Barriers to Preventative Cancer Screening in the Latina Population: A Multi-Dataset Analysis of All of Us and the Louisiana Tumor Registry

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BACKGROUND

- Latina women in the U.S face disparities in cervical and breast cancer screening leading to delayed diagnosis
- Cultural and language barriers: limited English and provider mismatch impact screening uptake
- This study uses the NIH's All of Us data and compares findings to Louisiana Tumor Registry's stage at diagnosis data to explore national vs. regional disparities

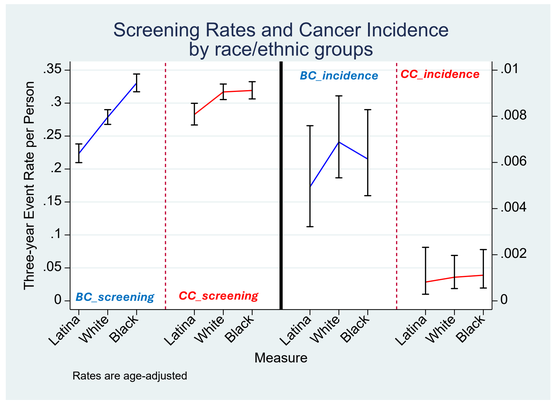
OBJECTIVES

- Aim 1: Compare Pap smear and mammogram rates between Latina and non-Latina participants using EMR data
- Aim 2: Identify and quantify language barriers reported by Latina participants
- Aim 3: Compare screening patterns (All of Us) to cancer stage at diagnosis (Louisiana Tumor Registry) to assess regional disparities

MATERIALS and METHODS

- Latina were stratified based on completion of breast and cervical cancer screenings, identified using CPT/ICD codes in the electronic medical record. Screening rates will be compared across groups
- Cohorts were defined using de-identified survey responses from the All of Us research Program. Language barriers included speaking a non-English language at home.
- Screening patterns in All of Us were compared to stage at diagnosis data from the Louisiana Tumor registry to assess alignment between national and state level outcomes. Screening uptake by barrier status was cross tabulated and associations were analyzed using Poisson regression adjusted for age, language, and insurance

RESULTS BLOCK 1



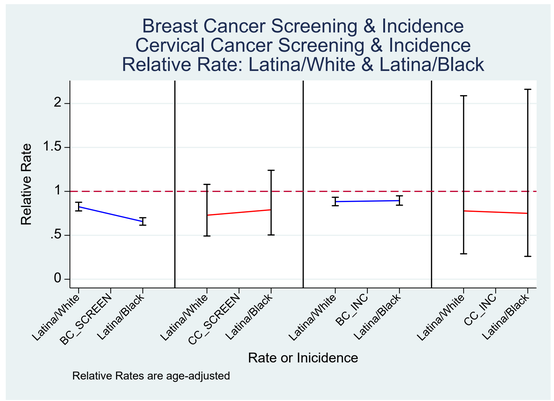


Figure 1: Compiled by Ronald L. Horswell, PhD, and San Chu, MSC, MApStat, of the Pennington Biomedical Research Center

RESULTS BLOCK 2

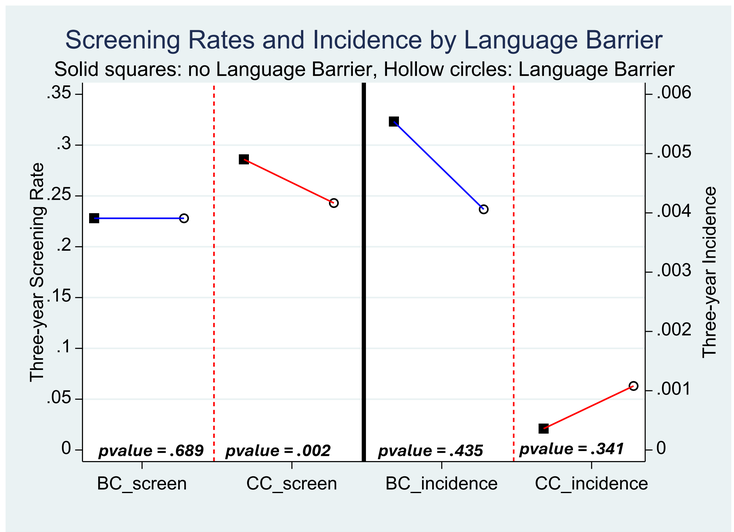


Figure 2: Compiled by Ronald L. Horswell, PhD, and San Chu, MSC, MApStat, of the Pennington Biomedical Research Center

RESULTS BLOCK 3

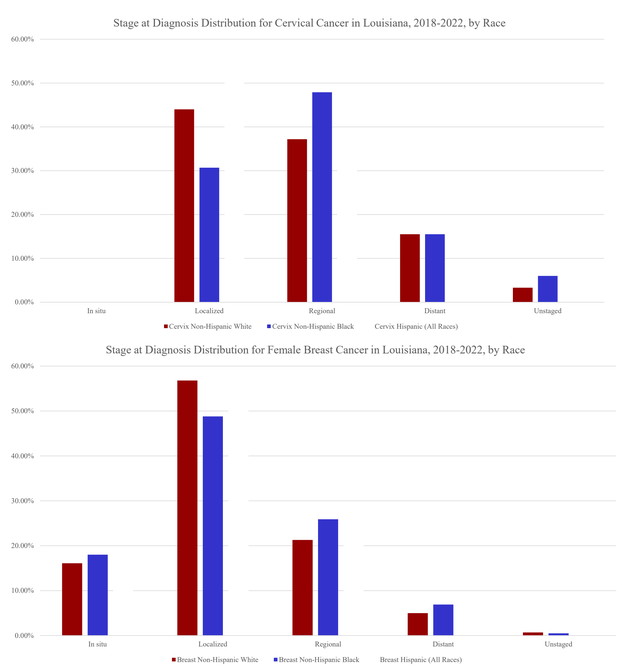


Figure 3: Compiled by Lauren Maniscalo, MPH, of the Louisiana Tumor Registry supported by the SEER Program (NCI), National Cancer Registries

CONCLUSIONS

- Aim 1: Hispanic women are significantly less likely than White and Black women to receive Pap smears and mammograms
- Aim 2: Cervical cancer screening is significantly less frequent in patients with a language barrier (p = 0.002). Incidence for breast or cervical cancer are not statistically significant, but there is a possible trend toward higher cervical cancer incidence in patients with language barriers.
- Aim 3: Hispanic women in the breast cancer cohort show similar rates of in-situ detection across groups. Hispanic women are more likely to be diagnosed at a regional stage (lymph node involvement), indicating a higher risk for late metastasis
- Hispanic women in the cervical cancer cohort were more likely to be diagnosed at a localized stage. They also demonstrated the highest rate of unstaged cancers, which may reflect disparities in diagnostic workup and quality of care

RECOMMENDATIONS

- Incorporate screening for cultural and language barriers during intake
- Prioritize the use of trained medical interpreters
- Integrate cervical and breast cancer screening discussions into routine care for younger Latina patients
- Offer self-administered Pap smears to increase access

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