## Addressing Disparities in Cancer Care and Incorporating Precision Medicine for Minority Populations



A NEW ACCREDITED CONTINUING EDUCATION SERIES WITH THE EXPERTS

WEBINAR 8:

Disparities in Cervical Cancer

RESOURCE GUIDE

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## Introduction to Disparities in Cervical Cancer









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Although preventable, cervical cancer ranks as the fourth most common cancer among women worldwide with an estimated 604,127 women diagnosed in 2020.<sup>1,2</sup> In 2021,14,480 new cervical cancer cases were reported in the US with 4,290 deaths; projections for 2022 forecast a similar trend.<sup>3</sup> Human papillomavirus (HPV) vaccination and screening are currently the gold standard for prevention and early detection of cervical cancer. Despite encouraging advances, striking disparities persist between racial and ethnic groups throughout the cervical cancer continuum. Recent studies demonstrated that the rate of HPV vaccination is not a driver of those inequities in minority populations. Black and Hispanic women have higher up-to-date vaccination rates (64% and 68%, respectively) compared with White women (57%), and the rate of HPV vaccination is higher in individuals living below the poverty level compared with those at or above the poverty line (57% vs 46%, respectively).<sup>4,5</sup> In addition, racial and ethnic disparities observed in cervical cancer incidence and/or survival cannot be attributed to screening or timely/adequate follow-up after Pap test abnormality.<sup>6,9</sup> Approximately 85% of Black and 80% of Hispanic women meet current United States Preventive Services Task Force guidelines (ie, Pap smear reported in the past 3 years or a Pap with or without HPV test performed within the past 5 years).<sup>9</sup>

The burden of disease is greater in Hispanic and Black women who have a higher incidence of cervical cancer, more advanced disease at presentation, and poorer survival compared to women of other race and ethnic groups.<sup>10,11</sup> Moreover, Black women are often diagnosed with regional tumors while White women are more likely to present with localized disease.<sup>11</sup> Hispanic and Black women are disproportionally affected by delays in time to treatment initiation compared to White women.<sup>12</sup> In addition, Black women are less likely to receive surgery for localized tumors compared with white women (74% vs 84%, respectively) or systemic therapy for distant tumors (58% vs 65%, respectively).<sup>11</sup>





# **Sources of Disparities**







Disparities in the burden of cervical cancer stem from several complex and interrelated contributing factors. Primary factors driving racial/ethnic inequities in the cervical cancer continuum are listed below.



#### Socioeconomic status

- County-level poverty:
   cervical cancer mortality
   rates are higher in persistent
   vs non-persistent
   poverty counties<sup>13</sup>
- Individual income status: fewer women below the poverty line are up to date with cervical cancer screening compared to those above the poverty level<sup>14</sup>
- Heath insurance: women who do not have insurance are less likely to be screened than those who have health insurance<sup>8</sup>



### **Rurality**

Women who live in rural counties have a lower rate of up-to-date Pap screening than their counterparts in urban communities which translates into a higher incidence of cervical cancer<sup>15,16</sup>



#### Geographic setting

- Variations exist among geographic regions of the US in terms of HPV vaccination, screening, incidence, and mortality rates for cervical cancer
- HPV vaccination uptake is the highest in West North Central states and a few Northeast states, and lower rates are found along the Texas-Mexico border, in the South, and in Florida<sup>3</sup>
- Screening rates are generally lower in regions of Appalachia, the central Mississippi Valley, West North Central states, Texas, Florida, New Mexico, and Utah compared with the Northeast and the Midwest.<sup>17</sup> This pattern correlates with differences in new cervical cancer incidence with higher rates along the Texas-Mexico border and regions of Appalachia compared with West North Central states<sup>3</sup>
- Southern states with higher level of poverty (ie, New Mexico, Louisiana, Alabama, Arkansas) have lower rates of screening and higher rates of cervical cancer<sup>18</sup>
- Racial and regional disparities co-exist. After correction for higher rates of hysterectomy, cervical cancer incidence and mortality are greater in Black women living in the South compared with those living in other regions<sup>19,20</sup>







## **Addressing Disparities**







A call to action is greatly needed and requires multiple targeted approaches to address the determinants of cervical cancer disparities in racial and ethnic minorities.



• Developing culturally appropriate interventions to increase HPV vaccination uptake can reduce inequities in cervical cancer development



- Implement initiatives to encourage participation in screening and reinforce the importance of adequate and timely follow-up care through
  - Patient navigators and community health workers (eg, promotoras) to provide tailored patient education
  - Provider prompts to remind healthcare providers when patients are due for screening
  - HPV self-sampling as a potential additional strategy to reach underscreened women



• Community-based programs and a regular source of healthcare can improve access to high-quality care and latest recommended treatments, and can engage underserved populations in preventive services



• Implement recovery strategies to mitigate COVID-19 care disruptions to screening<sup>21,22</sup>







## References







- 1. Centers for Disease Control and Prevention. Cervical Cancer is Preventable. Accessed March 7, 2022. https://www.cdc.gov/vitalsigns/cervical-cancer/index.html
- World Health Organization. Cervical Cancer. 2022. https://www.who.int/news-room/fact-sheets/detail/cervical-cancer. Accessed March 12, 2022.
- 3. Centers for Diease Control and Prevention. United States Cancer Statistics: Data Visualization. Accessed March 7, 2022. https://gis.cdc.gov/Cancer/USCS/#/AtAGlance/
- 4. Pingali C, Yankey D, Elam-Evans LD, et al. National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13-17 Years United States, 2020. MMWR Morb Mortal Wkly Rep. Sep 3 2021;70(35):1183-1190. doi:10.15585/mmwr.mm7035a1
- 5. Centers for Disease Control and Prevention. TeenVaxView. 2020. Accessed March 10, 2022. https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/pubs-presentations/NIS-teen-vac-coverage-estimates-2020-tables.
- Goding Sauer A, Siegel RL, Jemal A, Fedewa SA. Current Prevalence of Major Cancer Risk Factors and Screening Test Use in the United States: Disparities by Education and Race/Ethnicity. Cancer Epidemiol Biomarkers Prev. Apr 2019;28(4):629-642. doi:10.1158/1055-9965.EPI-18-1169
- 7. Battaglia TA, Santana MC, Bak S, et al. Predictors of timely follow-up after abnormal cancer screening among women seeking care at urban community health centers. Cancer. Feb 15 2010;116(4):913-921. doi:10.1002/cncr.24851
- 8. Benard VB, Jackson JE, Greek A, et al. A population study of screening history and diagnostic outcomes of women with invasive cervical cancer. Cancer Med. Jun 2021;10(12):4127-4137. doi:10.1002/cam4.3951
- 9. Benavidez GA, Zgodic A, Zahnd WE, Eberth JM. Disparities in Meeting USPSTF Breast, Cervical, and Colorectal Cancer Screening Guidelines Among Women in the United States. Prev Chronic Dis. Apr 15 2021;18:E37. doi:10.5888/pcd18.200315
- 10. JSI. Why is Cervical Cancer Still Claiming Lives? Accessed March 7, 2022. https://www.jsi.com/why-is-cervical-cancer-still-claiming-lives/
- 11. Matz M, Weir HK, Alkhalawi E, Coleman MP, Allemani C, Group UCW. Disparities in cervical cancer survival in the United States by race and stage at diagnosis: An analysis of 138,883 women diagnosed between 2001 and 2014 (CONCORD3). Gynecol Oncol. Nov 2021;163(2):305-311. doi:10.1016/j.ygyno.2021.08.015
- 12. Ramey SJ, Asher D, Kwon D, et al. Delays in definitive cervical cancer treatment: An analysis of disparities and overall survival impact. Gynecol Oncol. Apr 2018;149(1):53-62. doi:10.1016/j.ygyno.2017.12.010
- 13. Moss JL, Pinto CN, Srinivasan S, Cronin KA, Croyle RT. Persistent Poverty and Cancer Mortality Rates: An Analysis of County-Level Poverty Designations. Cancer Epidemiol Biomarkers Prev. Oct 2020;29(10):1949-1954. doi:10.1158/1055-9965.EPI-20-0007
- 14. National Cancer Institute. Cancer Trends Progress Report. Cervical Cancer Screening. Accessed March 7, 2022. https://progressreport.cancer.gov/detection/cervical\_cancer
- 15. Zahnd WE, James AS, Jenkins WD, et al. Rural-Urban Differences in Cancer Incidence and Trends in the United States. Cancer Epidemiol Biomarkers Prev. Nov 2018;27(11):1265-1274. doi:10.1158/1055-9965.EPI-17-0430
- 16. New Mexico's Health Indicator Data & Statistics. Accessed March 7, 2022. https://ibistest.health.state.nm.us/nmibis-view/indicator/view/CancerScrPap.UrbanRur.html
- 17. Horner MJ, Altekruse SF, Zou Z, Wideroff L, Katki HA, Stinchcomb DG. U.S. geographic distribution of prevaccine era cervical cancer screening, incidence, stage, and mortality. Cancer Epidemiol Biomarkers Prev. Apr 2011;20(4):591-599. doi:10.1158/1055-9965.EPI-10-1183
- 18. Center for American Progress. Talk Poverty. https://talkpoverty.org/poverty/. Accessed March 12, 2022.
- 19. Yoo W, Kim S, Huh WK, et al. Recent trends in racial and regional disparities in cervical cancer incidence and mortality in United States. PLoS One. 2017;12(2):e0172548. doi:10.1371/journal.pone.0172548
- 20. Bower JK, Schreiner PJ, Sternfeld B, Lewis CE. Black-White differences in hysterectomy prevalence: the CARDIA study. Am J Public Health. Feb 2009;99(2):300-307. doi:10.2105/ajph.2008.133702
- 21. Burger EA, Jansen EE, Killen J, et al. Impact of COVID-19-related care disruptions on cervical cancer screening in the United States. J Med Screen. Jun 2021;28(2):213-216. doi:10.1177/09691413211001097
- 22. Miller MJ, Xu L, Qin J, et al. Impact of COVID-19 on Cervical Cancer Screening Rates Among Women Aged 21-65 Years in a Large Integrated Health Care System Southern California, January 1-September 30, 2020. MMWR Morb Mortal Wkly Rep. Jan 29 2021;70(4):109-113. doi:10.15585/mmwr.mm7004a1





