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Erika C. Ziller PhD
University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center

Amanda Burgess MPPM
University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center

Deborah Thayer MBA
University of Southern Maine, Cutler Institute

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Erika Ziller, PhD, Amanda Burgess, MPPM, Deborah Thayer, MBA

BACKGROUND

Medicare policy discussions often focus on adults aged 65 and older who make up the majority of Medicare beneficiaries. However, the Centers for Medicare & Medicaid Services (CMS) recognize that people under age 65 with a disability, who account for approximately 15 percent of all Medicare enrollees,[1] constitute an especially vulnerable and underserved cohort within the overall Medicare population.[2] Nonelderly adults aged 18 to 64 are eligible for Medicare if they have received Social Security Disability Insurance (SSDI) payments for 24 months; individuals with end-stage renal disease or amyotrophic lateral sclerosis qualify for Medicare as soon as they start receiving SSDI payments. To receive SSDI payments, an individual must meet the Social Security Administration's definition of a person living with a disability: unable to engage in "substantial gainful activity" because of a diagnosed physical or mental impairment expected to last more than one year or permanently.[3]

Nonelderly Medicare beneficiaries with a disability have needs and characteristics that differ from older adults in the program. In 2012, a greater proportion of nonelderly adult Medicare beneficiaries reported fair or poor health status, functional limitations, and psychiatric or cognitive impairments compared with older adults enrolled in Medicare.[4] Nonelderly Medicare beneficiaries with a disability also experience higher rates of poverty. In 2016, median per capita income was lower among nonelderly adult beneficiaries living with a disability ($17,950) than among enrollees aged 65 and older ($28,350).[5] One-third of nonelderly Medicare beneficiaries with a disability indicated that they reduced their spending on basic needs in order to pay for their health care compared with nine percent of older adults in Medicare.[6] Further, a larger proportion of rural, community-dwelling nonelderly Medicare beneficiaries are dually eligible for Medicare and Medicaid compared with their urban counterparts (39 percent compared with 37, respectively).[7]

Individuals with disabilities also face non-cost barriers to health care including a lack of available transportation for those who are not able to drive; physically inaccessible medical facilities and medical equipment; and stigma, prejudice, and discrimination.[8,9]

Although individuals with disabilities are a Congressionally-designated priority population,[10] little is known about the characteristics and health care use of the members of this population

Key Findings

Rural nonelderly Medicare beneficiaries reported poorer health than those in urban areas.

Rural nonelderly Medicare beneficiaries were more likely than their urban counterparts to be eligible for Medicare due to a chronic condition or musculoskeletal disorder.

Fewer rural nonelderly Medicare beneficiaries reported trouble getting needed health care compared with their urban peers.

Compared with rural nonelderly Medicare beneficiaries overall, several subpopulations reported more trouble getting needed healthcare, including individuals:

- eligible for coverage due to a mental health condition
- covered by fee-for-service Medicare only
- living in the West
- living with an impairment in activities of daily living

For more information about this study, contact Erika Ziller at erika.ziller@maine.edu

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who live in rural areas. This study compares access to and use of health services among rural and urban nonelderly Medicare beneficiaries with a disability and the factors associated with rural access issues.

APPROACH

Data source. This study used five years (2009-2013) of the Medicare Current Beneficiary Survey (MCBS), a rotating panel survey of a nationally representative sample of the Medicare population that is designed and sponsored by CMS. These years of data were selected because they were the most recently available when research began. The MCBS combines survey data collected directly from beneficiaries with Medicare claims and administrative data from CMS. This study used the MCBS Access to Care file, which covers topics such as unmet need for health care services, health status, and health functioning. Nonelderly beneficiaries with a disability are oversampled in the MCBS to permit more detailed analysis of this subpopulation.

Variables. Our dependent variables were a series of health care access measures including availability of a usual source of care, difficulty obtaining care, and forgone care. This study also examined sociodemographic characteristics and health and functional status of nonelderly Medicare beneficiaries with a disability. Our measure of impairment in activities of daily living (ADLs) is adopted from the work of Stineman et al.[11] We collapsed Stineman's categories into three levels of ADL impairment: no impairment, mild or moderate impairment, and severe or complete impairment.

The primary explanatory variable was rural residence. Individuals living in Metropolitan Statistical Areas (MSAs), as defined by the Office of Management and Budget, were classified as urban residents, and individuals who lived in non-MSA counties were classified as rural.

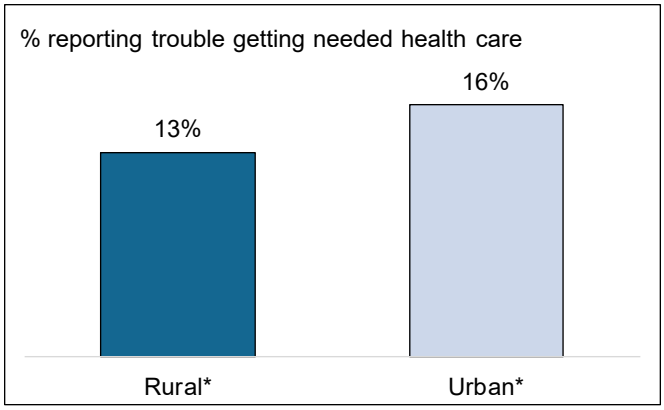
Analysis. In bivariate analyses we used chi-square tests to compare outcomes by rural-urban residence and sociodemographic characteristics. Multivariable logit models were used to examine the relative odds of trouble getting health care for different subpopulations of rural nonelderly Medicare beneficiaries with a disability. We limited our analysis to MCBS respondents aged 18-64 living in the community (as opposed to in a facility setting) with both Part A and Part B Medicare coverage. To maximize our sample size and enable comparisons for subpopulations within the pool of nonelderly beneficiaries with a disability, we pooled data from the 2009-2013 surveys. Analyses were weighted and adjusted to account for the complex survey sampling methods used in the MCBS. Data analyses were conducted using SAS® 9.4 (SAS Institute Inc., Cary, NC, USA) and SUDAAN 11.0.1 (Research Triangle Institute, Research Triangle Park, NC).

FINDINGS

Rural-urban differences in the sociodemographic characteristics of nonelderly Medicare beneficiaries reflected those of rural and urban populations more generally. As shown in the Appendix, rural nonelderly Medicare recipients were more likely than their urban peers to be older (50-64 years of age), non-Hispanic white, have a lower level of educational attainment, and live in the South.

Urban nonelderly Medicare beneficiaries with a disability were more likely to report trouble getting needed health care. As shown in the Figure, nonelderly disabled Medicare beneficiaries in urban areas were significantly more likely to report trouble getting needed health care compared with rural nonelderly Medicare beneficiaries (16 percent in urban compared with 13 percent in rural).

Figure. A larger proportion of nonelderly adult Medicare beneficiaries with a disability in urban areas reported trouble getting needed health care



Data: Medicare Current Beneficiary Survey, 2009-2013.
*Residence differences significant at $p \leq .05$.

Rural nonelderly Medicare beneficiaries with a disability reported poorer health status than their urban peers. As shown in Table 1, rural nonelderly Medicare beneficiaries with a disability were more likely to report fair or poor health than their urban counterparts (65 percent and 58 percent, respectively). They were also more likely to report that their health was much or somewhat

Table 1. Health status of nonelderly adult Medicare beneficiaries 2009-2013, by residence

Sample Characteristics	Rural	Urban
Total	N = 3,373	N = 8,222
Health status		
General health compared to others same age***		
Excellent/Very Good/Good	35.1	41.7
Fair/Poor	64.9	58.3
Health compared to one year ago***		
Much/somewhat better	17.7	20.1
Same	43.0	47.7
Much/somewhat worse	39.3	32.3
*Cause of eligibility****		
Chronic condition	31.4	26.7
Musculoskeletal disorder	26.4	21.6
Mental health disorder	14.5	23.4
Intellectual or developmental disability	5.5	7.5
Neurological disorder	3.5	3.9
Other	18.6	17.0
*Functional status – Activities of Daily Living***		
No impairment	40.1	46.3
Mild/moderate impairment	42.6	37.2
Severe/complete impairment	17.3	16.6

Data: Medicare Current Beneficiary Survey, 2009-2013. Residence differences significant at *p ≤ .05; **p ≤ .01; ***p ≤ .001.

worse than it was a year ago (39 percent compared with 32 percent of urban nonelderly Medicare beneficiaries).

Rural nonelderly Medicare beneficiaries were more likely to report eligibility for Medicare due to a chronic condition (31 percent compared with 27 percent in urban) or musculoskeletal disorder (26 percent compared with 22 percent in urban). Urban beneficiaries were more likely to be eligible due to a mental health disorder (23 percent in urban compared with 15 percent in rural).

Regarding ADLs, a greater proportion of rural nonelderly Medicare beneficiaries with a disability reported mild or moderate impairment compared with their urban peers (see Table 1), while a greater proportion of urban individuals reported no impairment.

Rural and urban nonelderly Medicare beneficiaries reported similar rates of past year use of preventive health services. Reported rates of past year cholesterol checks, flu vaccination, and mammogram screening did not differ significantly between urban and rural participants (data not shown). Rural-urban rates of respondents reporting having had a blood pressure check were essentially the same, (96 percent versus 95 percent, respectively $p < .01$).

Rural and urban survey respondents reported similar levels of satisfaction with the ease of accessing a doctor. There were no statistically significant differences between rural and urban nonelderly Medicare beneficiaries with a disability in reported availability of care by specialists, ease of getting to a provider from where they live, and ease of getting answers about treatment and prescriptions by phone (data not shown). Urban nonelderly Medicare beneficiaries with a disability reported higher satisfaction with the availability of medical care on nights and weekends (88 percent in urban compared with 83 percent in rural, $p < .01$).

Certain groups of rural nonelderly Medicare beneficiaries with a disability reported greater challenges accessing care (see Table 2). Compared to those with private employer or Medigap supplemental insurance*, rural nonelderly Medicare beneficiaries with Medicare Advantage, Medicaid, and Medicare fee-for-service (FFS) without

*Insurance companies are not required by federal law to sell Medigap policies to individuals under under age 65, although some states require insurance companies to offer at least one Medigap policy to Medicare beneficiaries under age 65. (U.S. Centers for Medicare & Medicaid Services. When Can I Buy Medigap? https://www.medicare.gov/supplements-other-insurance/when-can-i-buy-medigap. Accessed June 12, 2019.)

Table 2. Impact of sociodemographic variables on reported trouble getting needed health care among rural nonelderly adult Medicare beneficiaries

	Any trouble getting needed health care	
Characteristic	OR	95% CI
Age		
18-34	1.32	0.93, 1.89
35-49	1.48*	1.02, 2.16
50-64	Referent	
Sex		
Female	1.19	0.88, 1.62
Male	Referent	
Income		
Less than $25k	1.45	0.96, 2.19
$25k or more	Referent	
Race and ethnicity		
White, not Hispanic	1.62	0.90, 2.92
Other race/ethnicity	Referent	
Region		
West	1.72*	1.13, 2.62
South	1.13	0.72, 1.77
Northeast	1.01	0.69, 1.47
Midwest	Referent	
Insurance coverage type		
Medicare FFS only	3.12***	1.67, 5.83
Medicaid	2.20**	1.20, 4.01
Medicare Advantage	1.92*	1.02, 3.61
Employer Sponsored Insurance or Medigap	Referent	
Impairment in Activities of Daily Living		
Severe/complete impairment	4.72***	2.98, 7.48
Mild/moderate impairment	2.23***	1.53, 3.25
No impairment	Referent	
Cause of eligibility		
Mental health	1.60**	1.13, 2.27
All other causes	Referent	

Data: Medicare Current Beneficiary Survey, 2009-2013. Odds differ significantly from referent at *p ≤ .05; **p ≤ .01; ***p ≤ .001.

supplemental insurance each have significantly higher odds of reported trouble getting needed care (particularly the FFS group, OR: 3.1).

Nonelderly Medicare beneficiaries with a disability who lived in the West, reported any level of impairment in ADLs, or were eligible for coverage due to a mental health issue also had significantly higher odds of trouble getting needed health care.

Limitations. The primary limitation of this study is the cross-sectional nature of the MCBS, which precludes us from looking at the consequences of reduced access, such as poorer health outcomes. In addition, the access measures were based largely on self-report and included perceptions about the need for care as well as challenges to obtaining that care. If rural and urban individuals with disabilities have different perceptions of need or access, this study may under or over-report differences in actual access to care.

DISCUSSION & POLICY IMPLICATIONS

Study findings indicated that rural and urban nonelderly Medicare beneficiaries with a disability reported similar levels of satisfaction with their care, access to providers, and use of preventive health services. These findings largely align with those presented in the 2012 Medicare Payment Advisory Commission (MedPAC) report on serving rural Medicare beneficiaries.[12] The MedPAC report used 2008 MCBS data to examine health care access and use among rural and urban Medicare beneficiaries

(including both nonelderly individuals with a disability and older adults). Like the present study, MedPAC found that both rural and urban Medicare beneficiaries reported high levels of satisfaction in the ease of getting to their doctor from their home.[12] Likewise, MedPAC also noted that rural beneficiaries reported lower levels of satisfaction with availability of care during off hours.[12]

Although self-reported access to care appeared comparable for rural and urban nonelderly Medicare beneficiaries, rural residents reported generally poorer health. We found that rural nonelderly Medicare beneficiaries with a disability reported poorer health status and greater impairment in ADLs compared with their urban counterparts. Thirty-nine percent of rural respondents indicated that their health was somewhat or much worse than in the prior year compared with 32 percent of urban residents. These findings also align with MedPAC's report, which found that a greater proportion of rural Medicare beneficiaries reported an ADL limitation and poorer levels of self-rated health.[12]

Among rural nonelderly Medicare beneficiaries with a disability, several vulnerable subpopulations had greater odds of reporting trouble getting needed health care, including individuals eligible for Medicare due to a mental health condition. This finding may be related to the limited supply of behavioral health providers available in rural areas. A recent analysis found that 65 percent of non-metropolitan counties lacked a psychiatrist compared with 21 percent of metropolitan counties;[13] the same disparity was found for psychologists and psychiatric nurse practitioners.[13]

Other subgroups with poorer self-reported access included individals reporting any level of impairment in ADLs and individuals without employer-based supplemental coverage, particularly those with only fee-for-service Medicare. Among those with Medicaid coverage, this may reflect transportation or other barriers affected by lower income. Policymakers and clinicians should consider opportunities to improve access for individuals made vulnerable by functional status, access barriers, and/or poorer financial coverage for care.

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Appendix. Sociodemographic characteristics of nonelderly adult Medicare beneficiaries 2009-2013, by residence

Sample Characteristics	Rural	Urban
Total	N = 3,373	N = 8,222
*Age****		
18-34	6.8	9.1
35-49	26.1	26.0
50-64	67.2	64.9
Sex		
Female	48.0	48.4
Male	52.0	51.6
*Race and ethnicity****		
Non-Hispanic white	82.3	68.3
Non-Hispanic other race	16.7	26.8
Hispanic	1.0	4.9
*Educational attainment****		
Less than high school	29.7	22.7
High school graduate or some college	65.2	67.3
College graduate	5.1	10.0
*Region of residence****		
West	11.2	19.9
South	55.7	39.2
Northeast	8.6	22.2
Midwest	25.6	18.7
Income		
Less than $25k	75.2	74.8
$25k or more	24.8	25.2
*Insurance coverage****		
Medicare FFS Only	24.8	18.6
Medicaid	48.5	50.5
Medicare Advantage	11.1	17.6
Employer Sponsored Insurance or Medigap	15.6	13.3

Data: Medicare Current Beneficiary Survey, 2009-2013. Residence differences significant at *p ≤ .05; **p ≤ .01; ***p ≤ .001.