HOOKS INSTITUTE POLICY PAPERS

# Breast Cancer Mortality in Memphis: A Holistic Approach – Research Findings and Strategies for Improved Outcomes in Segregated Communities

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## IN THIS ISSUE



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# INTRODUCTION TO THIS EDITION AND THE GUEST EDITORS

The Benjamin L. Hooks Institute for Social Change (Hooks Institute) is pleased to present its tenth edition of the policy papers, which focuses on breast health outcomes for women living in racially segregated communities. The research that informed the articles in this publication, as well as this volume of the policy papers itself, was funded by a 2022 grant from the National Institutes of Health (NIH). The grant was awarded to a team of researchers that included Shelley White-Means, PhD (Principal Investigator); Arash Shaban-Nejad, MSc, MPH, PhD and Minghui Li, MSc, PhD (Co-Investigators) at University of Tennessee Health Science Center (UTHSC); and Jill Dapremont, EdD (Co-Investigator), Loewenberg College of Nursing, University of Memphis (UofM); and the authors of the other papers in this edition.

The mission of the Hooks Institute is to advance social change and strengthen democracy through research, service and historical preservation. The Institute seeks to harness university scholarship and community engagement to drive social change, strengthen democratic values and improve socioeconomic well-being, health, education, and community outcomes by addressing differences in under-resourced communities. This edition on breast health directly furthers that mission.

Black Women with breast cancer are more likely to die than their White counterparts. The research and background information provided by the authors lay the groundwork for understanding this alarming result. Drs. White-Means and Dapremont served as the guest editors of this edition. They collaborated with Dr. Elena Delavega, Professor in the UofM School of Social Work, and Daphene R. McFerren, JD, Executive Director of the UofM Hooks Institute, as well as other contributing researchers, to produce articles grounded in sound scientific research. These articles are written to be accessible to a broad audience, including individuals, elected officials, medical professionals, and others with a vested interest in women's health and healthy communities. Accordingly, this publication is intended for scholarly, medical, and lay audiences alike.

Dr. White-Means is a Professor of Health Economics in the College of Graduate Health Sciences at the University of Tennessee Health Science Center (UTHSC). Her research focuses on health outcomes among vulnerable populations, with particular attention to the underlying social and economic factors that contribute to differences in health outcomes and health care utilization. Dr. White-Means also serves as the executive director of the Consortium on Health Education, Economic Empowerment, and Research (CHEER), a community-based participatory health outcomes research center at UTHSC that seeks to mitigate racial and ethnic differences in health status among residents of Memphis and the Mississippi Delta region. A native Memphian, Dr. White-Means is a former president of the National Economic Association, a current board member of the American Society of Health Economists, and board chair of Mustard Seed Inc. (Memphis). She holds a PhD and MA in Economics from Northwestern University and a BA in Economics from Grinnell College.

Dr. Dapremont is a full professor and department chair in the Loewenberg College of Nursing, whose mission is to "produce nurse leaders, scholars, and innovative research to promote health in our global society." She has more than 32 years of experience teaching nursing education and 41 years of experience in the nursing profession. She worked as a Clinical Nurse Specialist in Psychiatric Mental Health Nursing for 22 years and

currently serves as a nurse educator. Dr. Dapremont has held numerous leadership positions in higher education, including past president of the University of Memphis Faculty Senate (2021–2022), past president of Sigma, Beta Theta At-Large of the International Nursing Honor Society, and service on the board of directors of the Tennessee Nurses Association (TNA), where she also served as treasurer. Her research interests include student success among minority populations in nursing and health care equity.

The Hooks Institute and the authors hope that this research publication will inspire reforms that lead to a significant reduction in breast cancer diagnoses among women in Memphis. Because women play such a vital role in the well-being of their families and communities, improving breast health outcomes for everyone has the potential to strengthen families and communities more broadly.

On behalf of the Hooks Institute, we extend our sincere gratitude to the National Institutes of Health and the UTHSC researchers for their partnership in making this publication possible.

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1 The Hooks Institute extends its sincere appreciation to Amy King Ruggaber, Assistant Director of the Hooks Institute, for her service as technical editor. The Institute also acknowledges Paola Cavallari, a graduate student in History at the University of Memphis and a Hooks Institute graduate assistant, for providing additional technical support.

# FOREWORD

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Black women face an unequal opportunity to survive breast cancer when compared with White women: Black women are 40% more likely to die (McDowell, 2022), even though their incidence rates for breast cancer diagnosis are lower (131 vs 140, respectively) (Susan G. Komen, 2025). Memphis, Tennessee, with a metropolitan statistical area of over one million people, stands out among other statistical areas in the country because, for decades, it has had the nation's highest racial differences in breast cancer mortality (Whitman et al., 2012). Research from Whitman, et al (2012) documented that Black women in Memphis die at twice the rate of White women. For decades, Memphis has ranked at least among the top seven metropolitan statistical areas with racial mortality rate differences exceeding the national rate of 1.43 (Hunt et al., 2014; Hunt and Hurlbert, 2016). Additionally, among metropolitan statistical areas where the communities include large percentages of Black women, Memphis rates high in rankings of breast cancer death rates for Black women compared to White women, and also high in late-stage diagnosis rates for Black women compared to White women (McDowell, 2022; Susan G. Komen, 2016; 2025).

Our team's initial research into this crisis situation for Memphis breast cancer patients explored insights from breast cancer survivors, oncologists, and breast cancer support groups (White-Means et al., 2016; White-Means, Dapremont, Rice et al., 2017; White-Means, Dapremont, Davis et al., 2020). Then in 2023, the National Institute of Minority Health and Health Disparities (NIMHD) funded our study titled "Pathways to Improving Breast Health Outcomes in Neighborhoods with Concentrated Poverty." The focus of this study is to measure the impact of neighborhood characteristics (such as poverty and other community factors) on breast health outcomes for Memphis residents. Knowing these relationships helps us to identify modifiable policy pathways (such as possible changes in local policy and/or information disseminated about investment decisions) to improve breast outcomes for our community. We use information available from local, state, and national data sources (University of Tennessee Health Sciences Center [UTHSC], TN Dept of Health, Centers for Disease Control, and the US Census) to measure impacts of poverty and other community factors on breast cancer outcomes in Memphis.

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1 Shelley White-Means is Professor of Health Economics in the College of Graduate Health Sciences at the University of Tennessee Health Science Center (UTHSC). Dr. White-Means' research specialty is exploring health outcomes facing vulnerable populations. This work focuses on the underlying social and economic root factors associated with differences in health outcomes and health care utilization. Dr. White-Means serves as Executive Director of the Consortium on Health Education, Economic Empowerment and Research (CHEER), a community-based participatory health outcomes research center at UTHSC that seeks to mitigate racial/ethnic differences in health status among residents of Memphis and the Mississippi Delta region. A native Memphian, Dr. White-Means is a former President of the National Economic Association, a current board member of the American Society of Health Economists, and Board Chair of Mustard Seed Inc. (Memphis). She holds a PhD and MA in economics from Northwestern University, and a BA in economics from Grinnell College.

2 Jill Dapremont obtained her Master of Nursing at Louisiana State University Health Science Center (LSUHSC) in 1987 and her Doctor of Education in Instructional and Curriculum leadership from Argosy University in 2008. Dr. Dapremont has over 32 years' teaching of nursing education and 41 years of experience in the nursing field. She worked as a Clinical Nurse Specialist (CNS) in Psychiatric Mental Health Nursing for 22 years and now works as a nurse educator. Dr. Dapremont is currently a full professor and department chair within the Loewenberg College of Nursing (LCON), where the mission is to "produce nurse leaders, scholars, and innovative research to promote health in our global society". She is licensed in Tennessee, Mississippi, and Arkansas. Dr. Dapremont has served in multiple leadership positions in higher education, including Past President of the University of Memphis Faculty Senate (2021-2022), past President of Sigma, Beta Theta At-Large, the International Nursing Honor Society, Board of Directors for TNA, and Treasurer for the Tennessee Nurses Association (TNA). Her research interests include student success for minority populations in nursing and health care equity.

Our research, unlike findings in previously published or publicly available data sources, focused on the experiences of people living in highly segregated communities. We interviewed local residents and asked them to share the challenges that their neighborhoods imposed on their ability to maintain breast health. We conducted interviews with city planners, community activists, policy analysts, and policymakers in Memphis. We asked all of them to share historical information about decision-making in Memphis that may not be widely known nor part of written records but may, nonetheless, point to feasible community and policy options that might improve early diagnosis of and decrease mortality from breast cancer.

This study is unique because our combined statistical data analysis and interview methods will identify two types of modifiable policy pathways to reduce breast health differences and increase overall breast health. There is a policy pathway that addresses symptoms of poor breast outcomes by addressing lack of Social Determinants of Health (SDOH), and another policy pathway that focuses on root causes. A symptom of a neighborhood in which residents have poor health is that the neighborhood lacks social determinants of health (SDOH). Root causes are practices, policies, and decisions made by community, state, and national leaders that create and spawn Black segregated neighborhoods with concentrated poverty.

| Lacking SDOH | Example of Root Causes |
|---|---|
| • Limited healthcare access and quality<br>• Poor quality schools<br>• Limited community social networking<br>• Limited employment opportunities and low wages<br>• Food insecurity and sparse access to healthy food<br>• Jobs without health insurance; and<br>• Poor quality housing, air and water, and public transportation. | • Redlining<br>• Lack of access to lending resources or capital<br>• Property devaluation<br>• Lack of community public resources<br>• Limited private investments in opportunity zones; and<br>• Limited municipal issuance of bonds |

Most of the research on breast cancer outcomes explores the impact of SDOH (the symptoms). Thus, the existing literature leaves unanswered the question of which modifiable root cause characteristics represent potential pathways to improve breast health outcomes. Our NIH funded study provides a practical foundation for planning and evaluating breast health interventions in Memphis and other U.S. cities.

This issue of the Hooks Institute Policy Papers shares some of the early results of our NIH funded research study with residents of Memphis and those involved in policy decision-making. The current issue is divided into five policy briefs. A key takeaway of this study is that Black segregated neighborhoods with concentrated poverty have the highest likelihood of breast cancer mortality in Memphis. The characteristics of these neighborhoods create the perfect storm for breast cancer deaths.

This project identifies neighborhood conditions — specifically concentrated poverty — and policy-relevant community factors linked to late-stage breast cancer diagnosis and mortality. Findings will inform practical policy options for prompting earlier detection and reducing mortality among women at increased risk of adverse breast cancer outcomes.

The **first Policy Paper**, *Mapping Compounded Social Vulnerability in Shelby County, TN: Policy Pathways for Equity and Community Resilience*, reports about the relationship between Social Determinants of Health and breast health outcomes. Using maps, the paper identifies geographic areas in which socioeconomic disadvantages overlap and cluster together, as well as reinforce one another. These areas are "hotspots" of compounded vulnerability that perpetuate cycles of neighborhood disadvantage. Knowing these areas provides an evidence base to support targeted, equity-focused policy planning and community resilience initiatives. The **second Policy Paper**, *The Interplay of Poverty, Race, and Segregation on Breast Cancer Outcomes in African American Women*, quantifies the breast health impact of living in a segregated neighborhood where there is a large percentage of Black residents who are poor. The paper reports that when these three conditions (Black race, high poverty and high racial residential segregation) overlap, the perfect storm for high breast cancer deaths results. The **third Policy Paper**, *The Physical and Institutional Systems of Community Infrastructure that Impact Breast Health Outcomes: Historical Redlining and Opportunity Zones*, quantifies the impact of community housing and investment decisions (i.e., redlining and funding of opportunity zones) on breast cancer mortality. The purpose of the study is to explore breast health outcomes by examining the role of community infrastructure decision-making by local and state policy makers. Some community infrastructure decisions may perpetuate neighborhood inequities, and some may improve neighborhood opportunities. The **fourth Policy Paper**, *Community Conversations: Community Leaders on the Barriers to Maximizing Breast Health Outcomes Among Women Living in Under-Resourced Neighborhoods – And Possible Remedies*, reports insights shared by breast cancer survivors and policy informed community residents about actionable neighborhood interventions and policy changes that effectively reduce differences in breast cancer deaths and promote overall health for Memphis residents. Finally, the **fifth Policy Paper**, *The Impact of Recent Budgetary Changes on Social Determinants of Health and Breast Cancer in Memphis, Tennessee*, presents a look forward to predict Memphis breast outcomes as local residents respond to and make family decisions based on the challenges presented to them by federal policy changes that modify access to Medicare and Medicaid, the medical marketplace, food resources and jobs. Our focus is to identify local, regional, and state policy actions that can be activated to mitigate the harm posed by imminent changes in federal policy and law.

Finally, as part of the research protocol of this study, the names of those who participated in this study are not revealed pursuant to confidentiality terms agreed upon by the researchers and participants.

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Guest Editors

# MAPPING COMPOUNDED SOCIAL VULNERABILITY IN SHELBY COUNTY, TENNESSEE: POLICY PATHWAYS FOR EQUITY AND COMMUNITY RESILIENCE

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## INTRODUCTON

Social vulnerability arises from socioeconomic and demographic factors, such as poverty, limited education, lack of transportation, and overcrowded housing, that reduce a community's capacity to withstand and recover from adverse events (Mah et al., 2023). These factors are closely intertwined with the well-being of populations and are recognized as core social determinants of health. Communities characterized by high social vulnerability tend to experience disproportionately poorer health outcomes, both physical and mental, compared to more advantaged communities (Marmot, 2005).

Memphis, the largest city in Shelby County, Tennessee, exemplifies how historical structural inequities have produced modern patterns of social vulnerability. Throughout the 20th century, racially discriminatory housing policies, most notably segregation and redlining practices, systematically excluded Black neighborhoods from home loans and investment, concentrating poverty and disinvestment in those areas (Frankenberg et al., 2017; Turner & Greene, n.d.).

Identifying geographic areas where multiple vulnerability factors overlap is critical for advancing health equity and guiding place-based policy interventions (Drakes & Tate, 2022). Socioeconomic disadvantages rarely occur in isolation; instead, they often cluster and reinforce one another, creating "hotspots" of compounded vulnerability that continue and extend cycles of disadvantage. This study aims to identify and map key social vulnerability hotspots and to produce a composite depiction across Shelby County, providing a spatial evidence base to support targeted, equity-focused policy planning and community resilience initiatives.

## METHODOLOGY

This study examined spatial patterns of social vulnerability across Shelby County, TN, using a tract-level approach. Shelby County, with Memphis as its county seat, serves as the region's primary urban center. This analysis used data from all census tracts, capturing geographic, demographic, housing, and socioeconomic conditions. The dataset included variables such as total population, population density, housing characteris-

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tics (total housing units, occupied households, overcrowding, and vacancy), socioeconomic indicators (poverty levels and educational attainment) and transportation access (households without a vehicle). Collectively, these tracts encompass more than 920,000 residents, ranging from high-density urban neighborhoods to lower-density suburban and semi-rural communities.

The primary data sources were the CDC/ATSDR Social Vulnerability Index (SVI) and the U.S. Census Bureau's American Community Survey (ACS) 2017–2021 5-Year Estimates. All datasets were integrated using standardized census tract identifiers. Before our analysis, we checked for data completeness, corrected inconsistencies, and addressed missing values. Linear interpolation was applied to continuous variables where minor data gaps existed, while missing categorical or structural values were imputed based on the characteristics of adjacent tracts. All variables were standardized using z-scores to ensure comparability across different measurement scales.

The authors conducted spatial hotspot analysis to identify statistically significant clusters of vulnerability across four domains: high poverty, low educational attainment, limited vehicle access, and overcrowded housing. For each variable, we identified statistically significant hotspots (Gi* z-score > 0, $p \leq 0.10$) (see explanation above), and the resulting layers were overlaid to determine census tracts where multiple vulnerabilities co-occur. We interpreted tracts with overlapping hotspots across several domains as areas of compounded social vulnerability.

## RESULTS

### A. Visualizing Disparities in Social Vulnerability Factors

Figure 1 illustrates the spatial distribution of four key social vulnerability indicators, including poverty, lack of vehicle access, low educational attainment, and overcrowded housing across census tracts in Shelby County, TN. Each map shows statistically significant hotspots and coldspots based on the Getis-Ord Gi* statistic, with warmer colors indicating areas of high concentration (hotspots) and cooler colors representing areas of low concentration (coldspots).

Across all indicators, a consistent spatial pattern emerges: vulnerability is most concentrated in the western and southwestern parts of Shelby County, particularly within and around downtown Memphis. These neighborhoods exhibit high clustering of poverty, low educational attainment, and limited vehicle ownership, often overlapping with areas historically affected by racial segregation and disinvestment. In contrast, the eastern and northeastern tracts show predominantly low vulnerability (coldspots), reflecting higher income levels, greater access to transportation, and improved housing conditions.

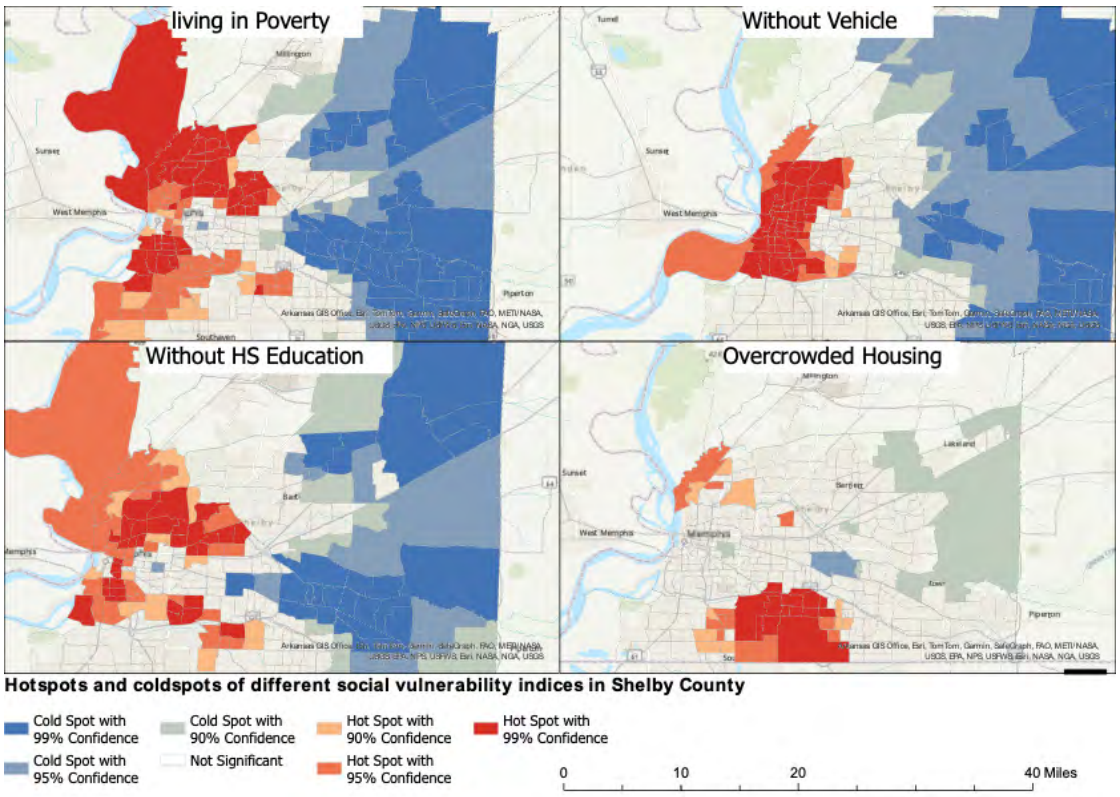


**Figure 1. Hotspot and coldspot analysis of social vulnerability indicators in Shelby County, Tennessee.**

### B. Overlapping Spatial Hotspots of Vulnerability

Figure 2 presents the spatial distribution of compounded social vulnerability in Shelby County, derived from the overlap of hotspot areas across the four individual indicators shown in Figure 1: poverty, lack of vehicle access, limited educational attainment, and overcrowded housing. The map quantifies the number of overlapping hotspots within each census tract, with darker shades representing areas where three or more vulnerabilities co-occur.

The results reveal a clear geographic concentration of compounded vulnerability in the western and southwestern sectors of Memphis, particularly surrounding the urban core and neighborhoods adjacent to the Mississippi River. These areas, already identified as hotspots in multiple individual indicators, exhibit the greatest accumulation of socioeconomic disadvantages. In contrast, the eastern and northeastern tracts of the county display little to no overlap, reflecting relatively higher socioeconomic stability.

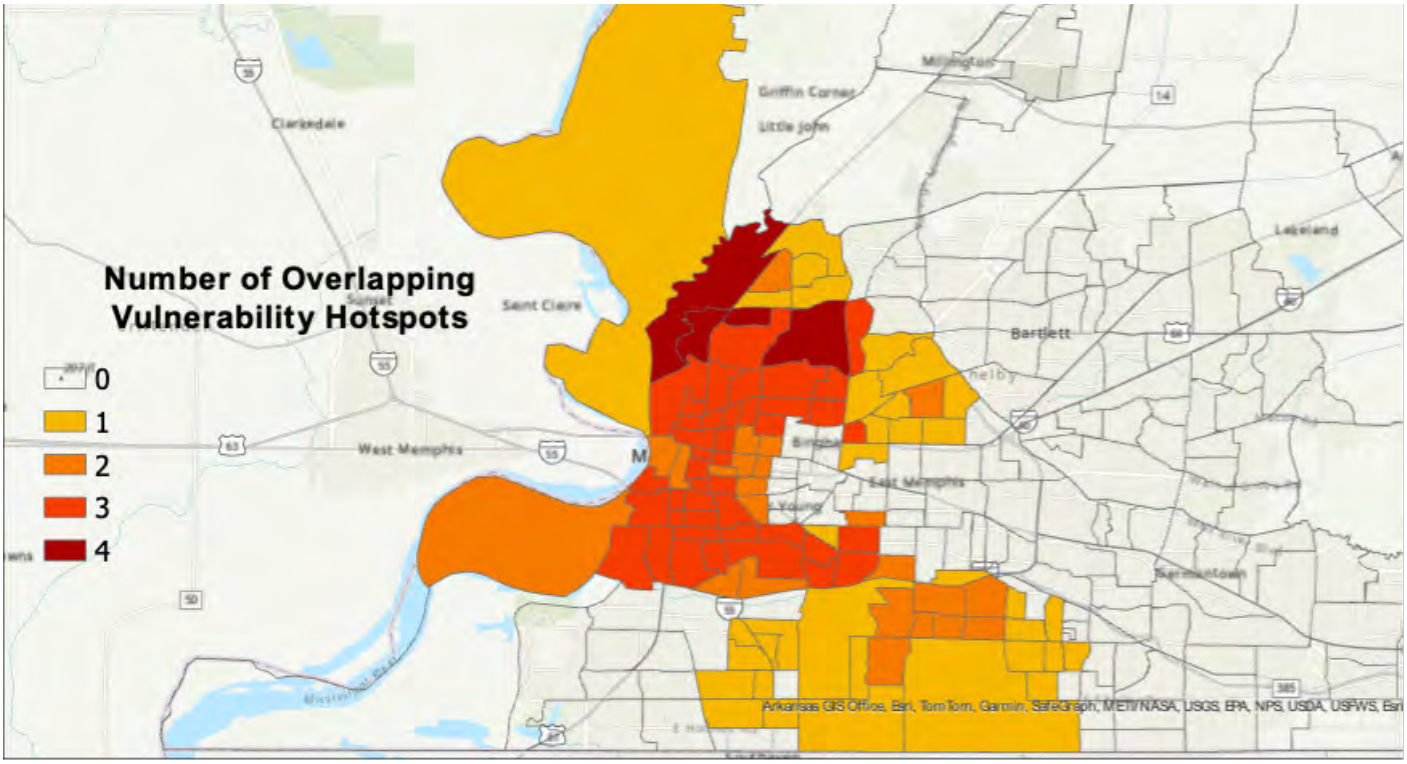


**Figure 2. Overlapping socioeconomic vulnerability hotspots in Shelby County, TN.**

## DISCUSSION

The spatial analysis of social vulnerability across Shelby County reveals distinct geographic disparities that align closely with the county's historical and socioeconomic context. Areas of concentrated disadvantage in the western and southwestern parts of Memphis correspond to neighborhoods that have long experienced structural inequities, including residential segregation, disinvestment, and limited access to quality education and transportation (Harrison et al., 2025). The strong spatial clustering of poverty, low educational attainment, overcrowded housing, and limited vehicle access underscores how these interrelated factors collectively shape community resilience. This pattern reinforces findings from previous studies showing that social vulnerability tends to be spatially entrenched, with overlapping social and economic barriers compounding risk exposure and constraining upward mobility (Flanagan et al., 2020).

Identifying and mapping these compounded vulnerabilities provides the crucial evidence needed for targeted intervention and equitable resource allocation. The concentration of multiple social disadvantages in the urban core suggests that a one-dimensional policy response would be insufficient; rather, comprehensive, place-based strategies that integrate housing, transportation, education, and economic development are needed to break cycles of disadvantage. By focusing on the most affected neighborhoods, policymakers can better address the root causes of inequality and develop interventions that not only alleviate existing disparities but also build the structural capacity for long-term well-being of the entire Memphis community.
Because the analysis relies on tract-level indicators, results may mask local variation and should not be interpreted as evidence of causal relationships.

## RECOMMENDATIONS

Efforts to reduce social vulnerability in Shelby County should focus on the neighborhoods where multiple disadvantages overlap. Local governments and community organizations should

- Prioritize targeted investments in affordable housing and reliable transportation;
- Expand educational and workforce development in hotspot neighborhoods;
- Strengthen cross sector collaboration among planning, public health and social services;
- Implement targeted data-driven and equitable interventions;
- Monitor to track progress and ensure equity in resource distribution.

## FUTURE WORK

Future work will develop an interactive online dashboard that visualizes overlapping vulnerability layers, enabling policymakers, planners, and community organizations to explore neighborhood-level disparities and model potential impacts of policy interventions.

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# THE INTERPLAY OF POVERTY, RACE, AND SEGREGATION ON BREAST CANCER OUTCOMES IN AFRICAN AMERICAN WOMEN

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## BACKGROUND

Breast cancer is the most widely diagnosed cancer among women in the United States, accounting for approximately 30% of all new female cancers each year. It is the second leading cause of cancer-related death among women (American Cancer Society, 2025), disproportionately affecting Black women (Jatoi et al., 2022; Saka et al., 2025; Stringer-Reasor et al., 2021). Although Black women have a 5% lower incidence of breast cancer than white women, they experience a 38% higher mortality rate (American Cancer Society, 2024, 2025). This increased risk of death and lower survival rate among Black women are largely attributed to later detection compared to their white counterparts (Chen et al., 2024; Torres et al., 2024). These disparities are primarily driven by socioeconomic, environmental, and neighborhood-level factors (Chen et al., 2024; Ozcan et al., 2024), which contribute to diagnoses at more advanced stages and, consequently, higher mortality.

Women are more likely than men to work in low-paid jobs and experience severe economic hardship (Bateman et al., n.d.), which can limit their ability to afford health care costs. Black women experience the highest poverty rates, with 19% living below the poverty line compared to 9% of White women (Javaid, 2024). Poverty is a critical driver of health disparities and is strongly linked to poorer breast cancer outcomes. Women living in poverty have significantly lower mammography screening rates and are more likely to be diagnosed with late-stage cancer (Barry et al., 2012). Black women are disproportionately diagnosed with breast cancer at more advanced stages compared to other racial and ethnic groups, contributing to a higher risk of mortality (Yedjou et al, 2019).

Residential segregation, a product of historical and structural inequities, continues to influence the distribution of resources and healthcare access across racial and socioeconomic groups (Batbaatar et al., 2024; Qin et al., 2021). Many Black women live in neighborhoods where healthcare facilities are under-resourced and preventive care is less accessible, exacerbating disparities in cancer outcomes (Goel et al., 2022). While un-

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3 Minghui Li is an Associate Professor at the University of Tennessee Health Science Center College of Pharmacy. Dr. Li received his Ph.D. in Pharmaceutical and Health Outcomes from the University of South Carolina. His research focuses on health disparities, health policy, aging, and prescription drugs. Dr. Li has extensive experience leveraging big data to generate evidence that informs clinical practice and health policy. He has an extensive publication record in peer-reviewed journals, has served as principal investigator on several federally and privately funded research grants, and has received multiple national and international research awards.

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der-resourced neighborhoods contribute to higher breast cancer mortality among all women, they pose even greater barriers to care and outcomes for Black women (Barber et al, 2024; Goel, 2022). Structural racism and historical disinvestment in Black communities have also been linked to poorer survival rates and reduced treatment access (Goel et al., 2022; Plascak et al., 2022). The National Cancer Institute (Ben-Ari, 2024) further underscores treatment disparities, noting Black women in impoverished areas face more aggressive surgical interventions but have limited access to post-mastectomy reconstruction.

Evidence shows that race, poverty, and neighborhood context play a crucial role in determining breast cancer mortality, highlighting how the intersection of race, poverty, and segregation can exacerbate disparities in outcomes. These factors collectively shape healthcare accessibility, treatment options, and survival rates, making it essential to address them in an integrated manner. Without considering their intersectionality, policy interventions risk being ineffective or reinforcing existing inequities. Recognizing these structural determinants is critical to developing holistic interventions that reduce disparities in cancer mortality and improve outcomes for historically marginalized populations.

## MEMPHIS CONTEXT

A longstanding hub of African American culture and migration, Memphis is distinguished as one of the nation's majority-Black cities, with a Black population of 63% (U.S. Census Bureau, 2023). Memphis ranks as the sixth most residentially segregated city in the United States (Smart City Memphis, 2021). Nearly three-quarters of Black residents in the Memphis metropolitan area live in neighborhoods where most residents are also Black (Smart City Memphis, 2021). These segregated neighborhoods face systemic barriers, including limited access to quality education, employment opportunities, and healthcare, and experience disproportionately high levels of poverty compared to predominantly White neighborhoods (Turner & Greene, n.d.). According to the 2024 Memphis Poverty Fact Sheet (Delavega & Blumenthal, 2024), the poverty rate among Black residents is 27.1%, compared with just 8.9% among White residents. The intersection of race, poverty, and residential segregation has created structural inequities that drive health disparities, contributing to Memphis having the highest Black–White disparity in breast cancer mortality among major U.S. cities (Whitman et al., 2012).

## OUR STUDY

A total of 10,171 breast cancer patients' data from Memphis were analyzed to investigate the intersectionality of race, poverty, and segregation in relation to breast cancer mortality. Of the total, 4,633 (45.5%) were Black, and 501 (4.93%) died due to breast cancer.

## OUR FINDINGS

In the United States, Black women are disproportionately affected by breast cancer at younger ages compared to their White counterparts. Our findings also reveal that breast cancer patients residing in census tracts with low educational attainment were predominantly Black (75%). Similarly, Black residents were 78% of those living in areas with low-median income, 77% in areas with a very high Social Vulnerability Index, and 68% of those living in high-poverty neighborhoods.

Breast cancer deaths recorded in Memphis underscored a disproportionate mortality burden among Blacks (6.9% among Black and 3.3% among White patients). This disparity reflects systemic inequities, with neighborhood-level poverty and residential segregation serving as key drivers that continue to undermine outcomes for Black women. It is not surprising that 9.2% of Black women with breast cancer resided in highly segregat-

ed, high-poverty neighborhoods, compared to only 2.6% among White women with breast cancer who resided in highly segregated, low-poverty neighborhoods (Table 1). Within these neighborhoods, Black residents were 2.9 times more likely to die from breast cancer than those not exposed to this intersection of disadvantages. These findings demonstrate that living under the same structural conditions does not yield equal outcomes, underscoring additional race-specific barriers that compound risk for Black communities. Instead, these outcomes point to systemic barriers, including inequitable access to primary care, mammography, and timely treatment. Addressing this crisis requires targeted policies that expand access to affordable screening, strengthen healthcare infrastructure in underserved neighborhoods, and eliminate barriers to equitable treatment.

## DISCUSSION

Our findings suggest that the impact of residential segregation on breast cancer mortality differs by race and is largely mediated by neighborhood-level poverty. Black women with breast cancer who reside in highly segregated, high-poverty neighborhoods experience the highest breast cancer mortality rates. Their mortality rate is nearly twice that of Black women living in highly segregated but low-poverty neighborhoods. A similar pattern is observed among White participants. However, the impact of segregation itself is powerful, as the mortality rates among Black women in high-poverty and low-poverty not-segregated neighborhoods are similar (though slightly higher for poorer Black women). Conversely, White women living in highly segregated, low-poverty neighborhoods show the lowest breast cancer mortality rates. These findings highlight neighborhood poverty as a primary determinant of breast cancer mortality and demonstrate that the combined effects of racial segregation and neighborhood poverty are most severe for Black women.

**Table 1: Neighborhood poverty, residential segregation, and breast cancer mortality (n=10,171)**

| | | Segregated | | Not Segregated | |
|---|---|---|---|---|---|
| | Percent of patients who died | high poverty | low poverty | high poverty | low poverty |
| Black | 6.9% | 9.2% | 4.7% | 5.1% | 4.7% |
| White | 3.3% | 5.3% | 2.6% | 3.9% | 3.4% |

## POLICY RECOMMENDATIONS

Evidence shows that low-income Black women largely fall into the Medicaid coverage gap, leaving them without affordable access to preventive services or treatment. Expanding Medicaid eligibility would significantly reduce barriers to early detection and timely care, helping to lower mortality disparities in breast cancer outcomes (Malinowski et al., 2022).

High-poverty and racially segregated neighborhoods face structural barriers to preventive care. Policymakers should invest in interventions such as mobile 3D mammography units, deploy trusted lay navigators from within communities, and expand after-hours time slots for clinics to accommodate working women (Pelzl et al., 2025). A zip-code level targeted screening approach ensures resources reach the communities at greatest risk, rather than relying on one-size-fits-all strategies.

Furthermore, logistical barriers often prevent women from accessing timely screening and treatment. Bundling transportation vouchers, shuttle services, and on-site childcare with medical appointments can reduce

missed screenings and improve treatment adherence (Shekelle et al., 2022). These supports directly address the everyday challenges that disproportionately burden low-income Black women, ensuring equity in access to oncologic care.

The findings underscore that residential segregation — rooted in historical redlining and structural disinvestment — remains a fundamental driver of racial disparities in breast cancer outcomes. Addressing the structural root causes of breast cancer disparities requires targeted place-based investment in historically underfunded Black neighborhoods. Local redevelopment agencies, academic institutions, and community organizations should collaborate to design revitalization initiatives that expand healthcare infrastructure, improve neighborhood vitality, and address the social determinants that contribute to poor cancer outcomes. These investments directly counter the enduring effects of redlining and disinvestment, fostering environments that promote both community well-being and equitable health outcomes.

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# THE PHYSICAL AND INSTITUTIONAL SYSTEMS OF COMMUNITY INFRASTRUCTURE THAT IMPACT BREAST HEALTH OUTCOMES: HISTORICAL REDLINING AND OPPORTUNITY ZONES

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## INTRODUCTON

Breast cancer remains the most commonly diagnosed cancer, and following lung cancer, it is the most important cause of cancer mortality for women in the U.S. (CDC, 2025). Women in Tennessee have the 12th highest breast cancer mortality-to-incidence ratio compared to other women in all 50 U.S. states (Salmeron et al., 2021), and "Black women in Tennessee rank first in the United States in breast cancer mortality" (Salmeron et al., 2021, p.9). Overall, U.S. breast cancer mortality rates are about 40% higher for Black women compared to White women (McDowell, 2022). Although Black women are less likely to be diagnosed with breast cancer, they have a disproportionately higher mortality rate for breast cancer compared with their White counterparts (McDowell, 2022; Susan G. Komen, 2016; 2025). Once diagnosed with breast cancer, Black women's survival rate is lower than White women; they are 40% more likely to die (McDowell, 2022), even though Susan G. Komen (2025) reports their incidence rates are lower (131 vs. 140, respectively).

Why do these differences exist? Some of the literature (Newman et al., 2002; Vona-Davis & Rose, 2009; Dubay & Lebrun, 2012; Patel et al., 2014; DeSantis et al., 2019) provides a litany of reasons to explain the differences in survival rates between Black and White women; these include genetic differences; health care literacy and education differences; lack of preventive health mammography screenings until the disease runs its course to late stages; and cultural differences. Other studies (Radley et al., 2024) point to differences in the quality of health care received.

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We seek to provide a different explanation as to why there are different outcomes for breast health among Black and White women. Some aspects of the community infrastructure are the result of decisions made by city planners and policymakers at local and state levels. These community infrastructure decisions may or may not enhance the chances of breast cancer survival in neighborhoods where Black women live, work, worship and relax (Willams & Collins, 2001; Landrine et al., 2017; Poulson et al., 2021). We seek to answer the following question: can survival rates for Black women be increased by implementing changes in public policy related to specific characteristics of the community infrastructure?

## COMMUNITY INFRASTRUCTURE

The purpose of the study is to explore breast health outcomes, not by focusing on the characteristics of women at risk of breast cancer, but rather by examining the role of community infrastructure in the neighborhoods where they live. Not all neighborhoods are equal. In neighborhoods where Black women struggle to survive (See Policy Paper #2, *The Interplay of Poverty, Race, and Segregation on Breast Cancer Outcomes in African American Women*), the residents are predominately Black persons living in segregated and poor communities. These neighborhoods are missing some key and vital resources that include limited or no access to fresh fruits and vegetables, limited access to mammography and health care providers and facilities, and unreliable public transportation systems. These characteristics suggest that living in these communities poses specific challenges in managing breast health. What causes these neighborhoods to look the way they do? What local and state decisions frame the community's infrastructure and cause, create, or allow neighborhoods that are disadvantaged to remain the way they are? Our research examines the impact of two community infrastructure characteristics on breast cancer survival: redlining and the designation of opportunity zones (see definition below).

## REDLINING AND ITS HISTORICAL ROOTS

The Home Owners Loan Corporation (HOLC), created in 1933 as a New Deal agency, was established to help struggling homeowners during the Great Depression by buying their mortgages from banks and refinancing them with longer, lower-interest loans to prevent foreclosure. HOLC also produced "Residential Security Maps" that graded neighborhoods, with red-lined areas (labeled "hazardous") deemed risky for investment. Once a neighborhood becomes a low-investment neighborhood, it is difficult to secure investments in the future (Theodos et al., 2020). Urban anthropologists and sociologists note that redlined neighborhoods provide a roadmap for deliberate discriminatory lending, devaluation of assets, and limited community investments to maintain the status quo of racial inequality in community resources and wealth (Loh et al., 2020). This practice has historically led to systemic disadvantages, limited wealth-building, and persistent racial segregation in communities of color. Lenders used redlined maps as an indicator of investment risk, and mortgages and loans were denied to residents of redlined neighborhoods, often based on their race or ethnic makeup, rather than their individual financial qualifications (Collins, et al., 2021). Politicians we interviewed for Policy Paper #4, *Community Conversations: Community Leaders on the Barriers to Maximizing Breast Health Outcomes Among Women Living in Under-Resourced Neighborhoods – And Possible Remedies* stated, "Existing government policies and decision-making processes, including the continued use of racist redlining maps for city planning, have perpetuated these inequities."

Why is this such an urgent issue to address? When disinvestments occur in neighborhoods, health-promoting resources, high-quality medical facilities, and providers are more limited (Bailey, 2017; Gaskin et al., 2012), leading to poor health outcomes (Jones, 2000; Diez Roux & Mair, 2010; Lawrence & Davis, 2019) among the population.

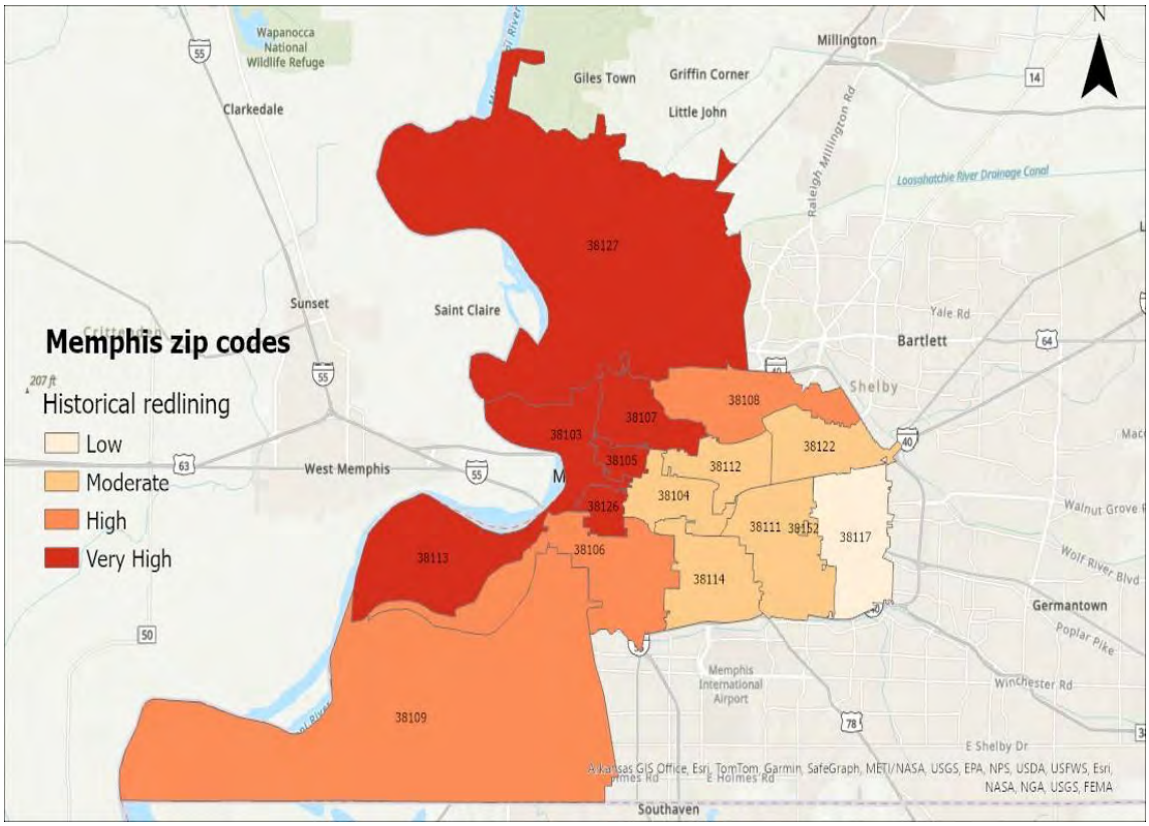
## LENDING RESOURCES, OPPORTUNITY ZONES AND THEIR HISTORICAL ROOTS

An Opportunity Zone (OZ) is a community development tool that provides tax benefits for those who invest in designated low-income (distressed) communities. As envisioned, they have the potential to provide new financial resources to communities that are not thriving. The Tax Cuts and Jobs Act of 2017 authorized governors of the 50 states to designate these zones (Sage et al., 2023). To qualify as an OZ, the area poverty rate must be 20% or higher and the area's median household income must be 80% or lower than the state or metropolitan areas median income. It is important to note that whether or not a community has a designation as an OZ is a decision made by policymakers at the state level who are not necessarily residents of the community, and who do not necessarily prioritize the most vulnerable communities. In theory, communities should benefit from this designation because it is intended to attract new businesses and create new job opportunities in low-resourced communities.

## MEMPHIS CONNECTION

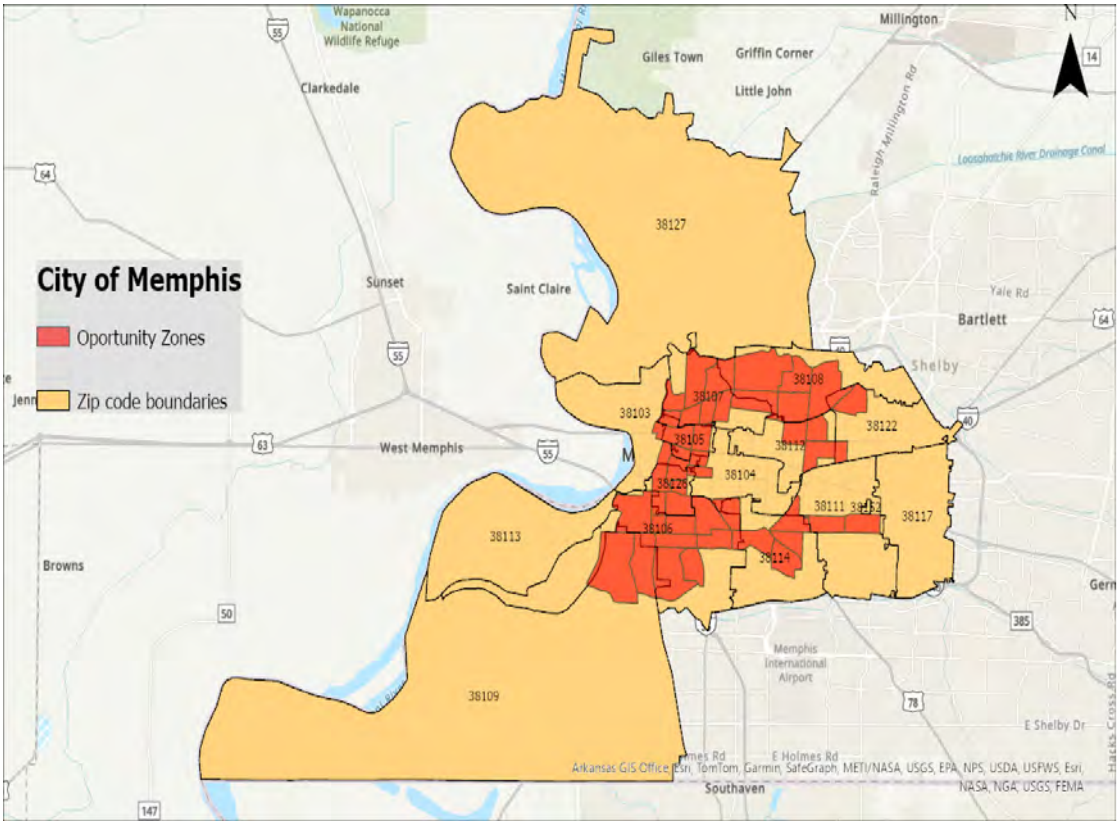
Memphis has a preponderance of redlined neighborhoods. The poverty rates in those neighborhoods range from 9.8 to 52.4% (Delavega & Blumenthal, 2025). The racial compositions are 28-95% non-Hispanic Black residents. See **Map 1** where **zip codes** for redlined neighborhoods are mapped. Very highly redlined zip codes ("hazardous") are colored in dark red and are solely located in the western portion of the city; they include zip codes closest to downtown Memphis. Highly redlined zip codes ("declining") are colored in orange and also are primarily located in the western portion of the city. As one travels east, the number of redlined neighborhood declines; their map colors become lighter, showing neighborhoods that are "still desirable" or "the best."

**Map 1: Redlining in Memphis**



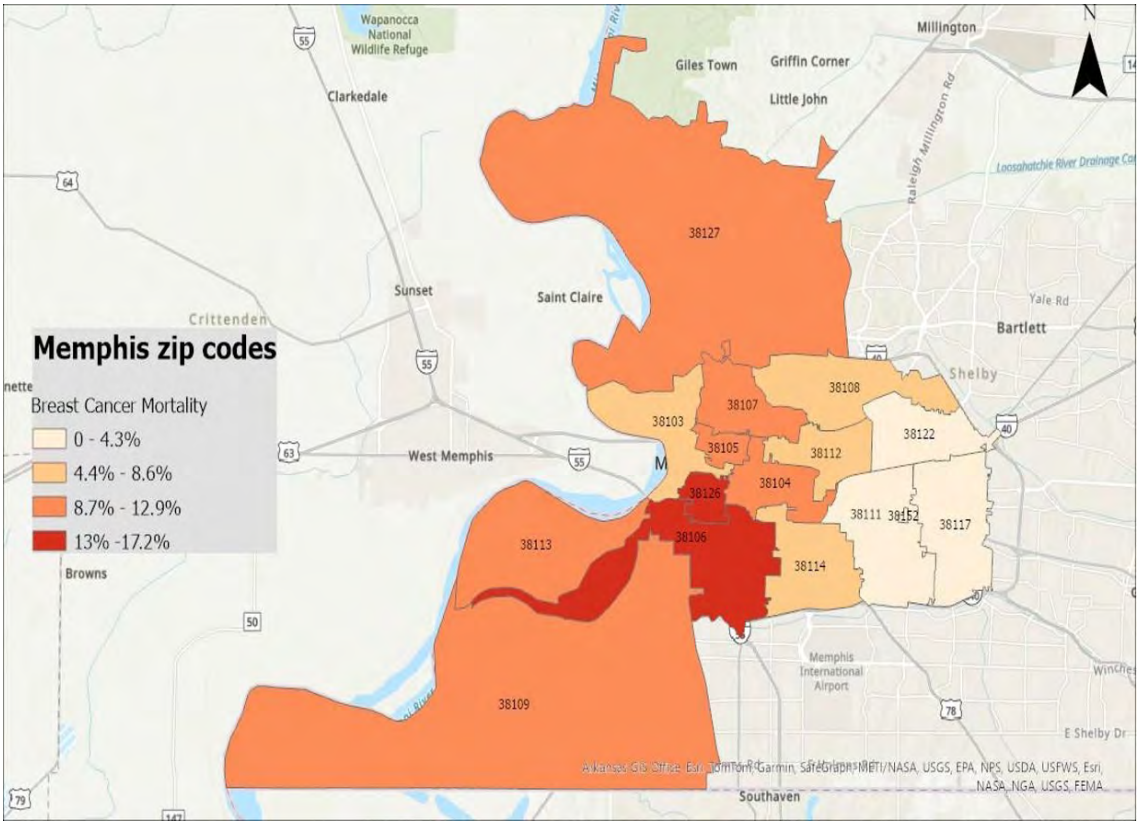
Memphis has thirty (30) federally designated OZs. They are located in **census tracts** with a range of poverty status from 20-66%. See **Map 2** where census tracts with OZs are coded in dark orange. One will notice that OZs are more centrally located in the city, and not as heavily located in the western portion of the city where substantial redlining occurs. Based on visual observations, OZ and redlined zip codes overlap significantly.

**Map 2: Opportunity Zones (OZ) by Zip Codes**




Over half of the OZs are also in zip codes that experience high or very high redlining. **Map 3** displays the zip codes where the greatest breast cancer mortality risks occur. Very high or high breast cancer mortality is color coded in dark orange and medium. As one travels east in Memphis, the likelihood of breast cancer mortality declines.

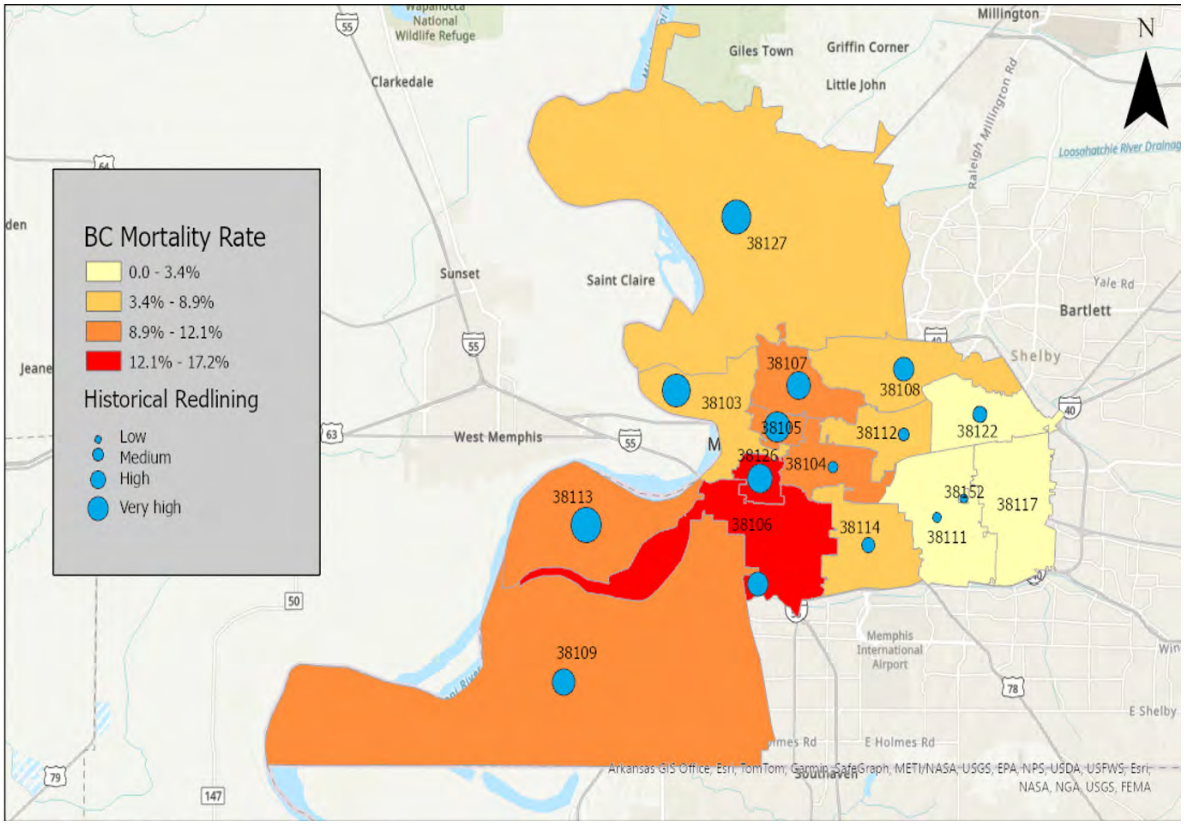
Map 3: Breast Cancer Mortality by Zip Code




## COMMUNITY INFRASTRUCTURE AND BREAST CANCER MORTALITY

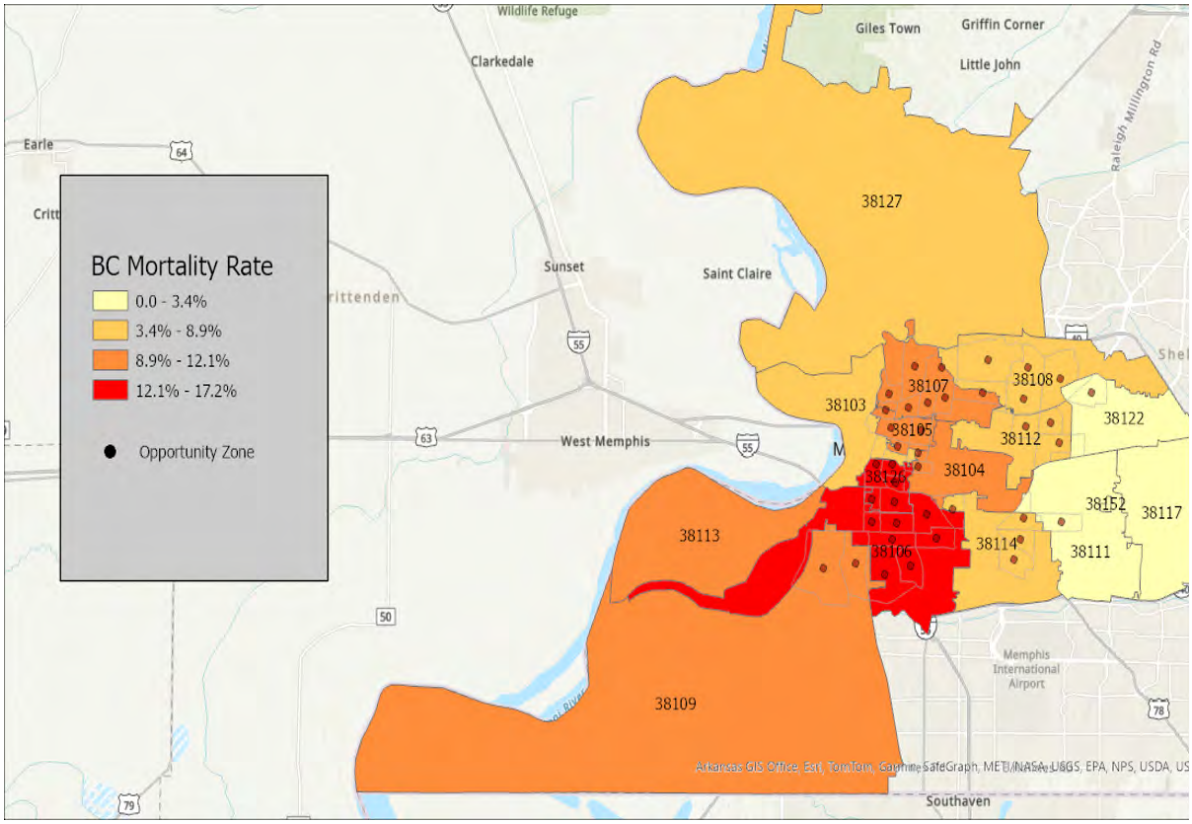
What is the overlap between breast cancer mortality, redlining, and OZs? See Maps 4 and 5. In **Map 4**, high or very high breast cancer mortality zip codes again are coded in dark red or medium orange. The map also reports redlining by using circles that range in size from very large to tiny circles, reflecting very high to very low redlining. There is substantial overlap between zip codes with very high or high breast cancer mortality and zip codes with very high or high redlining. There are very high breast cancer deaths in every high or very highly redlined zip code. The two exceptions are zip codes 38103 and 38108, which report moderate breast cancer mortality and high or very high redlining. This may be associated with population composition in these zip codes. Zip code 38103 is primarily composed of a high percentage of wealthy single white males and, in the 38108 zip code, a substantive percentage of residents are Hispanic and have a lower probability of breast cancer mortality than Black residents.

**Map 4: Breast Cancer Mortality and Redlining**




In **Map 5**, high or very high breast cancer mortality zip codes again are coded in dark red or medium orange. OZs are identified by black dots and are located throughout the city, both in high or very high breast cancer mortality and in low breast cancer mortality zip codes.

**Map 5: Breast Cancer Mortality and Opportunity Zones**




The Memphis maps suggest that important relationships may exist between community infrastructure and breast outcomes. If so, documenting these relationships can inform strategies to address modifiable policy changes that may improve health outcomes.

To explore the roles of community infrastructure in differences in breast cancer deaths in Memphis, our team also performed some preliminary statistical analysis. We used clinical data from the Research Enterprise Data Warehouse (rEDW) in Shelby County, covering the period from 2014 to 2021, which included 10,172 women aged 18 years or older who identified as either Black or White. We explored the correlation between redlining and breast cancer deaths in Memphis.

In **Table 1**, we see that the chances of reporting death equals yes (column 2) increases as the extent of redlining increases (from 20.83% to 35.83% to 43.33%). In preliminary regression analysis, we found that the odds of facing breast cancer mortality are 2.17 times more likely if one lives in a redlined zip code.

**Table 1: Redlining vs. Death**

| Redlining | Death | | Chi2 p-value |
|---|---|---|---|
| | No, No. (%) | Yes, No. (%) | |
| Moderate or no redlining | 442 (37.36) | 25 (20.83) | 0.001 |
| High | 295 (24.94) | 43 (35.83) | |
| Very high | 446 (37.70) | 52 (43.33) | |

In **Table 2**, we see that the chances of death from breast cancer increases (column 2) if one does not live in an OZ. In preliminary regression analysis, we found that the odds of survival from breast cancer are 1.27 times higher if one lives in an OZ: the statistical significance of this result was low, indicting a weak relationship between presence of an OZ and breast cancer mortality.

**Table 2: Opportunity Zone (OZ) vs. Death**

| Opportunity Zone (OZ) | Death | | Chi2 p-value |
|---|---|---|---|
| | No, No. (%) | Yes, No. (%) | |
| Live in OZ | 569 (5.88) | 54 (10.78) | 0.000 |
| Does not live in OZ | 9101 (94.12) | 447 (89.22) | |

In **Tables 3 and 4**, we combine statistical information about redlined areas and OZs to provide a clearer understanding of how they overlap; the maps previously described suggested there is substantial overlap. In column 1 of **Table 3**, indicating 'yes' the area is an OZ and 'yes' the area is redlined, we see that 73% of OZs are in redlined areas. Further, **Table 4** indicates in column 2 that the majority of OZs are located in very highly redlined areas (54%) and a substantial percentage are in high redlined areas (about 20%).

**Table 3: Relationship Between Redlined Areas and Opportunity Zones**

| Redlining | Opportunity Zone | | P-value |
|---|---|---|---|
| | Yes, No. (%) | No, No. (%) | |
| Yes | 292 (73.55) | 545 (60.04) | 0.000 |
| No | 105 (26.45) | 362 (39.96) | |
| Total | 397 (100) | 906 (100) | |

**Table 4: Relationship Between Very High Redlined Areas, High Redlined, and Opportunity Zones (OZ)**

| Redlining | Opportunity Zone | | P-value |
|---|---|---|---|
| | Yes, No. (%) | No, No. (%) | |
| Very high | 254 (53.90) | 284 (31.35) | 0.000 |
| High | 78 (19.65) | 260 (28.70) | |
| Moderate or not redlined | 105 (26.45) | 362 (39.96) | |
| Total | 397 (100) | 906 (100) | |

Thus, if, as expected, the OZs were created to redress many of the ills caused by redlining, these OZs will be located in historically redlined neighborhoods. That is indeed where OZs are predominately located.

Are OZs located in redlined areas effective in lowering chances of breast cancer deaths when compared to areas that are redlined and don't have an OZ? We used regression analyses to explore this question. To our surprise, we found that redlined areas with OZs had double the chance of breast cancer deaths, when compared with those that were redlined without OZs. Further statistical investigation indicated that it was the high redlined areas (and not the very high redlined areas) with OZs that were associated with greater mortality.

Living in an OZ does provide more economic opportunity. However, living in an OZ impacts mortality from breast cancer only marginally if at all. Why is this the case? Are other public policy strategies needed at local and state levels that have a specific focus on improving breast health outcomes for Black women?

### Problems with Opportunity Zones

Trivedi (2020) suggests that new regulations and review of OZs are needed because there are loopholes that allow OZs to be designated in locations where residents do not need help and are not low income. Rather than encouraging the intended purpose of providing resources for residents' startup investments in low-income neighborhoods, much of the OZ focus is on real estate projects (Eldar & Garber, 2022), which may severely limit their usefulness in providing financial resources for residents and residents' ability to invest in their health . Many OZs are considered "unsuitable or unattractive for investments" (Sage, Langen, & van de Minne, 2023). There are some suggestions that factors beyond community income status, such as political status (party affiliation), are included in the establishment of OZs (Frank et al., 2022).
Data on dollars that have been invested across OZs is currently not available to the public. Thus, it is difficult to examine whether the magnitude of investments vary by OZs or if the relative resources that are available to communities are distributed where they are most needed. Such data can be made publicly available, while still protecting the identity of investors who want anonymity.

## CONCLUSION

It is imperative that we identify policies that dismantle community infrastructural differences that create universal barriers and prevent these communities from achieving economic parity and health equity. The concept of OZs is an example of a public policy solution that can potentially ameliorate the effects of historical discrimination and exclusion, but will require exploration of the historical context in which laws, policies, and practices evolved in geographic areas with a high concentration of Black people. The nation must acknowledge that racially disparate health outcomes is one of the costs of inequitable access to healthcare services. The costs of maintaining the status quo include higher Medicaid and private health insurance expenditures; higher cost of maintaining health; limited physicians and health care facilities in low-resourced areas (White-Means & Muruako, 2023); and the embarrassing national reputation of Memphis having one of the greatest racial differences in survival from breast cancer.

## RECOMMENDED POLICY CHANGES

### Local Level

Local authorities can do much to reverse the damage that historic redlining has done.

- The continuing practice of deliberately using redlining maps to disadvantage particular subgroups of the population should be examined and stopped.
- The city and county must develop and implement ordinances to prevent the use of redlining in investment and community development.
- The city and county should target funds specifically for historically redlined communities.
- The city and county should make sure that roads and public infrastructure in historically redlined communities are on par with the rest of the city and county and as well maintained as in not historically redlined (which tend to be more expensive) neighborhoods. Roads and infrastructure should not be worse than in more expensive neighborhoods.

### State Level

At the state level, where OZs are designated, it is imperative to examine whether the goals of the policy initiative are being met. If not, the following questions must be answered:

- Are new investments and resource allocations occurring in each of the designated areas?
- Are there substantial differences in the size of investments across OZs?
- Are decisions to designate and provide funding to an OZ politically motivated?
- Unfair designation of OZs and unfair allocation of funds and investment in the most marginalized communities must be corrected with the following:
- Close the loopholes that allow OZs to be designated in areas that do not need help.
- Prioritize providing funds and loans to low-income residents of historically redlined neighborhoods.
- Create a politically-independent oversight body for OZs.
- Enhance transparency by reporting expenditures and locations on a publicly available, accessible website for OZs.

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# COMMUNITY CONVERSATIONS: COMMUNITY LEADERS VOICES ABOUT THE BARRIERS TO MAXIMIZING BREAST HEALTH OUTCOMES AMONG WOMEN LIVING IN UNDER-RESOURCED NEIGHBORHOODS – AND POSSIBLE REMEDIES

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The concept of under-resourced communities is defined in many ways. Williams et al. (2019) define it as areas with limited access to high-quality healthcare, education, employment and other determinants of health due to systemic inequities and disinvestment. These situations can be traced back to deep roots of systemic inequities that have shaped access to healthcare, education, and economic opportunities for low-resourced groups in the United States. Black communities have been disproportionately affected due to the legacy of slavery, segregation, and structural intolerance that continue to influence modern conditions (Bailey et al., 2017). For Black women, these inequities manifest in unique and compounding ways, as they navigate both ethnic and gender discrimination while also facing the challenges of under-resourced environments.

## HISTORICAL PERSPECTIVES

Historically, many Black communities that are considered under-resourced emerged from policies of exclusion and disinvestment. Practices such as redlining restricted Black families to neighborhoods with limited access to healthcare facilities, healthy food options, and quality schools (Nelson et al., 2020). Separate hospitals and clinics for Black people often provided substandard care to patients, reinforcing disparities in health outcomes that remain evident today (Hoffman et al., 2016). These biases were not accidental, but the result of deliberate policies that created cycles of low wealth, poor health, and limited upward mobility.

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## MODERN PERSPECTIVES

Today, under-resourced communities continue to grapple with limited healthcare infrastructure, economic instability, and environmental risks. Those who participated in this NIH funded research project, titled "Pathways to Improving Breast Health Outcomes in Neighborhoods with Concentrated Poverty," included breast cancer survivors, policy makers, community leaders, and politicians. See the Forward to this issue for a detailed description of the full scope of this collaborative and interdisciplinary research project. We share their insights below. Due to research ethics, the names of interviewees are not disclosed. Persons who provided the quotes referenced here are referred to as the "participant(s)." Below are the views of one policy-informed participant:

> *Right now [Black Americans] are dying because the communities that [they] … live … in are being intentionally polluted by industry, and if you are a Black … American in this country, you are 75% more likely to live near hazardous waste facilities. If you are in Memphis, TN … Black folks were all forced to live in certain areas, and then the planners for Memphis and Shelby County use… maps for redlining to determine where they would put industrial parks.*

Another policy-informed participant voiced concern over the impact of pollution and environmental factors on health outcomes in minority neighborhoods stating,

> *[There is a] need for stronger government regulation and interventions to address Black women who remain disproportionately affected by these condition factors, which intersect to produce significant health disparities, including in breast cancer outcomes.*

Research shows that Black women are more likely to be diagnosed at later stages of breast cancer and to experience poorer survival rates, due in part to barriers in timely screening, early detection, and access to high-quality care (DeSantis et al., 2019). Many under-resourced neighborhoods lack nearby hospitals or cancer treatment centers, requiring long travel times, thus creating additional burdens such as transportation costs and time away from work (White-Means et al., 2017). In our recent interviews with Black women, participants expressed that in some instances they had to travel a long distance from home to get to their doctor's office. While some participants expressed relief at having a car or a ride, they noted that public transportation in their area was unreliable at best – and often non-existent.

Economic inequities play a critical role in health outcomes. Black women are overrepresented in low-wage jobs that often lack health insurance and paid medical leave, making it difficult to pursue preventive care or adhere to treatment regimens (Artiga et al., 2020). One participant stated, "…when it comes to cost, I am on a fixed income, and it is sometimes hard to afford co-pays, medicine, and food. I don't know why we [must] pay a co-pay on a fixed income." These systemic barriers are compounded by experiences of medical intolerance, which contribute to mistrust in the healthcare system, frustration, and discourage engagement with providers (Smedley et al., 2003). At the same time, many under-resourced communities demonstrate resilience and strength through grassroot advocacy, mutual aid, and culturally grounded health interventions designed to address gaps in access (Kenworthy et al., (2023). Policy-informed participants agreed that meaningful progress depends on eliminating barriers through legislative reform.

## HISTORICAL AND SYSTEMIC BARRIERS TO MAXIMIZING BREAST HEALTH OUTCOMES AND THE MEMPHIS CONNECTION

Community leaders have long highlighted the compounding obstacles that Black women face in under-resourced and historically redlined communities. Policy-informed participants often stress that these obstacles are not isolated, but are interlocking, perpetuating cycles of disadvantage across generations.

### Economic Differences Observed in Neighborhoods with Poor Breast Outcomes

Economics plays a major role in resource attainment. A key perspective of the politicians and community leaders providing information to the research team centered on the economic legacy of redlining. Redlining can lead to other hazards for women living in poverty. Several policy-informed participants stated, “It doesn’t make sense that today in 2025, maps for planning in our city and our county are still using the redline maps of the 40s and 50s for city planning and health”.

These participants pointed out that discriminatory housing policies deny Black families’ access to stable homeownership — a primary pathway to wealth-building in America. As a result, many Black women live in neighborhoods where persistent poverty is concentrated, resources are limited, and opportunities for upward mobility are scarce. Women living in impoverished neighborhoods may also be more likely to be exposed to air pollution or other environmental hazards that can increase breast cancer risk, and lack of nutritious food (Chen et al., 2024). One participant stated, “… environmentally, we [must] do something different structurally as it relates to [impoverished neighborhoods].”

Policy-informed participants noted that Black women, who are often heads of households, must work harder to provide for their families while contending with wage gaps and limited employment opportunities. The result is persistent economic precarity that undermines family stability and future generational wealth, according to the 2025 Memphis Poverty Fact Sheet (Delavega & Blumenthal, 2025; White-Means et al., 2023). In reflecting on conditions of economic fragility, a policy-informed participant explained that,

> *It isn’t fair that one out of five children are living in poverty and low wealth in the state of Tennessee. It isn’t fair that half of the children in Memphis and Shelby County are living below the poverty line.*

### Educational Barriers

Educational attainment plays a significant role in shaping health outcomes, including breast cancer incidence, treatment, and survival among Black women. Higher levels of education are strongly associated with improved health literacy, access to preventive care, and the ability to navigate complex healthcare systems (Shariff-Marco, 2014). For breast cancer specifically, these factors translate into earlier screening, better awareness of risk, and greater adherence to treatment regimens. Community and political leaders described how schools in historically redlined communities remain underfunded, overcrowded, and under-resourced. Black women with lower educational attainment often face systemic barriers that contribute to delayed diagnoses and poorer outcomes. For example, limited health literacy can hinder understanding of breast cancer risk factors, screening guidelines, and treatment options (Çelik & Akin, 2025; Holden et al., 2021). This knowledge gap is compounded by structural inequities in healthcare access, such as inadequate insurance coverage or fewer providers in under-resourced communities. Community leaders stress that these educational inequities restrict pathways to higher education and professional careers, reinforcing cycles of poverty and disempowerment. One comment from a policy-informed participant hypothesizes:

*I always think it comes straight from slavery. … and then you had Jim Crow, and you had segregation. … and even after you had Brown v. Board of Education, you [still] didn't really have integration of schools until 10 or 15 years later. And then that was a [slow process] that the historical racial oppression of Blacks has created the detrimental socio-economic and health conditions they face.*

The legacy of slavery disrupted the intergenerational transfer of wealth and access to education that typically led to economic advancement. This historic exclusion continues to shape structural inequities, leaving many Black women economically marginalized, underinsured, and facing delayed access to essential preventive health services such as mammograms — factors that contribute to persistent health disparities (Brookings, 2019; Byrnum, 2023). Women with lower educational attainment are more likely to be uninsured or underinsured, resulting in delayed mammography and later-stage diagnoses (DeSantis et al., 2019). Conversely, higher educational attainment correlates with greater likelihood of private insurance coverage, higher income, and the ability to afford out-of-pocket healthcare expenses. It's a vicious cycle (Choi, S., & Blackburn, J., 2018).

## HEALTH INITIATIVES, ADVOCACY, AND ACCESS

Healthcare access is a critical barrier identified by leaders in impoverished Black communities. Black women frequently experience delays across the care continuum — from screening to treatment initiation. Delays in diagnosis and treatment initiation are more common, even when controlling for insurance (Puckett & Sule, 2025). Minority women are less likely to receive care at high-quality centers and often experience underuse of guideline-concordant treatments (Puckett & Sule, 2025). This is especially true for Black women in redlined and under-resourced communities who face heightened risks of maternal mortality, chronic illnesses, and delayed diagnoses of conditions such as breast cancer (White-Means et al., 2023). One policy-informed participant stated, "years of weathering poverty over time weaken(s) the immune system and the body's response to being able to fight illnesses, and so something that is sociologically constructed has physiological implications."

The socioeconomic status of one's neighborhood could raise or lower the chances of poor breast cancer outcomes (Obeng-Gyasi et al., 2024). These health disparities are compounded by limited access to quality hospitals and clinics, lack of affordable health insurance, and systemic bias within the healthcare system. Leaders argue that these inequities are not simply outcomes of personal choice, but are the result of structural neglect, where investment in medical facilities and preventive services has historically bypassed Black neighborhoods. Community and political leaders stated,

*… even when [impoverished communities] are trying to do healthy things, if the environment has been constructed in a way that hurts [them], you get horrible outcomes as [it] relates to illnesses. … and I think that's what's tragically happening to Black women … in [Memphis].*

A policy-informed participant stated, "[overall in the United States] success as a city, as a country, in my opinion, … is contingent upon how Black women are doing".

### Social Isolation and Lack of Support Systems for Women with Breast Cancer

Safety and community well-being are additional themes raised by study participants. Black women in impoverished and low resourced communities often face heightened exposure to violence — whether interpersonal, domestic, or structural — without adequate support services (Barber, L. E., et al., 2024). Breast cancer participants stated that when you live in certain neighborhoods there are a lot of renters, streetlights do not

work, and they do not feel it is safe to walk for exercise. Exercise is important not only for physical health but also for mental health.

Policy-informed participants stated that the criminal justice system has often failed to protect Black women, while simultaneously criminalizing them and their families (Bradley, D.L., et al., 2024). Black women face barriers to receiving mental health services. They are often less likely to seek care due to stigma, cultural mistrust of the healthcare system, and cultural values. With the cutting of Medicaid benefits, mental health resources will be further limited, leaving many women to shoulder heavy emotional and caregiving burdens with little institutional support (Smith, L. D., et al, 2023).

In sum, from the perspective of community leaders, politicians, and breast cancer survivors, the barriers faced by Black women in under-resourced, impoverished, and redlined communities are deeply entrenched in race and gender inequity. These barriers manifest in limited economic opportunities, poor healthcare access, educational inequities, and safety concerns.

## RECOMMENDATIONS

Progress for Black women's health in impoverished communities has continued to decline (Institute for Women's Policy Research, 2024). The One Big Beautiful Bill Act [(the "Bill") (Pub. L. No. 119-21, effective July 4, 2025)] will continue to erode the progress that was made in the past in health care and breast health care. Changes to Medicaid will have a profound impact on Black women. See Policy Paper #5 for additional insights on the impact of the Bill.

Below are participants' recommended stop gap measures that would forestall the impact of barriers to maximizing breast health outcomes among women who live in less-resourced neighborhoods:

- Policy-informed participants stressed that meaningful change lies in empowering Black women's political leadership opportunities, especially as it relates to addressing issues of improving breast health outcomes. Women, in many cases, speak from the vantage point of their own or their mother's life experiences and assessments of potential risks faced.
- Provide increased investments directly to the communities that have been historically denied resources.
- Enact legislation that reduces pollution in under-resourced areas. While not directly connected to breast cancer, exposure to pollution weakens the body and its ability to fight diseases.
- Maintain essential health and health care benefits such as Medicaid, Medicare, and SNAP. For Tennesseans, participating in Medicaid expansion would bring critical federal resources for impoverished residents.
- Expand opportunities for medical professionals to practice in underserved communities that lack health care access, i.e., are health care deserts.
- Acknowledge that moving social support programs back to the states means inadequate funding for the poor. Tennessee is funded through regressive taxes. Thus, income is not taxed, but rather food, household necessities (such as toilet paper), and other necessities are taxed, negatively impacting the financial resources of the poor. One important note is that 60% of Tennessee taxes are derived from sales taxes. This shows the gross inequity that hurts the poor and benefits the rich, especially now when taxes for millionaires and billionaires are being decreased.
- Achieve improvements in local community structural factors. Quality food access is a critical factor for enhancing health and fighting disease. Alleviating food deserts by incentivizing grocery stores or even drug stores to stock fresh fruits and vegetables is one step in the right direction. Adequate transportation systems that facilitate timely travel to jobs and health care facilities outside of one's neighborhood are also a vital and needed infrastructure change.

- Recognize that school voucher programs create a two-tiered education system that further hurts impoverished Black communities that are already dealing with existing K-12 educational inequities. Additionally, providing advanced educational achievement opportunities that move students away from student debt would provide a pathway to earning opportunities that eliminate poverty.
- Increase visibility of political leaders in impoverished communities so actions and efforts of these political leaders can be visible in these neighborhoods. Many participants interviewed did not think political leaders were actively engaged in efforts to improve their neighborhoods. However, policy-informed participants noted otherwise. Critical to the success of the representatives and the constituents they represent is communication. This should allow the fight for justice to become a team effort; there is strength in numbers. Policy-informed participants should push for changes that will directly address the unique challenges faced by Black women with breast cancer in impoverished and under-resourced communities.

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# THE IMPACT OF RECENT BUDGETARY CHANGES ON SOCIAL DETERMINANTS OF HEALTH AND BREAST CANCER IN MEMPHIS, TENNESSEE

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## INTRODUCTION

Memphis, Tennessee is one of the poorest (Delavega & Blumenthal, 2025) and most racially divided (Othering & Belonging Institute, 2025) cities in the United States. Where a person lives, their income, education, housing, transportation, and access to healthcare all play a role in how healthy they can be (Office of Disease Prevention and Health Promotion, n.d.). These are called the Social Determinants of Health (SDoH).

The story of Memphis is also deeply connected to the history of civil rights in America. On April 4, 1968, Memphis became the center of national attention when Rev. Dr. Martin Luther King Jr. was assassinated while standing with striking sanitation workers. His death was a turning point in the nation's history and a reminder of the deep connection between racial justice, economic opportunity, and human dignity.

Dr. Shelley White-Means and her team have spent years studying how these same social and economic conditions continue to affect African American women with breast cancer in Memphis. In earlier studies, women shared stories about trying to survive breast cancer while also dealing with poverty, racism, and problems getting consistent medical care (White-Means 2015, 2020). Many said they were diagnosed late or struggled to get treatment. Their stories show that staying alive depends not just on medical care but also on the systems that support or block good health.

> *"....[the] neighborhood doesn't have high-quality housing [and I] can't afford to move because I don't have money."*

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2 Shelley White-Means is Professor of Health Economics in the College of Graduate Health Sciences at the University of Tennessee Health Science Center (UTHSC). Dr. White-Means' research specialty is exploring health outcomes facing vulnerable populations. This work focuses on the underlying social and economic root factors associated with differences in health outcomes and health care utilization. Dr. White-Means serves as Executive Director of the Consortium on Health Education, Economic Empowerment and Research (CHEER), a community-based participatory health outcomes research center at UTHSC that seeks to mitigate racial/ethnic differences in health status among residents of Memphis and the Mississippi Delta region. A native Memphian, Dr. White-Means is a former President of the National Economic Association, a current board member of the American Society of Health Economists, and Board Chair of Mustard Seed Inc. (Memphis). She holds a PhD and MA in economics from Northwestern University, and a BA in economics from Grinnell College.

3 Jill Dapremont obtained her Master of Nursing at Louisiana State University Health Science Center (LSUHSC) in 1987 and her Doctor of Education in Instructional and Curriculum leadership from Argosy University in 2008. Dr. Dapremont has over 32 years' teaching of nursing education and 41 years of experience in the nursing field. She worked as a Clinical Nurse Specialist (CNS) in Psychiatric Mental Health Nursing for 22 years and now works as a nurse educator. Dr. Dapremont is currently a full professor and department chair within the Loewenberg College of Nursing (LCON), where the mission is to "Produce nurse leaders, scholars, and innovative research to promote health in our global society." She is licensed in Tennessee, Mississippi, and Arkansas. Dr. Dapremont has served in multiple leadership positions in higher education, including Past President of the University of Memphis Faculty Senate (2021-2022), past President of Sigma, Beta Theta At-Large, the International Nursing Honor Society, Board of Directors for TNA, and Treasurer for the Tennessee Nurses Association (TNA).Her research interests include student success for minority populations in nursing and health care equity.

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*"Sometimes she has worked 2 jobs just to make it. But good jobs are not in our neighborhood."*
*"[I make] choices between food and bills…. If you can get cancer treatment paid for but don't have food….You have to fight for your stuff. You have to find someone to help you….You need a network or support system and people do better if you have someone with you."*

*"…when it comes to cost, I am on a fixed income, and it is sometimes hard to afford co-pays, medicine, and food. I don't know why we [must] pay a co-pay on a fixed income."*

These voices bring to life what the data show. More recent research presented at Academy Health's 2025 Annual Research Meeting found that race, poverty, and neighborhood segregation work together to make breast-cancer survival harder for African American women in Memphis (White-Means et al., 2025). This study confirmed what women in the earlier research described, that their challenges are rooted not only in health-care but also in where they live and the resources available to them.

Another paper in this series (Policy Paper #4) expands on these lived experiences and shares women's stories about how they deal with poverty, transportation problems, and unfair systems while fighting breast cancer.

Building on this history, this paper explores how recent changes to Medicaid, SNAP, and premium tax credits may continue to shape the fight for health equity and justice in Memphis.

## MEDICAID, SNAP, AND HEALTH COVERAGE: CHANGES IN 2025

Recent federal and state budget and policy changes will affect people who face financial challenges, particularly those straddling the line between middle-class and poverty, and those who are poor. This is especially true for those with breast cancer. The One Big Beautiful Bill Act (2025) was signed into law on July 4, 2025, and includes changes to Medicaid which could compound existing challenges for this population. Federal Medicaid changes could result in people losing their health insurance if they miss deadlines, make mistakes on paperwork, or don't get their mail on time. Because people will be required to renew their coverage every six months instead of once a year (Association of State and Territorial Health Officials, 2025), these challenges may become even more pronounced. Living conditions like unstable housing, limited internet or phone access, and low health literacy make these problems even worse. Patients may also lose access to care if doctors cut back services or stop taking Medicaid. If the cost of care is higher than the money the federal government gives, states may cut back on services or make people wait longer to get care. Tennessee already has a health insurance gap because it has not expanded Medicaid, and these new changes add to the problem.

The law also changed how much past medical care Medicaid will pay for (Association of State and Territorial Health Officials, 2025). The expansion population can get coverage for only one month back, and the traditional Medicaid population can get coverage for two months back (Association of State and Territorial Health Officials, 2025). The traditional Medicaid population includes low-income children age 0-18, pregnant women, parents/caretakers of children age 0-18, people age 65+, and disabled individuals of all ages (Rudowitz et al., 2024).

States have control over their Medicaid programs, but the federal government only gives them a set amount of money each year for each person who is insured (Association of State and Territorial Health Officials, 2025). Tennessee has chosen not to expand Medicaid as of 2025, leaving federal money on the table and,

at the same time, leaving many adults without affordable health insurance (Association of State and Territorial Health Officials, 2025).

Like Medicaid, the Supplemental Nutritional Assistance Program (SNAP) also has new regulations regarding employment. Whereas work was previously required of able-bodied adults ages 18-54, the age range has now been expanded to 18-65. The same work regulations now apply to parents whose children are over the age of 14, rather than the previous coverage until children were 18 (Food and Nutrition Service, U.S. Department of Agriculture, 2025). Thus, individuals and families who have challenges meeting the requirements for Medicaid may face the same issues with SNAP.

Federal premium tax credits help people who make too much to qualify for Medicaid but do not get insurance through an employer. Without these credits to help pay for coverage, many of these people could lose their health insurance and go uninsured. It is uncertain if these tax credits will be available in 2026 (Association of State and Territorial Health Officials, 2025).

National supporters of the law say changing Medicaid and SNAP requirements will reduce waste and fraud, reward work, and focus resources on those vulnerable individuals these programs were meant to serve (The White House, 2025a). Further, supporters assume that work and training requirements will help able-bodied adults become more self-reliant (The White House, 2025b). Grounded in stereotypes (Snowden and Graaf, 2019), these policy changes impose penalties on populations who require support (sometimes short-term or temporary financial solutions during periods of economic challenges) in meeting health and food needs. Health is crucial to succeeding in work and in one's personal life. The One Big Beautiful Bill Act's removal of the health safety net will likely counteract any benefits or savings envisioned by the work requirements.

## MEMPHIS: WHY THIS CITY MATTERS

According to the 2023 U.S. Census, Memphis has about 618,655 people, and 63% are Black or African American. The median household income is $51,399, and about 23% of people live below the poverty line. Around 29% of adults age 25 and older have a bachelor's degree or higher, and 19% of households receive SNAP benefits (U.S. Census Bureau, 2023). These data show that living conditions in Memphis will make the federal budgetary and policy changes especially hard on its residents, putting them at greater risk for poor health outcomes, including cancer.

**Table 1: Poverty Rates in the U.S., Tennessee, Shelby County, and Memphis by Race**

| 2024 Poverty Rate | | |
|---|---|---|
| **Location** | **Poverty Rate** | **Black** |
| United States | 12.1% | 20.3% |
| Tennessee | 13.5% | 22.7% |
| Shelby County | 19.0% | 25.0% |
| Memphis City | 24.0% | 27.9% |

*Source: Memphis Poverty Fact Sheet, Volume 14 (Delavega & Blumenthal, 2025)*

**Table 1** shows that poverty is worse in Memphis than the national average, especially for Black residents, and the gap grows larger as we move from the state to the county to the city of Memphis.

**Table 2: Memphis Poverty Rankings by Zip Code and Race**

| 2024 Poverty Ranking | | | |
|---|---|---|---|
| **Rank** | **Zip Code** | **Poverty Rate** | **Black** |
| 1 | 38126 | 45.3% | 88.9% |
| 2 | 38106 | 41.5% | 94.7% |
| 3 | 38127 | 34.7% | 86.8% |
| 4 | 38118 | 32.5% | 73.4% |
| 5 | 38114 | 32.0% | 90.5% |

*Source: Memphis Poverty Fact Sheet, Volume 14 (Delavega & Blumenthal, 2025)*

**Table 2** percentages show that Memphis zip codes with the highest poverty rates also have very high percentages of Black residents. The two zip codes with the highest poverty rates 38126 and 38106 are neighbors.

The Centers for Disease Control and Prevention (CDC) showed that Tennessee and Shelby County have a residential segregation score of 67 (Centers for Disease Control and Prevention, National Center for Health Statistics, 2025). This means that Black and White individuals often live in very different neighborhoods. Black families may have more challenging living conditions and fewer resources.

According to the Tennessee Department of Health's 2025 report, only 40.8% of third graders in the state are reading at grade level. In Shelby County, that number is even lower at 35.8% (Tennessee Department of Health, 2025). Reading scores in Shelby County are also lower than the national average, with students scoring 2.4, almost a full grade below what is expected (Centers for Disease Control and Prevention, National Center for Health Statistics, 2025). This is a serious concern because individuals with poor reading skills may struggle to understand health information, follow medical advice, or learn about disease prevention. These reading problems point to bigger issues in the community, like poverty and poor living conditions that can harm people's health.

The County Health Rankings and Roadmaps show that Shelby County's population health and well-being score is 1.11, which is worse than the national average baseline of 0 (2025). Shelby County is in health group 8, on a scale from 1-10, where group 10 has the hardest living conditions (2025). This means Shelby County has more health challenges than many other places. The same source shows that Shelby County's community conditions score is 0.24, which is slightly worse than the national average baseline of 0 (2025). Shelby County is at the highest end of health group 6, meaning it is moving in the direction of more difficult living conditions.

**Table 3: Age Adjusted Breast Cancer Death Rates in the U.S., Tennessee, and Shelby County by Race and Sex**

| 2025 Age Adjusted Breast Cancer Death Rate | |
|---|---|
| **Location** | **Age-adjusted breast cancer death rate per 100,000 (Black, female)** |
| United States | 26.8 (26.5, 27.1) |
| Tennessee | 28.8 (26.9, 30.8) |
| Shelby County | 31.8 (28.8, 35.0) |

*Source: National Cancer Institute, & Centers for Disease Control and Prevention (2025)*

**Table 3** rates show that mortality for breast cancer is worse in Tennessee than the national average, especially for Black residents, and the gap grows larger as we move from the state to Shelby County. In addition, only 69.4% of women age 40+ in Tennessee had breast cancer screening (Tennessee Department of Health, 2025, National Cancer Institute & Centers for Disease Control and Prevention, 2025) compared to the national average of 70.2 (National Cancer Institute & Centers for Disease Control and Prevention, 2025). This means that getting screened is not the only reason Black residents are more likely to die from breast cancer. Patterns of inequality and a concentration of disadvantages contribute to disparities in health outcomes.

**Table 4: Life Expectancy in the U.S., Tennessee, and Shelby County**

| 2025 Life Expectancy | |
|---|---|
| **Location** | **Age** |
| United States | 78.4 |
| Tennessee | 73.5 |
| Shelby County | 71.8 |
| Shelby County (Black residents) | 68.3 |

*Source: Centers for Disease Control and Prevention, National Center for Health Statistics (2025); County Health Rankings and Roadmaps (2025)*

**Table 4** illustrates that life expectancy for Black residents living in Shelby County is much lower than the national average. This shows that where someone lives can affect how long they live.

**Table 5: SNAP Benefits in the Memphis Metropolitan Statistical Area (MSA)**

| County | Households receiving SNAP (%) | Households with children under 18 receiving SNAP (%) |
|---|---|---|
| Tunica County, Mississippi | 28.9% | 50% |
| Crittenden County, Arkansas | 16.8% | 25.8% |
| Benton County, Mississippi | 16.5% | 18.6% |
| Shelby County, Tennessee | 16.0% | 27.7% |
| Tipton County, Tennessee | 11.8% | 18.3% |
| Marshall County, Mississippi | 11.5% | 25.6% |
| Fayette County, Tennessee | 10.4% | 18.2% |
| Tate County, Mississippi | 9.7% | 15.9% |
| DeSoto County, Mississippi | 7.3% | 11.9% |

*Source: SNAP Recipients in the Memphis Metropolitan Statistical Area (Delavega & Blumenthal, 2025)*

**Table 5** shows that households with children in the Memphis Metropolitan Statistical Area (MSA) are more dependent on Supplemental Nutritional Assistance Program (SNAP) benefits than households in general. This reflects the vulnerability of families with children. In 2023, 33.8% of Tunica County residents lived below the federal poverty level (Federal Reserve Bank of St Louis, 2024), and 51.9% of children under age 18 were living in poverty (Kreiger et al., 2022). In 2022, 80.7% of Tunica County's population was Black, and 35.8% of Black residents lived below the federal poverty level (Kreiger et al., 2022). This reflects that race, place, and poverty intersect.

**Table 6: SNAP Benefits by number of employed persons in the household**

| County | No Workers (%) | 1 Worker (%) | 2+ Workers (%) |
|---|---|---|---|
| Marshall County, Mississippi | 41.8% | 34.1% | 24.1% |
| Crittenden County, Arkansas | 30.0% | 45.8% | 24.2% |
| Tate County, Mississippi | 28.7% | 40.1% | 31.3% |
| Tipton County, Tennessee | 22.2% | 49.5% | 28.3% |
| Benton County, Arkansas | 19.8% | 48.9% | 31.3% |
| Shelby County, Tennessee | 19.6% | 51.7% | 28.7% |
| Tunica County, Mississippi | 17.6% | 50.6% | 31.7% |
| Fayette County, Tennessee | 15.6% | 42.1% | 42.3% |
| DeSoto County, Mississippi | 12.0% | 46.2% | 41.8% |

*Source: SNAP Recipients in the Memphis Metropolitan Statistical Area (Delavega & Blumenthal, 2025)*

**Table 6** shows that in most counties, SNAP reliance was higher among households with one or more employed members than among those with no one working. This pattern indicates that employment alone does not protect families from food insecurity. Furthermore, households in the Memphis MSA rely on SNAP to supplement low wages, job instability, and the rising cost of living.

**Table 7: SNAP Households by County and Race**

| County | Black Households (%) |
|---|---|
| Tunica County, Mississippi | 89.7% |
| Shelby County, Tennessee | 82.0% |
| Crittenden County, Arkansas | 74.5% |
| Marshall County, Mississippi | 74.1% |
| Fayette County, Tennessee | 65.1% |
| Tate County, Mississippi | 54.7% |
| DeSoto County, Mississippi | 53.6% |
| Benton County, Mississippi | 50.6% |
| Tipton County, Tennessee | 36.7% |

*Source: SNAP Recipients in the Memphis Metropolitan Statistical Area (Delavega & Blumenthal, 2025)*

**Table 7** highlights that Black households are overrepresented among SNAP recipients in this area. In all but one county, more than 50% of SNAP households are Black. This shows serious racial gaps in poverty and food access and is linked to the recent budgetary changes affecting those who rely on SNAP for help.

## LIVING CONDITIONS, BREAST CANCER, AND HEALTH INEQUITIES

Social Determinants of Health (SDoH) as defined by the World Health Organization are the conditions in which people are born, grow, live, work, and age (World Health Organization, n.d.). These conditions include having enough money, good schools, getting medical care when needed, safe neighborhoods, and community and social conditions (Office of Disease Prevention and Health Promotion, n.d.). Unequal access to power, money and resources leads to unequal health outcomes (World Health Organization, n.d.).

Breast cancer in Tennessee illustrates how these living conditions can harm people's health. Hashtarkhani et al. (2024) found that women in Memphis who lived in poor and mostly segregated neighborhoods were more likely to have other health problems along with breast cancer. In another study by White-Means et al. (2025), 40.72% of Black women with breast cancer in Shelby County from 2014-2021 died if they lived in neighborhoods with both high poverty and high segregation. Together, these studies show that poverty and segregation strongly affect breast cancer outcomes at both the community and county level.

### The Problem: Gaps and Barriers to Care

- Current budgetary and policy changes
- Tennessee has not expanded Medicaid (TennCare)
- Intersectionality of Black individuals with breast cancer living in concentrated poverty and segregated neighborhoods (see Policy Paper #2)
- Problems with Social Determinants of Health (SDoH)

## RECOMMENDATIONS

- Protect patients with serious illnesses, such as cancer, by exempting them from losing Medicaid coverage because of paperwork errors, so they do not face delays in treatment. This supports the Healthy People 2030 goal of increasing access to quality health care and reducing barriers (Office of Disease Prevention and Health Promotion, n.d.).
- Protect patients with serious illnesses, such as cancer, by exempting them from losing SNAP benefits during treatment and by making renewals easier, so they do not face food insecurity. This supports the Healthy People 2030 goal of reducing household food insecurity and hunger (Office of Disease Prevention and Health Promotion, n.d.).
- Make federal premium tax credits permanent so low- and middle-income families in Memphis can afford to buy health insurance through the ACA marketplace. This supports the Healthy People 2030 goal of increasing the proportion of people with health insurance (Office of Disease Prevention and Health Promotion, 2020).
- Expand Medicaid in Tennessee so low-income adults without children have affordable coverage options. This would reduce the number of uninsured people, improve access to care, and lead to better health outcomes. This supports the Healthy People 2030 goal of increasing the proportion of people with health insurance (Office of Disease Prevention and Health Promotion, 2020).
- Protect and expand federal and state funding for breast cancer screening programs, including the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) and community health centers, so women in Memphis can get early detection and treatment. This supports the Healthy People 2030 goal of increasing the proportion of women who get screened for breast cancer (Office of Disease Prevention and Health Promotion, 2020).
- Increase job training programs and add more wrap around supports such as health services, so people are not only ready to work but also healthy enough to keep working. These supports should help remove

common barriers like the cost of transportation, education, and childcare. Tennessee already has helpful programs that can be built on. For example, SNAP participants can work with a career navigator to get training and help paying for things like tuition, textbooks, gas cards, and uniforms (University of Tennessee Institute of Agriculture, n.d.). The state also offers help with childcare (Tennessee Department of Human Services, n.d.).

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# NOTES

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HOOKS INSTITUTE POLICY PAPERS

**Breast Cancer Mortality in Memphis: A Holistic Approach—Research Findings and Strategies for Improved Outcomes in Segregated Communities**

Editors: Daphene R. McFerren, JD; Elena Delavega, PhD, MSW
Guest Editors: Shelley White-Means, PhD; Jill Dapremont, EdD, RN, CNE

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