Cervical Cancer Screening and Prevention among Latinas in the U.S. in a Network of Community Health Centers

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BACKGROUND

1. Cervical cancer (CC) is caused predominantly by human papillomavirus (HPV), but is preventable with early detection.
   - *Latinas face unequal burden of CC.*
2. A majority of CC research focuses on younger reproductive-age people, despite average age of CC diagnosis of 50 years old.
   - *Aging Latinas may be at higher risk due to lack of access to HPV vaccination, incomplete pap smear history, declining immunity.*
3. Community Health Centers (CHCs) are a vital component for cancer screening and prevention.
   - *Latinas receive disproportionate care in CHCs.*

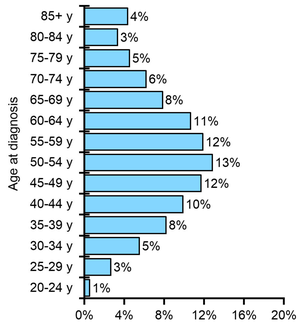


Fig 1: Distribution of Cervical Cancer Deaths by Age at Diagnosis, United States, 2012 to 2016. Patients (N = 4116) were diagnosed during 2002 through 2016 and were followed for up to 10 years after diagnosis. Data Source: Surveillance, Epidemiology, and End Results (SEER) *(Fontham et al. 2020)*.

AIM: To assess CC screening rates among middle to older age foreign-born Latinas, US-born Latinas, and non-Hispanic Whites (NHWs) receiving care in CHCs.

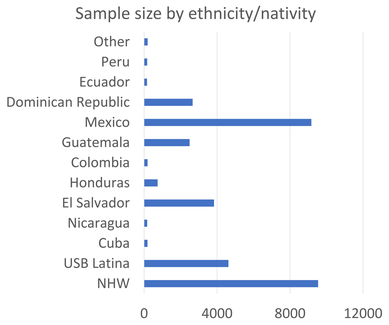
METHODS AND MATERIALS

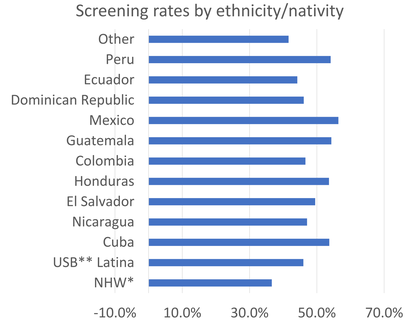
- ***Data Source:*** Electronic health record (EHR) data from the Accelerating Data Value Across a National Community Health Center Network (ADVANCE). ADVANCE integrates outpatient health record data and community-level data; a multicenter collaborative led by OCHIN Inc., (not an acronym).
- **Data Sample:** The study population included Latinas and NHWs older than age 45 years with known birth country and at least one in-person primary care visit between January 1, 2014, and September 14, 2022, in CHCs.
- **Data Analysis:** We used a Logistic Generalized Estimating Equations model to estimate the relative odds of ever receiving cytology or co-testing by ethnicity/nativity group (reference group: NHW) clustered by state. Sample included 15 states (CA, FL, GA, IN, MA, MN, MT, NC, NM, OH, OR, TX, UT, WA, and WI). Statistical significance was set at p-value <0.05.
- **Covariates:** Adjusted for age at first encounter, household income (percent of federal poverty level), insurance over the study period, diagnoses of diabetes, diagnosis of obesity, a high blood pressure measurement any time during the study period, mammogram, provider speaks Spanish, Charlson Comorbidity Index score, social deprivation index (SDI) score and yearly number of visits.

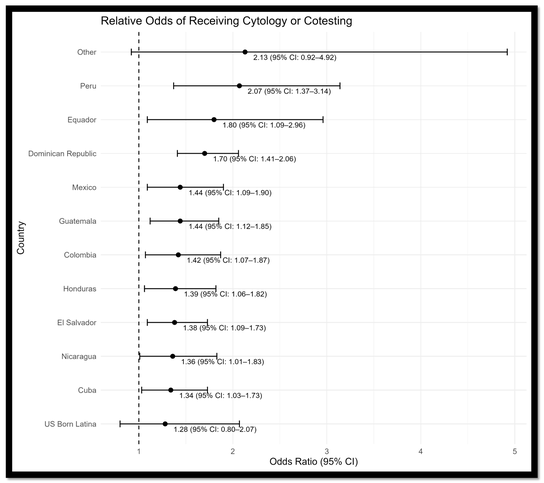
RESULTS

Data Summary:

- N: **34,135 people** (38% NHW, 27% Mexican, 14% US Born Latina).
  - The average annual number of visits ranged from 11 to 20.
  - The mean SDI was higher for all Latina groups compared to NHWs.
- 3 different ethnicity/nativity groups
  - Mexican-born Latinas had the highest rate of cytology/co-testing (56.4%).
  - NHW women had the lowest rate of cytology/co-testing (36.6%).







This study adds novel information about screening rates among a heterogeneous sample of Latinas within a large, multistate CHC context.

*Contrary to our hypothesis, we found foreign-born middle to older age Latinas from all countries had **higher** odds ratios of cytology or co-testing than NHWs, not lower (roughly 53% higher odds).*

Still, all groups including NHWs had below ideal CC screening rates (i.e. 70%).

DISCUSSION

1. There is opportunity to continue to improve **overall cervical cancer** screening rates in CHCs who serve the most vulnerable and marginalized patient populations of **all race/ethnicities.**
2. Findings may be a result of the unique context of CHCs.
   - Use of *promotoras*; Language and culturally tailored practice; Provider self-selection bias; Provider decision-making bias
3. Affordable Care Act (ACA) and Medicaid expansion insurance coverage has increased access to preventive care in many healthcare settings.
   - Variation with state-funded coverage expansions affecting screening
4. Future research:
   - A rich ethnographic study of CHCs would provide valuable insights into the contextual and environmental factors among this group.
   - More inclusion of neighborhood level factors beyond SDI score and the need to account for region as well as non-CHC clinics.

Limitations: EHR selection bias and limited generalizability to non-CHC clinics.

CONCLUSION

Overall, we found that among patients receiving care at CHCs, foreign-born middle to older age Latinas had **higher** rates of cytology or co-testing compared to NHWs. However, the prevalence of screening was less than the guideline-recommended national cervical cancer screening rates. Work needs to be done to ensure equitable and timely access to cervical cancer screening among CHC patient populations of Latinas and NHWs.

Contact, Funding, & Acknowledgements

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