

Oral Abstract 14: Intersecting Rural, Racial, and Medicaid-Linked Disparities in Cervical Cancer Outcomes Across North Carolina, 2019–2023

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Topic

Financial Toxicity and Disparities

Objectives

Although national cervical cancer incidence has declined, mortality disparities persist, particularly among rural and racially diverse populations. North Carolina—marked by heterogeneous access to care and recent Medicaid expansion—offers a unique setting to examine geographic and socioeconomic inequities in cervical cancer outcomes.

Methods

County-level Cervix Uteri incidence and mortality data (2019–2023) were obtained from the North Carolina Central Cancer Registry via State Cancer Profiles. Counties were categorized by USDA Rural–Urban Continuum Codes (2023) (urban = 1–3; rural = 4–9). Rates per 100,000 women were calculated using 2020 county populations; 95 % CIs were derived by Poisson approximation. Race-specific rates were determined from State Cancer Profiles (2017–2021 incidence; 2018–2022 mortality). Medicaid enrollment was derived from NC DHHS (SFY 2024) and merged by county rurality.

Results

Between 2019–2023, 1,624 new cervical cancer cases and 541 deaths occurred in NC. Rural counties comprised 36% of the female population but 42% of the cervical cancer attributable deaths. Incidence was similar between rural and urban counties (18.1 vs 18.9 per 100 000; 95 % CI 14.9–21.2 vs 17.4–20.6), whereas mortality remained higher in rural areas (7.0 vs 5.9 per 100,000; 95 % CI 5.0–8.9 vs 5.1–6.8). Medicaid enrollment was 33.7 % in rural vs 27.1 % in urban counties. High-mortality counties (Robeson, Halifax, Bladen) also had > 45 % Medicaid coverage and higher proportions of Black and Native American residents. Race-specific analyses showed Black women had the highest incidence and death (incidence 8.0; mortality 2.6 per 100 000) compared with White (6.2; 2.0) and Hispanic (7.1; 1.9) women, highlighting overlapping racial and geographic disadvantage.

Conclusions

In North Carolina, rural residence, race, and Medicaid dependence intersect to drive cervical cancer mortality disparities. Despite comparable incidence, rural and racially diverse counties experience 20–30% higher mortality. Elevated Medicaid enrollment in these regions suggests that insurance expansion alone cannot offset structural barriers in access to gynecologic oncology care. Sustained Medicaid funding, equitable provider reimbursement, and targeted investments in rural cancer infrastructure are essential to improve survival and equity.