South Carolina
Rural Health Research Center
Policy Brief No. 1 June, 2009

Rural residents lag in preventive services use; Lag increases with service complexity

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Rural Health
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At the Heart of Health Policy

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Rural residents lag in preventive services use; Lag increases with service complexity

Rural populations, particularly rural minorities, experience marked disparities in health and health care access, as documented in the 2001 *Urban and Rural Health Chartbook* report,[i] and more recently in *Health Disparities, A Rural-Urban Chartbook*, funded by the Office of Rural Health Policy. Rural minority residents, in particular, are more likely to report poor health status, obesity and limitations in activity than urban residents[ii]. While preventive services cannot eliminate all health disparities, they can contribute to more equal treatment for specific conditions.

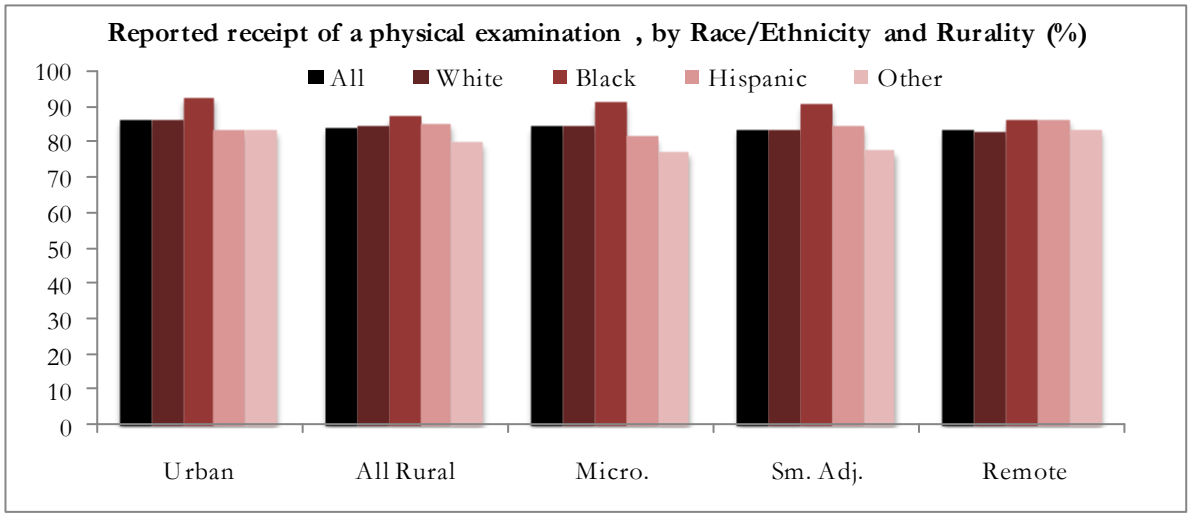
Taken as a whole, rural adults are less likely to receive age-appropriate preventive services than are urban adults. Differences associated with residence are frequently magnified for rural minority adults who are less likely to receive preventive services than urban minorities.[iii,iv] While access to primary care can mitigate these differences,[v] rural adults in general and rural minority adults in particular are more likely to lack health insurance[vi], which can reduce access to primary care[vii]. Further, rural areas are marked by a lack of resources, such as fewer health care professionals[viii,ix].

This research brief describes the receipt of preventive services among rural adults and explores the factors that are related to disparities in utilization.

Routine Physical Exam, Age 40 and Older

Since many preventive services are delivered as part of a physical exam, we examined routine physical exam rates among adults age 40 and over. Rural residents (83.8%) were less likely to have an exam by a physician than urban residents (86.0%). Among rural adults without insurance coverage, markedly fewer (59.3%) reported such an exam.

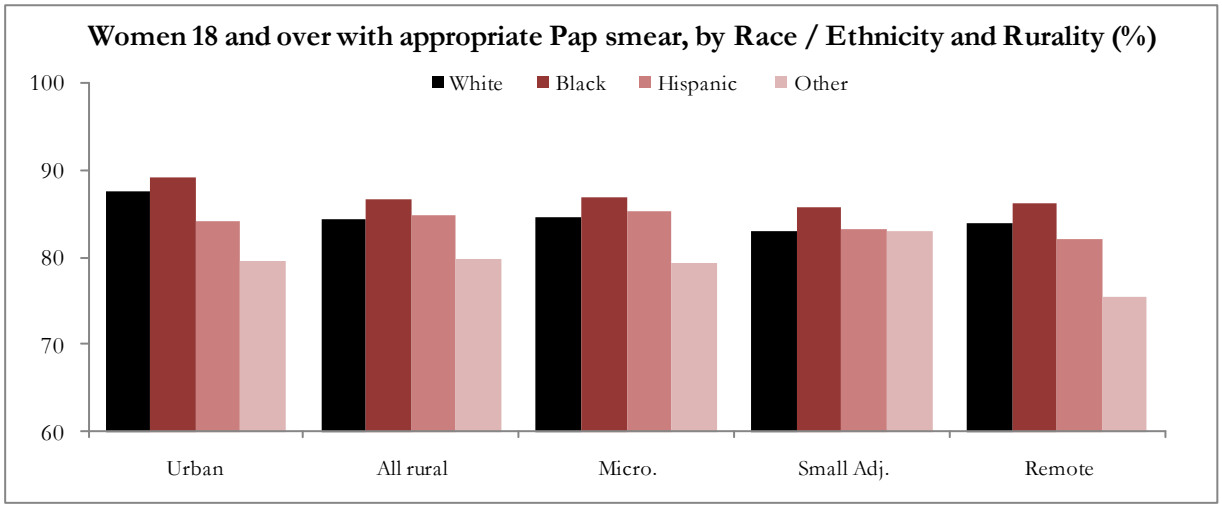
Rural African Americans were much more likely to have an exam than other rural residents, while Hispanics and other races had the lowest rates. Among rural residents, screening rates ranged from 86.8% among rural African Americans to 79.8% among "other" race/ethnicity. Among urban residents, current exam rates range from 92.3% among African Americans to 79.5% among "other" race/ethnicity.



Among those without insurance, rural African Americans (77.9%) and Hispanics (64.0%) were more likely than whites (57.2%) to have had an exam. Exam rates among uninsured rural minorities increased as the level of rurality increased.

Cervical Cancer Screening

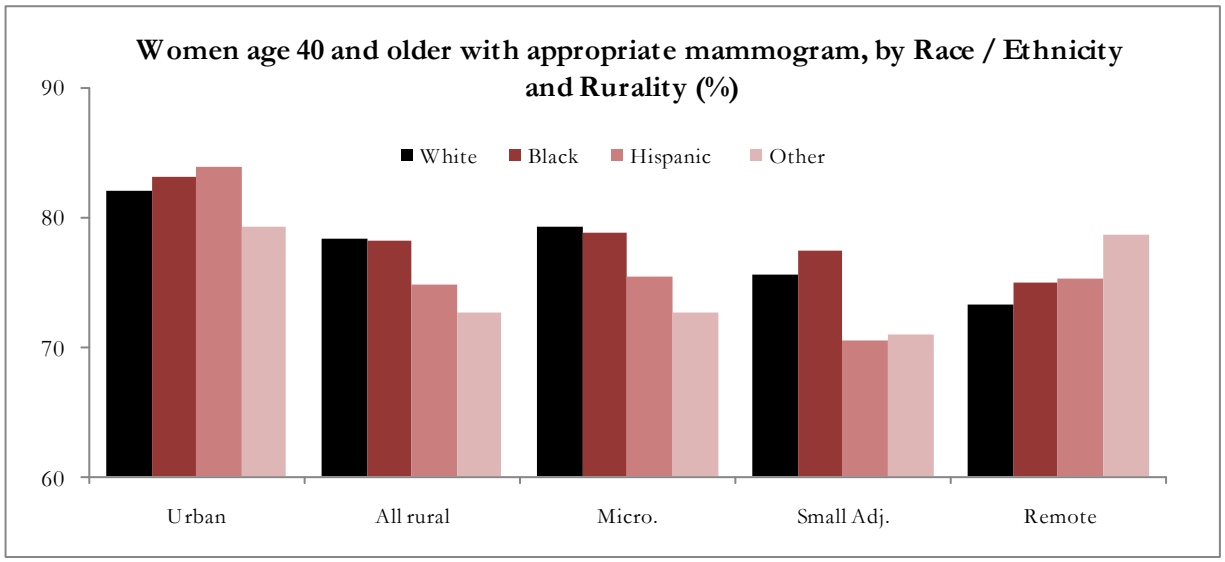
Rural women were less likely to report having received age appropriate Pap tests for cervical cancer (84.3%) than were urban women (86.6%). The highest rate for cervical cancer screening (Pap test within 3 years among women aged 18 – 75) was found among urban, African American women (89.2%). Among rural women, screening rates range from 86.8% among African American women to 79.8% among "other" women. While the screening rate among uninsured rural women was low (73.3%), the rate among insured rural women (87.8%) approached the HealthyPeople 2010 goal of 90% receiving screening. Overall, rural African American and Hispanic women were more likely to obtain a Pap test than rural white or urban women. The rates were not substantially different by race/ethnicity across levels of rurality. Among rural women without insurance, African Americans (81.3%) and Hispanics (76.8%) were more likely than whites (71.3%) to have had a Pap test. All rates, however, were well below the HealthyPeople 2010 goal of 90%.



Breast Cancer Screening

Rural women were less likely to be in compliance with mammography recommendations (77.9%) than were urban women (82.2%). The proportion of women screened for breast cancer decreased as the level of rurality increased, possibly because of reduced technical capacity in smaller counties. In general, rural minority women were less likely to obtain a mammogram than were rural white or urban women. Paralleling findings among all women, screening rates for minority women decreased as the level of rurality increased, with Hispanic women in small adjacent rural counties having the lowest rates overall (70.1%). All of the screening rates were, however, above the HealthyPeople 2010 goal of 70%.

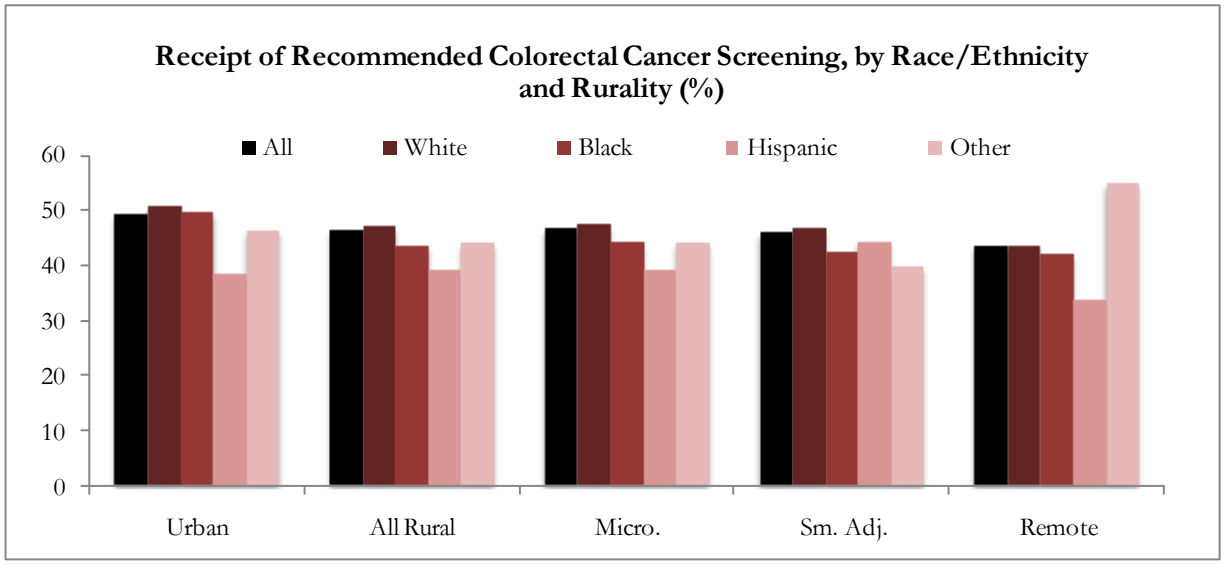
Mammography rates were much lower for uninsured rural women, with only 51.2% receiving the service. Among rural women without insurance, African Americans (60.5%) and Hispanics (55.7%) were more likely than whites (48.9%) to have received a mammogram.



Colorectal Cancer Screening

Colorectal cancer screening rates (receipt of a sigmoidoscopy or colonoscopy, lifetime or within 10 years, adults 50 and older) were markedly lower than those for cervical or breast cancer, and fall short of the Healthy People 2010 goal of 50% screened. Rural residents (46.3%) were less likely to be screened than urban residents (49.2%). Rates were much lower for uninsured rural residents, with only 28.0% obtaining a screening. Even among insured rural residents (48.4%), screening rates did not meet recommendations.

Rural minority adults were less likely to report colorectal cancer screening than were rural whites or urban residents. Rural Hispanics had the lowest overall rate, with less than two in five being



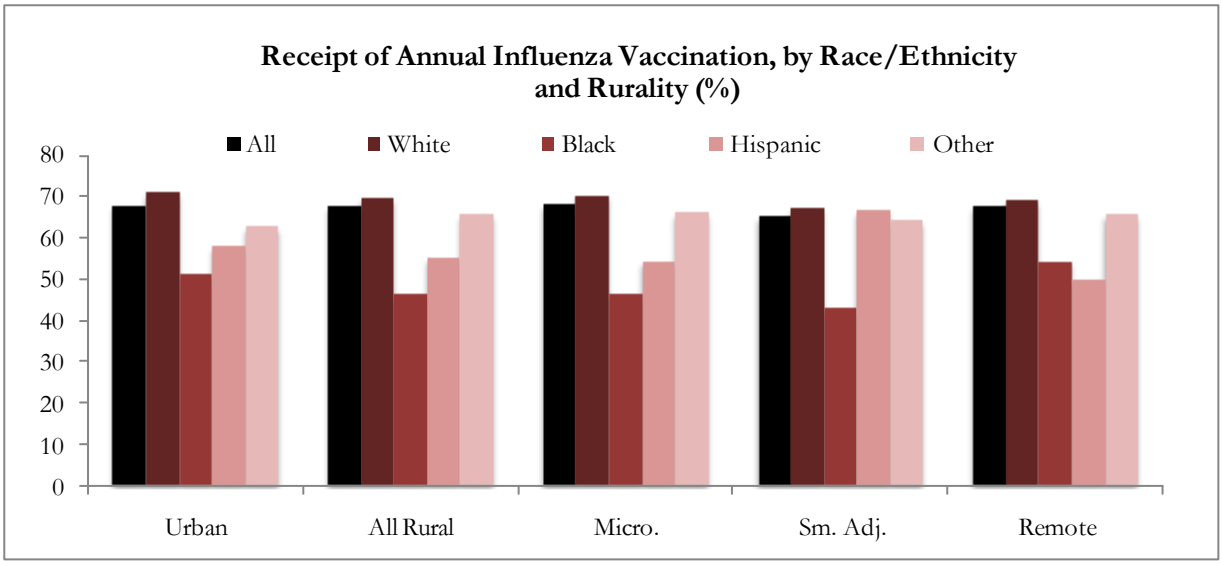
screened. The highest rate for colorectal cancer screening is found among white urban residents (50.8%). Among urban adults, Hispanics report the lowest screening level, 38.4%. Within each race/ethnicity group, service receipt did not differ substantially across levels of rurality. Among uninsured rural residents, African American adults (33.3%) were more likely than white residents

(28.3%) to report colorectal cancer screening; only 16.9% of uninsured rural Hispanic adults obtained a screening. Among rural adults, colorectal cancer screening rates range from 46.8% among white adults to 39.2% among Hispanic adults.

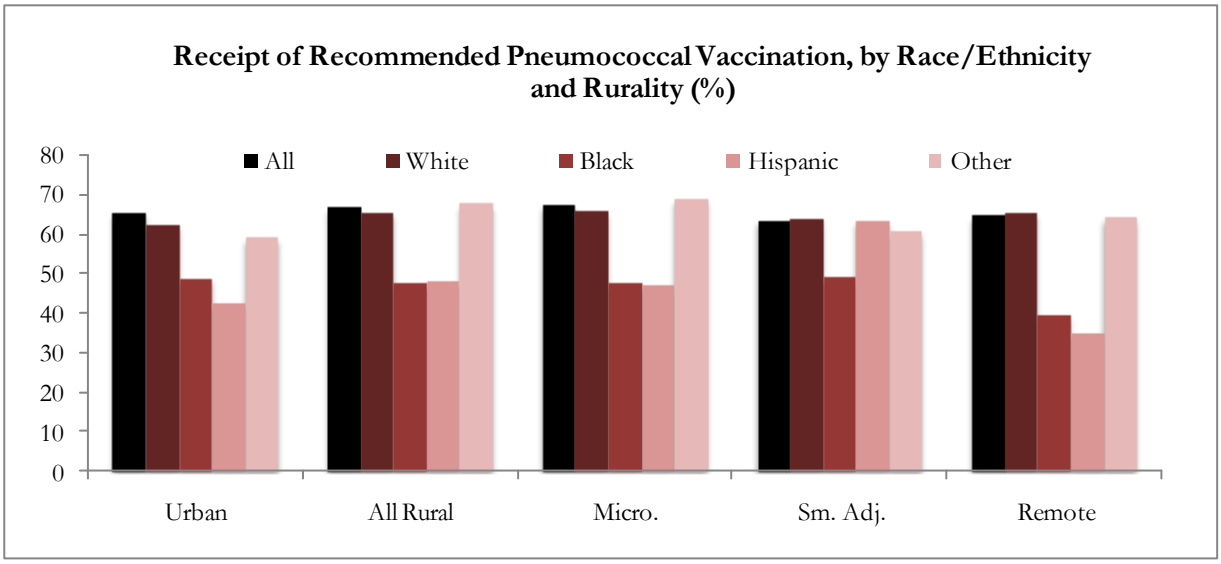
Adult Immunizations

Pneumonia vaccination

One lifetime pneumococcal vaccination is recommended for persons age 65 and older. Rural residents were more likely to report a pneumococcal vaccination than urban residents (66.8% vs. 65.4%). Residents in small adjacent and remote rural counties had lower pneumococcal vaccination rates than in micropolitan rural areas. Both rural and urban vaccination rates fell well below the HealthyPeople 2010 goal of 90% coverage.



Annual flu vaccinations are recommended for adults beginning at age 65. Rural and urban residents 65 and older had similar influenza vaccination rates (67.2% vs. 67.7%). Persons living in small adjacent rural counties, however, had lower rates (64.9%) than residents in the other types of counties. Rural minorities were markedly less likely to have received an influenza vaccination, with African Americans having the lowest overall rate (47.4%). Rural African Americans and Hispanics were also less likely to report a pneumococcal vaccine than rural whites or urban residents; those of 'other' race had the highest rates.



Age was an important predictor of vaccinations, both influenza and pneumonia. While minorities continued to lag behind whites in both rural and urban areas, the immunization rates were higher in the 75 to 84 year old and the 85 years or older groups. For example, Hispanics over the age of 85 living in Small Adjacent rural counties had an influenza vaccination rate of 81.8%, compared to 50.2% among those 65 to 74 years old.

Conclusions

Rural residents were less likely to receive preventive services such as mammography, Pap tests, and colorectal cancer screenings. Lack of health insurance exacerbated these disparities, greatly reducing the rates of service delivery. The first step towards reducing rural/urban disparities may lie in increasing insurance coverage across these populations. Notably, rural/urban disparities did not exist for either influenza or pneumococcal vaccinations. It would appear that the nearly universal insurance coverage afforded by Medicare is effective in producing equitable opportunity for obtaining vaccinations. It does not, however, explain the tendency for compliance to increase with age.

Methods

- Information on receipt of preventive services was derived from the 2006 Behavioral Risk Factor Surveillance System survey, a telephone survey coordinated by the Centers for Disease Control and Prevention.
- Rurality was defined at the county level using Urban Influence Codes; Urban (codes 1 & 2) included large metropolitan areas of one million residents or more as well as small metropolitan areas of less than one million residents. Micropolitan Rural (codes 3, 5, & 8) included areas with an urban cluster of 10,000 or more residents, and included areas that were both adjacent and not adjacent to Urban areas. Small Adjacent Rural (codes 4, 6, & 7) included areas with at least 2,500 residents that did not have a dense population and were adjacent to more densely populated areas. Remote Rural (codes 9, 10, 11, & 12) included areas not adjacent to larger areas and have towns of 2,500 residents or less.
- Race and ethnicity categories for analysis are white, African American, Hispanic, and 'other'; however, BRFSS allows individual respondents to self-identify the race or multiple races most applicable to their heritage.
- The BRFSS data used for this analysis did not include counties of 10,000 or fewer residents, reducing the number of observations for rural residents.
- Our primary source for preventive services guidelines in the US is the Guide to Clinical Preventive Services, updated annually by the US Preventive Services Task Force (USPSTF), coordinated by the Agency for Healthcare Research and Quality, US Department of Health and Human Services.
- More details are provided in Health Disparities, a Rural Urban Chartbook, available at http://rhr.sph.sc.edu.

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