD
This study retrospectively examined the combined Medicaid-eligibility, Medicaid fee-for-service, Medicaid Pharmacy, Baker Act and Online Survey Certification and Reporting (OSCAR) data for the fiscal year 2002–2003, to identify the prevalence of serious mental illness in Florida nursing homes, and to examine the associated resident, facility, cost characteristics of nursing homes with high, average and low percentages of persons with serious mental illness. Serious mental illness was defined by an ICD-9-CM diagnosis code for schizophrenia, major depression or bipolar disorder in the Medicaid claims data. Only persons who received a Medicaid service for mental illness will be identified with this method.

FINDINGS
During fiscal year 2002–2003 there were 32,326 Medicaid-enrolled nursing home residents in Florida, who lived continuously during the study year in 609 separate facilities included in the study. Those facilities identified in the Medicaid data that had duplicate Medicaid IDs or that could not be identified in the OSCAR data set were excluded from the analysis. The prevalence of residents with a documented serious mental illness varied across nursing homes from 0% to 63.8%. Across all facilities, less than a tenth of the nursing home residents had documentation of a serious mental illness (SMI) in the Medicaid claims files.

![Figure 1: Total Medicaid Costs Per User](http://fpeca.cbc Rutgers.edu/)
Of the nursing home patients in residence for at least a year, 12.9% were under 65 years of age. Residents with SMI were three times more likely to be under 65 (29.6%) than the general nursing home population. The explanation for this finding is unknown and suggests a need for additional research. The most frequent serious mental illness diagnosis in this nursing home sample was major affective disorder (46.1% of residents with SMI), followed by major psychotic disorder (45.2% of residents with SMI).

Each nursing home facility was categorized as being low, medium or high, based on its percentage of residents with serious mental illnesses. Nursing homes in the low group had on average only 1% of residents with a serious mental illness, the medium group had 5%, and the high group averaged 21% of residents with a diagnosis of SMI. Facilities in the high group had proportionately more males than females with SMI. Across facilities, as the proportion of residents with SMI increased, so also increased the percentage of non-white residents, the ratio of Medicaid funded beds to total facility beds, and the proportion of Medicaid bed days. Per-user-per-month (PUPM) Medicaid service cost (exclusive of nursing home charges) and total proportion of nursing home revenue from Medicaid also increased along with the proportion of residents with SMI (Figure 1 and Figure 2). As expected, the penetration rate for behavioral health services utilization increased in parallel with the prevalence of residents with serious mental illness, from 6.3% for residents in the low serious mental illness facilities to 12.8% in medium SMI facilities and 35.6% for the high SMI facilities.

The rate of involuntary psychiatric or Baker Act examinations increased with the prevalence of nursing home residents with SMI, from less than one-half percent in the low-SMI nursing facilities, to 4.5% of residents in high-SMI facilities. Only 1.1% of the total Medicaid-funded nursing home population had a Baker Act examination during the study year. This is lower than the 2.0% of the total Medicaid population that on average experiences an involuntary psychiatric exam each year in Florida.

The rate of Baker Act examination within the population of persons with SMI is unknown. Conceivably, the older age of the nursing home population and access to 24-hour nursing supervision was a factor in reducing the overall number of Baker Act examinations, but further research is needed to clarify this finding. On the other hand, of the population of residents with documentation of SMI in Florida nursing homes, 11.5% or 349 residents experienced a Baker Act examination during the study period. This eleven fold higher rate of involuntary psychiatric examination among nursing home residents with SMI who have around-the-clock care bears further study.

Logistic regression models found that the following factors all increased the likelihood of being in the higher than average Medicaid expenditure category: an age less than 65 years, male gender, a diagnosis of a SMI, a Baker Act examination and below average physical health.

**DISCUSSION AND POLICY RECOMMENDATIONS**

A striking finding in this study was the stratification of facilities with regard to the nursing home resident population with SMI. Florida nursing home residents with SMI are unevenly distributed across the State’s nursing homes. The majority of nursing home residents with SMI were residing in nursing homes with lower occupancy rates, higher Medicaid bed days, and higher proportions of residents on SSI. Furthermore, nursing home facilities with a higher prevalence of residents with SMI also have a higher proportion of residents with minority status and residents who are in poorer physical health.

We recommend more detailed research to examine reasons for the high percentages of younger residents with SMI found in nursing home facilities and to determine the programmatic, training and support needs of staff to facilitate the recovery of nursing home residents with SMI. Further, the needs and status of persons with SMI who are currently housed in nursing home facilities should be examined to determine if their placement is appropriate for their clinical needs and their desires. Given the expenses associated with nursing home care, waiver programs in which intensive community services are substituted for nursing home care might be both feasible and desirable for the younger nursing home population with SMI.

This policy brief is based on research by Marion A. Becker and Shabnam Mehra at the Louis de la Parte Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Blvd., Tampa, FL 33612, through a contract with the Florida Agency for Health Care Administration. For further information, contact Marion Becker at 813-974-7188 or at becker@fmhi.usf.edu. The complete report on this study can be accessed at: http://www.fmhi.usf.edu/institute/pubs/pdf/abstracts/policybrief.html