Hannah Schluter

M.P.H. Candidate, Epidemiology Track hannah.m.schluter@vanderbilt.edu

Practicum Site: Tennessee Department of Health

Practicum Site Supervisor: Elizabeth Berardi, M.P.H., B.S.N.,

R.N.

Tennessee Breast and Cervical Cancer Screening Program (TBCSP): 2024 Breast Cancer Surveillance Report

Introduction: Breast cancer is the most common cancer and the second leading cause of cancer-related deaths in Tennessee women, with Black women having higher rates of breast cancer mortality compared to White women (despite similar incidence rates). The aim of the Tennessee Department of Health's Breast and Cervical Screening Program (TBCSP) is to provide cancer screening and diagnostic services to low-income and under/uninsured women and men and reduce cancer disparities that negatively impact marginalized communities within the state. In 2021, the TBCSP published its first breast cancer surveillance report. The aim of the current project is to update the data and snapshots published in 2021 and to observe changes among counties, regions, and across the state.

Methods: The 2021 report included county-level data on breast cancer incidence and mortality (including Black-White (B:W) mortality ratios), screening mammography rates, mammogram availability and social vulnerability. These data were combined to assign risk scores and to rank counties across the state and within health department regions, and to create county snapshots for the highest risk counties. Following the same methodology and utilizing 4 data sources, an updated total score was developed for the counties and regions in Tennessee. In addition, B:W mortality data was acquired which provided statistics and the statistical significance of each county's ratio.

Results: Results from the data analysis found Cannon and Grundy counties as the lowest and highest risk counties, respectively, and identified 9 counties with statistically significant B:W mortality ratios: Sevier, Obion, Madison, Shelby, Sumner, Davidson, Knox, Montgomery, and Hamilton counties. Overall, Tennessee had a higher mortality ratio compared to the 2021 report, but a reported lower B:W mortality ratio.

Conclusions: The TBCSP program equipped me with the knowledge of Tennessee's current breast cancer incidence, prevalence, and screening uptake. Furthermore, this report's goal is to inform program-level actions for potential improvements that aim to address prominent health disparities that negatively impact population and individual breast cancer risk.

