

Tennessee Department of Health

Abstract:

From 2008 to 2012, female residents of Tennessee experienced the 36th highest breast cancer incidence rate and the 19th highest mortality rate compared to women in all 50 US states and the District of Columbia. Female residents of Tennessee experienced a disparate breast cancer burden compared to most other women in the US, which is partially supported by the fact that Tennessee women experienced the 12th highest breast cancer mortality-to-incidence ratio compared to other women in all 50 US states and the District of Columbia.

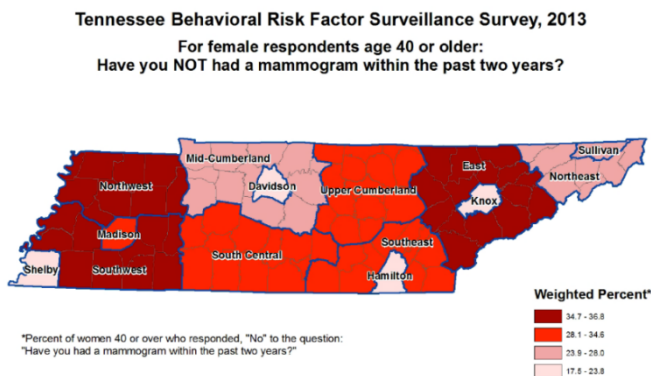
Stakeholders:

Matthew Walker Health Center; TN Department of Health; Carin & Sharin Support Group; Church Health Center; Amerigroup; Neighborhood Health; Susan G. Komen affiliates; Methodist Le Bonheur Healthcare; Shelby County Health Department; TennCare; Meharry Medical College; Vanderbilt Breast Center; Sister’s Network; Southside/Dodson Ave. CHCS; Cigna; Resurrection Health; Metro Nashville Public Health Department; BlueCross/BlueShield of TN.

Lessons Learned:

- Black and white women have similar age-adjusted breast cancer incidence rates, but age-adjusted breast cancer mortality rates are about 60% higher in black women.
- A significant number of women live far away from a CoC accredited hospital, leading to inequitable access to quality care.
- Mortality disparities by race are concentrated most strongly in Shelby County (in Southwest Tennessee, where Memphis is located).
- Stakeholders from throughout Tennessee are interested in translating data into action steps.

From GIS mapping and other analyses performed during Year 1 of this project:



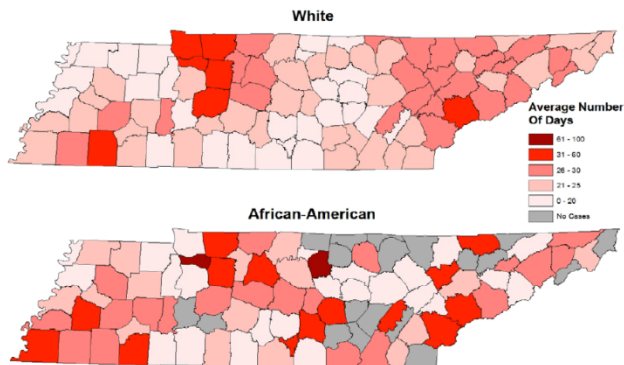
Breast Cancer Screening:

Tennessee BRFSS data demonstrates that women located in the Southwest, Northwest and East Tennessee regions have the highest prevalence of individuals 40 and older who have not received a mammogram within the past two years. Some of these areas, including Shelby, Davidson, and Knox counties, were also identified as being in the upper quartile of breast cancer incident rates between 2004 and 2013.

Follow up – Time to Diagnosis/Treatment Initiation:

While women in most Tennessee counties have an average follow-up time less than a standard 60-day benchmark, African American women generally have longer follow-up periods than white women in a given county. This is the case in some of Tennessee’s most diverse and densely populated areas, such as Shelby County. In some counties, African American women have an average follow-up period exceeding 60 days, which is not the case for white women in any Tennessee county.

2004-2013 Female Breast Cancer by Race - Average Number of Days from Diagnosis to First Course of Treatment

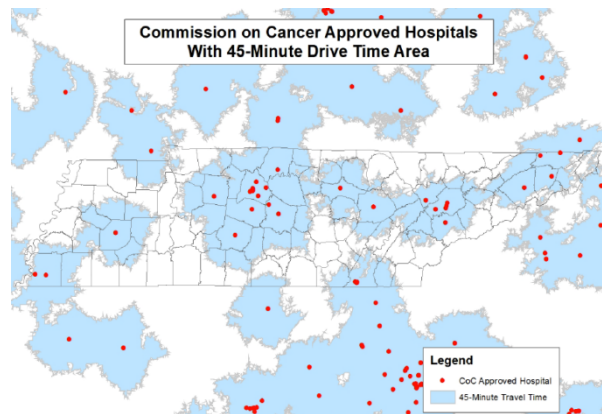


Quality of Treatment:

Significant numbers of Tennesseans are located at least 45 minutes away from a Commission on Cancer (CoC) accredited hospital, and there are only two such hospitals in Shelby County (in the very Southwest of the state), where much of Tennessee's African-American population resides. Davidson County (Nashville) and Knox County (Knoxville) and surrounding counties are served by more CoC accredited hospitals, despite having smaller populations than Shelby County.

Progress to Date:

- Created maps using ARC-GIS software.
- Maps included incidence and mortality data by county and TDH region demonstrating disparities in the Southwest and Northwest regions.
- Age-adjusted rates for regional and distant stage breast cancers were calculated and mapped by county and TDH region demonstrating elevated rates in the Southwest region.
- Spatial analysis confirmed the results of the incidence, mortality and stage data presented.
- CoC-accredited hospitals were mapped statewide and 30-, 45-, and 60-minute driving time buffers used to identify potentially underserved areas.
- A map of mammography facilities with 30-minute drive time buffers indicated that most Tennesseans are located within 30 minutes of a mammography facility.



Next Steps:

- Conduct analyses on treatment quality data, such as CP³R measures from CoC hospitals, to identify possible disparities in who is receiving quality treatment.
- Better disseminate existing data maps and analyses to stakeholders to improve understanding of state-wide and local breast cancer disparities.
- Consider five-year cancer survival statistics by the county level, Tennessee Department of Health regional level, and/or other levels to identify sociodemographic disparities.

2004-2013 Female Breast Cancer Mortality By Race

