

Diffusion of Preventive Innovation: Racial and Rural Differences in Cervical Cancer Prevention and Control Practices



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Executive Summary

Background and Study Objectives

The national cervical cancer incidence rate is 7.9 per 100,000 and the mortality rate is 2.3 per 100,000; a Healthy People 2020 goal is to reduce cervical cancer mortality to 2.0 per 100,000. Cervical cancer incidence and mortality rates are markedly higher among racial and ethnic minority women in the United States. African-American (AA), Asian, and Hispanic women are more likely to die of cervical cancer than European American (EA) women. These differences exist even though minority women experience lower overall cancer rates compared to EA women and screening rates have steadily increased for minority and underserved women. Low-income, minority, and rural women are particularly at risk for poor cervical cancer screening, treatment, and survival. Access to preventive services contributes to differences in cervical cancer rates among different racial and ethnic groups. Increased uptake of innovative screening modalities, such as liquid-based versus traditional Pap screening and human papilloma virus (HPV) DNA screening, may reduce disparities. We examined differences in receipt of cervical cancer screening and HPV vaccination associated with residence and race/ethnicity. Data for the study were drawn from two nationally representative samples of medical practices, the National Ambulatory Medical Care Survey (NAMCS) and the National Hospital Ambulatory Medical Care Survey (NHAMCS).

Key Findings

Patient Receipt of Cervical Cancer Screening or Vaccination Services

- No significant differences were observed for type of cervical cancer screening modality (conventional, liquid or unspecified) by patient residence (urban versus rural) or by race/ethnicity (white versus African American women).
- A significantly higher proportion of women living in rural counties (69.6%) received liquid based Pap testing in hospital outpatient settings than women in urban counties (39%).
- A significantly higher proportion of women residing in urban counties received HPV DNA testing versus women residing in rural counties (10% versus 3.3%, respectively).
- No significant differences were observed in the receipt of HPV vaccination by patient residence.

Physician Providers for Women Receiving Pap or Other Cervical Screening Services

- Most patients receiving cervical screening, regardless of residence, were seen by urban physicians (92.4%).
- A significantly higher proportion of patients in rural practices were publicly insured than patients in urban practices (36.7% versus 23.0%, respectively).

Policy Implications

While women residing in rural counties did not differ from urban women in the type of Pap test received, rural women were less likely to receive HPV DNA testing. No differences by race/ethnicity were observed. More research is needed to determine if observed differences are the result of provider or patient barriers and acceptability. Expanded access to cervical cancer prevention services may increase uptake of innovative services, particularly liquid-based cytology and HPV DNA testing.