Residents with Dementia

Admission Severity and Mortality Rates among Rural and Urban Nursing Facility Residents with Dementia

by Elise J. Bolda, Ph.D.; and Kimberly Mooney Murray, M.P.P.M.; Muskie School of Public Service

The Policy Question

Limited access to home-based care and higher use of nursing facility services in rural communities are frequently cited as challenges to the development and delivery of long term care services in rural areas (Coburn and Bolda, 1999; Coward and Cutler, 1989). One specific challenge is meeting the needs of persons with dementia by offering alternatives to nursing facility level of care. Although there has been a growing array of community-based and in-home service options for persons with this condition, dementia continues to pose a significant risk for early nursing home admission.

Study Methods

This study used the Minimum Data Set + (MDS+) assessment data for residents of nursing facilities in four states participating in the Health Care Financing Administration’s Medicare and Medicaid Multistate Nursing Facility Case-Mix Payment and Quality Demonstration (Kansas, Maine, Mississippi, and South Dakota). MDS+ information includes: residential history, medical symptoms, diagnoses, medications, treatments, cognitive and physical functioning, and behavior, mood, and involvement indicators. We used resident data from nursing facilities in the four states from calendar years 1994 and 1995, excluding Medicare only nursing facilities in Kansas whose participation was voluntary and inconsistent. Our final sample included 14,450 nursing facility residents with a diagnosis of dementia. These data were linked with the Area Resource File and facility information from the states to obtain information on facility and area characteristics.

Bivariate analyses were conducted to compare the characteristics of residents in rural and urban areas at admission and multivariate Poisson regression models were estimated to evaluate the effect of rural residence on mortality, controlling for state and resident characteristics at baseline (admission), and time since admission.

Summary of Results

Study results indicate that rural NF residents were less cognitively impaired and exhibited fewer behavior and mood problems at admission than their urban counterparts. They were slightly more physically impaired than urban NF residents although, on average, NF residents in both rural and urban areas did not need extensive assistance with daily living. Despite their physical impairment, rural residents appeared more socially active and physically active in their customary routines than urban residents. Regarding their medical condition, rural residents had a higher prevalence of arteriosclerotic heart disease, congestive heart failure, cerebrovascular accident (stroke), and diabetes. However, fewer than 20 percent of the rural population had such conditions. Our findings indicate that rural nursing facility residents with dementia may be experiencing lower mortality rates and therefore longer stays in nursing facilities compared to urban residents with dementia. The marginal statistical significance detected (p=.049), however, suggests the need for further research in this area.

Discussion and Policy Implications

These findings suggest that caregiver and/or community support may not be sufficient to enable rural persons to remain in the community as long as urban individuals. Additionally, expectations and/or preferences for use of nursing facility care and different understandings of options, availability of specialty support services, and provider (physician) knowledge of options may be factors influencing admission decision differences in rural and urban areas.

This analysis provides evidence of the potential for greater reductions in the dependence on nursing facilities for long term care in rural areas. By simply achieving nursing facility utilization patterns that more closely resemble those of urban nursing facilities, nursing facility use in rural areas can be reduced. In addition, individuals with early-stage dementias who are served in rural facilities may receive more appropriate assistance through home and community-based or non-medical residential long term care services. Consumer objectives and long term care policy goals can be enhanced through the development of rural long term care services targeted to meet the needs of individuals with dementia, and their family or other informal caregivers.

References

The Maine Rural Health Research Center (MRHRC) was established in 1992 to inform health care policy making and the delivery of rural health services through high quality research and policy analysis. The Center has three areas of special interest in its research agenda: (1) the availability, organization, and financing of rural mental health services, (2) institutional and community-based services for rural elders, and (3) changes in the organization and financing of rural health services.

Recently Published and Forthcoming Working Papers:

Patterns of Health Insurance Coverage Among Rural and Urban Children (#26 forthcoming)
Medicaid Managed Behavioral Healthcare in Rural Areas (#24)
Strategies for Measuring and Increasing the Supply of Mental Health Professionals in Underserved Rural Areas (#23 forthcoming)
Rural Long-term Care Integration: Developing Service Capacity (#22)
Financing and Payment Issues in Rural Long Term Integration (#21)
Models for Integrating and Managing Acute and Long Term Care Services in Rural Areas (#20)
Creating Affordable Rural Housing with Services: Options and Strategies (#19)
Developing Affordable Non-Medical Residential Care in Rural Communities: Barriers and Opportunities (#18)
Multiple Hospitalizations Among Nursing Home Residents: Is Rural Residence a Risk Factor? (#17)
Effects of Managed Mental Health Care on Service Use in Rural Areas (#16)
Best Practices in Rural Medicaid Managed Behavioral Health (#15)

This study was funded by a grant from the Federal Office of Rural Health Policy, Health Resources and Services Administration, DHHS (Cooperative Agreement # CSUR00003-04). The conclusions and opinions expressed in the paper are the authors’ and no endorsement by the University of Southern Maine or the funding source is intended or should be inferred. Working Paper #25, Admission Severity and Mortality Rates among Rural and Urban Nursing Facility Residents with Dementia describes the policy and research background, methods and findings in depth, and is available from the Maine Rural Health Research Center. Copies of Working Paper #25 are available at our web site (http://www.muskie.usm.maine.edu/remote/wp25.pdf).