Disclaimer:

The information in this Community Profile Report is based on the work of the Central Mississippi Steel Magnolias Affiliate of Susan G. Komen for the Cure® and the North Mississippi Affiliate of Susan G. Komen for the Cure® in conjunction with key community partners. The findings of the report are based on a needs assessment public health model but are not necessarily scientific and are provided "as is" for general information only and without warranties of any kind. Susan G. Komen for the Cure and its Affiliates do not recommend, endorse or make any warranties or representations of any kind with regard to the accuracy, completeness, timeliness, quality, efficacy or non-infringement of any of the programs, projects, materials, products or other information included or the companies or organizations referred to in the report.
ACKNOWLEDGMENTS

Susan G. Komen for the Cure® would like to extend a profound thank you to all who assisted with this effort. We would like to extend a special thank you to the Community Profile Team, Affiliate Board of Directors, and staff for your expertise, effort and commitment to this project.

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The Community Profile could not have been accomplished without the many community members and stakeholders who shared freely of their time, experience, and opinions. We extend our deepest gratitude.

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EXECUTIVE SUMMARY

Introduction
Susan G. Komen fought breast cancer with her heart, body and soul. Throughout her diagnosis, treatments, and endless days in the hospital, she spent her time thinking of ways to make life better for other women battling breast cancer instead of worrying about her own situation. Moved by Susan’s compassion for others and committed to making a difference, Nancy G. Brinker promised her sister that she would do everything in her power to end breast cancer forever. That promise is now Susan G. Komen for the Cure®, the global leader of the breast cancer movement, having invested more than $1.9 billion since inception in 1982. As the world’s largest grassroots network of breast cancer survivors and activists, we’re working together to save lives, empower people, ensure quality care for all and energize science to find the cures.

Purpose of the Report
Every two years, Susan G. Komen for the Cure® Affiliates complete a Community Profile to identify the breast health needs and assets in their communities. First, breast cancer statistics and key demographic variables are reviewed to determine areas with poor breast cancer outcomes and/or communities having unique variables that impact breast health. Second, a health systems analysis is conducted in the target communities. The goal of the health systems analysis is to gauge the availability of breast health services in target communities across the breast cancer continuum of care. This is done through a resource inventory and provider interviews. Finally, data is collected from women living in those communities about assets and barriers to care based on their experiences.

The Community Profile serves as a road map for strategic and program planning. The findings help to determine grant priorities, guide the development of targeted education and outreach programs, inform public policy efforts, guide volunteer development, and identify key partnerships for future collaborative work. In past years, the Central Mississippi Steel Magnolias Affiliate of Susan G. Komen for the Cure® and North Mississippi Affiliate of Susan G. Komen for the Cure® completed independent assessments of their respective service areas. Increased disparities and persistent marginal breast cancer outcomes across the state made clear the need to conduct a more expansive and thorough assessment. As such, the 2011 Community Profile was a collective effort of both Affiliates.

Affiliate History
The Central Mississippi Steel Magnolias Affiliate of Susan G. Komen for the Cure® (Central MS Affiliate) was established in 1999 as an all-volunteer organization. In 2010, the Central Mississippi Race for the Cure® had 2,100 participants and raised $225,000. Since its inception, the Central MS Affiliate has granted over $1 million dollars in the community. These grants have helped local organizations provide free mammograms, diagnostics, support services, financial assistance, and breast cancer education to uninsured and underserved women. Today, the Central MS Affiliate continues to work to
bring awareness and education throughout the state with programs such as Rally for the Cure® and Passionately Pink for the Cure®.

The North Mississippi Affiliate of Susan G. Komen for the Cure® (North MS Affiliate) was founded in 1998 by a group of dedicated volunteers. Since its inception, the Affiliate has raised more than $1 million for breast cancer research, local grass roots organizations, community agencies, and support groups to help provide assistance to breast cancer patients and their families. In 2010, nearly 4,000 individuals participated in the Komen North Mississippi Race for the Cure®. The 2010 Race brought in more than $149,453. Each year the Affiliate supports annual educational events such as Worship in Pink Weekends and health fairs to raise awareness about breast cancer and educate the community about the benefits of early detection.

**Description of Service Area**

Mississippi has a population of 2,967,297 (U.S. Census Bureau, 2010). According to the Mississippi Office of Rural Health, Mississippi is one of the most rural states in the nation. Sixty-five of the state’s 82 counties are designated as rural and 56 percent of the population resides in rural areas (MSDH Office of Rural Health, 2008). Only five counties have population sizes exceeding 100,000 (U.S. Census Bureau, 2010). The North Mississippi and Central Mississippi Affiliates serve 45 of the state’s 82 counties (Map 1). The Central Mississippi Affiliate serves the following 30 counties: Adams, Amite, Attala, Bolivar, Claiborne, Copiah, Franklin, Hinds, Holmes, Humphreys, Issaquena, Jefferson, Jefferson Davis, Lawrence, Leake, Leflore, Lincoln, Madison, Pike, Rankin, Scott, Sharkey, Simpson, Smith, Sunflower, Walthall, Warren, Washington, Wilkinson, and Yazoo. The North Mississippi Affiliate serves the following 15 counties located in the northeast region of the state: Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lafayette, Lee, Lowndes, Monroe, Pontotoc, Prentiss, Oktibbeha, Tishomingo, Tippah and Union counties. Desoto County and Tunica County fall within the service area of the Memphis Mid-South Affiliate and were not included in this report.

![Map 1A. Affiliate Service Areas](image-url)
Statistics and Demographic Review
Multiple data sources were used to determine the impact of breast cancer in Mississippi. Demographic and insurance data were obtained from the U.S. Census Bureau, 2009 & 2010. County-level breast cancer incidence and mortality data (2004-2008) were provided by the Mississippi Cancer Registry. For comparison purposes, national and state-level mortality and incidence data (2003-2007) were obtained from the National Cancer Institute State Cancer Profiles. Staging data and mammography screening data were provided by Thomson Reuters (2009).

Findings
The national breast cancer mortality rate for 2003-2007 was 24.0 per 100,000 (NCI, State Cancer Profiles). The Mississippi rate of 25.8 per 100,000 exceeded the national rate for the same period. Between 2004-2008, thirty-two counties in Mississippi had breast cancer mortality rates that exceeded the state rate.

Upon reviewing breast cancer statistics along with various demographic and socio-economic factors, 7 key variables unique to Mississippi were identified. These factors alone or taken together may contribute to the increased breast cancer mortality rates in the state.

- Mississippi is one of the most rural states with more than half of its population residing in rural areas (MSDH Office of Rural Health, 2008).
- Only five counties in the state have population sizes exceeding 100,000.
- Although non-Hispanic Whites are the majority racial group within the state, Mississippi has the highest percentage of African Americans (37%) of all U.S. states (2010 U.S. Census).
- The 2009 median household income for the state was $36,764, significantly less than the U.S. median household income for that same year ($50,221).
- The breast cancer mortality rate for African American women (33.28 per 100,000) far exceeds that of White women (21.11 per 100,000).
- African American women in Mississippi are less likely to be diagnosed with breast cancer at Stage 1 compared to White women.
- Health disparities are well documented for the Mississippi Delta Region.

Communities of Interest
Based on a review of breast cancer mortality rates, other demographic variables, and consideration of the Affiliates’ service areas, six counties were selected for additional qualitative analysis: Bolivar, Coahoma, Jefferson, Monroe, Sunflower, and Wilkinson. These counties reflect the exacerbated needs of rural/remote communities, African-American women, and low income communities such as counties in the Delta Region.

Health Systems Analysis and Qualitative Data Overview
Seven (7) providers were interviewed as a part of the health systems analysis. The providers were from the following counties: Wilkinson County, Coahoma County, Bolivar County, and Sunflower County. Focus groups were conducted in each of the six target counties. A total of 81 women participated in the six focus groups. The smallest focus group had 11 participants; the largest had 16 participants. The average age of the
participants was 56. The following findings provide a snapshot of the quantitative and qualitative data for each of the target counties.

**Bolivar County**

Bolivar County which has an African American population of 64.2 percent is located in the Mississippi Delta Region. It has a breast cancer mortality rate of 33.2 per 100,000. The rate of breast cancer mortality for African American women in the county (47.5 per 100,000) well exceeds the mortality rate for African American women in the state (33.28 per 100,000). Over one-third (35.1%) of the population lives below poverty level. Average unemployment (11%) exceeds the overall rate of unemployment in the state (9.6%).

An analysis of the current health system revealed that Bolivar County has resources along the entire breast cancer continuum of care. Organizations and providers within the county provide outreach/education, screening, diagnostics, treatment, and follow-up care. Two mammography screening centers of the Mississippi State Department of Health (MSDH) Breast and Cervical Cancer Early Detection Program (BCCP) are located in the county. There are three treatment center facilities along with numerous community-based organizations and an Affiliate grantee to serve the community.

Key informants in Bolivar County were particularly concerned about women who need additional screening or diagnostics following an initial screening mammogram. Grants and financial assistance programs do not typically cover follow up tests. Although Bolivar has resources along the continuum, providers maintained that the continuum of care is not seamless in Bolivar County. Patient navigation was identified as a potential strategy to make sure women receive the services they need and to help them identify available resources.

Focus group participants expressed the need for education on breast health and breast health resources in order help women within the community. Most felt that a lack of knowledge regarding the importance of both screening and treatment were barriers for women in the community. The women seemed to place a great deal of emphasis on social support. The importance of social support was described as being important to help women seek screening and continue treatment. Physician distrust and quality of care were expressed as barriers as well as the issue of shame in disclosing a breast cancer diagnosis.

**Coahoma County**

Coahoma County is also located in the Mississippi Delta. Coahoma County’s African American population is 75.5 percent. While the breast cancer incidence rate (90.3 per 100,000) is lower than the state’s incidence rate (131.3 per 100,000), the breast cancer mortality rate exceeds the overall mortality rate in the state, 29.2 per 100,000 versus 25.8 per 100,000, respectively. The African American breast cancer mortality rate (33.6 per 100,000) is higher much higher than the breast cancer mortality rate of White women in the county (24.0 per 100,000). A large percentage (39.4%) of the population lives below the poverty level.
Breast health services in Coahoma County include two BCCP mammography screening providers and a treatment center. These facilities are located centrally within the county. There is a federally qualified health center for primary care services along with a community college, schools, and a library that provide opportunities for community outreach and education. Coahoma County does not fall within the Affiliates’ service areas; therefore no Komen grantees are located in that community.

Provider interviews identified the Woman’s Clinic in Coahoma County as a resource for reduced screening during breast cancer awareness month. They work closely with women in the community to ensure they have access to breast health services regardless of finances.

In Coahoma County, focus group participants identified affordability and lack of insurance as a major barrier to seeking mammograms. According to the group, reasons women don’t seek treatment include beliefs that chemotherapy and radiation are more harmful to the body than helpful, cancer spreads faster once a person has surgery, and doctors are dishonest to patients about the treatment being successful when it actually is not. Another treatment barrier indicated by the group was the idea that treatment makes the person weaker and sicker.

**Jefferson and Wilkinson Counties**
Jefferson and Wilkinson counties are in the lower southwestern region of the state. The breast cancer mortality rates for Wilkinson and Jefferson counties exceed that of the state at 36.9 per 100,000 and 36.6 per 100,000, respectively. While Wilkinson has one of the lowest percentages (42.5%) of women reporting not having a mammogram in the last 12 months when compared to the target counties, Jefferson has one of the highest at nearly 50 percent. Jefferson County has high rates of unemployment (17.2%) while 22.5% of females age 40-64 is uninsured. Wilkinson has an unemployed rate that is much lower at 11 percent, but a slightly higher percentage of uninsured females age 40-64 (23.9%). Very few adults over 25 have a bachelor’s degree in Wilkinson (8%). Jefferson has the lowest median household income of all six counties at $23,335. Wilkinson is slightly higher at $26,180.

Jefferson County is resource poor, and the breast cancer continuum of care infrastructure is not seamless. There are no mammography screening centers located within the county. The MSDH BCCP provider within the county refers women to a neighboring county facility for screening mammograms. There are very few primary care facilities within the county. Similar to Jefferson County, Wilkinson County is a breast health resource poor community. The county has one mammography screening center which is a BCCP provider. There are very few primary care clinics. The county does not have a federally qualified community health center. There are no treatment centers located in Wilkinson County.

The key informant interviews specifically pointed to barriers for women in Wilkinson County. According to the providers, many of the women utilizing screening services in Wilkinson are elderly and use Medicare and Medicaid. A challenge for this population
accessing services is cost associated with transportation (gas) because they live in very rural/remote areas.

The focus group participants in Jefferson County agreed transportation and lack of services in the county are barriers. In addition, the women felt that education was needed to ensure that women know the importance of getting a mammogram. Most believed that education is necessary so that women understand that breast cancer is treatable. Costs and affordability were expressed as barriers throughout the continuum of care. Many of the women stated that the costs associated with screening, treatment, and follow-up care often prohibit women from seeking medical attention. Lack of insurance was cited as the primary barrier for not seeking mammograms.

Focus group participants in Wilkinson County expressed thoughts of fear when asked about their attitudes toward breast cancer. Many of the women agreed that fear of the outcome from a mammogram was a common attitude in the community. Education was also discussed as a key method to encourage women to get a mammogram and to continue with treatment and follow-up care.

**Monroe County**

Monroe County is in the northeast region of the state. The county racial make-up is predominantly White (67.8%). The breast cancer mortality rate is the lowest of the target counties (20.5 per 100,000). However, forty-four percent of the women reported no mammogram within the past year. While Monroe County has better socio-economic outcomes than the other target counties, Stage 1 diagnosis is considerably lower for African-American women (55%) than for White women (66%). In addition, a large percentage (16.7%) of the female population between the ages of 40-64 do not have insurance. Monroe County has one of the largest populations in the northern region of the state and was selected for further analysis as it could provide insight into the needs of a more populated region.

The health systems analysis revealed that Monroe County has two screening providers serving women within the community. The county’s federally qualified health center is an Affiliate grantee and provides education, outreach, and screening resources. The county does not have any treatment centers. Numerous community-based organizations such as churches, schools, and libraries are vital community resources.

The focus group participants in Monroe County agreed that women do not realize the importance of screening and need to be educated. The importance of social support during treatment was described by this group as particularly important. Some expressed that family support is extremely important during treatment and the lack of support from one’s family may result in discontinuing treatment. Others mentioned that support groups are extremely important. In addition to support during treatment, the group believed that taking relatives and friends to be screened could encourage those who are not currently being screened.
**Sunflower County**

As with the previously described Delta Counties, the trend continues with Sunflower County. The African-American population comprises 72.9 percent of the population. The percentage of those living in poverty is well above the state average (37.1% vs. 21.81%). Incidence of breast cancer is 99.2 per 100,000 while mortality is 30.9 per 100,000. This may be attributed to screening rates in the county. Sunflower County has the highest percentage of women that reported not having had a mammogram in the past 12 months of all the target counties (48.4%). Over a third of the population (37.1%) lives below poverty level.

Sunflower County has two BCCP screening providers that also provide diagnostic services. However, there are no treatment centers within this county. One Affiliate grantee is present. The grantee conducts a myriad of outreach and education efforts to increase the number of women being screened.

Provider interviews revealed that Sunflower County has a strong network of churches and civic organizations that could help increase awareness, conduct outreach, and improve education. One local program utilizes high school students to identify women in the community who need mammograms and to provide outreach and information regarding resources in the community.

In Sunflower County, misperceptions regarding screening were readily apparent. The focus group revealed an existing fear that mammograms actually cause cancer thus resulting in women not seeking screening. Affordability was described as a primary barrier to seeking screening in addition to transportation. Specific transportation barriers included: can’t pay for people to take them, people over charge to take them, and elderly women don’t drive.

**Conclusions**

After the final analysis of the state had been reviewed and discussed, the Community Profile Team developed a list of five priorities that reflected the findings of the data analysis. In separate meetings, the Community Profile Team and Komen Headquarters staff established objectives for each priority based on current capacity and resources of the Affiliates. The timeline to complete all activities listed in the Action Plan is April 1, 2011 – March 31, 2013. While many of the priorities apply to the entire Affiliate service areas, special emphasis will be placed on target counties.

**Priority 1: Systems Improvement**

Reduce fragmentation and create continuity between referral, screening, diagnosis, and treatment within the state.

Objective 1: Identify and explore opportunities to pilot and/or fund two patient navigation programs in the state.
Objective 2: Establish four regional Continuum of Care Collaboratives to share ideas and facilitate the coordination of activities throughout the target counties with limited resources.

Objective 3: Educate policymakers on the unmet breast health needs in the state by sharing findings from the Community Profile.

Objective 4: Continue to advocate for funding for the State Breast and Cervical Cancer Program.

Priority 2: African-American Women
Promote the importance of screening and early detection among African-American women.

Objective 1: Assist partners and grantees in strengthening current breast cancer education content to include targeted awareness messaging with a specific focus on increasing awareness of available breast health and breast cancer services in the Delta Region.

Objective 2: Collaborate with at least four churches and community-based organizations to conduct culturally appropriate breast health education in the Delta Region, such as Worship in Pink and Stomp for the Cure.

Priority 3: Rural/Remote Communities
Increase the reach and scope of grantee services into rural counties.

Objective 1: Cultivate new applicants to the Affiliates’ grants programs that meet the priority areas of the state.

Objective 2: Conduct at least two grant writing workshops in counties that do not currently have Komen funding.

Priority 4: Expansion
Explore opportunities to expand the service area of the Affiliates to better meet the needs of the entire state.

Objective 1: Conduct additional qualitative analysis in five additional counties that do not currently fall within the Komen service area to determine resources, assets, barriers, and gaps.

Objective 2: Identify potential partners, leaders, and volunteers in all nine public health regions of the state.
INTRODUCTION

Susan G. Komen fought breast cancer with her heart, body and soul. Throughout her diagnosis, treatments, and endless days in the hospital, she spent her time thinking of ways to make life better for other women battling breast cancer instead of worrying about her own situation. Moved by Susan’s compassion for others and committed to making a difference, Nancy G. Brinker promised her sister that she would do everything in her power to end breast cancer forever. That promise is now Susan G. Komen for the Cure®, the global leader of the breast cancer movement, having invested more than $1.9 billion since inception in 1982. As the world’s largest grassroots network of breast cancer survivors and activists, we’re working together to save lives, empower people, ensure quality care for all and energize science to find the cures.

Thanks to events like the Susan G. Komen Race for the Cure® and generous contributions from our partners, sponsors and fellow supporters, the organization has become the largest source of nonprofit funds dedicated to the fight against breast cancer in the world. Since 1982, Komen for the Cure has played a critical role in every major advance in the fight against breast cancer – transforming how the world talks about and treats this disease and helping to turn millions of breast cancer patients into breast cancer survivors. Up to 75 percent of the net proceeds generated by each of the 122 Komen Affiliates stays in local communities to support breast cancer education, screening and treatment programs for medically underserved men and women. The remaining 25 percent support the national Research Grants Program, which funds research that will speed the translation of discoveries into reductions in breast cancer mortality and incidence within the next decade and by training investigators at critical stages of their career to ensure sustained discovery.

Purpose of Report

The promise of Susan G. Komen for the Cure® is to save lives and end breast cancer forever by empowering people, ensuring quality care for all and energizing science to find the cures. To meet this promise, Komen Affiliates conduct a bi-annual Community Profile to investigate the breast health needs and assets that exist in the community through a review of quantitative and qualitative data. First, breast cancer statistics and key demographic variables are reviewed to determine areas with poor breast cancer outcomes and/or communities having unique variables that impact breast health.

Second, a health systems analysis is conducted in the target communities. The goal of the health systems analysis is to gauge the availability of breast health services in target communities across the breast cancer continuum of care. This is done through a resource inventory and provider interviews. Finally, data is collected from women living in those communities about assets and barriers to care based on their experiences. Taken together, the statistics and qualitative data paint a 3-dimensional picture of breast cancer needs in target areas. The data is then used to identify responsive and targeted strategies that will help improve breast health outcomes for the communities with the greatest demonstrated need. The findings help guide Affiliate grant priorities, determine education and outreach needs, inform public policy efforts, guide Board/volunteer development, and identify key partnerships for future collaborative work.
In past years, the Central Mississippi Steel Magnolias Affiliate of Susan G. Komen for the Cure® and North Mississippi Affiliate of Susan G. Komen for the Cure® completed independent assessments of their respective service areas. Increased disparities and persistent marginal breast cancer outcomes across the state made clear the need to conduct a more thorough assessment. As such, the community profile was expanded to review breast cancer needs for the entire state of Mississippi through a collective effort of both Affiliates.

**Affiliate History**

The Central Mississippi Steel Magnolias Affiliate of Susan G. Komen for the Cure® (Central MS Affiliate) was established in 1999 as an all-volunteer organization. Since its inception, the Affiliate has granted over $1 million dollars in the community. These grants have helped local organizations provide free mammograms, diagnostics, support services, financial assistance, and breast cancer education to uninsured and underserved women. In 2010, the Central Mississippi Race for the Cure® had 2,100 participants and raised $225,000. During the 2010 grant period, thirteen grantees were awarded a total of $294,400 to provide outreach, education, and screening programs. The Central MS Steel Magnolias Affiliate continues to work to raise breast cancer awareness and education throughout the state with programs such as Rally for the Cure® and Passionately Pink for the Cure®.

The North Mississippi Affiliate of Susan G. Komen for the Cure® (North MS Affiliate) was founded in 1998 by a group of dedicated volunteers. Since its inception, the Affiliate has raised more than $1 million for breast cancer research, local grass roots organizations, community agencies, and support groups to help provide assistance to breast cancer patients and their families. In 2010, nearly 4,000 individuals participated in the Komen North Mississippi Race for the Cure®. The 2010 Race brought in more than $149,453. Thousands of women and men in north Mississippi who could not afford breast health care have received screenings and education as a result of funds raised through events like Race for the Cure®. Each year, the Affiliate supports annual educational events such as Worship in Pink Weekends, health fairs, and other local events to raise awareness and educate the community about the benefits of early detection.

**Organizational Structure**

The Central Mississippi Affiliate is governed by a volunteer Board of Directors which includes a president, vice-president, treasurer, secretary and 7 at-large members. In 2011, the Affiliate hired its first-ever Executive Director (reports to the Board of Directors) and Affiliate Finance Manager (reports to the Executive Director).

The Komen North Mississippi Affiliate Board is comprised of a president, treasurer, secretary, and 4 at-large board members who govern the Affiliate. The board is assisted by the Race Committee and Sponsorship Committee. A new Affiliate Coordinator joined the Affiliate in March 2011.
Description of Service Area
Mississippi has a population of 2,967,297 (U.S. Census Bureau, 2010). According to the Mississippi Office of Rural Health, Mississippi is one of the most rural states in the nation with 65 of its 82 counties designated as rural and 56 percent of the population.
residing in rural areas (2008). Only five counties in the state have population sizes exceeding 100,000 (U.S. Census Bureau, 2010).

Mississippi’s population is dispersed throughout 296 incorporated cities, towns, and villages. Metropolitan statistical areas are defined as a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core (U.S. Census Bureau, 2010). The state has four metropolitan statistical areas (MSA): Gulfport-Biloxi (Hancock, Harrison, and Stone counties); Pascagoula (Jackson and George counties); Jackson (Hinds, Madison, Rankin, Copiah, and Simpson counties); and Hattiesburg (Forrest, Lamar, and Perry counties). There are also four Mississippi counties (DeSoto, Marshall, Tate, and Tunica) included in the Memphis MSA.

The North Mississippi and Central Mississippi Affiliates serve 45 of the 82 counties in the state (Map 1). The Central Mississippi Affiliate serves the following 30 counties: Adams, Amite, Attala, Bolivar, Claiborne, Copiah, Franklin, Hinds, Holmes, Humphreys, Issaquena, Jefferson, Jefferson Davis, Lawrence, Leake, Leflore, Lincoln, Madison, Pike, Rankin, Scott, Sharkey, Simpson, Smith, Sunflower, Walthall, Warren, Washington, Wilkinson, and Yazoo. This service area encompasses a large portion of the eastern and central counties, as well as counties in the Delta Region. The Delta Region is generally described as economically depressed and very rural. The North Affiliate serves 15 counties located in the northeast region of the state: Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lafayette, Lee, Lowndes, Monroe, Prentiss, Okitibeha, Tishomingo, Tippah and Union counties. All of the counties serviced by the North Affiliate (except Lafayette) are in the Appalachia Region. Desoto County and Tunica County fall within the service area of the Memphis Mid-South Affiliate and were not included in this report.

**Race and Ethnicity**

Mississippi has very little diversity in race/ethnicity. Fifty-nine percent (59.1%) of the population is non-Hispanic White and 37.0 percent of the population is African American. Persons of Hispanic or Latino descent make up 2.7 percent of the population; and 2.7 percent of the population are identified as other races to include
Asian, American Indian, Alaska Native, and Pacific Islander. Although non-Hispanic Whites are the majority racial group within the state, Mississippi has the highest percentage of African Americans of all U.S. states (U.S. Census Bureau, 2010).

**Income**
Income and poverty is another unique identifier for the state of Mississippi. According to the Small Area Income & Poverty Estimates for states and counties (U.S. Census Bureau), the 2009 median household income for the state was $36,764. This is significantly less than the U.S. median household income for that same year ($50,221).

According to 2009 estimates, 14.3 percent of the U.S. population lives below poverty level. In Mississippi, 21.8 percent of the population lives below poverty level (U.S. Census Bureau). The unemployment rate for the state is 9.6%. Many of the northern counties are either distressed or at-risk counties according to the Appalachia Regional Commission. Distressed counties are defined as economically depressed ranking in the worst 10% of the nation’s counties. At-risk counties are those at risk of becoming economically distressed. They rank between the worst 10 percent and 25 percent of the nation’s counties (Appalachian Regional Commission, 2011).

**Insurance**
According to the Small Area Income & Poverty Estimates, 20.5 percent of the Mississippi population under the age of 65 is not insured. For females aged 40-64 the percentage of uninsured Black females exceeds that of White females (23.9% and 13.6%, respectively).

**Education**
According to the American Community Survey 2005-2009 Estimates (U.S. Census Bureau) the percentage of adults 25 and over with a bachelor’s degree in the state of Mississippi is 19.1 percent (below the national average of 27.5%). A review of urban and rural educational attainment indicates that 31.7 percent of the rural population had not completed high school compared to 21.0 percent of the urban population that lacks a high school diploma (USDA, Economic Research Service, 2000).

In summary, Mississippi is a very rural state with little racial and ethnic diversity. While African-Americans make up only 37 percent of the total population, Mississippi has the highest percentage of African Americans of all U.S. states. A review of economic and social variables indicates that educational attainment and median household incomes are well below national averages. Moreover, poverty rates for Mississippi drastically exceed that of the United States. These factors may contribute significantly to the health outcomes of the state, which will be explored in the next section.
BREAST CANCER IMPACT IN MISSISSIPPI

Breast Cancer Statistics

Methodology
The Community Profile is a systematic process whereby quantitative and qualitative data is collected and analyzed. This process allows for objective and comprehensive conclusions to be drawn about the needs of the communities. After a review of statewide demographic data, the Community Profile Team then reviewed breast cancer mortality rates, incidence rates, screening rates and staging data. Table 1 summarizes breast cancer mortality, incidence, and screening rates for the entire state.

Multiple data sources were used to determine the impact of breast cancer in Mississippi. Demographic and insurance data were obtained from the U.S. Census Bureau, 2009 & 2010. County-level breast cancer incidence and mortality data (2004-2008) were provided by the Mississippi Cancer Registry. For comparison purposes, national and state-level mortality and incidence data (2003-2007) were obtained from the National Cancer Institute State Cancer Profiles. Staging data and mammography screening data were provided by Thomson Reuters (2009).

There were some limitations to the data. Only five of the 82 counties have a population exceeding 100,000 residents. Estimates of rates and percentages in less populous areas are less reliable than estimates for more populated areas. In less populous areas, one case can cause a significant variance in data.

Findings
The national breast cancer mortality rate for 2003-2007 was 24.0 per 100,000 (National Cancer Institute State Cancer Profiles). The Mississippi rate of 25.8 per 100,000 was slightly above the national average for the same time period. There are 35 counties with breast cancer mortality rates exceeding that of the state. The highest mortality rate within the Affiliates’ service area is Madison County (49.3 per 100,000). While Madison County has the highest mortality rate, this number is misleading. There is a hospice care center located in Madison County which results in a higher number of breast cancer deaths documented for this county. Thus, Madison County was excluded for further analysis because of this data anomaly. According to the National Cancer Institute State Cancer Profiles (2003-2007), the U.S. breast cancer incidence rate is 120.6 per 100,000 (2003-2007). The Mississippi incidence rate is considerably higher at 131.3 per 100,000 for the same years. A review of Mississippi Cancer Registry statistics indicates that 53 counties had incidence rates that were above the national rate and 32 that were above the state rate. Although high incidence rates indicate more new cases of breast cancer, low incidence rates may reflect adverse factors such as low screening rates. In the case of low screening rates, existing breast cancer cases may not be detected and accounted for. Counties having the lowest incidence rates are Bolivar (88.24 per 100,000), Jefferson (76.64 per 100,000), Coahoma (90.31 per 100,000), and Quitman (89.68 per 100,000).
According to 2008 Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System reports, the U.S. mammography screening rate was 76 percent. This reflects the percentage of women reporting having had a mammogram within the previous two years. Getting regular screening tests is the best way for women to lower their risk of dying from breast cancer. Screening tests can find breast cancer early, when it's most treatable. Thomson Reuters 2009 estimates indicate that 41.5 percent of women age 40 and older living in the state did not have a mammogram in the last 12 months. This percentage is highest in Jefferson County (48.3%), Sunflower County (48.4%), and Tunica County (49.3%).

Staging data indicate that African-American women in Mississippi are persistently diagnosed during early stages less often than White women in Mississippi. Thomson Reuters estimates indicate that 54.7 percent of African American women are diagnosed during Stage 1 while 65.6 percent of White women are diagnosed during Stage 1.

Table 1. Mississippi Breast Cancer Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mortality Per 100,000 All Races</th>
<th>Incidence Per 100,000 All Races</th>
<th>Percent No Mammogram Last 12 Months</th>
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<td>U.S.</td>
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<tr>
<td>Union</td>
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<td>121.16</td>
<td>42.2%</td>
</tr>
<tr>
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<td>100.23</td>
<td>45.6%</td>
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<tr>
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<tr>
<td>Washington</td>
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<tr>
<td>Wayne</td>
<td>15.51</td>
<td>105.68</td>
<td>46.9%</td>
</tr>
</tbody>
</table>
### Communities of Interest

Upon reviewing breast cancer statistics for the state along with various demographic and socio-economic factors, 7 key variables unique to Mississippi were identified.

- Mississippi is one of the most rural states with more than half of its population residing in rural areas (MSDH Office of Rural Health, 2008).
- Only five counties in the state have population sizes exceeding 100,000.
- Although non-Hispanic Whites are the majority racial group within the state, Mississippi has the highest percentage of African Americans (37%) of all U.S. states (2010 U.S. Census).
- The 2009 median household income for the state was $36,764, significantly less than the U.S. median household income for that same year ($50,221).
- The breast cancer mortality rate for African American women (33.28 per 100,000) far exceeds that of White women (21.11 per 100,000).
- African American women in Mississippi are less likely to be diagnosed with breast cancer at Stage 1 compared to White women.
- Health disparities are well documented for the Mississippi Delta Region.

After a review of demographic and breast cancer data for Mississippi was completed, six areas were selected as target communities: Bolivar, Coahoma, Jefferson, Wilkinson, Monroe, and Sunflower counties. Two major factors were initially considered: 1) what counties have breast cancer and other statistics of concern? and 2) what counties would provide appropriate geographic place representation, thereby addressing the diversity of conditions in the state?

Additionally, consideration was given to the Affiliate service areas so that subsequent actionable priorities would fall within the purview of the Affiliates’ current capacities. These targeted counties reflect exacerbated needs of rural/remote communities, unique needs of African-American women, and also the needs of low income communities such as those within the Delta Region. The following overview will provide a snapshot of each target community identified.

**Bolivar County**

Bolivar County has an African American population of 64.2 percent and is located in the Mississippi Delta Region. It has a breast cancer mortality rate of 33.27 per 100,000. The rate of breast cancer mortality for African American women (47.51) well exceeds the state rate of 25.8 per 100,000 (Table 2). Estimates for 2009 indicate that 46 percent...
of women age 40 and older did not have a mammogram within the previous 12 months. Data shows that 35% of the population lives below poverty level. The median household income ($27,001) is well below the state’s average of $37,818. Bolivar County has an unemployment rate that is the lowest among the target counties; however, the rate exceeds the state’s average (9.6%). This county has the highest percentage (20.7) of individuals with a bachelor’s degree or above. Among the target counties, it has the second lowest percentage of uninsured females. A review of the staging statistics indicates that African-American women are diagnosed during Stage 1 less often than White women.

Table 2. Bolivar County

<table>
<thead>
<tr>
<th>Breast Cancer Statistics</th>
<th>Stage 1 Diagnosis</th>
<th>Population Demographics</th>
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</thead>
<tbody>
<tr>
<td>Mortality (per 100,000)</td>
<td>Overall</td>
<td>Median household income</td>
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<tr>
<td>33.27</td>
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</tr>
<tr>
<td>African American</td>
<td>African American</td>
<td></td>
</tr>
<tr>
<td>Mortality (per 100,000)</td>
<td>47.51</td>
<td></td>
</tr>
<tr>
<td>White Mortality (per</td>
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<td>100,000)</td>
<td>15.32***</td>
<td>35.1%</td>
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<tr>
<td>Incidence (per 100,000)</td>
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<td>Percent Unemployment</td>
</tr>
<tr>
<td>88.24</td>
<td></td>
<td>11.0%</td>
</tr>
<tr>
<td>% No Mammogram Last 12</td>
<td></td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>46.2%</td>
<td></td>
<td>20.7%</td>
</tr>
<tr>
<td>Months</td>
<td></td>
<td>Uninsured females (40-64)</td>
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<tr>
<td></td>
<td></td>
<td>15.8%</td>
</tr>
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</table>

Population Characteristics

<table>
<thead>
<tr>
<th>Total Population</th>
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<tbody>
<tr>
<td>African American</td>
<td>64.20%</td>
</tr>
<tr>
<td>White</td>
<td>33.52%</td>
</tr>
</tbody>
</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

Coahoma County

Coahoma County is in the northwest region of Mississippi and falls within the Delta Region. Coahoma County’s African American population is 75.53 percent. While the breast cancer incidence (90.31 per 100,000) is lower than the state’s incidence rate (131.39 per 100,000) the breast cancer mortality rate of the county exceeds that of the state, 29.22 versus 25.8 per 100,000, respectively (Table 3). The African American breast cancer mortality rate (33.68) exceeds the breast cancer mortality rate of White women within the county (24.09 per 100,000). Data suggests that 55 percent of the African American population is diagnosed during Stage 1 when survivorship is increased. This is compared to 66 percent of White women who are diagnosed at Stage 1. The median household income is well below the state and nearly 40 percent of the population lives below the poverty level. This is compounded with above average unemployment of 12.5 percent and a community with less than 15 percent of population aged 25 and over who have at least a bachelor’s degree. Sixteen percent of the female population aged 40-64 is uninsured.
Table 3. Coahoma County

**Breast Cancer Statistics**

<table>
<thead>
<tr>
<th>Source</th>
<th>Rate</th>
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<tbody>
<tr>
<td>Mortality (per 100,000)</td>
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<tr>
<td>African American Mortality (per 100,000)</td>
<td>33.68</td>
</tr>
<tr>
<td>White Mortality (per 100,000)</td>
<td>24.09***</td>
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<tr>
<td>Incidence (per 100,000)</td>
<td>90.31</td>
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<tr>
<td>% No Mammogram Last 12 Months</td>
<td>42.2%</td>
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**Stage 1 Diagnosis**

<table>
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<tr>
<th>Group</th>
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<tbody>
<tr>
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<tr>
<td>African American</td>
<td>55.0%</td>
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<tr>
<td>White</td>
<td>66.3%</td>
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**Population Demographics**

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
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<tr>
<td>Median household income</td>
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<td>Percent Below Poverty</td>
<td>39.4%</td>
</tr>
<tr>
<td>Percent Unemployed</td>
<td>12.5%</td>
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<tr>
<td>Bachelor’s Degree</td>
<td>14.1%</td>
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<tr>
<td>Uninsured females (40-64)</td>
<td>16.1%</td>
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</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate; Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

**Jefferson and Wilkinson Counties**

The review of Jefferson and Wilkinson counties will be combined as these two counties are very similar demographically. These two counties are in the lower southwestern region of the state. Both counties have very large African-American populations. Non-Hispanic Whites make up 29 percent of the population in Wilkinson County and 14 percent of the population in Jefferson County. As seen with the Delta Counties, predominantly African-American communities often suffer disparities and marginal health outcomes compared to the rest of the state. The breast cancer mortality rates of Wilkinson and Jefferson County exceed the mortality rate for the state at 36.95 and 36.69 per 100,000, respectively (Tables 4 and 5). The breast cancer incidence rate of Wilkinson County is also high at 133.32 per 100,000. While Wilkinson County has one of the lowest percentages (42.5%) of women reporting not having mammogram in the last 12 months of the target counties, Jefferson has one of the highest at nearly 50 percent.

With median household income levels of $26,180 and $23,335, these counties rank among the 10 counties with the lowest median incomes in Mississippi. Seventeen percent of the population in Jefferson County is unemployed. That is well above the state (9.6%) while Wilkinson’s is only slightly higher at 11.1 percent. Conversely, Jefferson has a more educated population with 18 percent having attained at least a bachelor’s degree while only 8.0 percent of the Wilkinson County population has a bachelor’s degree. These counties have comparable rates of uninsured females age 40-64 which are considerably higher than the other counties. As with all of the selected counties, the trend of African-American women being diagnosed during Stage 1 is low compared to White women.
Table 4. Jefferson County

<table>
<thead>
<tr>
<th>Breast Cancer Statistics</th>
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<tr>
<td>Mortality (per 100,000)</td>
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</tr>
<tr>
<td>African-American Mortality (per 100,000)</td>
<td>43.12***</td>
</tr>
<tr>
<td>White Mortality (per 100,000)</td>
<td>----</td>
</tr>
<tr>
<td>Incidence (per 100,000)</td>
<td>76.64</td>
</tr>
<tr>
<td>% No Mammogram Last 12 Months</td>
<td>48.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Characteristics</th>
<th>Stage 1 Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>7,726</td>
</tr>
<tr>
<td>African American</td>
<td>85.68%</td>
</tr>
<tr>
<td>White</td>
<td>13.72%</td>
</tr>
</tbody>
</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate; Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

Table 5. Wilkinson County

<table>
<thead>
<tr>
<th>Breast Cancer Statistics</th>
<th>Stage I Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality (per 100,000)</td>
<td>36.95</td>
</tr>
<tr>
<td>African-American Mortality (per 100,000)</td>
<td>46.18****</td>
</tr>
<tr>
<td>White Mortality (per 100,000)</td>
<td></td>
</tr>
<tr>
<td>Incidence (per 100,000)</td>
<td>133.32</td>
</tr>
<tr>
<td>% No Mammogram Last 12 Months</td>
<td>42.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Characteristics</th>
<th>Stage I Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>9,878</td>
</tr>
<tr>
<td>African American</td>
<td>70.78%</td>
</tr>
<tr>
<td>White</td>
<td>28.69%</td>
</tr>
</tbody>
</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate; Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

**Monroe County**
Monroe County is in the northeast region of the state. The population is predominantly White. It is included in the nation’s 400+ counties that comprise the economically
depressed Appalachia Region. It is among the largest counties in the state in-land area (population size 36,989). The median household income is closest to the state’s median average than the other target counties. Of the target counties, Monroe has the lowest percent of residents living below poverty (19.7%). Thirteen percent of the county is unemployed with 12.7 percent of the population having attained a bachelor’s degree. Monroe County’s breast cancer mortality rate is 20.57 per 100,000, the lowest of the target counties. However, it has the second highest breast cancer incidence rate (110.6 per 100,000) of the target counties (Table 6). Forty-four percent of the women reported no mammogram within the past year. Stage 1 diagnosis is considerably higher for White women than African-American women. A large percentage of the female population between the ages of 40-64 does not have insurance.

Table 6. Monroe County

<table>
<thead>
<tr>
<th>Breast Cancer Statistics</th>
<th>Stage 1 Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality (per 100,000)</td>
<td>Overall</td>
</tr>
<tr>
<td>African American Mortality</td>
<td>63.6</td>
</tr>
<tr>
<td>per 100,000</td>
<td>African American</td>
</tr>
<tr>
<td>White Mortality (per 100,000)</td>
<td>55.2</td>
</tr>
<tr>
<td>Incidence (per 100,000)</td>
<td>White</td>
</tr>
<tr>
<td>% No Mammogram Last 12 Months</td>
<td>66.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Characteristics</th>
<th>Population Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>Median household income</td>
</tr>
<tr>
<td>African American</td>
<td>$33,597</td>
</tr>
<tr>
<td>White</td>
<td>Percent Below Poverty</td>
</tr>
<tr>
<td></td>
<td>19.7%</td>
</tr>
<tr>
<td></td>
<td>Percent Unemployed</td>
</tr>
<tr>
<td></td>
<td>13.9%</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td></td>
<td>12.7%</td>
</tr>
<tr>
<td></td>
<td>Uninsured females (40-64)</td>
</tr>
</tbody>
</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate; Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

Sunflower County

As with the previously described Delta Counties, the trend continues with Sunflower County. The African-American population comprises 72.9 percent of the population with Whites comprising only 25 percent. The percent of those living below poverty level is well above the state average (37.1% vs. 21.8%). Incidence of breast cancer is 99.29 per 100,000 while the breast cancer mortality rate is 30.96 per 100,000. Sunflower County has the highest percentage of women that have reported not having had a mammogram in the past 12 months (48.4%) of all the target counties; however, the Stage 1 diagnosis trends are similar to the other Delta Counties (Table 7). This may be reflective of the data which suggests that African Americans in the county (54%) are less likely to be diagnosed during the early stages of breast cancer compared to White women in the county (66.2%). Sunflower County has a median household income that is well below that of the state. Over 13 percent of the population is unemployed with 13
percent of the population holding at least a bachelor’s degree. Fifteen percent of the females age 40-64 are uninsured.

*Table 7. Sunflower County*

<table>
<thead>
<tr>
<th>Breast Cancer Statistics</th>
<th>Stage I Diagnosis</th>
<th>Population Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality (per 100,000)</td>
<td>Overall</td>
<td>Median household income</td>
</tr>
<tr>
<td>30.96</td>
<td>59.1%</td>
<td>$24,880</td>
</tr>
<tr>
<td>African-American Mortality (per 100,000)</td>
<td>African American</td>
<td>Percent Below Poverty</td>
</tr>
<tr>
<td>30.70***</td>
<td>54.6%</td>
<td>37.1%</td>
</tr>
<tr>
<td>White Mortality (per 100,000)</td>
<td>White</td>
<td>Percent Unemployed</td>
</tr>
<tr>
<td>39.73***</td>
<td>66.2%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Incidence (per 100,000)</td>
<td></td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>99.29</td>
<td></td>
<td>13.3%</td>
</tr>
<tr>
<td>% No Mammogram Last 12 Months</td>
<td></td>
<td>Uninsured females (40-64)</td>
</tr>
<tr>
<td>48.4%</td>
<td></td>
<td>15.0%</td>
</tr>
</tbody>
</table>

Sources: Mortality and Incidence (MCR, 2004-2008); *** Counts <15 are too few to calculate a stable age-adjusted rate Screening Estimates and Staging (Thomson Reuters, 2009); Population Characteristics (2010 Census); Demographic Data (2009 Census Estimates); Unemployment (2009 USDA)

**Conclusions**

In summary, to determine where further community analysis was needed, a review of demographic data, breast cancer mortality, screening, and stage at diagnosis was conducted. This analysis led to the identification of 6 counties that are impacted by poor breast cancer outcomes and disparities in education, income, and other social determinants of health. Additionally, many of these counties are some of the most economically and socially distressed or rural areas that present unique challenges and barriers for the women who often need the most outreach. A summary of some key indicators for each target county follows:

**Bolivar County**

- The breast cancer mortality rate (33.27 per 100,000) is among the top ten in the state.
- The African-American breast cancer mortality rate is even higher at 47.51 per 100,000.
- A high percentage (46%) of women 40 and older reported not having a mammogram in the past 12 months.
- Thirty-five percent (35%) of the population lives below poverty level.

**Coahoma County**

- The breast cancer mortality rate (29.22 per 100,000) of the county exceeds the state.
• The breast cancer mortality rate for African-American females (33.68 per 100,000) is higher than the rate for White women (24.09 per 100,000).
• The median household income is well below the state median household income and nearly 40 percent of the population lives below the poverty level.
• Sixteen percent of the female population aged 40-64 is uninsured.

**Monroe County**
• While Monroe County has a relatively low breast cancer mortality rate (20.57 per 100,000), this county has one of the largest populations of the northern counties.
• The median household income is $34,251, and nearly 20 percent of the population lives below poverty level.
• Stage 1 diagnosis is considerably higher for White women than African-American women.

**Jefferson and Wilkinson Counties**
• The breast cancer mortality rates are among the highest at 36.69 per 100,000 and 36.95 per 100,000, respectively.
• These counties have comparable percentages of uninsured females age 40-64, which are substantially higher than the other counties.
• African-American women are diagnosed at Stage 1 much less than White women.
• Nearly 50 percent of women reported not having a mammogram in the past 12 months in Jefferson County.

**Sunflower County**
• The breast cancer mortality rate (30.96 per 100,000) exceeds the state rate.
• Thirty-seven percent of the population lives below poverty level and the median household income is $24,352.
• Fifteen percent of the females age 40-64 are uninsured.
• Nearly 50 percent of women reported not having a mammogram in the past 12 months in Sunflower County.

The primary factors used to determine the target communities was mortality rates, disparate socioeconomic factors, and regional representation across the state with regard to current Affiliate capacities to address the needs. Additional perspectives on the health system, community resources, assets, and gaps are necessary to identify specific community needs.
HEALTH SYSTEMS ANALYSIS

Overview of Continuum of Care
The Breast Cancer Continuum of Care (Figure 1) depicts how a woman typically moves through the health care system to be screened for breast cancer, and if necessary, receives diagnostic tests and treatment for breast cancer. The Continuum of Care has four stages: Screening, Diagnosis, Treatment and Follow-up Care. The model can be used to assess why some women do not receive regular screening or why those who do seek screening do not progress through the continuum as recommended for timely diagnostic tests, treatment, and follow-up care.

The following section describes the four stages of the continuum as depicted in the figure below.

Figure 3. Breast Cancer Continuum of Care

Stage 1: Screening
Breast cancer screening is the first step in the continuum. Komen’s screening recommendations are:

- Ask your doctor which screening tests are right for you if you are at a higher risk.
- Have a mammogram every year starting at age 40 if you are at average risk.
- Have a clinical breast exam at least every 3 years starting at age 20 and every year starting at age 40.
- Know what is normal for you and report any changes to your healthcare provider right away.
Stage 2: Diagnosis
For most women who have a mammogram or clinical breast exam, the results will be normal. For some women, the results may be abnormal. An abnormal test may indicate the need to do more tests. It is important that women receive timely follow-up tests after an abnormal mammogram or clinical breast exam.

Usually, the health care provider will begin with less invasive tests like a diagnostic mammogram or ultrasound. If these tests cannot rule out cancer, he or she may recommend a biopsy. If further testing reveals that the abnormality is not cancer, the woman will need to continue to follow screening recommendations. For those that have a diagnosis of breast cancer, they will then need to enter the treatment stage of the continuum.

Stage 3: Treatment
A breast cancer diagnosis will lead to the treatment stage of the continuum. Health care providers will work with the patient to determine a course of treatment. The best treatment plans are typically determined when the patient and provider work together. Treatment may involve one of the following or a combination:

- Surgery
- Radiation therapy
- Chemotherapy
- Hormonal therapy
- Targeted therapy

Stage 4: Follow-up Care
Follow-up care includes regular screening as recommended by a health care provider following normal or abnormal results. Women with normal screenings need support to continue and maintain proper screening practices. For those diagnosed with cancer, follow up care ensures their needs are met post treatment in order to address quality of life issues. Some survivors receive care related to side-effect management, long-term treatment, reconstruction and end-of-life care.

The following section will discuss the findings from an analysis of the health systems in the target communities. This analysis was conducted to gather information about the gaps and barriers that delay an individual’s transition through the continuum of care.

Methodology
The health systems analysis was conducted to identify answers to questions such as:
(1) What does the continuum of care look like for women in each of these communities?
(2) What are the barriers and challenges women face?
(3) How can breast health services be improved?

The health systems analysis was a two-phase process comprised of (1) asset mapping and (2) key informant interviews. The asset mapping and resource inventory was designed to identify organizations that provide breast cancer outreach and education,
mammography screening, diagnostic screening, treatment, and follow-up care in the target communities. This was completed by conducting an internet search of the Food and Drug Administration mammography screening sites and also compiling a list of the Mississippi Breast and Cervical Cancer Early Detection Program providers and 2010-2011 Komen Affiliate grantees. These organizations were then plotted on a map for a schematic analysis of the available resources within the target communities.

The goal of the key informant interviews was to better understand the Continuum of Care from the perspective of providers within the target communities. An 18-question interviewer guide was used to gather information. The interviews were conducted by telephone and notes were recorded for analysis. The interviews averaged 30 minutes each. Key informants were grantees of the Central MS and North Mississippi Affiliates as well as health care providers in the six counties. For this assessment, health care providers consisted of primarily managers and directors of radiology or screening/diagnostic centers. The Community Profile team extended invitations to 11 organizations and individuals. Of that, seven (7) providers were interviewed. One provider from Wilkinson County, one provider from Coahoma County, two providers from Bolivar County, and three providers from Sunflower County were interviewed.

Limitations
Limitations to the data presented were attributed to a delayed IRB approval that prevented the inclusion of Mississippi State Department of Health (MSDH) providers within the target counties. This excluded participation from two BCCP providers in the target communities. Additionally, one grantee facility was destroyed during a tornado which prevented an interview. One provider declined the invitation. As a result of these limitations, valuable provider input may be missing from this profile. This report will not draw conclusions based on the interviews alone due to the limitations in sample size.

Overview of Community Assets

Bolivar
Bolivar County is a resource rich community in terms of health care services and community resources. Resources exist in the community along the entire breast cancer continuum of care. There is one Central Mississippi Affiliate grantee in the area that provides outreach and education along with other breast health services and transportation assistance. The grantee partners with other community organizations to provide educational and outreach efforts and free and/or reduced breast health services for women in the county. In addition to outreach and education, Bolivar has two mammography screening centers. Both screening centers are BCCP screening providers. There are three treatment center options for women in Bolivar County. Most of these services are located in the most populated city in the county – Cleveland. Cleveland is located in the lower southeastern part of the county which could present a barrier for women in distant communities. In addition to these outreach and service providers, Bolivar has two community colleges and one of the state’s seven major public universities – Delta State University. Delta State University is a Central MS Affiliate grantee that provides education, outreach, and stipends for screenings and transportation. Additionally, there are numerous libraries, schools, and other
community-assistance organizations located throughout the county. Bolivar County has one federally qualified health center (FQHC) along with other primary care clinics serving the community. The FQHC is one of the screening providers through the BCCP program.

**Coahoma**
Coahoma County has two screening providers and one cancer treatment center. Northwest Mississippi Regional Medical Center is a BCCP provider along with The Women’s Clinic. Both screening providers are located in the city of Clarksdale which is centrally placed in the county. The cancer treatment center is also located in Clarksdale. There is one FQHC that provides primary care services. The health center also provides transportation for minimal fees for both their one and two-way trips. Persons scheduling pre-arranged and reoccurring trips sometimes ride at no cost. Because of the great need for the services offered by the transportation service, in some cases patron fares are paid by the Department of Human Services, Medicaid, or Medicare. Currently, there are no Affiliate grantees in Coahoma since the county falls outside of the Affiliates’ service areas. Other resources within the community that can be used for educational and outreach efforts include Coahoma Community College, a public library, 2 major school districts, and numerous churches.

**Jefferson**
Jefferson County is a resource poor area. The county has one FQHC along with a satellite Health Department office and very few primary care clinics. There are currently no Komen Affiliate grantees in this area. As a result of the poor provider infrastructure in the county, the continuum of care for women in the community is not seamless. Women from Jefferson County have to go outside of the county to receive breast health services. The county does not have an organization dedicated to education and outreach for breast cancer. While the federally qualified health center is a BCCP provider, mammography screenings are not offered within the county itself. Referrals are made for women to go to Adams County for mammography screening and diagnostic services. Currently, there are no treatment and follow-up services provided in the county. For these services, women often travel to Jackson which is about 1.5 hours away or to Natchez, MS which is about 40 minutes away. Other county resources include churches, community agencies, and schools, and a public library are located in the county.

**Monroe**
Monroe County has one dedicated outreach and education provider along with two screening providers to serve its communities. The outreach and screening community provider is a federally qualified community health center focusing on the needs of underserved women. Gilmore Memorial Regional Hospital and the Radiology Clinic are the two screening centers; they are located in the same city, Amory, which is in the north central section of the county. There are no treatment centers located within Monroe County. Monroe County has one grantee – Family Access Medical Care. This grantee is a federally qualified health center which was granted funds to provide free screenings and conduct education and outreach. The county is home to two libraries,
three school districts, and other community-based agencies that are vital community resources.

**Sunflower**

Sunflower County has one Central Mississippi Affiliate grantee in the area that provides community outreach and education. Outreach efforts of the organization reflect a myriad of community settings and media such as churches, civic organizations, health fairs, print media, and radio. This grantee also partners with financial organizations, health care providers, the local health department, civic groups, and schools. Additional partnerships have been forged with churches and existing outreach programs that serve Delta Region counties. Sunflower County has two hospitals that provide breast cancer screening and diagnostics South Sunflower County Hospital and North Sunflower Medical Center. The South Sunflower County hospital is a BCCP provider. The Sunflower Diagnostic Center (North Sunflower Medical Center) is located in Ruleville and the South Sunflower County Hospital is located in Indianola. The locations of the two hospitals in the northern and southern halves of the county provide opportunities for women to be screened from across the county instead of relying on one central location. There are no treatment centers located within the county. The county has numerous churches, schools, libraries, and a community college that could be used for additional outreach and education community.

**Wilkinson**

Wilkinson County is a relatively resource poor community with very few breast cancer service providers. Wilkinson County does not have any organizations dedicated solely to outreach and education for breast cancer. There is one mammography screening site, which is a BCCP provider. The closest treatment centers are in Jackson (2 hours), Natchez (1 hour), and McComb (25 minutes). The county does not have a federally qualified community health center, but there are few primary care clinics. The community does have several churches, two libraries, and schools that can be utilized for community education on breast health and breast cancer. Wilkinson County does not currently have any Komen Affiliate grantees.

Maps 2 and 3 depict screening and treatment facilities located in the six target counties. Map 4 depicts the MSDH Breast and Cervical Cancer mammography screening centers throughout the state. Mammography screening centers are located in five of the six target communities. Only two of the target communities have treatment providers. In 2010-2011, the Mississippi Affiliates made grants to support education/outreach and screening programs in two of the target communities. The closest Affiliate grantee near Jefferson/Wilkinson is in Amite County which is adjacent to Wilkinson. There are five (5) grantees in neighboring counties surrounding Monroe.
Map 2. Mammography Screening Centers by Target County

Map 3. Treatment Centers by Target County

Map 4. Mississippi State Department of Health BCCP Mammography Screening Sites
**Legislative Issues**

The Mississippi Breast and Cervical Cancer Early Detection Program strives for early detection of cancer in those women at highest risk. Typically, these are the uninsured, the medically underserved, minority, and elderly women. These women are more likely to have advanced disease when symptoms appear, reflecting differences in access to screening and care. With federal and matching funds, MSDH BCCP offers mammography screening through contracted providers to uninsured women between 50 and 64 years of age and older. Women 40 to 49 are eligible for screening mammograms when special funding is available. Exceptions are available for those women between the ages of 18 and 39, but they must receive prior approval.

The Breast and Cervical Cancer Prevention and Treatment Act of 2000 (Treatment Act) gives states the option to extend full Medicaid coverage to women who would otherwise not have health care coverage for treatment of breast or cervical cancer. To qualify, a woman must be uninsured, under age 65, need treatment for breast cancer, and receive her screening through a state-administered program funded by the Centers for Disease Control and Prevention. Once enrolled in Medicaid, women are eligible to receive full Medicaid coverage for the duration of her cancer treatment. However, states have flexibility in how they define whether a woman was screened through the state screening program.

- **Option 1:** A woman is considered “screened under the program” and is therefore eligible for Medicaid services if the CDC’s National Breast and Cervical Cancer Early Detection Program (NBCCEDP) funds pay all or part of the costs of her screening services. This is the most restrictive option.
- **Option 2:** A woman is eligible if her provider receives NBCCEDP funds and the service was within the scope of a grant, sub-grant or contract under that state program -- even if the woman’s screening may not have been paid directly from NBCCEDP funds.
- **Option 3:** A woman can receive Medicaid services regardless of where she was originally screened, as long as she would otherwise meet the other eligibility requirements. This is the least restrictive option.

Mississippi is an “Option 2” state which means that a woman is eligible for Medicaid if she receives her initial screening from a provider that is a participant in the MSDH Breast and Cervical Cancer Early Detection Program. If a woman receives her initial screening from a provider that is not a MSDH BCCP screener she would be ineligible for Medicaid. Expansion to “option 3” would eliminate this potential barrier for those uninsured and underinsured women whose cancers are detected outside of BCCP.

According to the Centers for Disease Control and Prevention, there were 61,099 women in Mississippi who were eligible for the BCCP. As of May 2, 2011, in Fiscal Year 2010, there were 7,209 women screened in the BCCP. Fiscal Year 2010 is July 1, 2009 - June 30, 2010. The MSDH BCCP program has received level matching funds for the 2011 program year to continue services without any cuts. Komen has policy analysts that
monitor potential cuts to matching funds that would impact the number of women being served with the state.

**Key Informant Interview Findings**

Key informant interviews were analyzed collectively across all target counties. This was done due to the small number of key informant interviews completed. The following section will provide an overview of key themes that emerged on the following topics: education/outreach, women least likely receiving services, barriers to health services, barriers to treatment services, and ideas on how the system can be improved.

**Education and Outreach**

Outreach and education within these communities is varied; however, mostly all providers reported providing brochures and pamphlets in local physician offices and hospitals. The pamphlets primarily promote their services or provide general educational information such as screening recommendations. The information is usually placed in waiting areas within these facilities. Additionally, assistance programs utilize physician offices for referrals of women who may benefit from their services. Health fairs and churches are commonly used as outlets to provide information to women in the community. Often times community events are utilized to provide knowledge about the services being offered. Some organizations host monthly events while some offer them less regularly.

**Unique to Bolivar County**

The Breast Education and Early Detection Program (BEEP) hosts monthly breast health education activities and fundraising activities. The activities include sessions with women in the community or health and wellness fairs. Fundraising events are conducted to create awareness and to raise additional funds to assist women in the community with breast health services. BEEP also relies on referrals from physician offices for women who may be eligible for the program.

**Unique to Sunflower County**

Sunflower County has a strong network of churches and civic organizations to increase awareness, conduct outreach, and improve education. Once local program utilizes high school students to identify women in the community who need mammograms and to provide outreach and information regarding resources in the community.

**Women Least Likely Receiving Services**

When responding to the question about the women least likely to get a regular breast cancer screening, three themes emerged: race, socioeconomic status, and age. One respondent stated that those least likely to receive screening mammograms are the poor and underserved. While one stated that it was “across the board” when answering this question. “Across the board” was described as both African American women and White women. This respondent further explained that the current trend that more African-Americans are seeking screening as a result of targeted educational efforts. Other responses related to financial barriers. Such comments were that those who know they will have to pay for it or those utilizing programs that provide free
mammograms would probably not be coming in for screening. Another provider stated that it was the elderly and African-Americans who are least likely receiving these services. These inconsistent responses suggest that additional research is needed.

“I would describe the women least likely getting screened as the poor and underserved”

**Barriers and Challenges for Screening and Treatment**

When assessing barriers to screening and treatment, three main themes emerged: finances, transportation, and age. Specifically for screening, most providers stated that the women simply can’t pay or don’t have the insurance. Additionally, one provider linked transportation and finances, indicating that many can’t afford the gas and can’t afford to get to the facility from remote/rural areas.

“They’re women who just won’t have it done because they know they will have to pay for it and it’s expensive”

“I mean it’s from a holistic standpoint, where they have a choice between getting a mammogram and paying their bills or what not…they just can’t afford it…they may have a little insurance and the insurance may not cover a mammogram”

One provider indicated that women younger than 40 are seeking assistance due to finding masses or family history. Younger women do not typically qualify for certain programs that provide free screenings. Two providers expressed concern about the lack of assistance for women who need additional screenings or exams once the initial mammogram has been subsidized. Often times, the women cannot pay for these services and program funds can’t be utilized for these additional tests. One organization reported conducting fundraisers that would help such women, but the organization’s capacity for providing this service is limited. Other barriers mentioned included fear and education.

“The only thing that is bothersome to me is the lady that has no insurance, no Medicare, Medicaid or anything and here she is with a huge mass in her breast and I know that she needs an ultrasound. And so, I talked to her... and see [assistance programs] are not paying for an ultrasound...they’re paying for the screening that a patient would never, ever get...and so what do you do about the patient that has an abnormal and needs additional views and an ultrasound but doesn't have the money? Are they just left out in the cold or are there additional organizations out there that help?”

As stated above, treatment barriers were also linked primarily to transportation and finances. Of the providers interviewed, only one reported a treatment center within the same county. Most of the women being treated for breast cancer have to drive to neighboring counties or as far as 2 to 3 hours away for treatment. Having to travel to distant places poses a challenge for most women in these areas. Additionally, finances or the cost of treatment was mentioned as a barrier. One provider also indicated that education is a barrier to treatment, as some women just do not understand the treatment process.
“Transportation and education, people just don’t understand”

Unique to Bolivar County
BEEP provides vouchers for free clinical breast exams, free mammograms, and a transportation stipend to women in the community eligible for the program. BEEP has agreements with one screening provider and is currently seeking another partnership that will provide free mammograms to women in the community eligible for the program. The agreement allows BEEP to pay a reduced rate for women in the program.

Key informants in Bolivar County were particularly concerned about women who need additional screening or diagnostics following a screening mammogram. However, BEEP does partner with some of the physicians in the community that provide reduced fees for additional testing.

Unique to Wilkinson County
Many of the women utilizing screening services in Wilkinson County are elderly and use Medicare and Medicaid. A challenge for this population accessing services is cost associated with transportation (gas) because they live in very rural remote areas.

Unique to Coahoma County
The Woman’s Clinic in Coahoma County provides reduced screening mammograms during breast cancer awareness month in October. They also work closely with women in the community to ensure they are able to access breast health services regardless of finances.

System Improvement
Provider responses regarding the elements that would help improve services for women in their communities were varied. One provider specifically indicated that a patient navigator would be beneficial for women within the community. The navigator helps women identify resources and services, especially those who need tests and services beyond screening mammograms.

“Women in my program tell me that they didn’t know that the program would help them with additional exams....on the letter we give them we have to tell them that all additional exams would be at their own expense and the ladies just don’t know that we can possibly help them cause we don’t have anyone to help navigate...”

One provider felt that more education along with policy changes as a result of health care reform is necessary. While none of the providers had support groups currently in place, the establishment of support groups along with education would help the community according to one provider.

Unique to Bolivar County
A provider in Bolivar expressed the need for a patient navigator who can follow women through the system to make sure they are getting the services they need and to help
them identify resources. This provider expressed that the continuum of care is not seamless for women in the county despite the availability of services.

**Unique to Wilkinson County**
It was expressed that women in Wilkinson County could benefit greatly from follow-up care. Specifically, support groups and targeted education would be helpful for women in this community.

**Conclusions**
In summary, these communities are similar in many regards as they reflect similar challenges and barriers that affect the women being served. As to be expected, each community does have its own unique issues that will have to be addressed.

Outreach and education within these communities is targeted primarily to specific racial/ethnic groups and groups falling within a lower socioeconomic status. Health fairs and community settings such as churches are commonly used to provide breast health information. Finances and transportation are the primary barriers for both screening and treatment. Most providers felt women simply cannot pay or do not have the insurance to cover screenings. Several of the communities have assistance programs and Breast and Cervical Cancer Program screening providers. However, even with assistance programs in some areas, resources are limited and women who need additional screenings are often left seeking resources or not seeking follow-up care.

Treatment facilities are usually a distant drive for women in these communities. This poses a potential transportation barrier for many women. Currently (2010–2011) the Mississippi Affiliates fund education/outreach and screening in 2 of the target communities.

Many of the findings from the Health Systems Analysis support analysis from the quantitative data phase. Assumptions generated from the initial review of socioeconomic variables and their link to breast cancer outcomes were validated by reports from providers. Providers often reported lack of insurance and limited or no income as barriers and challenges for women in their respective communities. These risk factors often manifest as racial differences in screening patterns and stage of diagnosis. These findings are consistent with the overall data snapshot of the State as well as the target counties.

The next section will provide an overview of the findings from focus groups completed with women in the target communities. As part of the community analysis, women were asked to share their ideas about breast cancer within their respective communities as well as identify the available breast cancer information and services within their communities. The goal was to 1) assess the knowledge, attitudes and beliefs of women in the target communities; 2) identify breast cancer resources in the target communities; and 3) gather recommendations from the community about strategies to reach women in their communities.
Breast Cancer Perspectives in the Target Communities

Methodology
Focus groups were conducted in each of the six target counties to assess the knowledge, attitudes, and behaviors of women regarding breast health and breast cancer.

Selection: Each participant had to be a female at least the age of 40 who resided in the county of focus. Focus group participants could be breast cancer survivors or individuals who had never been diagnosed with breast cancer. The target population for four of the counties (Coahoma, Bolivar, Jefferson, and Wilkinson) was African-American women. The focus groups for Sunflower and Monroe Counties were not race-specific. *Monroe County has a predominantly White population; Sunflower County has a higher breast cancer mortality rate for White women than African-American women.*

Recruitment: Participants were recruited with the help of organizations within the community, some of which were Komen grantees. Women in Coahoma, Bolivar, and Sunflower County were recruited by the Fannie Lou Hamer Cancer Foundation which is located in Sunflower County and serves several Delta counties. The Jefferson County and Wilkinson County Mississippi State Extension Service recruited women in those two counties. Recruitment was conducted by the Access Family Health Care Clinic in Monroe County.

Incentives: Refreshments were provided at each focus group and the first twelve participants were provided a $50 gift card for participating.

Procedures: Three of the focus groups were conducted by Susan G. Komen for the Cure® staff and three (Delta counties) were conducted by the Coordinator of Mississippi Network for Cancer Control. Each participant completed a demographic survey that collected information on age, survivorship status, education, income level, and insurance status. Each focus group was recorded. The focus groups averaged 75 minutes with a total of 17 primary questions being asked to gauge the participant’s knowledge about breast cancer and breast health services as well as their perceptions about access and barriers to care.

Participants: A total of 81 women participated in the six focus groups. The smallest focus group had 11 participants; the largest had 16 participants. The average age of the participants was 56.

Review of Qualitative Findings

*Bolivar County*
The Bolivar County focus group included 13 African American women. The average age of the group was 55. Only one person reported not having a high school degree; while 3 women reported having completed high school or college, including the Master’s level. Ten of the participants reported less than $30,000 as an annual income. Seven of those ten reported an income of less than $20,000. One person reported an income of
$50,000 to $59,999. None of the participants reported a history of breast cancer. Six of the women reported being insured privately or through their employer. Two reported no insurance, and four reported Medicaid/Medicare as their source of insurance. The primary themes that emerged from this group were awareness/education, physician distrust/quality of care, social support, and disclosure/shame.

**Awareness/Education**
Ideas regarding increased awareness and education were very strong for this group. Most felt that a lack of knowledge regarding the importance of both screening and treatment outcomes were barriers for women in the community.

“I’m going to die anyway, but that’s a lack of education—we need to educate them that that’s not always the case”

Some agreed that being aware of the guidelines was the primary motivating factor for seeking a screening which may also encourage others if they were informed and educated. This group expressed that women need to be educated on breast health and breast health resources in order help others within the community.

**Physician Distrust/Quality of Care**
Physician distrust and quality of care were expressed as concerns by some within the group. Some felt that physicians make you feel there is no hope or lack attentiveness and compassion for their patients. One participant expressed knowledge of “blotched” mastectomies that led women to feel distrust with physicians.

“Sometimes it’s the service from your doctor – some doctor’s make you feel like it’s no hope….sometimes you have to change your doctor”

**Social Support**
This group seemed to place a great deal of emphasis on social support. The importance of social support was described as being important to help women seek screening or continue treatment. When a participant mentioned a buddy system as a way to allay fears about screening, most thought that was a great idea. In fact, throughout the discussion the idea of taking a friend or relative to get screened or to treatment was mentioned as enabling factors.

“Do it as a friend thing, take a buddy, tell them you care about their health”

“Let them know that I went early and it didn’t develop into something more serious so come go with me and let’s get checked out”

**Disclosure/Shame**
Disclosure and feelings of shame were also identified by this group as issues that impact women in this community. Many expressed that women in the community do not want to discuss the topic of breast cancer or mammograms, often expressing that it is confidential and an issue to be discussed only with their physician. Others in the group
expressed that family members did not disclose their diagnosis or seemed to feel ashamed about a breast cancer diagnosis.

“My aunt was scared and shame at first”

“It was a hidden, fear, and shameful thing….found out at the last minute”

Additionally, screening and treatment barriers described by this group were the lack of transportation and no health insurance. Others also felt that apathy or a false sense of security results in women not being screened or seeking treatment.

**Coahoma County**

Eleven participants took part in the focus group held in Coahoma County. All of the participants were African-American. The average age of this group was 48. No one reported a history of breast cancer. Education levels were reported as follows: three completed high school, 4 completed some college but no degree, and 4 completed a college degree. Nine of the participants reported incomes less than $20,000. Of those nine, five reported incomes less than $10,000. The highest income bracket reported was $30,000 to $39,999. Four of the women reported no health insurance and two reported Medicaid/ Medicare as their source of insurance. Key themes identified from the Coahoma County focus group were fear/apathy, affordability/insurance, and treatment barriers.

**Fear/Apathy**

It was apparent that this group shared similar feelings when asked what came to mind when they heard the term *breast cancer*. Most of them expressed that they or women in the community were frightened about breast cancer and usually associated it with death. Many also associated breast cancer with removal of the breast. Fear of the outcome along with sentiments of apathy were also readily apparent with some of the comments made by the participants.

“I don’t want to find out”

“I don’t want to know if I got it”

However, some participants correlated *breast cancer* with thoughts of early detection and knowledge of survivors. These participants expressed that early detection was very important and could improve outcomes related to breast cancer.

“If you find out in time – you don’t want to prolong it – it can save your life…”

A common idea expressed by the women was that having a mammogram in the past (with no abnormal findings) meant they did not need to rescreened.
Affordability/Insurance
Many expressed that a major barrier to seeking mammograms was affordability or lack of insurance. Free mammograms were identified as a potential incentive to encourage women to seek a mammogram.

“I’m only 54 and I’ve only had one [mammogram] at age 31 because a health clinic did it free; other than that I can’t afford it – I don’t have the insurance”

One participant mentioned a free breast cancer screening program offered by the federally qualified health center. Some of the women within the group were knowledgeable about the program while others were not. Discussion ensued about meeting program eligibility requirements.

Treatment Barriers
The focus group participants in this county expressed a myriad of reasons why individuals in the community do not seek treatment. The reasons included the following: chemotherapy and radiation are more harmful to the body than helpful; cancer spreads faster once a person has surgery; and doctors are dishonest to patients about the treatment being successful when it actually is not. Another barrier to treatment indicated by the group was the belief that treatment makes the person weaker and sicker.

“I watched her suffer. Once she took radiation it seems like it got worse”

“You’re preparing to get sick afterwards; you’re not preparing to get better; you’re preparing to get sick”

“They just lie to you to get your hopes up and knock you back down…”

Jefferson County
Sixteen women participated in the Jefferson County focus group. The average age of the group was 61. All of the participants were African-American. One person in the group reported being diagnosed with breast cancer within the past five years. The remaining participants indicated no history of breast cancer. Three participants reported having completed college, and the majority (9) reported having a high school degree or less than high school education. Of those who reported income, the highest income category reported for this county was $30,000 to $39,999. Half of the participants reported incomes less than $10,000. Half of the women were either on Medicare or Medicaid and two reported not having any insurance. The key themes that emerged from this focus group were awareness/education, costs/affordability, insurance, fear, and access.

Awareness/Education
Awareness and education about breast cancer and breast cancer outcomes were dominant themes for this group. Education was mentioned as a primary factor when the women were asked questions about ways to encourage mammography screening or
continuation of treatment. Many of the women agreed that education was needed to ensure that women know the importance of getting a mammogram. Moreover, education is necessary so that women understand that breast cancer is treatable.

“…Education is the key – because when you don’t know, you just don’t know…and somebody said well if I got it I’m just going to die anyway, well that’s not so”

“It goes back to education that cancer is not death; sure you can die from cancer, but don’t just say, I have cancer I’m going to die”

Many of the participants expressed that their provider was the reason for seeking their first mammogram. One participant indicated that women may even be told about a mammogram by a provider but not understand what it is.

“I think honestly for most of us the doctor said you need to have a mammogram”

I think if your medical provider explains to you and tells you what it [mammogram] is then you’re more likely to have one ”

Costs/Affordability
Costs and affordability were expressed as barriers throughout the continuum of care. Many of the women stated that the costs associated with screening, treatment, and follow-up care often prohibit women from seeking medical attention.

“They just can’t afford to go. I mean, if you have no medical coverage, the reality is if you don’t have any medical coverage then how are you going to pay for it”

When asked questions about treatment and follow-up care, expense and costs continued to be expressed as primary reasons for lack of both. A recurring response for questions about the reasons why women don’t continue treatment or seek follow up care was they could not afford it.

“Having cancer is very expensive”

“And if you don’t have the financial resources…you wonder if you are getting the best care or are you getting what you need to survive because a lot of time if you don’t have insurance or Medicare or Medicaid a lot of people don’t want to see you; don’t want to deal with you because they know they’re not going to get their money. So what do you do?”

“They can’t afford it”

“…I was foolish enough to think that because you had cancer you never would be turned away but this particular lady was turned away... The provider’s office would [say] you owe $40 or $50 and they would [say] I don’t have it. Well when you get [money], call us back”
Insurance
Lack of insurance was the most dominant theme identified as a barrier for seeking mammograms. Some felt that this often leads to inaction by many women or women have to seek care from providers that provide sliding scales. Insurance was mostly linked to affordability and costs of breast health services.

“…so many people here don’t have medical coverage;… they don’t have any kind of health insurance, so when you say you need to get a mammogram the first thing they say is, ‘I don’t need a mammogram. I can’t afford it,’ and they don’t go”

Fear
A resounding theme of fear was apparent with this group. Many expressed that fear was a primary barrier to screening. Fear of being diagnosed with breast cancer or fear of dying were the main topics mentioned. Fear of the screening process was also mentioned as potential reasons for lack of screenings.

“I think about death…survival”

“They’re scared they might find something”

Others expressed that some women do not want to know, or they feel that being diagnosed with breast cancer is a death sentence. In addition to feelings of fear, it was apparent that denial is also a breast health barrier within this community.

“Some have the idea that it will never happen to me”

“Because when you have gone several times and they didn’t find anything so you figure that you’re not going to get it”

Access
Access to care was discussed as a barrier for some. Two specific access barriers were mentioned – transportation and lack of facilities within the county. Many indicated that individuals seek rides from friends or family; however, sometimes paying for transportation can be challenging.

“Or anywhere out of this area…they don’t do them…I don’t know of any screening that’s done here in the county”

“I think a lot of us don’t have the transportation to get there”

“Some of us don’t have a ride to get there”
Wilkinson County
The Wilkinson County focus group was comprised of all African-American women. The average age of the 12 participants was 60. The education level of the group included individuals with at least a Master's Degree (2) but the majority (7) reported having only completed high school. All of the participants completed the income related question of the demographic survey. There was a wide range of incomes reported from $60,000 to less than $10,000. Over half of the respondents (7) reported incomes less than $20,000. Consistent with the income responses, seven of the women reported Medicaid or Medicare as their source of insurance. One of the participants reported not having any insurance and two had employer-paid insurance. The key themes that emerged from this focus group were fear, education, health coverage/finances, and disclosure/privacy.

Fear
Many of the participants expressed thoughts of fear when asked about their attitudes toward breast cancer. Expressions of fear were related to the thought of having breast cancer or even as the result of having a mammogram screening. Many of the women agreed that fear of the outcome from a mammogram was a common attitude of most women in the community.

“I think death”

“They have that fear. They scared of what the doctor is going to tell them…”

“Because you are afraid of what they might find”

Education
The participants expressed that education was important for encouraging women to seek mammograms. Most agreed that forums such as the focus group would be good educational opportunities. One participant expressed that someone from outside of the community would be most effective. Many agreed that churches would be good venues to initiate breast health education within the community. Education was also discussed as a key method to encourage women to continue with treatment and follow-up care.

Health Coverage/Finances
A prevailing theme for this group of focus group participants was health coverage and finances. When asked for reasons why women may not seek mammography, common responses were:

“No health insurance”

“They don’t have the money”

Some participants indicated that free mammograms would help mitigate this problem. Almost all of the responses related to reasons why women don’t seek/complete
treatment or follow-up care indicated limited financial ability or lack of insurance as a barrier.

**Disclosure/Privacy**
The issue of disclosing one’s breast cancer diagnosis was a theme identified by this group of women. One participant who is a survivor indicated that she was seeking treatment for breast cancer but did not initially reveal her diagnosis to her daughter. Another participant indicated that her sister was being treated for breast cancer but never revealed that information to her family.

“My sister would never tell us she had cancer…we talked all the time and she never told us”

“…I couldn’t even tell my daughter…”

Women in this focus group also expressed that transportation can be a barrier for some in the community, especially for the elderly who can’t drive.

**Monroe County**
Fourteen women participated in the Monroe County focus group. This racially diverse group included 6 African-American women and 8 White women. The average age was 58. Six of the women reported a history of breast cancer. The highest income reported was greater than $70,000 (3) with one person reporting an income less than $10,000. All of the focus group participants reported some type of insurance: 8 employer-sponsored, 2 private, 4 Medicaid. Key themes that emerged from this group included education, support, and fear/denial.

**Education**
Most of the group agreed that women do not realize the importance of screening and need to be educated. There is a need for education on the importance of annual checkups, including screening. Additionally, educating women on available assistance programs would be an effective strategy to increase the number of women seeking screening.

**Support**
The importance of social support during treatment was described by this group as particularly important. Some expressed that family support is extremely important during treatment and the lack of support from one’s family may result in discontinuing treatment. Others mentioned that support groups are extremely important during treatment. In addition to support during treatment, the group felt that taking relatives and friends to be screened could encourage those who are not currently being screened.

“Support is very important during treatment, probably more so than the treatment”

“If you don’t have anyone it’s difficult”
Fear/Denial
When responding to questions about breast cancer and mammograms many of the women expressed fear and denial as their primary thoughts. Fear was associated with being afraid to get screened because of the outcome or fear of death. Others felt that denial was a reason that women may not seek mammograms. These women expressed that some feel it will never happen to them or it is something that happens to others.

“Some are afraid of what they might find out”

“A lot of women think it will never happen to me”

In addition to the major themes discussed above, other issues related to screening barriers were identified by some of the participants such as having to miss work and miss pay was a barrier for some women. Others expressed that screening and treatment were not affordable.

Sunflower County
The Sunflower County focus group was comprised of all African-Americans. A total of 14 women participated in the focus group. The average age of the group was 55. One focus group participant was a breast cancer survivor. Half of the participants did not have a college degree. Two of the participants had a college degree. Of those who reported their income, over half (8) reported incomes of less than $20,000. The highest income bracket of the group was $40,000 to $49,999. Four of the participants did not have any insurance and six were on government sponsored insurance programs. Key themes that emerged from this group included screening misperceptions, costs, and transportation.

Screening Misperceptions
Misperceptions regarding screening were readily apparent with this group. One participant expressed that women feel mammograms actually cause cancer thus resulting in women not seeking screening. Other women expressed mammograms are very costly ($1,200 - $1,500). While some women expressed that those costs are not accurate, some pointed out that negative experiences of other women often leads to some not being screened. Another participant expressed that she did not feel anything through self-examination; therefore, she had no need to get screened. It was apparent that the numerous ideas and beliefs about screening impacted their screening behaviors.

“[The hospital] pays for it and some still won’t have it done since they think the machine pulls their breasts and causes cancer”

“I’ve never had one. I do breast self-exams and don’t feel anything – it has nothing to do with the price; I don’t even know the price”
Costs/Affordability  
Affordability was described as a primary barrier to seeking screening. The theme of cost and affordability was often linked to the idea that many lacked insurance. Some expressed that money for a mammogram has to be used for necessities.

“They don’t have any insurance and they can’t afford to pay for one”

“Mammograms are expensive”

Transportation  
A resounding theme discussed by this group was the issue of transportation as a barrier to care. Specific transportation barriers included - can’t pay for people to take them, people over charge to take them, elderly women don’t drive, and free transportation is not dependable or requires long waits.

“A lot of people don’t have the money and you can’t get people to take you. Gas is so high”

Conclusions  
Although there were variations to the findings depending on the region being discussed, two main themes were clear throughout Mississippi. Findings indicate that education efforts need to focus more on the importance of screening, available resources for free/reduced mammograms. The education approach should provide clear messages that ideally lessen fear, present facts about the benefits of treatment, and motivate women to take care of their health.

The second theme in Mississippi pertains to the lack of continuity of care throughout the continuum of care. Women who lack financial resources and live in rural/remote communities are most impacted by this. The lack of providers in certain regions and the lack of access to services in others put women at risk and may be contributing to women dying from breast cancer throughout this largely rural state.

The perspective of women from the various target communities echo many of the contributing factors to poor breast outcomes identified during the intial quantitative data phase such as poverty and lack of insurance. This is consistent with findings from providers during the Health Systems Analysis as well. Women repeatedly reported barriers and challenges that frequently position Mississippi within marginal health-related outcomes. These barriers and challenges such as poverty, lack of insurance, and unemployment which are very often determinants of health outcomes undoubtedly contribute to breast cancer outcomes of women in Mississippi.
CONCLUSIONS: WHAT WE LEARNED, WHAT WE WILL DO

Review of the Findings
Mississippi is one of the most rural states in the nation with the majority of its population residing in rural and remote areas. Most of the counties have a population size less than 100,000. There is very little racial diversity within the state which has a population of mostly Whites and African Americans. Mississippi has a very low median household income compared to the national median household income. Poor health and economic indicators are well documented, especially for the Mississippi Delta.

A review of breast cancer statistics indicates that African-American women tend to fair much worse than White women. This is evident in higher mortality rates and later stage of diagnosis. These statistics resulted in six target counties being selected for additional analysis – Bolivar, Coahoma, Jefferson, Monroe, Wilkinson, and Sunflower counties. These counties were chosen because they presented exacerbated needs while also providing an opportunity to obtain a snapshot of communities representing diverse conditions throughout the state.

Information was sought from both providers and women in these target communities to better understand their perceptions regarding the barriers and challenges within these communities as well as the resources. Major findings from both groups indicate the need for more education that addresses fear, promotes the importance of screening, and clarifies myths about treatment. It was also apparent that partnerships need to be further developed to address barriers such as transportation and the fragmented care in rural/remote areas.

Bolivar County
Bolivar County has one of the highest breast cancer mortality rates in the state. For African American women, the rate is much higher compared to White women. Many of the women indicate not having been screened for a mammogram within the past 12 months. Bolivar County is a resource rich community in terms of health care services and community resources. Bolivar has several mammography screening centers and some treatment centers. Resources exist in the community along the entire continuum of care – outreach/education, screening, diagnostics, treatment, and follow-up.

Women who participated in the focus group expressed that education, quality of care, social support, and shame were the primary factors associated with breast health outcomes and health behaviors in this community. Most felt that a lack of knowledge regarding the importance of screening is a primary reason for women in the community not being screened. This group emphasized the need for more community education and outreach. Physician distrust was expressed as concerns for some who felt that physicians do not provide the best quality of care. This group seemed to place a great deal of emphasis on social support. Social support was described as being important to help encourage women to seek screening and continue treatment. Transportation and lack of health insurance were described as screening and treatment barriers as well.
**Coahoma County**
The breast cancer mortality rate of Coahoma County exceeds the overall breast cancer mortality rate of the state. The African American breast cancer mortality rate is much higher than the mortality rate for White women in the county. Similar to other Delta counties, Coahoma has extreme poverty that is compounded with above average unemployment rates. Coahoma County has two BCCP screening providers and one cancer treatment center. However, this county falls outside of the Komen Affiliates and does not have any Komen grantees.

Focus group participants expressed that a major barrier to seeking mammograms was affordability or lack of insurance. Treatment barriers included the belief that chemotherapy and radiation are harmful to the body and physician distrust.

**Jefferson and Wilkinson Counties**
Jefferson and Wilkinson counties both have very large African-American populations. The breast cancer mortality rates of Wilkinson and Jefferson County are above average. These counties are among the 10 counties with the lowest median household incomes. Jefferson has an unemployment percentage that is well above the state’s unemployment rate while Wilkinson’s is only slightly higher. As with all of the selected counties, the trend of African-American women being diagnosed during Stage 1 is low compared to White women.

Jefferson County is a resource poor area. The continuum of care for women in the community is not seamless. Women from Jefferson County have to go outside of the county to receive breast health services. Wilkinson County is a relatively resource poor community with very few breast cancer service providers. Wilkinson County does not have any organizations dedicated solely to outreach and education for breast cancer.

In Jefferson County, the major barriers related to breast cancer screening, treatment and follow-up are education, costs/affordability, insurance, and access. Many of the women in that county agreed that education is needed to ensure women know the importance of a mammogram. Costs and affordability were expressed as barriers for all points on the continuum of care. Many of the women stated that the costs associated with screening, treatment, and follow-up care often prohibit women from seeking medical attention.

Lack of insurance was the most dominant theme identified as a barrier for seeking mammograms. Some felt that this often leads to inaction by many. Two specific access barriers were mentioned – transportation and lack of facilities within the county.

Many of the women expressed that education was important for encouraging women to seek mammograms. Education was also discussed as a key method to encourage women to continue with treatment and follow-up care. A prevailing theme for this group of focus group participants was health coverage linked with finances. Almost all of the
responses related to reasons for women not seeking treatment or follow-up care indicated limited financial ability or lack of insurance.

**Monroe County**
Monroe County is included in the nation’s 400+ counties that comprise the economically depressed Appalachia Region. The median household income is closer to the state’s median average than any of the other target counties. Of the selected counties, Monroe has a poverty rate lower than the state’s poverty rate. Yet, a large percentage of the female population between the ages of 40-64 does not have insurance. Monroe County has very dedicated outreach and education providers along with two screening providers.

Most of the focus group participants agreed that women do not realize the importance of screening and need to be educated regarding screening importance. The importance of social support during treatment was described by this group as particularly important. Some expressed that family support is extremely important during treatment and the lack of support from one’s family may result in discontinuing treatment. When responding to questions about breast cancer and mammograms many of the women expressed fear and denial as their primary thoughts.

**Sunflower County**
Sunflower County has a very high poverty rate of and a median household income that is well below that of the state. As with the previously described Delta Counties, the trend continues with Sunflower County. Breast cancer mortality is higher than the state. Sunflower County has the highest percentage of women that have reported not having had a mammogram in the past 12 months of all the target counties.

Outreach efforts in Sunflower reflect a myriad of community settings and media such as churches, civic organizations, health fairs, print media, and radio. Sunflower County has two hospitals that provide breast cancer screening and diagnostics.

Misperceptions regarding screening were readily apparent with women in this community. These misperceptions were related to cost and the screening process. Affordability was described as a primary barrier to seeking screening. The theme of cost and affordability was often linked to a lack of insurance. An overwhelming theme discussed by this group was the issue of transportation as barrier for women in this community.

**Conclusions**
Although there were variations to the findings depending on the region being discussed, two main themes were clear throughout Mississippi. Findings indicate that education efforts need to focus more on the importance of screening, available resources for free/reduced mammograms. The education approach should provide clear messages that ideally lessen fear, present facts about the benefits of treatment, and motivate women to take care of their health.
The second theme in Mississippi pertains to the lack of continuity of care throughout the continuum of care. Women who lack financial resources and live in rural/remote communities are most impacted by this. The lack of providers in certain regions and the lack of access to services in others put women at risk and may be contributing to women dying from breast cancer throughout this largely rural state.

**Action Plan**

After the final analysis of the state had been reviewed and discussed, the Community Profile Team developed a list of 5 priorities that reflected the findings of the data analysis. In separate meetings, the Community Profile Team and Komen Headquarters staff established objectives for each priority based on capacity and resources. The timeline to complete all activities listed in the Action Plan is April 1, 2011 – March 31, 2013. While many of the priorities apply to the entire Affiliate service areas, special emphasis will be placed on target counties.

**Priority 1: Systems Improvement**

Reduce fragmentation and create continuity between referral, screening, diagnosis, and treatment within the state.

- **Objective 1:** Identify and explore opportunities to pilot and/or fund two patient navigation programs in the state.

- **Objective 2:** Establish four regional Continuum of Care Collaboratives to share ideas and facilitate the coordination of activities throughout the target counties with limited resources.

- **Objective 3:** Educate policymakers on the unmet breast health needs in the state by sharing findings from the Community Profile.

- **Objective 4:** Continue to advocate for funding for the State Breast and Cervical Cancer Program.

**Priority 2: African-American Women**

Promote the importance of screening and early detection among African-American women.

- **Objective 1:** Assist partners and grantees in strengthening current breast cancer education content to include targeted awareness messaging with a specific focus on increasing awareness of available breast health and breast cancer services in the Delta Region.

- **Objective 2:** Collaborate with at least four churches and community-based organizations to conduct culturally appropriate breast health education in the Delta Region, such as Worship in Pink and Stomp for the Cure.
Priority 3: Rural/Remote Communities
Increase the reach and scope of grantee services into rural counties.

Objective 1: Cultivate new applicants to the Affiliates’ grants programs that meet the priority areas of the state.

Objective 2: Conduct at least two grant writing workshops in counties that do not currently have Komen funding.

Priority 4: Expansion
Explore opportunities to expand the service area of the Affiliates to better meet the needs of the entire state.

Objective 1: Conduct additional qualitative analysis in five additional counties that do not currently fall within the Komen service area to determine resources, assets, barriers, and gaps.

Objective 2: Identify potential partners, leaders, and volunteers in all nine public health regions of the state.
REFERENCES


