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Susan G. Komen® Virginia Blue Ridge was founded in 2006 as The Greater Roanoke Valley Area Affiliate of the Susan G. Komen Breast Cancer Foundation, Inc. It now operates as Komen Virginia Blue Ridge, a reflection of its large, rural geographic service area. In 2016, the Affiliate underwent an expansion, adding 11 cities and counties to their region. Its service area spans 14,572 square miles in Southwest Virginia, and includes 12 cities (Bristol, Buena Vista, Covington, Danville, Galax, Lexington, Lynchburg, Martinsville, Norton, Radford, Roanoke, and Salem) and 30 counties (Alleghany, Amherst, Bath, Bedford, Bland, Botetourt, Buchanan, Campbell, Carroll, Craig, Dickenson, Floyd, Franklin, Giles, Grayson, Henry, Lee, Montgomery, Patrick, Pittsylvania, Pulaski, Roanoke, Rockbridge, Russell, Scott, Smyth, Tazewell, Washington, Wise, and Wythe).

In 2008, the Affiliate held its first Race for the Cure® to raise money for its community grants program that funds breast health education, screening and diagnostic mammograms, and treatment for uninsured and underinsured women and men. Up to 75.0 percent of net proceeds generated by the Affiliate stay in its service area for community grants and up to 25.0 percent are sent to the Susan G. Komen Research Program. Since 2008, the Affiliate has awarded over $2.5M through community grants. The Affiliate has also contributed more than $869,000 to the Susan G. Komen Research Program to support national grants and scientific partnerships to find the cures. In 2014, the Affiliate received a two-year Walgreen’s Affiliate-Based Education Grant to fund a part-time Education Outreach Coordinator (EOC) to deliver the Komen Breast Self-Awareness (BSA) message to at-risk populations thereby closing gaps in the continuum of care (CoC) and assisting the Affiliate with reducing late-stage breast cancer diagnosis and death rates in target communities. The CoC is a model depicting how a woman should move through the health care system for breast care.

The 2015 Community Profile Report (CPR) helps the Affiliate align education, public policy, and grantmaking toward a common mission. The Affiliate will develop breast health education programs to help its service area achieve Healthy People 2020 (HP2020) breast cancer targets. HP2020 is a federal initiative that sets health objectives for communities across the country. The 2015 CPR helps the Affiliate identify barriers, understand available resources or lack thereof, and select target communities (areas of greatest need) as funding priorities for its community grant program. The 2015 CPR reveals new opportunities to not only promote the Komen BSA message, but to disseminate the findings to a broader audience through the Affiliate website, newsletters, email database, public speaking opportunities, and events geared toward improving the breast health of residents living in target communities.

Quantitative Data: Measuring Breast Cancer Impact in Local Communities

The purpose of the Quantitative Data Report of the 2015 CPR is to use the data provided to identify target communities within the Affiliate service area based on estimates of how long it will take an area to achieve HP2020 objectives for late-stage diagnosis and death. The Komen organization uses HP2020 data to see how well communities are progressing toward reducing
the burden of breast cancer. HP2020 has several cancer-related objectives including reducing the number of breast cancers diagnosed at a late-stage (41.0 cases per 100,000) and reducing death rates (20.6 deaths per 100,000). Each city and county is given 12 years to meet health objectives and HP2020 data is analyzed to determine how many years it will take to meet those objectives. Cities and counties that are not likely to achieve either of the targets are considered to have the highest needs whereas the ones that have already achieved both targets are considered to have the lowest. Other cities and counties are classified based on the number of years needed to achieve the two targets. In the Affiliate service area, cities and counties taking 13 years or longer have the greatest needs when it comes to meeting HP2020 breast cancer targets. Meeting these targets would require increasing the number of breast cancer screenings to diagnose breast cancers earlier resulting in a decrease in late-stage diagnosis and death rates. Improved socioeconomic conditions, such as a reduction in poverty, could lead to more timely treatment of breast cancer resulting in a decrease in death rates.

To understand the quantitative data results, it is important to know the meaning of incidence, late-stage diagnosis, and death as they relate to breast cancer. Incidence rates refer to the frequency of new cases diagnosed. Late-stage diagnosis rates refer to the number of patients diagnosed at advanced stages. Death rates refer to the frequency of death from breast cancer. The Quantitative Data Report indicates that in the Affiliate service area:

- Incidence rates are slightly lower than in the United States (US) as a whole and significantly lower than for the State of Virginia but those rates are trending upward.
- Incidence rates are slightly lower among Blacks/African-Americans compared to Whites but late-stage diagnosis and death rates are higher among Blacks/African-Americans compared to Whites.
- Late-stage diagnosis trend is higher than in the US as a whole.
- Death rates are slightly higher than in the US as a whole.

Demographic and socioeconomic data can be used to identify which groups are most in need of help and to figure out ways to help them. The results of the Quantitative Data Report for population characteristics show that in the Affiliate service area (when compared to the US as a whole), there:

- Are slightly larger White and Black/African-American female populations (with seven cities and counties having substantially larger Black/African-American female population percentages than that of the Affiliate service area as a whole).
- Is a slightly older female population.
- Are slightly lower education and income levels.
- Is a slightly smaller percentage of people who are unemployed and/or without health insurance.
- Is a substantially larger percentage of people living in rural, medically underserved areas.

Seven communities in the Affiliate service area are in the highest priority category. Five of the seven, Roanoke County, Roanoke City, Wythe County, Danville City, and Lynchburg City are not likely to meet either the late-stage diagnosis rate or death rate HP2020 targets. Two of the seven, Radford City and Patrick County, are not likely to meet the late-stage diagnosis rate.
target. Roanoke City, Danville City, and Lynchburg City have relatively large Black/African-American populations. In addition, Danville City has low education levels, high poverty percentages, and high unemployment. The late-stage diagnosis rate in Radford City is significantly higher than the Affiliate service area as a whole whereas Patrick County has an older population, low education levels, and high unemployment.

Two communities in the Affiliate service area are in the high priority category. Henry County and Martinsville City are not likely to meet the late-stage diagnosis rate HP2020 target. Henry County and Martinsville City have relatively large Black/African-American populations and high unemployment percentages. In addition, Henry County has low education levels while Martinsville City has a relatively high poverty percentage.

Figure 1 shows a map of the intervention priorities for the counties in the Affiliate service area.

The Affiliate’s selected target communities are:
- Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City)
- South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City)
- Washington County and Bristol City, Virginia
- Wythe County, Virginia
- Danville City, Virginia
- Lynchburg City, Virginia
Health System and Public Policy Analysis

The purpose of the Health Systems and Public Policy Analysis of the 2015 CPR is to identify breast health resources in Affiliate target communities and to provide a public policy overview for the State of Virginia. The Affiliate used the 2012 Community Profile Report to locate organizations, businesses, and individuals who provide CoC services and then researched their websites to glean information and leads about other breast health providers in target communities. Providers were contacted by phone and email, but a barrier to this process was that many phone calls and emails were not answered. The Affiliate conferred with current and former community grant recipients to finalize information about providers and as a result, the Affiliate’s documented findings in each target community were carefully selected as the most relevant, accurate providers of breast health services for these communities.

Typically, a woman enters the CoC starting with a clinical breast exam and a screening mammogram. If the screening results are normal, she gets another screening exam at the recommended interval. If the screening results are abnormal, a diagnostic mammogram, breast ultrasound, or biopsy is needed to determine if it is breast cancer. If the diagnostic results are negative or benign, she returns for screening at the recommended interval. If the diagnostic results are positive, she proceeds to treatment. Most patients return to screening at a recommended interval after treatment ends. Ideally, a woman moves through the CoC quickly and seamlessly, receiving timely, quality care in order to have the best outcomes. There are often barriers to moving from one point of the continuum to another including long waits for appointments, lack of transportation, inconvenient clinic hours, language barriers, fear, lack of information, or having the wrong information (myths and misconceptions). Given the strengths and weaknesses for each target community, breast health education is crucial to the success of the mission to end breast cancer forever. Education eases fear and anxiety, addresses barriers, inspires patients to get screened, convinces them to keep follow-up appointments, empowers them through community resources, and encourages them to enter and remain in the CoC.

It is important to address breast health system strengths and weaknesses identified in target communities. The first target community for discussion is the Central Blue Ridge Region (Roanoke County, Roanoke City, Radford City). Located within Roanoke City are numerous providers for breast health services. Valley Metro provides public transportation within Roanoke City to many providers located on the bus line; however, Roanoke County has far less providers and with limited access to Valley Metro, county residents have a difficult time accessing providers located in Roanoke City. Two major hospitals provide almost all breast health services, but one is located in Roanoke City and the other in nearby Salem City. Radford City is not located within the Roanoke Valley and therefore has little access to breast health services offered there. Resources available in Radford City are the health department and the student health services for a local university. There are providers located outside of Radford City, but the only public transportation is the buses that serve the university and the buses whose routes run within the city.
The second target community is the South Central Blue Ridge Region (Patrick County, Henry County, Martinsville City). Few breast health providers in this region offer services beyond a clinical breast exam. Although a well-known breast health provider located in Martinsville City offers state of the art services, it is one of the few health care organizations to do so. Rural Patrick County is a target community with one hospital, one free clinic, but no mammography services offered. There is no public transportation in Patrick County and with most health care organizations located in Martinsville City; residents must travel to receive breast health services. Providers located in nearby Martinsville City struggle to serve their own constituents from Henry County and Martinsville City, but also strive to serve residents of Patrick County. Despite barriers, one provider has developed a successful referral system to enhance coordination of breast health services. Public transportation is available in Martinsville City, but not in Henry County. Although the Affiliate identified at least five regional breast health providers who offer financial assistance, these providers do not offer treatment options for patients diagnosed with breast cancer.

Washington County and Bristol City, located in southwest Virginia, are different entities; they are considered a community for two primary reasons: (1) Bristol City is located within Washington County, Virginia, and (2) both areas share many of the same statistics and resources, thus increasing their functionality as a community. This rural community is characterized as medically underserved with employment problems for its inhabitants. Additionally, both Washington County and Bristol City have incidence rates below that of the national average. With reports of both low incidence rates and high death rates, a conjecture can be drawn that women may not be receiving screening mammograms and that breast cancers are not being detected at early stages. Increasing screening percentages and providing breast health education to residents may improve incidence and death rate figures.

The Washington County/Bristol City, Virginia area has resources along the entire continuum of care. While there are many facilities offering screening and diagnostic services, only one facility offers chemotherapy treatments.

The fourth target community is Wythe County. With one hospital and few private practices, breast health services are relatively absent. Social determinants for high death rates, including low education levels and high unemployment, negatively impact the breast health of its residents. Wytheville Transit provides public transportation within the city of Wytheville only. A few providers offer breast health services, but rural geography and lack of insurance impair this community’s ability to lower late-stage diagnosis and death rates.

Danville City is the fifth target community. With over half of its female population of Black/African-American ethnicity, this community is especially vulnerable. At first glance, it seems that providers are plentiful; but, upon further inspection, the health department and one of the community health clinics is located in nearby Chatham and is not accessible by the Danville Transit System.
The sixth target community is *Lynchburg City*. Multiple providers offer breast health services and Lynchburg City is the one target community that offers a mobile mammography van to bring breast health services directly to its residents. Providers of routine screening, diagnostic, and treatment services are not located throughout the city, so residents must commute via public transportation to hospitals to receive breast health services. With one free clinic, this community struggles to provide affordable breast health services for residents with low or no income.

Susan G. Komen understands that scientific progress goes hand-in-hand with sound public policy; therefore, it engages policymakers and government as partners in the effort to end breast cancer forever. The Affiliate has identified public policy issues that have the greatest potential impact on its mission. Current advocacy priorities in the State of Virginia include:

- Protecting state funding for the Virginia Breast and Cervical Cancer Early Detection Program, also known as Every Woman’s Life (EWL), to ensure all patients have access to breast and cervical cancer screening, diagnostic screening, and health services. EWL is funded by the National Breast and Cervical Cancer Early Detection Program (NBCCEDP).
- Requiring insurance companies to provide coverage for oral anti-cancer drugs on a basis that is no less favorable than what’s already provided for intravenously administered chemotherapy and to protect patients from high out-of-pocket costs.
- Expanding Virginia Medicaid coverage to ensure the availability of the full-range of breast health services to low-income women, including cancer screening, diagnostics and treatment.

Beginning in 2015, an advocacy position will be created on the Affiliate’s Board of Directors. The individual assuming this position will participate in breast cancer advocacy trainings and will inform Virginia legislators and the wider community of the priority policy issues. Continuous improvement in public policy increases financial access to breast health services for vulnerable populations – especially those residing in target communities. The Affiliate has documented the most relevant, accurate providers of breast health services located in target communities as well as providers located outside of target communities who are serving their residents. The Affiliate will use the Health Systems and Public Policy Analysis findings to expand partnerships through the Affiliate’s Mission Action Plan of the 2015 CPR.

**Qualitative Data: Ensuring Community Input**

The purpose of the qualitative data of the 2015 CPR is to identify and explain the barriers that impact access to breast health services such as lack of health insurance, living in a medically underserved community, and low education and income levels for residents living in target communities. Questions used to guide this assessment include:

- What barriers do women face in accessing breast health resources?
- Why do target communities see a higher rate of late-stage diagnosis and death rates compared to national rates?
- What can be done to lower the rates and increase access?
Two forms of data collection were utilized: focus groups and surveys. Both processes were coordinated by the lead researcher who developed the format and questions in consultation with Susan G. Komen Headquarters and the Affiliate Community Profile Team. The goal for focus groups was to conduct three per target community with between six and 10 women each. The target population was women over the age of 18 who could speak about breast health services in target communities. The rationale for hosting focus groups was that participants would provide rich data about their experience with local breast health services and reveal areas of need. A combination of purposeful and convenience sampling was used to recruit participants through grantees (current recipients of Affiliate funding), who represented the community and were available. The goal for surveys was to provide an open-ended questionnaire to breast health service providers in each target community. Providers were defined as grantees, free clinic staff members, hospital staff, and nonprofit organizations. The rationale for collecting provider surveys was that it gave them the opportunity to share their perspective on the most salient needs of patients living in target communities. This form of data collection also gleaned insight from providers on access issues that residents experience. Providers were contacted via email, resulting in a convenience sample. The survey was voluntary and providers could choose not to participate at any point.

As with all studies, there were limitations with the focus groups and surveys. Focus groups presented challenges in coordination and recruitment of participants. In some target communities, it was a challenge to recruit participants and in some focus groups, there were only two or three participants. The survey had limitations due to the small number of breast health service providers and low response rates. All Affiliate contacts were emailed, but the limited responses call into question any additional needs or barriers that were not identified. All information gathered through focus groups and surveys is valuable, but may not be fully representative of target communities.

According to the Quantitative Data Report, disparities exist within the Affiliate’s five target communities due to the rural landscape: low income levels, low education levels, unemployment, and lack of transportation. Combined with an older and predominantly White (with pockets of high numbers of Black/African-American women) population, barriers to breast health services create a medically underserved environment consisting of high late-stage diagnosis and death rates. Findings from the Quantitative Data Report support the barriers identified by the qualitative data.

In the Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City), there is a need to educate the community about the availability of local breast health services as well as about what questions to ask members of the medical community. The fear of a breast cancer diagnosis, the inability to financially cover medical expenses, and lack of transportation impact residents’ decisions to pursue breast health services.

In the South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City), people without health insurance do not have the financial ability to pay for preventative care. Fear of a breast cancer diagnosis and lack of transportation affect the breast health of
residents. Residents in Patrick County must travel to Mount Airy, NC, Roanoke City, or Martinsville City for a screening mammogram and all other breast health services which clearly indicate that a lack of available resources impacts the breast health of its residents. In Washington County and Bristol City, Virginia, all participants identified poverty and mixed messaging on screening recommendations as direct influences on breast health in their communities. Because poverty was mentioned in all focus groups, it was identified as a main moderator. Rurality, education, and community involvement were also mentioned as important promoters to breast cancer screening.

In Wythe County, Virginia, one barrier to breast health services is the lack of financial ability to utilize available resources or to proactively seek breast health services. Fear of a breast cancer diagnosis and lack of transportation impact the breast health of the community.

In Danville City, Virginia, there is a need to educate the community about the availability of local breast health services and to help the community build trust with the providers. The inability to financially cover medical expenses and the lack of transportation impact residents’ decisions to pursue breast health services.

In Lynchburg City, Virginia, there is a need to educate the community about the availability of local services as well as about breast health in general. The lack of financial ability to utilize available resources or to proactively seek breast health services is a concern along with the residents’ inability to cover related medical expenses. Fear and lack of transportation impact decisions to pursue breast health services.

In summary, there are common barriers that exist throughout all target communities: the need to educate the community about local breast health services, the lack of financial ability to utilize resources or to proactively seek breast health services, fear of a breast cancer diagnosis, and lack of transportation.

Mission Action Plan

Komen Virginia Blue Ridge serves a large, rural geographic area consisting of 42 cities and counties; however, residents living in target communities have similar demographics, barriers to breast health services, and socioeconomic status. Given these common findings, the Affiliate Community Profile Team developed the Mission Action Plan to include strategies to improve their negative impact on the breast health of residents living in target communities. Four of the five target communities have a higher Black/African-American population than the Affiliate service area as a whole, so this disparity is addressed through the following priorities and objectives as well.

Problem statements, priorities, and objectives for the Affiliate Mission Action Plan focus on three main categories: education and outreach, partnership opportunities, and grantmaking. Four problem statements summarize the main issues revealed during the analysis of the Quantitative Data Report, Health System and Public Policy Analysis, and the qualitative data. Priorities
establish goals for addressing the specific needs identified in the problem statements. Each priority has several objectives for addressing the breast health needs of residents living in target communities.

The first problem statement acknowledges that all six target communities have higher than average rates of breast cancer diagnosis which correlates with socioeconomic barriers (especially lack of transportation). Screening mammography can find breast cancer early when chances of survival are highest. Priorities established include increasing the number of residents (especially Black/African-American women) who receive breast cancer screenings, increasing mammography screening services with flexible hours through outreach, education, and grant funding, and increasing breast health care provider understanding of Komen BSA messages.

Objectives include:

- By 2017, include a funding priority in the Komen Virginia Blue Ridge Community Grant Request for Application (RFA) for organizations that focus on increased mammography screenings and diagnostic services in one or more of the six target communities.
- By 2019, build one partnership per target community that educates insured residents about Komen screening recommendations and resources.
- By 2019, build one partnership per target community that educates uninsured and underinsured residents about Komen screening recommendations and resources.
- By 2016, identify at least two organizations that offer mobile mammography screening services to serve target communities.
- By 2019, build at least two partnerships with breast health care providers to make one mobile mammography screening visit to each target community per year.
- From 2016 – 2019, before releasing the RFA, review grantmaking processes, explore ways to increase funding for mobile mammography screening services, and offer community grant funding for mobile mammography screening services.
- By 2016, provide small grant funding opportunities for a collaborative meeting aimed at hospitals, primary care providers, health clinics, and community-based organizations concerning continuous improvement of education, referral, screening, diagnosis, treatment, and support processes.
- By 2017, establish an Affiliate breast health advisory board to improve communications between the Affiliate and breast health service providers located in each target community.

The second problem statement affirms that residents of all six target communities have low health literacy and fear of a breast cancer diagnosis. Breast health education plays an important role in addressing barriers, easing fear and anxiety, and encouraging residents to enter and remain in the CoC. Priorities recommended include providing culturally competent educational materials when implementing Komen breast health educational programs, increasing the number of Volunteer Breast Health Educators, Ambassadors, and Speaker’s Bureau members, and cultivating partnerships with organizations that serve at-risk, vulnerable populations.
Objectives include:

- From 2015 – 2019, utilize culturally competent, low literacy materials at education events held in target communities.
- By 2017, coordinate or provide breast health education tables, educational materials, and/or BSA presentations for 50 faith-based organizations (especially Black/African-American churches) located in target communities.
- By 2017, recruit 50 faith-based organizations (especially Black/African-American churches) located in target communities to register and participate in an annual, unified Worship in Pink Weekend held during October Breast Cancer Awareness month.
- By 2017, recruit and train 90 Volunteer Breast Health Educators to staff education tables (10 per community) and speak with residents one-on-one about breast health.
- By 2017, recruit and train nine Breast Health Ambassadors (one per target community) to help train Volunteer Breast Health Educators, locate venues for education tables, schedule educators to staff them, seek speaking opportunities, and provide BSA presentations.
- By 2019, recruit and train one Speaker’s Bureau member from each target community to speak on the Affiliate’s behalf: Affiliate history, the community profile and what it reveals about the state of breast health in target communities, the Komen BSA message, and other requested topics.
- By 2017, cultivate 25 new partnerships in target communities by coordinating or providing education tables, educational materials, and/or BSA presentations.

The third problem statement recognizes that residents of all six target communities have challenges with transportation to medical appointments and health fairs. The priority is increasing transportation opportunities or knowledge of opportunities.

Objectives include:

- By 2016, offer fundable transportation strategies primarily for Patrick County supported by the Affiliate community and small grants programs. There is no mammography facility located in Patrick County.
- By 2016, offer fundable transportation strategies supported by the Affiliate community and small grants programs for Roanoke County, Radford City, Henry County, and Wythe County. There is a lack of access to providers via public transportation in these areas.
- Annually, update Volunteer Breast Health Educator and Ambassador training with the most current transportation resources identified in all five target communities and promote these resources on the Affiliate website.
- By 2016, utilize Affiliate Volunteer Breast Health Educators and Ambassadors to educate residents about available transportation resources identified in all six target communities.
- By 2019, explore transportation related partnerships within all six target communities for providing free transportation to breast health appointments.

The last problem statement acknowledges that all six target communities have a high rate of late-stage diagnosis. Priorities include promoting the meaning and importance of early detection in lowering late-stage diagnosis rates based on Komen BSA messaging and providing
psychosocial, emotional, and educational resources for residents who receive a late-stage diagnosis.

Objectives include:

- By 2016, update Affiliate education programs to reflect the Health Belief Model (HBM). The HBM hypothesizes that if women are educated about their risk factors and know what they can do to lessen their vulnerability; if they are convinced that they can be successful in changing their behavior; and if they experience fewer barriers, then they are more likely to take appropriate steps to prevent breast cancer.

- By 2015, survey breast cancer survivors to determine their psychosocial, emotional, and educational needs. Restructure Affiliate Survivor Committee and use survey results to develop and increase the number of survivor activities that meet identified needs.

- By 2016, update Volunteer Breast Health Educator and Ambassador training to include the most current information regarding metastatic breast cancer.

- Starting in 2016 host two metastatic breast cancer related events (one in the Central Blue Ridge Region and one in a different target community each year).

- By 2019, identify at least one breast cancer support group per target community to provide psychosocial, emotional, and educational support to recently diagnosed patients and those with metastatic breast cancer. In the event that no support group can be identified for a target community, the Affiliate will explore bringing stakeholders together to form one.

Disclaimer: Comprehensive data for the Executive Summary can be found in the 2015 Susan G. Komen® Virginia Blue Ridge Community Profile Report.
INTRODUCTION

Affiliate History

Susan G. Komen Virginia Blue Ridge was founded in 2006 as the Greater Roanoke Valley Area Affiliate of the Susan G. Komen Breast Cancer Foundation, Inc. At that time, Dr. Bob Williams, a local breast cancer surgeon, and a group of devoted board members performed operational duties as unpaid staff members. The Affiliate staff has grown to include its first Affiliate Coordinator (2008), Executive Director (2011), Mission Coordinator (2012), Education Outreach Coordinator (2014) and Bookkeeper (2014) who complete daily tasks for the organization. The Affiliate now operates as Komen Virginia Blue Ridge, a reflection of the 31 cities and counties that it serves. In 2010, the Affiliate was nominated for the Small Business of the Year Award by the Roanoke Regional Chamber of Commerce.

Over the years, the Affiliate’s breast health educational programming has expanded throughout the service area. Since 2012, the Affiliate has recruited and trained 214 Volunteer Breast Health Educators who have staffed 251 education tables where they speak with women and men one-on-one about breast health. It has also recruited and trained eight Volunteer Breast Health Ambassadors to represent the Affiliate throughout the region who serve as a Komen representative in outlying communities. In November, 2014, the Affiliate received a two-year Walgreen’s Affiliate-Based Education Grant to fund a part-time Education Outreach Coordinator (EOC) to deliver Komen Breast Self-Awareness messaging to at-risk populations thereby reducing disparities, closing gaps in the continuum of care, and making progress in meeting Healthy People 2020 breast cancer targets.

Affiliate fundraising activities have grown and diversified as well. In 2014 alone, the Affiliate hosted three inaugural events whose net proceeds totaled over $93,000: Pink Promise Luncheon, Give Day, and Laugh for the Cure. For the Pink Promise Luncheon, the Affiliate welcomed Komen President and CEO, Dr. Judy Salerno, who paid a special visit and served as a guest speaker. On Give Day, a local business challenged the Affiliate to get 800 donors in one day in order to receive their donation. Laugh for the Cure was the Affiliate’s first major fundraiser held outside of the Roanoke Valley (where the majority of fundraising events have typically taken place). In 2008, the Affiliate held its first and largest annual fundraising event, the Race for the Cure®. Up to 75.0 percent of net proceeds generated by the Affiliate stay in the Affiliate service area and 25.0 percent are sent to Komen headquarters for research.

Since 2008, the Affiliate has awarded 42 community grants to 13 different nonprofit organizations totaling more than $1.8M to fund breast health education, screening and diagnostic mammograms, and treatment for uninsured and underinsured women and men. Nonprofit organizations, educational institutions, and government agencies can apply to the Affiliate for yearly community grants which offer these free services to residents of its service area who qualify. Funding priorities for the community grant program are determined by information found in the most recent community profile report. Grantee applications are evaluated by at least three trained grant reviewers each and funding is awarded based on the
quality of the application and documented need from the community profile report In addition to the more than $1.8M for direct services, the Affiliate has contributed over $575,000 to the Susan G. Komen Research Program which supports grants and scientific partnerships to find the cures.

The Affiliate is recognized as the breast health and breast cancer expert throughout its service area. With a focus solely on breast cancer, along with an alliance with the Susan G. Komen organization, the Affiliate has instant name recognition and visibility. Centrally located within its service area, the Affiliate is geographically reachable as well as culturally approachable by constituents. One board member is a young survivor who is a member of Komen Advocates in Science (AIS). AIS members participate in scientific review of research applications, advisory and planning committees, as well as scientific conferences. Another volunteer and founding board member coordinates tumor board meetings for a large hospital where all breast cancer patients receive a weekly review of their case. Two additional Affiliate board members (one a breast cancer surgeon and the other a radiation oncologist) attend tumor board meetings hosted by a different hospital. Additional expertise can be found in Affiliate Volunteer Breast Health Educators who work in the health care industry or who are survivors. One such educator serves on the Affiliate Education Committee as well as the coordinator of a local survivorship clinic.

**Affiliate Organizational Structure**

The Affiliate staff includes an Executive Director, Mission Manager, Education Outreach Coordinator, and part-time Bookkeeper. The Board of Directors serves as a working and governing board by providing leadership, setting policy, giving financial oversight, and assisting with fund raising strategies. Individual board members act as committee chairs and committee members for the Executive Committee and Board Development Committee. The Affiliate is also supported by many volunteers who serve as breast health educators and/or on one of the volunteer committees which include: Race, Fund Development, and Education. See Figure 1.1 for the Affiliate organizational chart.

![Affiliate Organizational Structure](image)

**Figure 1.1.** Komen Virginia Blue Ridge organizational structure
Affiliate Service Area

The Affiliate’s large geographic service area spans 10,328 square miles in Southwest Virginia and encompasses 32 cities and counties. The quantitative and qualitative data sections of the Affiliate’s 2015 Community Profile Report identifies barriers created by a substantially higher percentage of residents living in rural and medically under-served communities (45.6 percent) as compared to Virginia as a whole (24.5 percent). With many miles to travel from one city or county to another, lack of transportation prevents residents from seeking breast health services. As a result, routine medical care is often considered secondary to other needs perceived to be more pressing. Some communities may have only one medical provider, if any, for an entire county and no mammography services while research from Healthy People 2020 (HP2020) shows that “a recommendation from a health care provider is the most important reason patients cite for having cancer screening tests.” These limitations in access to healthcare also lead to gaps in access to education about health and healthy lifestyle choices. Socioeconomic characteristics of the Affiliate service area include an older population, lower education levels, higher unemployment and poverty percentages, and large pockets of Black/African-American residents. There is substantial need for breast health education considering many residents represent some of the greatest risk factors for increased incidence and death for breast cancer: over 50, lower socioeconomic status, limited literacy, and limited access to routine medical care. Expanding support and creating breast cancer specific education programs will empower residents to recognize the difference between normal and abnormal breast health thereby giving them confidence and knowledge to seek medical care when needed.

Figure 1.2. Susan G. Komen Virginia Blue Ridge service area
**Purpose of the Community Profile Report**

An effective 2015 CPR will help the Affiliate align its education outreach, grantmaking, and public policy activities toward the same mission goal. It will allow the Affiliate to:

- Include a broad range of people and stakeholders in the Affiliate’s work and become more diverse.
- Fund, educate, and build awareness in the areas of greatest need.
- Make data-driven decisions about how to use its resources in the best way – to make the greatest impact.
- Strengthen relationships with sponsors by clearly communicating the breast health and breast cancer needs of the community.
- Provide information to public policymakers to assist focusing their work.
- Strategize direction to marketing and outreach programs toward areas of greatest need.
- Create synergy between mission related strategic plans and operational activities.

One way the Affiliate will utilize findings from the 2015 CPR is by using qualitative data to identify barriers, the health systems analysis to understand available resources or lack thereof, and the selection of target communities (areas of greatest need) to designate funding priorities for the Affiliate’s community grant program. Supported by the most up-to-date research and evidence, analysis of the Quantitative Data Report reveals that five cities and four counties are of highest priority because it will take them more than 13 years to achieve the HP2020 breast cancer death rate target of 20.6 and late-stage incidence rates of 40.0 per 100,000 females. It is with these concerns in mind that the Affiliate will develop breast health education outreach and create unique programs to help its service area achieve the HP2020 goals for decreasing the number of late-stage diagnoses and death rates through increased awareness.

The Affiliate is committed to building strong relationships and collaborating with individuals and organizations in target communities to bridge gaps in breast health awareness. The Affiliate will use the two-year Walgreen’s Affiliate-Based Education Grant to expand community outreach, build partnerships, and deliver the Komen Breast Self-Awareness (BSA) message to at-risk populations. This grant provides the Affiliate with new opportunities to not only promote the BSA message, but to also disseminate findings from the 2015 CPR to a broader audience. As partnerships grow, they will build through expressing the need to decrease the numbers of late-stage diagnoses and death rates in target communities.

Social media will also play a role in promoting the findings from the 2015 CPR. Affiliate news is dispersed through daily Facebook postings and monthly e-newsletters. The Affiliate will use its website and email database to inform donors, grantees, volunteers, and other constituents about the findings along with activities taking place that are geared toward improving the breast health of residents living in target communities. As fundraising events take place throughout the Affiliate service area, the breast health needs of the residents will remain at the forefront.
**Quantitative Data Report**

**Introduction**
The purpose of the Quantitative Data Report for Susan G. Komen® Virginia Blue Ridge is to combine evidence from many credible sources and use the data to identify the highest priority areas for evidence-based breast cancer programs.

The data provided in the report are used to identify priorities within the Affiliate’s service area based on estimates of how long it would take an area to achieve Healthy People 2020 (HP2020) objectives for breast cancer late-stage diagnosis and death ([http://www.healthypeople.gov/2020/default.aspx](http://www.healthypeople.gov/2020/default.aspx)).

The following is a summary of Komen® Virginia Blue Ridge’s Quantitative Data Report. For a full report please contact the Affiliate.

**Breast Cancer Statistics**

**Incidence rates**
The breast cancer incidence rate shows the frequency of new cases of breast cancer among women living in an area during a certain time period (Table 2.1). Incidence rates may be calculated for all women or for specific groups of women (e.g. for Asian/Pacific Islander women living in the area).

The female breast cancer incidence rate is calculated as the number of females in an area who were diagnosed with breast cancer divided by the total number of females living in that area. Incidence rates are usually expressed in terms of 100,000 people. For example, suppose there are 50,000 females living in an area and 60 of them are diagnosed with breast cancer during a certain time period. Sixty out of 50,000 is the same as 120 out of 100,000. So the female breast cancer incidence rate would be reported as 120 per 100,000 for that time period.

When comparing breast cancer rates for an area where many older people live to rates for an area where younger people live, it’s hard to know whether the differences are due to age or whether other factors might also be involved. To account for age, breast cancer rates are usually adjusted to a common standard age distribution. Using age-adjusted rates makes it possible to spot differences in breast cancer rates caused by factors other than differences in age between groups of women.

To show trends (changes over time) in cancer incidence, data for the annual percent change in the incidence rate over a five-year period were included in the report. The annual percent change is the average year-to-year change of the incidence rate. It may be either a positive or negative number.

- A negative value means that the rates are getting lower.
- A positive value means that the rates are getting higher.
A positive value (rates getting higher) may seem undesirable—and it generally is. However, it’s important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms. So higher rates don’t necessarily mean that there has been an increase in the occurrence of breast cancer.

Death rates
The breast cancer death rate shows the frequency of death from breast cancer among women living in a given area during a certain time period (Table 2.1). Like incidence rates, death rates may be calculated for all women or for specific groups of women (e.g. Black/African-American women).

The death rate is calculated as the number of women from a particular geographic area who died from breast cancer divided by the total number of women living in that area. Death rates are shown in terms of 100,000 women and adjusted for age.

Data are included for the annual percent change in the death rate over a five-year period.

The meanings of these data are the same as for incidence rates, with one exception. Changes in screening don’t affect death rates in the way that they affect incidence rates. So a negative value, which means that death rates are getting lower, is always desirable. A positive value, which means that death rates are getting higher, is always undesirable.

Late-stage incidence rates
For this report, late-stage breast cancer is defined as regional or distant stage using the Surveillance, Epidemiology and End Results (SEER) Summary Stage definitions (http://seer.cancer.gov/tools/ssm/). State and national reporting usually uses the SEER Summary Stage. It provides a consistent set of definitions of stages for historical comparisons.

The late-stage breast cancer incidence rate is calculated as the number of women with regional or distant breast cancer in a particular geographic area divided by the number of women living in that area (Table 2.1). Late-stage incidence rates are shown in terms of 100,000 women and adjusted for age.
Table 2.1. Female breast cancer incidence rates and trends, death rates and trends, and late-stage rates and trends.

<table>
<thead>
<tr>
<th>Population Group</th>
<th>Incidence Rates and Trends</th>
<th>Death Rates and Trends</th>
<th>Late-stage Rates and Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female Population</td>
<td># of New Cases</td>
<td>Age-adjusted Rate/100,000</td>
</tr>
<tr>
<td></td>
<td>(Annual Average)</td>
<td>(Annual Average)</td>
<td>(Annual Average)</td>
</tr>
<tr>
<td>US</td>
<td>154,540,194</td>
<td>198,602</td>
<td>122.1</td>
</tr>
<tr>
<td>HP2020</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Virginia</td>
<td>3,993,827</td>
<td>5,420</td>
<td>124.8</td>
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<td>Komen Virginia Blue Ridge Service Area**</td>
<td>544,651</td>
<td>818</td>
<td>119.1</td>
</tr>
<tr>
<td>White</td>
<td>454,337</td>
<td>711</td>
<td>119.5</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>80,780</td>
<td>101</td>
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</tr>
<tr>
<td>American Indian/Alaska Native (AIAN)</td>
<td>1,472</td>
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<tr>
<td>Asian Pacific Islander (API)</td>
<td>8,061</td>
<td>4</td>
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<tr>
<td>Non-Hispanic/ Latina</td>
<td>532,755</td>
<td>814</td>
<td>119.3</td>
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<tr>
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<td>11,896</td>
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<td>16,879</td>
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<td>2,360</td>
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<td>34,069</td>
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<td>149.1</td>
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<td>3,074</td>
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</tr>
<tr>
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<td>16,602</td>
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<td>115.0</td>
</tr>
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<td>11,955</td>
<td>14</td>
<td>84.0</td>
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<td>27,836</td>
<td>40</td>
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<tr>
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<td>SN</td>
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<tr>
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<td>106.5</td>
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<td>12,161</td>
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<td>44,503</td>
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<td>9,440</td>
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</tr>
<tr>
<td>Population Group</td>
<td>Female Population (Annual Average)</td>
<td># of New Cases (Annual Average)</td>
<td>Age-adjusted Rate/100,000</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------</td>
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<td>Pittsylvania County - VA</td>
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<td>131.9</td>
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<td>Smyth County - VA</td>
<td>16,617</td>
<td>25</td>
<td>108.6</td>
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<td>Tazewell County - VA</td>
<td>22,744</td>
<td>27</td>
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<td>Wise County - VA</td>
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<td>94.0</td>
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<td>Bedford City - VA</td>
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<td>81.9</td>
</tr>
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<td>Bristol City - VA</td>
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</tr>
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<td>74.5</td>
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<td>SN</td>
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<td>Radford City - VA</td>
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<td>134.5</td>
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<td>50,219</td>
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<td>Salem City - VA</td>
<td>12,932</td>
<td>23</td>
<td>138.7</td>
</tr>
</tbody>
</table>

*Target as of the writing of this report.

**These data do not reflect data from the following counties: Buchanan, Dickenson, Lee, Russell, Scott, Smyth, Tazewell, Washington, & Wise. These data also do not reflect data from the following cities: Bristol City and Norton City.

NA – data not available.

SN – data suppressed due to small numbers (15 cases or fewer for the 5-year data period).

Data are for years 2005-2009 for incidence and late-stage data and 2006-2010 death data.

Rates are in cases or deaths per 100,000.

Age-adjusted rates are adjusted to the 2000 US standard population.


Source of death rate data: Centers for Disease Control and Prevention (CDC) – National Center for Health Statistics (NCHS) death data in SEER*Stat.

Source of death trend data: National Cancer Institute (NCI)/CDC State Cancer Profiles.
**Incidence rates and trends summary**

Overall, the breast cancer incidence rate in the Komen Virginia Blue Ridge service area was slightly lower than that observed in the US as a whole and the incidence trend was higher than the US as a whole. The incidence rate of the Affiliate service area was significantly lower than that observed for the State of Virginia and the incidence trend was not significantly different than the State of Virginia.

For the United States, breast cancer incidence in Blacks/African-Americans is lower than in Whites overall. The most recent estimated breast cancer incidence rates for APIs and AIANs were lower than for Non-Hispanic Whites and Blacks/African-Americans. The most recent estimated incidence rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Blacks/African-Americans. For the Affiliate service area as a whole, the incidence rate was slightly lower among Blacks/African-Americans than Whites and lower among APIs than Whites. There were not enough data available within the Affiliate service area to report on AIANs so comparisons cannot be made for this racial group. The incidence rate among Hispanics/Latinas was lower than among Non-Hispanics/Latinas.

The following counties had an incidence rate **significantly higher** than the state as a whole:
- Bedford County
- Montgomery County

The incidence rate was significantly lower in the following counties/cities than the state as a whole:
- Buchanan County
- Carroll County
- Patrick County
- Pulaski County
- Russell County
- Tazewell County
- Wythe County
- Bristol City

The rest of the counties had incidence rates and trends that were not significantly different than the state as a whole or did not have enough data available.

It’s important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms.

**Death rates and trends summary**

Overall, the breast cancer death rate in the Komen Virginia Blue Ridge service area was slightly higher than that observed in the US as a whole and the death rate trend was not available for comparison with the US as a whole. The death rate of the Affiliate service area was not significantly different than that observed for the State of Virginia.
For the United States, breast cancer death rates in Blacks/African-Americans are substantially higher than in Whites overall. The most recent estimated breast cancer death rates for APIs and AIANs were lower than for Non-Hispanic Whites and Blacks/African-Americans. The most recent estimated death rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Blacks/African-Americans. For the Affiliate service area as a whole, the death rate was higher among Blacks/African-Americans than Whites. There were not enough data available within the Affiliate service area to report on APIs and AIANs so comparisons cannot be made for these racial groups. Also, there were not enough data available within the Affiliate service area to report on Hispanics/Latinas so comparisons cannot be made for this group.

**Significantly less favorable trends** in breast cancer death rates were observed in the following county and city than the state as a whole:
- Pulaski County
- Bristol City

Significantly more favorable trends in breast cancer death rates were observed in the following county:
- Franklin County

The rest of the counties had death rates and trends that were not significantly different than the state as a whole or did not have enough data available.

**Late-stage incidence rates and trends summary**

Overall, the breast cancer late-stage incidence rate in the Komen Virginia Blue Ridge service area was similar to that observed in the US as a whole and the late-stage incidence trend was higher than the US as a whole. The late-stage incidence rate and trend of the Affiliate service area were not significantly different than that observed for the State of Virginia.

For the United States, late-stage incidence rates in Blacks/African-Americans are higher than among Whites. Hispanics/Latinas tend to be diagnosed with late-stage breast cancers more often than Whites. For the Affiliate service area as a whole, the late-stage incidence rate was higher among Blacks/African-Americans than Whites. There were not enough data available within the Affiliate service area to report on APIs and AIANs so comparisons cannot be made for these racial groups. Also, there were not enough data available within the Affiliate service area to report on Hispanics/Latinas so comparisons cannot be made for this group.

The following counties and city had a late-stage incidence rate **significantly higher** than the state as a whole:
- Montgomery County
- Pulaski County
- Radford City

The late-stage incidence rate was significantly lower in the following counties:
- Lee County
- Tazewell County
The rest of the counties had late-stage incidence rates and trends that were not significantly different than the state as a whole or did not have enough data available.

**Mammography Screening**

Getting regular screening mammograms (and treatment if diagnosed) lowers the risk of dying from breast cancer. Screening mammography can find breast cancer early, when the chances of survival are highest. Table 2.2 shows some screening recommendations among major organizations for women at average risk.

**Table 2.2. Breast cancer screening recommendations for women at average risk**

<table>
<thead>
<tr>
<th>American Cancer Society</th>
<th>National Comprehensive Cancer Network</th>
<th>US Preventive Services Task Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informed decision-making with a health care provider at age 40</td>
<td>Mammography every year starting at age 40</td>
<td>Informed decision-making with a health care provider ages 40-49</td>
</tr>
<tr>
<td>Mammography every year starting at age 45</td>
<td>Mammography every other year beginning at age 55</td>
<td>Mammography every 2 years ages 50-74</td>
</tr>
</tbody>
</table>

*As of October 2015*

Because having regular mammograms lowers the chances of dying from breast cancer, it’s important to know whether women are having mammograms when they should. This information can be used to identify groups of women who should be screened who need help in meeting the current recommendations for screening mammography. The Centers for Disease Control and Prevention’s (CDC) Behavioral Risk Factors Surveillance System (BRFSS) collected the data on mammograms that are used in this report. The data come from interviews with women age 50 to 74 from across the United States. During the interviews, each woman was asked how long it has been since she has had a mammogram. The proportions in Table 2.3 are based on the number of women age 50 to 74 who reported in 2012 having had a mammogram in the last two years.

The data have been weighted to account for differences between the women who were interviewed and all the women in the area. For example, if 20.0 percent of the women interviewed are Hispanic/Latina, but only 10.0 percent of the total women in the area are Hispanic/Latina, weighting is used to account for this difference.
The report uses the mammography screening proportion to show whether the women in an area are getting screening mammograms when they should. Mammography screening proportion is calculated from two pieces of information:

- The number of women living in an area whom the BRFSS determines should have mammograms (i.e. women age 50 to 74).
- The number of these women who actually had a mammogram during the past two years.

The number of women who had a mammogram is divided by the number who should have had one. For example, if there are 500 women in an area who should have had mammograms and 250 of those women actually had a mammogram in the past two years, the mammography screening proportion is 50.0 percent.

Because the screening proportions come from samples of women in an area and are not exact, Table 2.3 includes confidence intervals. A confidence interval is a range of values that gives an idea of how uncertain a value may be. It’s shown as two numbers—a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value.

For example, if screening proportion was reported as 50.0 percent, with a confidence interval of 35.0 to 65.0 percent, the real rate might not be exactly 50.0 percent, but it’s very unlikely that it’s less than 35.0 or more than 65.0 percent.

In general, screening proportions at the county level have fairly wide confidence intervals. The confidence interval should always be considered before concluding that the screening proportion in one county is higher or lower than that in another county.

### Table 2.3. Proportion of women ages 50-74 with screening mammography in the last two years, self-report.

<table>
<thead>
<tr>
<th>Population Group</th>
<th># of Women Interviewed (Sample Size)</th>
<th># w/ Self-Reported Mammogram</th>
<th>Proportion Screened (Weighted Average)</th>
<th>Confidence Interval of Proportion Screened</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>174,796</td>
<td>133,399</td>
<td>77.5%</td>
<td>77.2%-77.7%</td>
</tr>
<tr>
<td>Virginia</td>
<td>2,644</td>
<td>2,156</td>
<td>79.8%</td>
<td>77.8%-81.7%</td>
</tr>
<tr>
<td>Komen Virginia Blue Ridge Service Area**</td>
<td>434</td>
<td>347</td>
<td>76.1%</td>
<td>71.0%-80.6%</td>
</tr>
<tr>
<td>White</td>
<td>373</td>
<td>301</td>
<td>77.6%</td>
<td>72.1%-82.2%</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>55</td>
<td>41</td>
<td>66.2%</td>
<td>50.8%-78.8%</td>
</tr>
<tr>
<td>AIAN</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
</tr>
<tr>
<td>API</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
</tr>
<tr>
<td>Hispanic/Latina</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
<td>SN</td>
</tr>
<tr>
<td>Non-Hispanic/Latina</td>
<td>428</td>
<td>342</td>
<td>76.1%</td>
<td>71.0%-80.6%</td>
</tr>
<tr>
<td>Alleghany County - VA</td>
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<td>SN</td>
<td>SN</td>
<td>SN</td>
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<td>Confidence Interval of Proportion Screened</td>
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<td>14</td>
<td>55.5%</td>
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</table>
## Breast cancer screening proportions summary

The breast cancer screening proportion in the Komen Virginia Blue Ridge service area was not significantly different than that observed in the US as a whole. The screening proportion of the Affiliate service area was not significantly different than the State of Virginia.

For the United States, breast cancer screening proportions among Blacks/African-Americans are similar to those among Whites overall. APIs have somewhat lower screening proportions than Whites and Blacks/African-Americans. Although data are limited, screening proportions among AIANs are similar to those among Whites. Screening proportions among Hispanics/Latinas are similar to those among Non-Hispanic Whites and Blacks/African-Americans. For the Affiliate service area as a whole, the screening proportion was not significantly different among Blacks/African-Americans than Whites. There were not enough data available within the Affiliate service area to report on APIs, and AIANs so comparisons cannot be made for these racial groups. Also, there were not enough data available within the Affiliate service area to report on Hispanics/Latinas so comparisons cannot be made for this group.

The following county and city had a screening proportion **significantly lower** than the state as a whole:

- Wythe County (Komen Virginia Blue Ridge)
- Lynchburg City (Komen Virginia Blue Ridge)

The rest of the counties/cities in the Affiliate service area had substantially different screening proportions than the state as a whole.

## Population Characteristics

The report includes basic information about the women in each area (demographic measures) and about factors like education, income, and unemployment (socioeconomic measures) in the areas where they live (Tables 2.4 and 2.5). Demographic and socioeconomic data can be used to identify which groups of women are most in need of help and to figure out the best ways to help them.
It is important to note that the report uses the race and ethnicity categories used by the US Census Bureau, and that race and ethnicity are separate and independent categories. This means that everyone is classified as both a member of one of the four race groups as well as either Hispanic/Latina or Non-Hispanic/Latina.

The demographic and socioeconomic data in this report are the most recent data available for US counties. All the data are shown as percentages. However, the percentages weren’t all calculated in the same way.

- The race, ethnicity, and age data are based on the total female population in the area (e.g. the percent of females over the age of 40).
- The socioeconomic data are based on all the people in the area, not just women.
- Income, education and unemployment data don’t include children. They’re based on people age 15 and older for income and unemployment and age 25 and older for education.
- The data on the use of English, called “linguistic isolation”, are based on the total number of households in the area. The Census Bureau defines a linguistically isolated household as one in which all the adults have difficulty with English.

Table 2.4. Population characteristics – demographics.

<table>
<thead>
<tr>
<th>Population Group</th>
<th>White</th>
<th>Black / African-American</th>
<th>AIAN</th>
<th>API</th>
<th>Non-Hispanic /Latina</th>
<th>Hispanic /Latina</th>
<th>Female Age 40 Plus</th>
<th>Female Age 50 Plus</th>
<th>Female Age 65 Plus</th>
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<tbody>
<tr>
<td>US</td>
<td>78.8 %</td>
<td>14.1 %</td>
<td>1.4 %</td>
<td>5.8%</td>
<td>83.8 %</td>
<td>16.2 %</td>
<td>48.3 %</td>
<td>34.5 %</td>
<td>14.8 %</td>
</tr>
<tr>
<td>Virginia</td>
<td>71.9 %</td>
<td>21.1 %</td>
<td>0.6 %</td>
<td>6.5%</td>
<td>92.3 %</td>
<td>7.7 %</td>
<td>48.5 %</td>
<td>33.9 %</td>
<td>13.9 %</td>
</tr>
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<td>Komen Virginia Blue Ridge Service Area**</td>
<td>83.1 %</td>
<td>14.9 %</td>
<td>0.3 %</td>
<td>1.7%</td>
<td>97.5 %</td>
<td>2.5 %</td>
<td>53.3 %</td>
<td>40.0 %</td>
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<td>0.2 %</td>
<td>0.4%</td>
<td>98.9 %</td>
<td>1.1 %</td>
<td>59.8 %</td>
<td>46.1 %</td>
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<td>1.0 %</td>
<td>0.7%</td>
<td>98.2 %</td>
<td>1.8 %</td>
<td>54.6 %</td>
<td>40.5 %</td>
<td>18.5 %</td>
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<td>0.2 %</td>
<td>0.3%</td>
<td>98.1 %</td>
<td>1.9 %</td>
<td>63.2 %</td>
<td>48.0 %</td>
<td>24.0 %</td>
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<tr>
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<td>0.3 %</td>
<td>1.3%</td>
<td>98.3 %</td>
<td>1.7 %</td>
<td>57.8 %</td>
<td>42.0 %</td>
<td>17.5 %</td>
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<td>0.4%</td>
<td>99.5 %</td>
<td>0.5%</td>
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<td>45.9 %</td>
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</tr>
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</tr>
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<td>87.2%</td>
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</tr>
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<td>2.3%</td>
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<td>97.2%</td>
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</tr>
<tr>
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<td>1.1%</td>
<td>96.7%</td>
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<td>1.4%</td>
<td>98.7%</td>
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<td>16.0%</td>
</tr>
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<td>3.2%</td>
<td>97.5%</td>
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</tr>
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<td>16.7%</td>
</tr>
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<td>1.8%</td>
<td>97.6%</td>
<td>2.4%</td>
<td>53.2%</td>
<td>40.6%</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

**These data do not reflect data from the following counties: Buchanan, Dickenson, Lee, Russell, Scott, Smyth, Tazewell, Washington, & Wise. These data also do not reflect data from the following cities: Bristol City and Norton City. Data are for 2011. Data are in the percentage of women in the population. Source: US Census Bureau – Population Estimates**
Table 2.5. Population characteristics – socioeconomics.

<table>
<thead>
<tr>
<th>Population Group</th>
<th>Less than HS Education</th>
<th>Income Below 100% Poverty</th>
<th>Income Below 250% Poverty (Age: 40-64)</th>
<th>Unemployed</th>
<th>Foreign Born</th>
<th>Linguistically Isolated</th>
<th>In Rural Areas</th>
<th>In Medically Under-served Areas</th>
<th>No Health Insurance (Age: 40-64)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>14.3 %</td>
<td>33.3 %</td>
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</tr>
<tr>
<td>Virginia</td>
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<td>13.3 %</td>
</tr>
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<td>7.8 %</td>
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<td>15.8 %</td>
</tr>
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</tr>
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<tr>
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</tr>
<tr>
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</tr>
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<td>0.3 %</td>
<td>0.2 %</td>
<td>100.0 %</td>
<td>100.0 %</td>
<td>15.1 %</td>
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<td>100.0 %</td>
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<tr>
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<td>1.6 %</td>
<td>1.7 %</td>
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</tr>
<tr>
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<td>7.7 %</td>
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<td>7.6 %</td>
<td>1.0 %</td>
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</tr>
<tr>
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<td>0.8 %</td>
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<td>100.0 %</td>
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</tr>
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<td>12.3 %</td>
<td>3.2 %</td>
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</tr>
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<td>29.2 %</td>
<td>6.4 %</td>
<td>8.2 %</td>
<td>1.5 %</td>
<td>24.9 %</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
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<td>1.4 %</td>
<td>0.9 %</td>
<td>46.9 %</td>
<td>0.0 %</td>
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</tr>
<tr>
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<td>5.8 %</td>
<td>22.7 %</td>
<td>4.6 %</td>
<td>4.9 %</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
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<td>1.2 %</td>
<td>0.1 %</td>
<td>51.9 %</td>
<td>100.0 %</td>
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<tr>
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<td>6.1 %</td>
<td>1.0 %</td>
<td>0.1 %</td>
<td>71.7 %</td>
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</tr>
<tr>
<td>Wise County - VA</td>
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<td>49.6 %</td>
<td>8.5 %</td>
<td>1.7 %</td>
<td>0.3 %</td>
<td>56.7 %</td>
<td>44.2 %</td>
<td>14.1 %</td>
</tr>
</tbody>
</table>
Population characteristics summary

Proportionately, the Komen Virginia Blue Ridge service area has a slightly larger White female population than the US as a whole, a slightly larger Black/African-American female population, a substantially smaller Asian and Pacific Islander (API) female population, a slightly smaller American Indian and Alaska Native (AIAN) female population, and a substantially smaller Hispanic/Latina female population. The Affiliate’s female population is slightly older than that of the US as a whole. The Affiliate’s education level is slightly lower than and income level is slightly lower than those of the US as a whole. There is a slightly smaller percentage of people who are unemployed in the Affiliate service area. The Affiliate service area has a substantially smaller percentage of people who are foreign born and a substantially smaller percentage of people who are linguistically isolated. There is a substantially larger percentage of people living in rural areas, a slightly smaller percentage of people without health insurance, and a substantially larger percentage of people living in medically underserved areas.
The following cities have substantially larger Black/African-American female population percentages than the state as a whole:

- Danville City
- Lynchburg City
- Martinsville City
- Roanoke City

The following city has a substantially larger Hispanic/Latina female population percentages than that of the state as a whole:

- Galax City

The following counties/cities have substantially older female population percentages than the state as a whole:

- Alleghany County
- Bath County
- Bland County
- Carroll County
- Floyd County
- Franklin County
- Giles County
- Grayson County
- Henry County
- Patrick County
- Pittsylvania County
- Pulaski County
- Roanoke County
- Rockbridge County
- Scott County
- Smyth County
- Tazewell County
- Washington County
- Wythe County
- Bedford City
- Bristol City
- Covington City
- Danville City
- Galax City
- Martinsville City
The following counties/cities have substantially lower education levels than the state as a whole:

- Amherst County
- Bath County
- Bland County
- Buchanan County
- Carroll County
- Dickenson County
- Floyd County
- Franklin County
- Giles County
- Grayson County
- Henry County
- Lee County
- Patrick County
- Pittsylvania County
- Pulaski County
- Rockbridge County
- Russell County
- Scott County
- Smyth County
- Tazewell County
- Wise County
- Wythe County
- Bristol City
- Buena Vista City
- Covington City
- Danville City
- Galax City
- Lexington City
- Martinsville City
- Norton City
- Roanoke City

The following counties/cities have substantially lower income levels than the state as a whole:

- Buchanan County
- Carroll County
- Dickenson County
- Grayson County
- Henry County
- Lee County
• Patrick County
• Russell County
• Scott County
• Smyth County
• Tazewell County
• Wise County
• Bedford City
• Bristol City
• Buena Vista City
• Covington City
• Danville City
• Galax City
• Lynchburg City
• Martinsville City
• Norton City
• Radford City
• Roanoke City

The following counties/cities have substantially lower employment levels than the state as a whole:
• Dickenson County
• Henry County
• Patrick County
• Pittsylvania County
• Pulaski County
• Bristol City
• Danville City
• Lynchburg City
• Martinsville City
• Radford City

The following counties/cities have substantially larger percentages of adults without health insurance than does the state as a whole:
• Carroll County (Komen Virginia Blue Ridge)
• Floyd County (Komen Virginia Blue Ridge)
• Grayson County (Komen Virginia Blue Ridge)
• Henry County (Komen Virginia Blue Ridge)
• Patrick County (Komen Virginia Blue Ridge)
• Galax City (Komen Virginia Blue Ridge)
Priority Areas

Healthy People 2020 forecasts

Healthy People 2020 (HP2020) is a major federal government initiative that provides specific health objectives for communities and for the country as a whole. Many national health organizations use HP2020 targets to monitor progress in reducing the burden of disease and improve the health of the nation. Likewise, Komen believes it is important to refer to HP2020 to see how areas across the country are progressing towards reducing the burden of breast cancer.

HP2020 has several cancer-related objectives, including:

- Reducing women’s death rate from breast cancer (Target as of the writing of this report: 20.6 cases per 100,000 women).
- Reducing the number of breast cancers that are found at a late-stage (Target as of the writing of this report: 41.0 cases per 100,000 women).

To see how well counties in the Komen Virginia Blue Ridge service area are progressing toward these targets, the report uses the following information:

- County breast cancer death rate and late-stage diagnosis data for years 2006 to 2010.
- Estimates for the trend (annual percent change) in county breast cancer late-stage diagnosis and death rates for years 2006 to 2010.
- Both the data and the HP2020 target are age-adjusted.

These data are used to estimate how many years it will take for each county to meet the HP2020 objectives. Because the target date for meeting the objective is 2020, and 2008 (the middle of the 2006-2010 period) was used as a starting point, a county has 12 years to meet the target.

Death rate and late-stage diagnosis data and trends are used to calculate whether an area will meet the HP2020 target, assuming that the trend seen in years 2006 to 2010 continues for 2011 and beyond.

Identification of priority areas

The purpose of this report is to combine evidence from many credible sources and use the data to identify the highest priority areas for breast cancer programs (i.e. the areas of greatest need). Classification of priority areas are based on the time needed to achieve HP2020 targets in each area. These time projections depend on both the starting point and the trends in death rates and late-stage incidence.

Late-stage incidence reflects both the overall breast cancer incidence rate in the population and the mammography screening coverage. The breast cancer death rate reflects the access to care and the quality of care in the health care delivery area, as well as cancer stage at diagnosis.
There has not been any indication that either one of the two HP2020 targets is more important than the other. Therefore, the report considers them equally important.

Counties are classified as follows (Table 2.6):

- Counties that are not likely to achieve either of the HP2020 targets are considered to have the highest needs.
- Counties that have already achieved both targets are considered to have the lowest needs.
- Other counties are classified based on the number of years needed to achieve the two targets.

**Table 2.6. Needs/priority classification based on the projected time to achieve HP2020 breast cancer targets.**

<table>
<thead>
<tr>
<th>Time to Achieve Death Rate Reduction Target</th>
<th>Time to Achieve Late-stage Incidence Reduction Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 years or longer</td>
<td>Highest</td>
</tr>
<tr>
<td>7-12 yrs.</td>
<td>High</td>
</tr>
<tr>
<td>0 – 6 yrs.</td>
<td>Medium High</td>
</tr>
<tr>
<td>Currently meets target</td>
<td>Medium</td>
</tr>
<tr>
<td>Unknown</td>
<td>Highest</td>
</tr>
</tbody>
</table>

If the time to achieve a target cannot be calculated for one of the HP2020 indicators, then the county is classified based on the other indicator. If both indicators are missing, then the county is not classified. This doesn’t mean that the county may not have high needs; it only means that sufficient data are not available to classify the county.

**Affiliate Service Area Healthy People 2020 Forecasts and Priority Areas**

The results presented in Table 2.7 help identify which counties have the greatest needs when it comes to meeting the HP2020 breast cancer targets.

- For counties in the “13 years or longer” category, current trends would need to change to achieve the target.
- Some counties may currently meet the target but their rates are increasing and they could fail to meet the target if the trend is not reversed.

Trends can change for a number of reasons, including:

- Improved screening programs could lead to breast cancers being diagnosed earlier, resulting in a decrease in both late-stage incidence rates and death rates.
- Improved socioeconomic conditions, such as reductions in poverty and linguistic isolation could lead to more timely treatment of breast cancer, causing a decrease in death rates.
The data in this table should be considered together with other information on factors that affect breast cancer death rates such as screening percentages and key breast cancer death determinants such as poverty and linguistic isolation.

**Table 2.7.** Intervention priorities for Komen Virginia Blue Ridge service area with predicted time to achieve the HP2020 breast cancer targets and key population characteristics.

<table>
<thead>
<tr>
<th>County</th>
<th>Priority</th>
<th>Predicted Time to Achieve Death Rate Target</th>
<th>Predicted Time to Achieve Late-stage Incidence Target</th>
<th>Key Population Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick County - VA</td>
<td>Highest</td>
<td>SN</td>
<td>13 years or longer</td>
<td>Older, education, employment, rural, medically underserved</td>
</tr>
<tr>
<td>Roanoke County - VA</td>
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<td>13 years or longer</td>
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<td>Wythe County - VA</td>
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<td>13 years or longer</td>
<td>Rural</td>
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<td>13 years or longer</td>
<td>13 years or longer</td>
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</tr>
<tr>
<td>Danville City - VA</td>
<td>Highest</td>
<td>13 years or longer</td>
<td>13 years or longer</td>
<td>%Black/African-American, education, poverty, employment, medically underserved</td>
</tr>
<tr>
<td>Lynchburg City - VA</td>
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<td>13 years or longer</td>
<td>%Black/African-American</td>
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<tr>
<td>Radford City - VA</td>
<td>Highest</td>
<td>SN</td>
<td>13 years or longer</td>
<td>Medically underserved</td>
</tr>
<tr>
<td>Roanoke City - VA</td>
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<td>13 years or longer</td>
<td>13 years or longer</td>
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<tr>
<td>Carroll County - VA</td>
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<td>13 years or longer</td>
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<td>3 years</td>
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<td>Scott County - VA</td>
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<td>13 years or longer</td>
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<td>Employment, medically underserved</td>
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<tr>
<td>County</td>
<td>Priority</td>
<td>Predicted Time to Achieve Death Rate Target</td>
<td>Predicted Time to Achieve Late-stage Incidence Target</td>
<td>Key Population Characteristics</td>
</tr>
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</tr>
<tr>
<td>Buchanan County – VA</td>
<td>Medium</td>
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<td>Currently meets target</td>
<td>Education, poverty, rural, medically underserved</td>
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<tr>
<td>Campbell County - VA</td>
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<td>Franklin County - VA</td>
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<td>Lee County - VA</td>
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<td>Currently meets target</td>
<td>Education, rural, medically underserved</td>
</tr>
<tr>
<td>Montgomery County - VA</td>
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<td>Currently meets target</td>
<td>13 years or longer</td>
<td>%API</td>
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<tr>
<td>Smyth County - VA</td>
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<td>Education, rural, medically underserved</td>
</tr>
<tr>
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<td>Currently meets target</td>
<td>Medically underserved</td>
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<tr>
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<td>7 years</td>
<td>1 year</td>
<td>Education</td>
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<td>10 years</td>
<td>Currently meets target</td>
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<tr>
<td>Bedford County - VA</td>
<td>Medium Low</td>
<td>5 years</td>
<td>2 years</td>
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<tr>
<td>Giles County - VA</td>
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<td>Botetourt County - VA</td>
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<td>Currently meets target</td>
<td>1 year</td>
<td>Rural</td>
</tr>
<tr>
<td>Russell County – VA</td>
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<td>Currently meets target</td>
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<td></td>
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<tr>
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<td>Older, education, rural, medically underserved</td>
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<tr>
<td>County</td>
<td>Priority</td>
<td>Predicted Time to Achieve Death Rate Target</td>
<td>Predicted Time to Achieve Late-stage Incidence Target</td>
<td>Key Population Characteristics</td>
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<td>Rural, medically underserved</td>
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<td>%Black/African-American</td>
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</table>

NA – data not available.
SN – data suppressed due to small numbers (15 cases or fewer for the 5-year data period).

**Map of Intervention Priority Areas**

Figure 2.1 shows a map of the intervention priorities for the counties in the Affiliate service area. When both of the indicators used to establish a priority for a county are not available, the priority is shown as “undetermined” on the map.

**Figure 2.1.** Intervention priorities.
Data Limitations

The following data limitations need to be considered when utilizing the data of the Quantitative Data Report:

- The most recent data available were used but, for cancer incidence and deaths, these data are still several years behind.
- For some areas, data might not be available or might be of varying quality.
- Areas with small populations might not have enough breast cancer cases or breast cancer deaths each year to support the generation of reliable statistics.
- There are often several sources of cancer statistics for a given population and geographic area; therefore, other sources of cancer data may result in minor differences in the values even in the same time period.
- Data on cancer rates for specific racial and ethnic subgroups such as Somali, Hmong, or Ethiopian are not generally available.
- The various types of breast cancer data in this report are inter-dependent.
- There are many factors that impact breast cancer risk and survival for which quantitative data are not available. Some examples include family history, genetic markers like HER2 and BRCA, other medical conditions that can complicate treatment, and the level of family and community support available to the patient.
- The calculation of the years needed to meet the HP2020 objectives assume that the current trends will continue until 2020. However, the trends can change for a number of reasons.
- Not all breast cancer cases have a stage indication.

Quantitative Data Report Conclusions

Highest priority areas

Eight counties/cities in the Komen Virginia Blue Ridge service area are in the highest priority category. Six of the eight, Roanoke County, Washington County, Wythe County, Danville City, Lynchburg City and Roanoke City, are not likely to meet either the late-stage incidence rate or death rate HP2020 targets. Two of the seven, Patrick County and Radford City, are not likely to meet the late-stage incidence rate HP2020 target.

The late-stage incidence rates in Radford City (81.8 per 100,000) are significantly higher than the Affiliate service area as a whole (43.0 per 100,000).

Patrick County has an older population, low education levels, and high unemployment. Danville City has a relatively large Black/African-American population, low education levels, high poverty percentages, and high unemployment. Lynchburg City has a relatively large Black/African-American population. Roanoke City has a relatively large Black/African-American population.

High priority areas

Two counties/cities in the Komen Virginia Blue Ridge service area are in the high priority category. Both of the two, Henry County and Martinsville City, are not likely to meet the late-stage incidence rate HP2020 target.
Henry County has a relatively large Black/African-American population, low education levels and high unemployment. Martinsville City has a relatively large Black/African-American population, high poverty percentages and high unemployment.

**Selection of Target Communities**

In order to be the most efficient stewards of resources, Susan G. Komen Virginia Blue Ridge Affiliate has chosen five target communities within the service area. The Affiliate will focus strategic efforts on these target communities over the course of the next five years. Target communities are those communities which have cumulative key indicators showing an increased chance of vulnerable populations likely at risk for experiencing gaps in breast health services and/or barriers in access to care.

When selecting target communities, the Affiliate reviewed HP2020, a major federal government initiative that provides specific health objectives for communities and the country as a whole. Specific to the Affiliate mission, targets based on reducing the number of breast cancers found at a late-stage and reducing women’s death rate from breast cancer were analyzed. Through this review, areas of priority were identified based on the time needed to meet HP2020 targets for breast cancer. These communities have been chosen by their predicted time to achieve HP2020 late-stage breast cancer diagnosis and death rate targets.

Additional key indicators the Affiliate reviewed when selecting target counties included, but were not limited to:

- Incidence rates and trends
- Death rates and trends
- Late-stage rates and trends
- Below average screening percentages
- Residents living below poverty level
- Residents living without health insurance
- Unemployment percentages
- Mammography screening percentages

The selected target communities are:

- Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City)
- South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City)
- Washington County and Bristol City, Virginia
- Wythe County, Virginia
- Danville City, Virginia
- Lynchburg City, Virginia

Compared to the rest of the state, the Affiliate service area has considerably more White women and older populations which are risk factors associated with higher incidences of breast cancer. The Affiliate also has challenges for providing access to health care given that the service area
has higher rates of poverty and unemployment than the remainder of the state. Other social
determinants of health, such as health literacy, cultural beliefs, values, practices, and
willingness to engage and seek care are unknown but important determinants. Although the
demographic makeup of this region’s female residents is primarily White; several cities and
counties within the region have higher populations of Black/African-American women than the
Affiliate populations.

In addition to being female, aging is a risk factor for breast cancer and also represents a major
difference between the Affiliate service area and the remainder of the state. The Affiliate over 65
population is 18.6 percent, which is considerably greater than the state’s over 65 population with
13.9 percent.

Finally, social determinants of health for the region indicate a potential concern about women’s
access to affordable breast health care. Several counties in the Affiliate service area have
substantially higher percentages of residents living below 250.0 percent poverty income, which
is 38.3 percent compared to the United States average of 33.3 percent. Additionally, many of
the counties served by the Affiliate are considered to be in a medically underserved area
compounding potential barriers to breast health care.

The health systems analysis component of this report will take a deeper look at the available
breast health services in the region. Due to the region’s rural nature and having areas
designated as medically underserved, it is vitally important to gain a clear understanding of how
accessible breast health services are for residents in the region.

Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City):
Central Blue Ridge Region consists of Roanoke County, Roanoke City, and Radford City,
Virginia. The City of Roanoke is nested within Roanoke County, which provides an easily
targeted geographic region. Radford City, being isolated from all other highest priority regions,
aligns closest with Roanoke County, thus has been included in the Central Blue Ridge
community. In addition, Radford City and Roanoke City are both medically underserved regions.
Roanoke County, Roanoke City, and Radford City are not predicted to reach the HP2020 target
late-stage incidence rate or death rate therefore falling within the highest priority areas Table
2.8).

Roanoke County is located within Southwest Virginia, with a total of 47,992 women. Roanoke
City is an urban city located in mostly rural Southwest Virginia. It has 50,219 women
representing a diverse population. Of these women, 30.4 percent are Black/African-American, a
rate double that of the service area average (14.9 percent). This is important due to the high
breast cancer death rates Black/African-American women experience when compared to other
Races. Black/African-American women make up 5.8 percent of women in Roanoke County and
9.2 percent in Radford City.

Radford City, with a population of 8,647, is also included within the Central Blue Ridge Region.
Data shows that 59.8 percent of Radford City is considered medically underserved compared to
46.3 percent for the Affiliate service area. Radford City is unique to this target area in that the socioeconomic conditions are more favorable than the average of the service area. However, the incidence and late-stage rates are much higher in Radford City (134.5 and 81.8 per 100,000 respectively) in comparison to the service area (119.1 and 43.0 per 100,000 respectively).

Table 2.8. Central Blue Ridge Region breast cancer statistics

<table>
<thead>
<tr>
<th></th>
<th>Roanoke County</th>
<th>Roanoke City</th>
<th>Radford City</th>
<th>Affiliate Service Area Rate</th>
<th>US Rate</th>
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<tr>
<td><strong>Incidence Rates</strong></td>
<td>125.4</td>
<td>116.0</td>
<td>134.5</td>
<td>119.1</td>
<td>122.1</td>
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<td><strong>Death Rates</strong></td>
<td>25.1</td>
<td>27.0</td>
<td>SN</td>
<td>23.4</td>
<td>22.6</td>
</tr>
<tr>
<td><strong>Late-Stage Rates</strong></td>
<td>41.4</td>
<td>46.9</td>
<td>81.8</td>
<td>43.0</td>
<td>43.7</td>
</tr>
</tbody>
</table>

*Rates are age-adjusted and are figured per 100,000 women

Roanoke County, Roanoke City, and Radford City have each been identified as highest priority due to the amount of intervention time needed to achieve the HP2020 targets. The death rate is expected to decrease over the next few years. But currently, both Roanoke County and Roanoke City continue to have some of the highest rates of breast cancer death in the Affiliate service area. Roanoke City’s late-stage diagnosis rate is 46.9 per 100,000 women and Radford City’s is 81.8 per 100,000. Both cities have higher than the Affiliate’s service area rate of 43.0 per 100,000 with Radford City’s rate being nearly twice the rate for the Affiliate service area. Both Roanoke City and Roanoke County late-stage diagnosis trends were upward at 3.1 percent and 5.4 percent respectively, while Radford City had a downward trend of 4.7 percent.

The Affiliate service area’s average time to reach the HP2020 targets, together with the social determinants data for Roanoke County, Roanoke City, and Radford City, show several areas of concern. Roanoke County has one of the oldest populations in the Affiliate service area. In addition, social determinants of health impact Roanoke City residents substantially more than the remainder of the target community. In particular, Roanoke City residents are more likely to have less than a high school education, have an income below 250.0 percent poverty level, and have no health insurance compared to most other communities in the Affiliate service area. In Radford City, certain social determinants of health strongly impact residents substantially more than the remainder of the target community. Radford City residents are more likely to have an income below 100.0 percent poverty level and live in medically underserved areas.

Although Roanoke City is in the immediate metropolitan area where services are more likely to be readily available, a health systems analysis will provide a deeper look at any underserved areas in Roanoke City. Based on shared data regarding diversity and trends in Roanoke County, Roanoke City, and Radford City, it appears many residents would benefit from services within their neighborhoods that are no-cost or reduced cost, culturally sensitive, and easily accessible. The actual availability of these services will be reviewed in a health systems analysis.
**South Central Blue Ridge Region, Virginia** (Patrick County, Henry County, Martinsville City): The South Central Blue Ridge Region includes Patrick County, Henry County, and Martinsville City. This rural community has unique challenges due to social determinants of health which can influence access to health care as well as decisions and outcomes. Common social determinants help to explain potential health care issues in the service area as well as potential solutions.

Residents of Patrick County are older with lower education, higher unemployment, and are medically underserved. Patrick County has a population of 9,440 women with 61.3 percent over the age of 40, 47.8 percent over the age of 50, and 23.9 percent over the age of 65 as compared to the Affiliate service area with 53.3 percent over 40, 40.0 percent over 50, and 18.6 percent over 65. Of women living in Patrick County, 26.4 percent have less than a high school education compared to 17.8 percent of women in the Affiliate service area. In addition, 47.0 percent of those in Patrick County have income below the 250 percent poverty line (38.3 percent for the Affiliate service area). Patrick County has 100 percent of its population considered medically underserved (46.3 percent for the Affiliate service area).

Henry County has been designated as a locality with low income, greater poverty, higher rates of unemployment, and a medically underserved population. In Henry County, 20.3 percent of residents are without health insurance as compared to 15.8 percent of people living in the Affiliate service area. Henry County is also a 100 percent medically underserved area when compared to the Affiliate (46.3 percent). Lack of health insurance drastically impacts access to health care and lack of medical providers limit the ability to access health care regardless of insurance status. Henry County has a population of 28,331 women as compared to Martinsville City that has a total female population of 7,650.

The South Central Blue Ridge Region has been identified as high priority due to the amount of intervention time needed to achieve the HP2020 targets. Currently, Henry County and Martinsville City continue to have some of the highest incidence rates of breast cancer death in the Affiliate service area, while Patrick County has incidence rates of 93.7 per 100,000 (Table 2.9). Martinsville City has some of the highest late-stage diagnosis rates in the service area, 50.6 per 100,000. Martinsville City, Patrick County, and Henry County late-stage diagnosis trends were upward at 7.7 percent, 13.6 percent and 9.0 percent, respectively. Incidence trends were also upward in Martinsville City (9.5 percent), Patrick County (14.5 percent), and Henry County (13.8 percent).

| Table 2.9. South Central Blue Ridge Region breast cancer statistics |
|------------------------|------------------------|------------------------|------------------------|------------------------|
|                        | Patrick County         | Henry County           | Martinsville City      | Affiliate Service Area Rate |
| Incidence Rates*       | 93.7                   | 136.9                  | 137.0                  | 119.1                  |
| Death Rates*           | SN                     | 22.6                   | 23.6                   | 23.4                   |
| Late-Stage Rates*      | 30.4                   | 38.8                   | 50.6                   | 43.0                   |

*Rates are age-adjusted and are figured per 100,000 women.
HP2020 targets and social determinants data for Martinsville City, Henry County, and Patrick County show several concerning areas as residents there are substantially more likely to have less than a high school education, have an income below 250.0 percent poverty, are medically underserved, and do not have health insurance.

**Washington County, Virginia and Bristol City, Virginia**

Washington County & Bristol City, Virginia have been identified as highest priority and medium high priority respectively for focus by the Affiliate due to the amount of time needed to achieve the HP 2020 targets, as will be discussed below. They were grouped together as one community because Bristol City is located within Washington County, VA. Additionally, both areas utilize many of the same resources. The Bureau of Economic Analysis combines the city of Bristol, VA with Washington County for statistical purposes. Both areas are classified as medically underserved. Furthermore, much of both populations have an income 250 percent below the poverty level while many persons have less than a high school education. These factors contribute to the selection of Washington County & Bristol City, VA for focus in the Community Profile. Washington County and Bristol City, VA are broken down into their individual entities below to provide a deeper look into this community. After each entity is discussed, a synopsis will be provided of the community in its entirety in reference to a health system analysis.

**Washington County, Virginia**

Washington County is located in southwest Virginia on the Virginia/Tennessee state line. The town of Abingdon is the county seat with Damascus, Glade Spring, and Saltville being other important towns. Washington County is home to the world-renowned Barter Theatre and the NASCAR Bristol Motor Speedway (Community Profile, 2014). In 2013, the population was estimated to be 54,907 with 27,569 being women (US Census Bureau, 2014 and Table 2.1). Characteristically, 97.7 percent of the population is White, a percent much larger than the United States percentage of 78.8 (Table 2.4). There is a small minority population in Washington County, VA with 1.6 percent Black/African-American, 0.2 percent AIAN, 0.5 percent API, and 1.1 percent Hispanic/Latina (Table 2.4).

HP 2020 identifies Washington County, VA as one of the highest priority counties for intervention by the Affiliate with 100 percent of the area designated as medically underserved (Table 2.7 and Table 2.5). At this time, the age-adjusted incidence rate for Washington County is at 113.7 diagnoses per 100,000 women (Table 2.1). Although the rate is up four percent from last year, it is below the national rate of 122.1, indicating that breast cancer may not be detected in the early stages (Table 2.1).

Additionally, the breast cancer death rate for Washington County, VA resides at 28 deaths per 100,000 women, down 0.7 percent from the previous year, with the national rate being 22.6 (Table 2.1). As breast cancers are not being detected in early stages, the death rates in this county are higher. HP 2020 estimates that it will take Washington County, VA 13 years or longer to achieve the goal set by HP 2020 of 20.6 (Table 2.7 and Table 2.1).
As for the late-stage diagnosis rate, Washington County has a rate of 44.7 diagnoses per 100,000 women (Table 2.1). The national rate is 43.7 (Table 2.1). HP 2020 estimates that it will take 13 years or longer to reach the HP 2020 goal of 41.0 late-stage deaths per 100,000 women (Table 2.7 and Table 2.1). Although there have been small positive changes in the incidence and death-rates, these values are still below national rates and goals set forth by HP 2020.

Reportedly 57.6 percent of women between the ages of 50 and 74 are receiving screening mammograms in Washington County (Table 2.3). The confidence interval of this statistic is reported as 56.4 percent to 84.6 percent (Table 2.3). This percentage is below both the national average of 77.5 percent and the state average of 79.8 percent indicating that Washington County, VA women are not receiving screening mammograms (Table 2.3).

Socioeconomic information is consistent with data commonly found in rural communities. Main sources of employment are similar to those found in Bristol, VA. Originally the area was widely recognized for its tobacco production and dairy farms. In recent years, farmland has been replaced with industry development. Currently, manufacturing, retail trade, health care/social assistance, accommodation/food services, and local government embody the majority of the area’s labor market opportunities (Community Profile, 2014). Presently, there has been a large influx of industry into the area – specifically with shopping centers along Interstate 81. The influx of these shopping centers are projected to positively impact the labor force and economy for the county and region.

While the economy in Washington County is currently experiencing great gains, the socioeconomic statistics remain depressed. As determined by the US Census Bureau, the 2008 to 2012 median family household income was determined to be $42,844 (US Census Bureau, 2014). Approximately 18.1 percent of the population has less than a high school education, while the national percentage rests at 14.6 percent (Table 2.5). Furthermore, 13.6 percent of inhabitants have an income 100 percent below the national poverty line while 40.3 percent live with an income 250 percent below the national poverty determinant (Table 2.5).

A synopsis encompassing Bristol City, VA and Washington County, VA will be provided below in relation to a health system analysis.

**Bristol City, Virginia**
Bristol City is an independent city bound by Washington County, VA, Bristol, TN, and Sullivan County, TN. It is the twin city to Bristol, TN which is located across the state line running down the middle of the area’s main street, State Street. In 2012, the population of Bristol, TN was estimated to be 17,662 with 9,425 people being women (US Census Bureau, 2014 and Table 2.1). Demographically, the area is 92.7 percent White, 6.0 percent Black/African-American, 0.4 percent AIAN, 0.9 percent API, and 1.4 percent Hispanic/Latina (Table 2.4).

HP 2020 identifies Bristol City, VA as a medium high priority target area for breast health intervention for the Affiliate (Table 2.7). At this time, Bristol City, VA has a breast cancer death rate of 33.5 deaths per 100,000 women (Table 2.1). HP 2020 predicts it will take Bristol City, VA
13 years or longer to achieve the HP 2020 goal of 20.6 breast cancer related deaths per 100,000 women (Table 2.7 and Table 2.1). Currently, the US rate is 22.6 (Table 2.1). As for the late-stage rate, HP 2020 has a goal of 41.0 late-stage diagnoses per 100,000 women (Table 2.1). The rate in Bristol currently resides at 41.2 (Table 2.1). HP estimates it will take one year for the City of Bristol, VA to meet this goal (Table 2.7). Death rates may be improved by changing current trends in the city such as improving screening percentages and providing breast health education.

The current breast cancer incidence, death rates, and late-stage rates/trends in Bristol City, VA draw attention to the need for breast health intervention by Komen Tri-Cities. The current breast cancer incidence rate is 92.1 new diagnoses per 100,000 women (Table 2.1). The current national rate is 122.1 (Table 2.1). The death rate in Bristol City, VA is 33.5 deaths per 100,000 women (Table 2.1). In comparison, the national rate is 22.6 (Table 2.1). As for the late-stage rates, the current rate for Bristol City, VA is 41.2 while the US rate is 43.7 (Table 2.1).

Analysis of the breast cancer incidence, death, and late-stage rates results in the City of Bristol, VA being a priority for the Affiliate. Bristol City’s incidence rate of 92.1 new diagnoses per 100,000 women is lower than the US rate of 122.1 and is decreasing annually by 16.1 percent (Table 2.1). However, Bristol City’s death rate of 33.5 per 100,000 women is higher than the national rate of 22.6 and is increasing annually by 1.0 percent (Table 2.1). The City of Bristol’s death rate indicates that the breast cancer death rates among women in Bristol are less favorable than the Affiliate area as a whole. Decreasing incidence may indicate that women are not receiving recommended regular screening mammograms. Increasing death rates may suggest that women diagnosed with breast cancer may be experiencing barriers to receiving or completing recommended treatment for the disease.

The proportion of women screened in Bristol City, VA for breast cancer is unknown. According to the CDC’s Behavioral Risk Factor Surveillance System (BRFSS) data in this area was suppressed due to small reported numbers (Table 2.3). As previously stated, the Bureau of Economic Analysis combines Washington County, VA and Bristol City, VA for statistical purposes. Consequently, the Washington County rates may be viewed as a general representation for Bristol City, VA although these rates should not be taken as concrete evidence.

Socioeconomic information reveals a city with employment issues and characteristics accompanying a medically underserved population. The major sources of employment by sector include manufacturing, retail trade, local government, and health care and social assistance (Community Profile, 2014). Despite the community’s small size, Bristol, VA has one of the most advanced broadband networks in the United States that in turn provides employment in the telecommunications industry (Bristol, 2014). Although employment options are becoming more plentiful, 11.5 percent of Bristol, VA’s population remains unemployed (Table 2.5).
A closer look into the socioeconomic data unveil more detail about Bristol, VA’s inhabitants. Approximately 20.5 percent of the population has less than a high school education, which is greater than the national percentage of 14.6 percent (Table 2.5). As reported by the US Census Bureau, the median family household income was $30,636 between 2008 and 2012 (US Census Bureau, 2014). As for the population, 50.4 percent have an income 250 percent below the national poverty line, with 22.4 percent having an income 100 percent below the line (Table 2.5). Both of these percentages are also much greater than the national percentages of 33.3 percent and 14.3 percent respectively (Table 2.5). Additionally, 100 percent of the population is characterized as living in a medically underserved area with 15.8 percent having no health insurance (Table 2.5).

A synopsis encompassing Bristol City, VA and Washington County, VA will be provided below in relation to a health system analysis.

**Washington County, Virginia and Bristol City, Virginia Synopsis**

Washington County, VA and Bristol City, VA make up a rural, intensely medically underserved community with employment being a main issue for the area. The current resources and needs of Washington County, VA and Bristol City, VA will be determined by a health system analysis. By conducting this analysis, the Affiliate will be able to take a deeper look into the primary priorities of the area’s health system. According to current information, the community would benefit from improved access to medical care accompanied by reduced-cost and/or no-cost breast health services. Breast health education and patient navigation would also be of benefit to the community. The investigation of current barriers will be reviewed in the health system analysis.

Wythe, Virginia:

Wythe County has a female population of 14,867. White women make up approximately 95.8 percent of the population while 3.5 percent of women are Black/African-American. Wythe County is an income challenged area with higher poverty percentages, where 43.0 percent of women aged 40-64 fall below 250 percent poverty level.

Wythe County is listed as highest priority based on the intervention times needed to meet the HP2020 goals of reducing late-stage incidence and death rates. Wythe County has been chosen as a target community due to the breast cancer death rate of 28.6 per 100,000 in comparison to 23.4 per 100,000 in the Affiliate service area (Table 2.10). In addition, the incidence rates have risen 16.6 percent compared to the Affiliate service region of 2.9 percent.

Wythe County has many social determinants that contribute toward its status as a highest priority area. Wythe County is listed as 75.3 percent rural, compared to 45.6 percent for the Affiliate service area. Rural areas are more likely to have problems with delivering medical services due to lack of medical providers. In addition, 20.9 percent of Wythe County residents have less than a high school education. Wythe County has high unemployment percentages and a lack of health insurance, compared to the Affiliate service area.
**Table 2.10. Wythe County breast cancer statistics**

<table>
<thead>
<tr>
<th></th>
<th>Wythe County</th>
<th>Affiliate Service Area Rate</th>
<th>US Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence Rates*</td>
<td>94.0</td>
<td>119.1</td>
<td>122.1</td>
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<tr>
<td>Death Rates*</td>
<td>28.6</td>
<td>23.4</td>
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</tr>
<tr>
<td>Late-Stage Rates*</td>
<td>35.7</td>
<td>43.0</td>
<td>43.7</td>
</tr>
</tbody>
</table>

*Rates are age-adjusted and are figured per 100,000 women

Danville City, Virginia:
Danville City, Virginia is an urban city located in rural Southwest Virginia. Danville City has 23,827 women representing a diverse population in the Affiliate service area. Of these women, 50.2 percent are Black/African-American, a rate greater than three times that of the Affiliate service area average. This is important due to the high death rates Black/African-American women experience from breast cancer when compared to other Races.

Danville City has been identified as highest priority due to the amount of intervention time needed to achieve the HP2020 goals. For instance, Danville City’s death rate is expected to decrease over the next few years, but currently, Danville City continues to have some of the highest rates of breast cancer death in the Affiliate service area (Table 2.11). Danville City’s late-stage diagnosis trend and incidence rate represent that both of these trends are moving upward.

**Table 2.11. Danville City breast cancer statistics**

<table>
<thead>
<tr>
<th></th>
<th>Danville City</th>
<th>Affiliate Service Area Rate</th>
<th>US Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence Rate*</td>
<td>111.2</td>
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<td>122.1</td>
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<tr>
<td>Death Rates*</td>
<td>28.7</td>
<td>23.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Late-Stage Rates*</td>
<td>37.0</td>
<td>43.0</td>
<td>43.7</td>
</tr>
</tbody>
</table>

*Rates are age-adjusted and are figured per 100,000 women

Danville City’s socioeconomic data show several concerning areas. In comparison, Danville City residents are substantially more likely to have less than a high school education, incomes below 100.0 percent and 250.0 percent poverty, be unemployed, and not have health insurance than the Affiliate service area.

Although Danville City is in the immediate metropolitan area where services are more likely to be readily available, a health systems analysis will provide a deeper look at any underserved areas in Danville City. Based on shared data regarding diversity and trends in Danville City, it appears many residents would strongly benefit from services located within their neighborhoods that are of no-cost or reduced cost, culturally sensitive, and easily accessible. The actual availability of these services will be reviewed in a health systems analysis.
Lynchburg City, Virginia:
Lynchburg City, Virginia is an urban city located in rural Southwest Virginia. Lynchburg City has 39,320 women representing a diverse population in the Affiliate service area. Of these women, 30.7 percent are Black/African-American, a rate considerably greater than twice that of the Affiliate service area average. This is important due to the high death rates Black/African-American women experience from breast cancer when compared to other races.

Lynchburg City has been identified as highest priority due to the amount of intervention time needed to achieve the HP2020 targets. For instance, Lynchburg City’s death rate of breast cancer is 26.7 per 100,000 women (Table 2.12). This is higher than the Affiliate service area’s rate. Lynchburg City’s death rate is expected to decrease over the next few years, but currently, Lynchburg City continues to have some of the highest breast cancer death rates compared to the Affiliate service area. In addition, Lynchburg City’s late-stage diagnosis trend is 4.5 percent while Lynchburg City’s incidence rate trend is 2.9 percent representing that both of these trends are moving upward.

Table 2.12. Lynchburg City breast cancer statistics

<table>
<thead>
<tr>
<th></th>
<th>Lynchburg City</th>
<th>Affiliate Service Area Rate</th>
<th>US Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence Rates*</td>
<td>116.6</td>
<td>119.1</td>
<td>122.1</td>
</tr>
<tr>
<td>Death Rates*</td>
<td>26.7</td>
<td>23.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Late-Stage Rates*</td>
<td>42.9</td>
<td>43.0</td>
<td>43.7</td>
</tr>
</tbody>
</table>

*Rates are age-adjusted and are figured per 100,000 women

Lynchburg City’s socioeconomic data show several concerning areas when compared to the Affiliate service area. In comparison, Lynchburg City residents are substantially more likely to be unemployed, have an income below 100.0 percent, and live below 250.0 percent poverty than the Affiliate service area.

Although Lynchburg City is in the immediate metropolitan area where services are more likely to be readily available, a health systems analysis will provide a deeper look at any underserved areas in Lynchburg City. Based on shared data regarding diversity and trends in Lynchburg City, it appears many residents would strongly benefit from services located within their neighborhoods that are of no-cost or reduced cost, culturally sensitive, and easily accessible. The actual availability of these services will be reviewed in a health systems analysis.
Health Systems Analysis Data Sources

In order to determine populations deemed at risk for experiencing gaps in and/or barriers to breast health services, research was conducted throughout Susan G. Komen Virginia Blue Ridge’s target communities to identify available resources. Through quantitative research, the Affiliate pinpointed five communities where disparities in breast health services exist due to the service area’s mostly rural landscape and high death, poverty, and unemployment percentages. Other influencers include residents living in the service area being older and predominantly White (with pockets of high numbers of Black/African-American women), having less education, being medically underserved, and experiencing a high percentage of late-stage diagnosis.

When researching breast health services available in target communities, the Affiliate began by referencing the previous 2012 Community Profile Report. By using this profile as a starting point, the Affiliate was able to locate organizations, businesses, and individuals who provided breast health services in one way or another. Providers were not immediately researched for their services, but were documented in the Health Systems Analysis Template (HSAT) for name, address and contact information to refer to later, thereby ensuring that all potential providers were mentioned and the potential for duplication was reduced. The Affiliate then used their websites to glean required information and to follow leads about other potential breast health providers within each targeted community.

Once provider contact information was documented for each target community, the Affiliate collected data about potential Continuum of Care (CoC) breast health services offered. Provider websites supplied much of the required information; however, some providers either did not have a website or breast health services were not listed there. These providers were contacted by phone and email to determine if services offered were relevant to the intended research and to collect required information. All breast health services offered were then entered accordingly on the HSAT.

As information was gathered, the Affiliate used the criteria set forth by the Susan G. Komen Community Profile Team to categorize providers as Hospitals, Community Health Centers, Free Clinics, Health Departments, or Others. First, the Affiliate researched general hospitals located in each target community. These hospitals supplied the Affiliate with the most comprehensive list of CoC and support services offered. Services were noted on the HSAT along with accreditation status as an indicator of the quality of care delivered. Accreditation choices included the American College of Surgeons Commission on Cancer, American College of Radiology Centers of Excellence, and American College of Surgeons Accreditation Program for Breast Centers (NAPBC). While analyzing hospitals, it came to light that some hospitals had their own centers offering specific services along the CoC and which needed a separate designation. These centers were documented in the template and classified as ‘Other’. At that point, it became much easier to categorize “Other” providers including those offering breast health education and those offering end of life care such as hospices.

While completing the HSAT, the Affiliate discovered a substantial number of providers found in...
the 2012 Community Profile Report that no longer offered breast health services, had merged with other providers, were no longer in business, or whose organizational contact was no longer employed there. This data was discarded and replaced with the most up-to-date information. One barrier to the information gathering process was that many phone calls were not returned and many emails were not answered. To reduce that barrier, the Affiliate conferred with current and former community grant recipients to finalize information about providers located in the five target communities. Therefore, the Affiliate’s documented findings in each targeted community were carefully selected as the most relevant and accurate providers of breast health services for these communities. The Affiliate also found that providers that were physically located outside of the five target communities were serving residents living in those communities. The Affiliate has compiled this information and will use it to build partnerships through the Affiliate’s Mission Action Plan of the 2015 Community Profile Report.

**Health Systems Overview**
The Breast Cancer Continuum of Care (CoC) is a model that shows how a woman typically moves through the health care system for breast care. A woman would ideally move through the CoC quickly and seamlessly, receiving timely, quality care in order to have the best outcomes. Education can play an important role throughout the entire CoC.

While a woman may enter the continuum at any point, ideally, a woman would enter the CoC by getting screened for breast cancer – with a clinical breast exam or a screening mammogram. If the screening test results are normal, she would loop back into follow-up care, where she would get another screening exam at the recommended interval. Education plays a role in both providing education to encourage women to get screened and reinforcing the need to continue to get screened routinely thereafter.

If a screening exam yields abnormal results, diagnostic tests would be needed, possibly several, to determine if the abnormal finding is in fact breast cancer. These tests might include a diagnostic mammogram, breast ultrasound, or biopsy. If the tests are negative (or benign) and breast cancer is not found, she would go into the follow-up loop and return for screening at the recommended interval. The recommended intervals may range from three to six months for some women to 12 months for most women. Education plays a role in communicating the importance of proactively getting test results, keeping follow-up appointments, and understanding what it all means. Education can empower a woman and help manage anxiety and fear.
If breast cancer is diagnosed, she would proceed to treatment. Education can cover such topics as treatment options, how a pathology report determines the best options for treatment, understanding side effects and how to manage them, and helping to formulate questions a woman may have for her providers.

For some breast cancer patients, treatment may last a few months and for others, it may last years. While the CoC model shows that follow up and survivorship come after treatment ends, they actually may occur at the same time. Follow up and survivorship may include things like navigating insurance issues, locating financial assistance, symptom management, such as pain, fatigue, sexual issues, bone health, etc. Education may address topics such as making healthy lifestyle choices, long term effects of treatment, managing side effects, the importance of follow-up appointments, and communication with their providers. Most women will return to screening at a recommended interval after treatment ends, or for some, during treatment (such as those taking long term hormone therapy).

There are often delays in moving from one point of the continuum to another – at the point of following up on abnormal screening exam results, starting treatment, and completing treatment – that can all contribute to poorer outcomes. There are also many reasons why a woman does not enter or continue in the breast cancer CoC. These barriers can include lack of transportation, system issues including long waits for appointments and inconvenient clinic hours, language barriers, fear, and lack of information - or the wrong information (myths and misconceptions). Education can address some of these barriers and help a woman progress through the CoC more quickly.

As a result of the Affiliate’s comprehensive research concerning CoC service providers in target communities, it is important to address health system strengths and weaknesses. The first target community for discussion is the Central Blue Ridge Region (Roanoke County, Roanoke City, Radford City). Located within Roanoke City are numerous providers for breast health services including physicians, imaging and screening centers, free clinics, health departments, and community health centers (Figure 3.2). Valley Metro provides public transportation which is readily available within Roanoke City with many providers located on the bus line. Roanoke County, though, has far fewer providers than Roanoke City and with limited access to Valley Metro, county residents can have a difficult time accessing the numerous resources located in Roanoke City. One transportation option for county residents is RADAR. RADAR provides rural public transit services within the Roanoke Valley (Roanoke City, Roanoke County, Salem City, and Vinton) for physically, mentally disabled or transportation disadvantaged individuals.

Two major hospitals provide almost all breast health services referenced on the HSAT; however, one is located in Roanoke City and the other is in nearby Salem City. The hospital in Roanoke City provides financial assistance for accessing breast health services for the uninsured through Every Woman’s Life or EWL (a breast and cervical cancer screening program for low-income Virginia residents), Charity Care, and Komen funding. Radford City is not located within the Roanoke Valley and therefore its residents have little access to breast health services offered there. The resources available in Radford City are the health department
and student health services for a local university. There are providers located outside of Radford City, but the only public transportation is the buses that serve the university and the buses whose routes are within the city.

With so many resources available within Roanoke City and the lack thereof in Roanoke County and Radford City, breast health education is crucial for reducing late-stage diagnoses and lowering death rates. The Affiliate is physically located within Roanoke City, and over the past two years, has trained 214 Volunteer Breast Health Educators to staff education tables throughout the service area and speak with women one-on-one about breast health. Educators are knowledgeable about financial resources and have received culturally competent training that addresses cultural barriers for racial and ethnic minority women including fear, fatalism, medical mistrust, misconceptions, and perceived susceptibility. Training addresses other barriers including low English language skills, low health literacy, lack of insurance, irregular sources of medical care, and uncoordinated treatment. The Affiliate also has nine fully trained ambassadors. Affiliate ambassadors receive additional training that prepares them to represent the Affiliate in their community by seeking venues for education tables, scheduling educators to staff the tables, and delivering the Komen Breast Self-Awareness (BSA) presentations to groups.

The second target community is the South Central Blue Ridge Region (Patrick County, Henry County, Martinsville City). Few breast health providers in this region offer services beyond a clinical breast exam (Figure 3.3). Although a well-known breast health provider (located in Martinsville City) offers state of the art services across the CoC, it is just one of the few health care organizations to do so. For the first time, Patrick County has appeared as a locality of highest priority. Within that rural county, there is one hospital and one free clinic that serve the residents. The Affiliate could not find public transportation for Patrick County and with most health care organizations being located in Martinsville City, patients must travel to receive breast health services. Providers located in nearby Martinsville City already financially struggle to serve their own constituents from Henry County and Martinsville City but also strive to serve residents of Patrick County. Despite barriers, one provider (with Komen funding) has developed a successful referral system to enhance coordination of breast health services. Public transportation is available in Martinsville City but not Henry County. Although the Affiliate identified at least five regional breast health providers who offer financial assistance, these providers do not offer treatment options for patients diagnosed with breast cancer. The EWL program has a physical location in Martinsville City and is present in Patrick County one day a week. The Affiliate has trained 35 educators to serve Henry County and Martinsville City and has recently recruited and trained an ambassador to represent the Affiliate in that area. The Affiliate does not have trained educators or an ambassador to serve Patrick County.

Washington County and Bristol City, located in southwest Virginia, are different entities; they are considered a community for two primary reasons: (1) Bristol City is located within Washington County, Virginia, and (2) both areas share many of the same statistics and resources, thus increasing their functionality as a community. This rural community is
characterized as medically underserved with employment problems for its inhabitants. Additionally, both Washington County and Bristol City have incidence rates below that of the national average. With reports of both low incidence rates and high death rates, a conjecture can be drawn that women may not be receiving screening mammograms and that breast cancers are not being detected at early stages. Increasing screening percentages and providing breast health education to residents may improve incidence and death rate figures.

The Washington County/Bristol City, Virginia area has resources along the entire continuum of care. While there are many facilities offering screening and diagnostic services, only one facility offers chemotherapy treatments.

The fourth target community is Wythe County. With one hospital in the area and a few private practices, breast health services are relatively absent in this county (Figure 3.5). Many of the social determinants for high death rates include low education, high unemployment and lack of health insurance, which negatively impact its rural location and dispersed providers. Wytheville Transit provides public transportation within the city of Wytheville. A few Wythe County providers offer a variety of breast health services found on the HSAT, but rural geography and lack of insurance impair this community’s ability to lower late-stage diagnosis and death rates. The Wythe County Health Department is the local EWL provider and is also a recipient of Komen funding. The Affiliate has trained 15 educators to serve Wythe County and is actively recruiting an ambassador to serve there.

Danville City is the fifth target community. With over half of its female population being Black/African-American (a resounding identifier for high death rates), this community is especially vulnerable. At first glance, it seems that providers are plentiful. Upon further inspection, the health department (EWL provider and Komen funding recipient) and one of the community health clinics is located in nearby Chatham and is not accessible by the Danville Transit System (Figure 3.6). The Affiliate has trained eight educators to serve Danville City and has a fully trained ambassador who works hard to deliver the Komen BSA message to vulnerable residents.

The final targeted community is Lynchburg City. Multiple providers offer breast health services found on the HSAT and Lynchburg City is the one targeted community to offer a mobile mammography van that brings breast health services directly to its residents (Figure 3.7). Even with these impressive facilities and a mobile mammography van, other providers of routine screening, diagnostic, and treatment services are not as common or available throughout the city. As a result, residents must commute (public transportation is available) to general hospitals to receive breast health services along the CoC. With one free clinic, this community struggles to provide affordable breast health services for residents of low or no income. The closest EWL provider is located in Pittsylvania County but one local hospital in Lynchburg City is a Komen funding recipient. The Affiliate has trained 15 educators to serve Lynchburg but does not have an ambassador to represent the Affiliate locally.
Figure 3.2. Breast cancer services available in Roanoke City, Roanoke County & Radford City
Figure 3.3. Breast cancer services available in Patrick County, Henry County & Martinsville City
Figure 3.4. Breast cancer services available in Washington County and Bristol City
Figure 3.5. Breast cancer services available in Wythe County
Figure 3.6. Breast cancer services available in Danville City
Figure 3.7. Breast cancer services available in Lynchburg County
Within each target community, the Affiliate has key mission related partnerships for providing breast health education and funding for breast health services. Since 2008, the Affiliate has awarded over $2.5M in community grant funding to providers for education and direct services for uninsured and underinsured residents. These partnerships include:

- **Central Blue Ridge Region** – Carilion Breast Care Center, Planned Parenthood, Project Access of Roanoke Valley
- **South Central Blue Ridge Region** – Caring Hearts Free Clinic of Patrick County, Martinsville-Henry County Coalition for Health and Wellness
- **Wythe County** – Mt. Rodgers Health District (Virginia Department of Health)
- **Danville City** – Free Clinic of Danville, Pittsylvania-Danville Health District (Virginia Department of Health)
- **Lynchburg City** – Centra Alan B. Pearson Regional Cancer Center

In the Central Blue Ridge Region, the Carilion Breast Care Center (located in Roanoke City) provides services across the CoC including screening and diagnostic mammograms, ultrasounds, biopsies, MRIs, surgery, and reconstruction. The Center also provides support and survivorship services. The Affiliate has supported the Center every year since 2008 and has awarded them over $438,000. Two of the Center’s EWL employees are trained Komen Volunteer Breast Health Educators who represent both the Affiliate and the Center at education tables where they share the Komen BSA message. In addition, Planned Parenthood has received over $125,000 in community grant funding to bring residents age 19-39 into the CoC by providing clinical breast exams and Project Access of Roanoke Valley has received over $42,000 to assist uninsured and underinsured residents with breast health needs.

The Martinsville-Henry County Coalition for Health and Wellness has been awarded over $169,000 in Affiliate community grant funding to serve residents of Martinsville City and Henry County. The coalition has implemented a successful copay system for patients and provides coordination of services for women who do not have a primary care physician. Five of the coalition’s employees are Komen Volunteer Breast Health Educators and an additional 30 have been trained to share the Komen BSA message in this target community. Caring Hearts Free Clinic has received over $57,000 to provide breast health services in rural Patrick County.

The Mt. Rodgers Health District has been awarded over $322,000 in Affiliate community grant funding to serve residents of Grayson, Carroll, Wythe, and the City of Galax. The Health District is also an EWL provider. The Affiliate has conducted a BSA presentation for 25 health district nurses to further the mission throughout this medically underserved community.

The Pittsylvania/Danville Health District and the Free Clinic of Danville have been awarded over $213,000 and $128,000, respectively, in Affiliate community grant funding to serve residents of Danville City and Pittsylvania County. The Health District is also a EWL provider with one trained Komen Volunteer Breast Health Educator on staff. Like many other free clinics, the Free Clinic of Danville provides coordination of services for women without a primary care physician.
The Centra Alan B. Pearson Regional Cancer Center has been awarded over $220,000 in Affiliate community grant funding to serve residents of Lynchburg City and surrounding communities. Two of the center’s employees and several of the center’s volunteers are trained Komen Volunteer Breast Health Educators who represent both the Affiliate and the Center at education tables where they share the Komen BSA message.

The Affiliate has made great progress in developing community outreach programs; however, expanding these programs throughout target communities is challenging and will require additional partnerships and collaborations. One new initiative, Worship in Pink, involves collaboration with faith-based organizations to plan and implement culturally-competent breast health events. Komen education tables, educational materials, BSA presentations, and a unified Breast Self-Awareness Weekend within faith-based organizations supports the Affiliate’s Quantitative Data Report findings by creating social and physical environments that promote good health for all. It is crucial for the Affiliate to not only bring the BSA message into target communities, but to leave a Komen footprint behind by partnering to create a system of ambassadors and trained Volunteer Breast Health Educators to encourage residents to enter and remain within the breast health CoC. Three of the target communities are considered linguistically isolated including Roanoke City, one of three refugee resettlement centers in Virginia. The Affiliate will explore relationships that create access to the BSA message for refugees and non-English speakers living in target communities. These partnerships, collaborations, and initiatives will form a foundation for the Affiliate’s Mission Action Plan of the 2015 Community Profile Report. The Affiliate has no established partnerships of any kind in Patrick County, but the Caring Hearts Free Clinic is a 2015-16 grantee who will partner with the Affiliate to bring a Komen presence into this rural, medically underserved community.

**Public Policy Overview**

**National Breast and Cervical Cancer Early Detection Program (NBCCEDP)**
The Breast and Cervical Cancer Death Prevention Act of 1990 (Public Law 101-354) established the Centers for Disease Control and Prevention’s (CDC) National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The program provides breast and cervical cancer screening exams to underserved women, including those who are older, have low incomes, or are members of racial and ethnic minority groups. The program operates in all 50 states, the District of Columbia, five U.S. territories, and 11 American Indian/Alaska Native organizations.

**Virginia Breast and Cervical Cancer Early Detection Program**
The Virginia Breast and Cervical Cancer Early Detection Program, also known as Every Woman’s Life (EWL), has been screening women since 1997. The mission of the program is to provide high-quality breast and cervical screening, diagnostic and health services to low-income, uninsured women in the most cost efficient manner.

To be eligible to receive screening services, women must live in Virginia, be between the ages of 18-64, have no health insurance or be underinsured, and have an annual income at or below
200 percent of the Federal Poverty Level (FPL). In July 2006, upon the receipt of state funds, the program expanded services to younger women between the ages of 18-39 that are symptomatic for breast and/or cervical cancer. All other eligibility criteria for EWL remain the same (i.e., health insurance status, income, and residency).

Women 40-64 years of age receive routine breast and cervical screening exams, including a Pap test, pelvic exam, clinical breast exam and mammogram. Women with an abnormal screening result receive additional diagnostic tests to rule out the presence of cancer. If pre-cancer or cancer is diagnosed, women are referred to the Breast and Cervical Cancer Prevention and Treatment Act (BCCPTA) for complete Medicaid coverage. In contrast, women 18-39 years of age are enrolled into the program if they have an abnormal breast or cervical screening result (e.g., abnormal Pap test result, palpable mass confirmed through a clinical breast exam) and are in need of further diagnostic procedures. If pre-cancer or cancer is diagnosed, the woman is referred for treatment coverage under the BCCPTA.

The program is operated through 33 local providers with statewide oversight provided by EWL staff at the Virginia Department of Health. Local EWL providers include health departments, free clinics, federally qualified health centers, and large health systems. The 33 providers in turn have an extensive network of sub-providers that provide screening and diagnostic services in almost every locality across the state. Women in need of EWL services can locate a provider local to them through the EWL toll free line, 1-866-395-4968 (1-866-EWL-4YOU).

EWL services are funded through the CDC’s NBCCEDP and state general funds. Virginia receives approximately $2.4M annually in grant funds to implement EWL. Approximately 88 percent of grant funds ($2.1M) are passed directly on to EWL providers to provide screening and diagnostic services to low-income, uninsured or underinsured women 40-64 years of age. Since 2006, EWL has received $405,176 in general state funds to provide diagnostic services to low-income, uninsured or underinsured women 18-39 years of age who are symptomatic. Since 1998, EWL has provided services to 50,595 low-income, uninsured women. The program has performed 42,906 Pap tests, 82,440 clinical breast exams, and 86,306 mammograms. For screens that resulted in abnormal findings, the program has performed 35,829 diagnostic breast procedures and 5,640 diagnostic cervical procedures. More than 800 women have been diagnosed with cervical dysplasia, another 65 with invasive cervical cancer, and 1,520 women have been diagnosed with breast cancer. The 2,264 women requiring treatment for cancer or a precancerous condition have been referred to Medicaid for treatment under the BCCPTA. Women who did not meet the eligibility criteria for the BCCPTA (e.g., non U.S. citizen) were provided pro-bono or sliding scale treatment through charity care or other means.

It is estimated that 58,297 women age 40-64 in Virginia are eligible for the EWL program, but funding will allow for only 6,767 – or 12 percent - to be served in 2014. Through their grants program, Komen Affiliates have worked to fill the remaining need by supporting providers who offer the EWL Program. With Komen grants for screening and diagnostics, EWL program providers are able to serve more women.
**Breast and Cervical Cancer Prevention and Treatment Act**

The Breast and Cervical Cancer Prevention and Treatment Act (BCCPTA), Public Law 106-354, was signed into law on October 24, 2000 by President William Clinton, establishing a new state coverage option under Medicaid. This important legislation permitted states to extend Medicaid to uninsured women under 65 who were screened and/or diagnosed with breast or cervical cancer under the CDC’s NBCCEDP. The BCCPTA Medicaid coverage option was a groundbreaking effort to use population-wide public health screening programs like the NBCCEDP as pathways for publicly funded health insurance, such as Medicaid, for uninsured women diagnosed with an illness.

In an effort to allow each state the flexibility to reach as many women as possible within the constraints of their own systems, three different ways by which a woman could be considered “screened under the NBCCEDP” were established. The following became known as the three treatment options:

- **Option 1:** A woman whose clinical services are provided all or in part by the CDC (Title XV funds), is eligible for enrollment into the BCCPTA.

- **Option 2:** A woman who is screened and/or diagnosed under a provider who receives CDC (Title XV) funds but whose clinical services were not paid for by CDC (Title XV funds).

- **Option 3:** A woman who is screened and diagnosed by any provider that has been authorized by the state (Title XV grantee) to provide screening activities.

In 2001, the Virginia General Assembly passed legislation to allow for Option 1 treatment service. As a result, women in Virginia must be screened and/or diagnosed through the Virginia Breast and Cervical Cancer and Early Detection Program (VABCCEDP, known as EWL in Virginia) in order to be eligible for treatment under the BCCPTA. However, not all women diagnosed with breast and/or cervical cancer will be eligible for the BCCPTA, such as illegal aliens, and women with creditable health insurance or deemed eligible for another Medicaid covered group. EWL providers ensure that women not eligible for medical assistance under the BCCPTA receive appropriate treatment services; connecting women to community resources, such as charity care, faith-based organizations, and health institutions that serve indigent populations to ensure treatment services are provided.

**Enrolling EWL Women into BCCPTA**

Women who are screened and/or diagnosed with breast or cervical cancer or a pre-cancerous condition, and certified as needing treatment by an EWL provider, may be eligible for payment of that treatment by Medicaid under the BCCPTA. Treatment is defined as all forms of treatment prescribed by a health care professional, including palliative care. The health care professional must determine when the course of treatment is completed. Some clients will have a very short course of treatment while others may have a prolonged course of treatment.
When a woman is diagnosed with breast or cervical cancer or a pre-cancerous condition and is certified as needing treatment by an EWL health care professional, a BCCPTA Medicaid Application Form is completed by the EWL Coordinator/Case Manager. Both the EWL Coordinator/Case Manager and client must sign and date the form. The completed form is then forwarded to the county or city Department of Social Services (DSS) office where the woman resides. The local DSS office has 10 business days to notify the client or the individual’s authorized representative of approval or denial of benefits. It is the responsibility of the EWL Coordinator/Case Manager to maintain contact with the woman to ensure that treatment has begun and that any barriers to receiving treatment are addressed.

For women enrolled into Medicaid through the BCCPTA, DSS will re-determine Medicaid eligibility on an annual basis. At the time of the annual re-determination, the woman must work with her health care professional to complete re-determination paperwork verifying continued treatment for breast and/or cervical cancer is necessary. This paperwork is provided by the local DSS office, not the local EWL provider.

Women enrolled into Medicaid through the BCCPTA receive full Medicaid coverage (i.e., coverage is not limited to the treatment of breast and cervical cancer) for as long as they are in cancer treatment. Medicaid coverage may begin on the first day of the application month or up to three months prior to the month of application providing all Medicaid eligibility criteria are met. A co-pay is associated with Medicaid services and women are responsible for paying the co-pay, which is dependent upon the type of service they receive. For example, for an inpatient hospital stay the co-pay is $100.00 per admission and $1.00 per clinic visit.

The Affiliate’s current relationship with state NBCCEDP directors is strengthened based upon relationships with EWL providers on a local level. Three of the Affiliate’s current grantees are EWL providers who serve residents living in three of the five target communities. The Affiliate conducts site visits halfway through the funding cycle where successes are celebrated, challenges are discussed, and relationships are built. Consistent communication allows the Affiliate to support grantees throughout the funding cycle. Susan G. Komen Central Virginia is located in Richmond, the state capital, and serves as the liaison between the NBCCEDP and other Virginia Affiliates. The Affiliate welcomes the opportunity to meet with other Virginia Affiliates and the NBCCEDP directors to encourage stronger relationships.

State Cancer Control Programs
The CDC started the National Comprehensive Cancer Control Program (NCCCP) to help states, tribes, and territories form coalitions to fight cancer. State Comprehensive Cancer Control (CCC) program activities include: implementation of strategies designed to reduce cancer risk, promote healthy lifestyles, ensure access to screenings/diagnostic technologies, improve the quality of treatment, and support services to enhance survivorship.
A key element of CCC is the formation and ongoing work of a CCC coalition. In Virginia, the Cancer Action Coalition of Virginia (CACV) consists of diverse organizations who are involved in cancer control and who commit to work together in order to:

- Leverage their collective strengths and resources
- Document areas of greatest need and gaps in cancer related efforts
- Identify efforts that no one organization would do alone, and
- Avoid duplication of activities

CACV was organized by the Virginia Department of Health in 1998 for the purpose of writing a statewide cancer plan. Today, CACV not only develops the state cancer plan, but meets quarterly to inform organizations and individuals about current cancer issues and facilitates statewide collaborations focused on the objectives in the state plan. The plan includes goals which are managed by four multi-organization action teams: Prevention, Early Detection, Treatment, and Survivorship and Palliative Care. Komen Affiliates in Virginia are members of the Coalition and are represented on the Early Detection Action Team. Susan G. Komen Virginia Blue Ridge plans to continue working on the Early Detection Action Team as a committed and active member over the next four years and beyond.

Early detection means finding cancer when there are no symptoms or signs of a problem. For many types of cancer, it is easier to treat and cure cancer if it is found early. Members of the Early Detection Action Team work collaboratively towards the goal that Virginians are diagnosed with cancer at its earliest (local), most curable stage. Populations that are medically underserved and socioeconomically disadvantaged with respect to access to care are priorities. Based on Virginia incidence and death data, the Early Detection Team focuses on four cancers: breast, cervical, colon, and prostate. The priority objectives for Early Detection in the 2013-2017 Virginia Cancer Plan are to:

- Increase cancer screening percentages among Virginians by 10 percent.
- Increase the dissemination of public information of age-appropriate, evidence-based, comprehensive cancer screening guidelines and resources and encourage an increase in educational activities in the Virginia health districts with the highest death rates.

The mission work of Susan G. Komen aligns with the early detection activities of the Virginia Cancer Plan by empowering people with the knowledge of breast health and ensuring access to quality care for all.

**The Affordable Care Act**

In 2010, the Patient Protection and Affordable Care Act (ACA) was enacted to provide the following benefits to patients:

- Preventive services including mammograms are available at no cost through Medicare and through some new private insurance companies.
- Medicare participants receive help with their drug costs.
- Young adults can stay on their parents’ insurance policies until age 26.
- No lifetime limits on health coverage.
• Americans will be able to purchase health insurance through a health marketplace exchange.
• It will become illegal to deny adults (in addition to the earlier provision for children) insurance coverage because of a pre-existing condition.
• Every state will have the option to expand the Medicaid program to cover all low-income individuals at or below 133 percent of the FPL ($15,282 for an individual in 2013).

According to a report on Virginia’s uninsured prepared by The Urban Institute for The Virginia Health Care Foundation (2012), prior to the enactment of the Affordable Care Act:
• An estimated 14.2 percent of Virginians under the age of 65, or 984,000 individuals, were without health insurance.
• Nonelderly adults (age 19 to 64) constituted 88.5 percent of the uninsured in Virginia.
• More than 71 percent were part of a working family.
• Over 70 percent of uninsured Virginians were living in families with incomes at or below 200 percent of the federal poverty level.
• Just under half of the uninsured in Virginia were White/non-Hispanic (45.8 percent); 24 percent were African-American/Black; and 20 percent were Hispanic/Latino.

Virginia elected for the implementation of a federally-facilitated marketplace insurance exchange, which currently includes nine insurers for enrolling citizens of Virginia. As of April 19, 2014, 26.3 percent of the estimated potential enrollees, or 216,356 individuals, had selected insurance plans through the exchanges (Kaiser, 2014).

Virginia currently offers Medicaid coverage for all children up to 133 percent of the FPL, but the State only covers parents up to 30 percent of the FPL (approximately $6,600 in income for a family of four) and offers no coverage to childless adults (The Commonwealth Institute, 2010). The Virginia General Assembly has not opted to expand Medicaid coverage to an estimated 400,000 low income citizens by approving a budget that did not include funds for Medicaid expansion. The Governor of Virginia intends to expand health coverage, with or without legislative approval, using federal funds that are available under the Affordable Care Act (Martz, 2014).

All of the hospital systems in Virginia have advocated for the expansion of Medicaid because they recognize that everyone should have a medical home where they can receive consistent care. The lack of Medicaid expansion and the coverage of health care costs can potentially result in these outcomes:
• The health of uninsured individuals can suffer severely: lower five-year survival rates, higher late-stage diagnosis rates of cancers, and lower rates for screening tests (Kaiser, 2013).
• Medical needs are unmet: 60 percent of low income uninsured had unmet needs, because of financial difficulty in paying for health care (Macri, Lynch & Kenney, 2012).
• The uninsured receive less preventive care and recommended screenings than the insured. Uninsured older adults (ages 50-64) were far less likely than their insured
counterparts to report having been screened for cancer in the past five years (Kaiser, 2013).

Uninsured, resident women in Virginia have been routinely referred to the EWL program, a breast and cervical cancer screening program for low income residents. The program works closely with Medicaid when a woman is diagnosed with cancer to cover all treatments. But due to limited government funding, it is estimated that only 12 percent – or 6,767 women in Virginia – who are eligible for the program will be served in 2014 (US Census Bureau, 2014).

Through grant funding, Komen has provided much needed diagnostics and screening services for uninsured women in Virginia. However, Komen’s grant funding does not nearly close the gap for the more than 51,000 remaining eligible women who cannot be served by the EWL program. For more information about the EWL program in Virginia, read the section of this report titled, “National Breast & Cervical Cancer Early Detection Program.”

Komen, along with other organizations, has advocated at the state legislative level for the expansion of Medicaid to close the health coverage gap. Until all Virginians have access to affordable health care, Komen will continue its advocacy efforts to ensure the availability of the full-range of breast health services to low-income women, including cancer screening, diagnostics and treatment.

**Affiliate’s Public Policy Activities.** Susan G. Komen recognizes that, in order to achieve its mission, scientific progress must be complemented by sound public policy. Through government action, broad, systemic, lasting change can be made in the fight against breast cancer. This means that Komen—as a patient advocacy organization with first-hand knowledge of how breast cancer touches local communities—must engage policymakers and government as partners in the effort to end breast cancer forever.

Each year, Komen works to identify, through a broad-based, intensive vetting and selection process, the policy issues that have the greatest potential impact on Komen’s mission. This process includes the collection of feedback from Komen Headquarters leadership, policy staff, and subject matter experts; Komen Affiliates from across the country; advisory groups including the Public Policy Advisory Council (PPAC), Advocates in Science (AIS), and Komen Scholars; and other stakeholders with a vested interest in breast cancer-related issues. The selected issues are the basis for Komen’s state and federal advocacy work in the coming year.

In 2014, Komen’s Advocacy Priorities were:
- Protecting federal and state funding for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), to ensure all women have access to potentially lifesaving breast cancer screening;
- Ensuring continued federal investment in cancer research through the National Institutes of Health (NIH), National Cancer Institute (NCI) and Department of Defense (DOD), to discover and deliver the cures;
• Requiring insurance companies provide coverage for oral anti-cancer drugs on a basis that is no less favorable than what’s already provided for intravenously administered chemotherapy, to protect patients from high out-of-pocket costs; and
• Expanding Medicaid coverage to ensure the availability of the full-range of breast health services to low-income women, including cancer screening, diagnostics and treatment.

(From Susan G. Komen 2014 State Campaign Handbook)

In Virginia, Komen Affiliates work to inform their legislators and the wider community of the priority policy issues. On February 20, 2014, three representatives from Susan G. Komen Virginia Blue Ridge attended Lobby Day at the Virginia General Assembly along with representatives from the Virginia Breast Cancer Foundation, the American Cancer Society, the Sisters Network, and other breast cancer stakeholders. Meetings organized by the Virginia Breast Cancer Foundation were held with almost every Senator and Representative in the legislature. Teams of volunteers, survivors, and organization staff members shared information about the importance of expanding Medicaid coverage and protecting funding for the NBCCEDP so women will have access to breast health and breast cancer services (Priorities 1 and 4). In 2013, Komen worked with its partner organizations to successfully gain coverage in Virginia for oral anti-cancer drugs (Priority 3). Representatives from the Susan G. Komen Virginia Blue Ridge plan on attending Breast Cancer Lobby Days in the future.

Beginning in 2015, an advocacy position will be created on the Affiliate’s Board of Directors. Within the next year, the individual assuming this position will participate in Breast Cancer Advocacy trainings through the National Breast Cancer Coalition’s Project LEAD programs and will apply for Komen’s Advocates in Science Program.

Komen strives to raise awareness in the community about the priority public policy issues through email and social media communications with its partners and constituents. Every Komen Affiliate has access to a comprehensive Campaign Tool Kit that provides guidance on advancing advocacy efforts at the state level.

**Health Systems and Public Policy Analysis Findings**

Within the Affiliate’s five target communities, disparities exist due to the rural landscape: poverty, unemployment, lack of education, and lack of transportation. Combined with an older and predominantly White (with pockets of high numbers of Black/African-American women) demographic, barriers create a medically underserved environment consisting of increases in late-stage diagnosis and high death rates. Through the Health Systems Analysis process, the Affiliate documented the most relevant, accurate providers of breast health services located in target communities. Given the health systems strengths and weaknesses for each target community, breast health education plays an important role throughout the CoC and is crucial to the Komen mission to end breast cancer forever. Education can help address barriers, ease fear and anxiety, inspire women to get screened, convince women to keep follow-up appointments, empower through community resources, and encourage women to enter and remain in the CoC.
The Affiliate has not only documented the most relevant, accurate providers of breast health
services located in target communities but has also identified providers located outside of target
communities who are serving residents of those communities. The Affiliate will use this
information to expand partnerships through the Affiliate’s Mission Action Plan of the 2015
Community Profile Report. The Affiliate is fortunate to have a current community grant recipient
providing Komen funded services in every target community within its service area. Grantees
serve as the Affiliate’s foundation for collaboration and information from the Affiliate’s
Quantitative Data Report provides the building blocks for serving at-risk populations. Other
potential partners include faith-based organizations, ambassadors, and breast health educators
as well as organizations who serve linguistically isolated refugees and the non/limited English
proficient, the homeless, and members of the Lesbian, Gay, Bisexual, Transgendered (LGBT)
community.

Changes in public policy have improved financial access to breast health services for vulnerable
populations. The Breast and Cervical Cancer Death Prevention Act of 1990 established the
National Breast and Cervical Cancer Early Detection Program (NBCCEDP) which provides
breast and cervical cancer screening exams to underserved women. The Virginia Breast and
Cervical Cancer Early Detection Program, or Every Woman’s Life, has been screening women
since 1997. The Breast and Cervical Cancer Prevention and Treatment Act established a new
state coverage option under Medicaid, a groundbreaking effort to use public health screening
programs like the NBCCEDP as pathways for publicly funded health insurance for uninsured
women diagnosed with an illness. The CDC started the National Comprehensive Cancer
Control Program to help states, tribes, and territories form coalitions to fight cancer. State
Comprehensive Cancer Control program activities include: implementation of strategies
designed to reduce cancer risk, promote healthy lifestyles, ensure access to screening and
diagnostic technologies, improve the quality of treatment, and support services to enhance
survivorship. In 2010, the Affordable Care Act was enacted to provide mammograms at no cost
through Medicare and new private insurance companies.

Susan G. Komen recognizes that, in order to achieve its mission, scientific progress must be
complemented by sound public policy. Komen works to identify policy issues that have the
greatest potential impact on its mission. In 2014, Komen’s Advocacy Priorities are protecting
federal and state funding for NBCCEDP, ensuring federal investment in cancer research,
requiring that insurance companies provide coverage for oral anti-cancer drugs, and expanding
Medicaid coverage to ensure a full-range of breast health services to low-income women. In
Virginia, Komen Affiliates inform their legislators and the wider community of the priority policy
issues. On February 20, 2014, three representatives from Susan G. Komen Virginia Blue Ridge
attended Lobby Day at the Virginia General Assembly along with representatives from the
Virginia Breast Cancer Foundation, the American Cancer Society, the Sisters Network, and
other breast cancer stakeholders. The Affiliate plans to send representatives to Breast Cancer
Lobby Days in the future. Beginning in 2015, an advocacy position will be created on the
Affiliate’s Board of Directors and the individual assuming this position will participate in Breast
Cancer Advocacy trainings through the National Breast Cancer Coalition’s Project LEAD
programs and will apply for Komen’s Advocates in Science Program.
Qualitative Data Sources and Methodology Overview

Methodology
Susan G. Komen Virginia Blue Ridge was charged with completing the qualitative portion of the 2015 Community Profile Report. After reviewing the Quantitative Data Report and Health System and Public Policy Analysis, the purpose for the qualitative report was to better understand access to breast health and barriers such as health insurance, medically underserved, level of education, and income for women served by the five target communities identified. The questions guiding the research were:

- What barriers do women face in accessing breast health resources?
- Why do the target communities see a higher rate of late-stage and death rates compared to the national rate?
- What can be done to lower the rates and increase access?

The target communities in Komen Virginia Blue Ridge service area are the Central Blue Ridge Region (Roanoke County, Roanoke City, Radford City), South Central Blue Ridge Region (Patrick County, Henry County, Martinsville City), Wythe County, Danville City, and Lynchburg City. This report contains the results of the focus groups and surveys administered to all communities. Two forms of data collection were utilized for this report after consultation with Susan G. Komen Headquarters and the Affiliate Community Profile Team. There was an aim to complete three focus groups in each target community with a range of six to ten women. The rationale for focus groups was they would elicit rich data from the women who experienced the services provided and would share experiences that would reveal areas of need in the communities. The second form of data collection was an open ended questionnaire sent to health service providers in each of the communities identified. This form of data collection was utilized as it invited health service providers to share their perspective on the most salient needs of women in their community. Both forms of data collection were coordinated by the lead researcher, Jeananne Knies, who developed the questions and format for both the focus groups and survey in consultation with the profile team.

Sampling
For focus groups, a combination of purposeful and convenience sampling was utilized to recruit participants through grantees (current recipients of Affiliate funding) who attempted to recruit participants who represented the community and were available. The target population for participants was women over the age of 18 who could speak to services in the target communities. There were no additional criteria for participation as the Affiliate determined it was valuable to hear from all women, ranging in education, income, race and ethnicity in their experiences with access to breast health resources. The lead researcher worked with well-connected residents in the target communities to identify participants for the focus groups who would be able to provide insight into the topics found in the Quantitative Data Report and the Health Systems and Public Policy Analysis. Generally, the lead researcher sought to hear from women in the communities who may be underserved in relation to health care. This focused on women who may have already been served by the grantees. In addition, because grantees are
most familiar with the community, they were valuable resources in identifying inroads to invite women into the focus groups.

For the survey, the lead researcher wanted to identify providers in each target community. Providers were defined as grantees, free clinic staff members, hospital staff such as nurses and physicians, and nonprofit organizations. This form of data collection provided insight from the health service provider on what access issues, if any, women experienced. All providers the Affiliate had contact information for were contacted via email, resulting in a convenience sample. The survey was voluntary, and participants could choose not to participate at any point.

**Ethics**

For focus groups, the lead researcher created an informed consent. A paper copy of the informed consent was provided to each participant at the beginning of each focus group. When women arrived for the focus group they received an informed consent and demographics form. No name was requested on the demographic form to maintain anonymity for the participants. The informed consent and demographic form were maintained separately in a locked office. The only individual to see both forms was the lead researcher who reviewed the informed consent (see Appendix A for consent) and demographic form (see Appendix B for form) with the participants to ensure they understood the purpose of the discussion along with the benefits and risks associated with the focus group. Once all informed consents were signed and demographic forms returned, the audio recorder was turned on and the discussion began.

For the survey, the questionnaire (see Appendix D for survey) was administered online via QuestionPro. Participants had to read and agree (by clicking “next”) to the informed consent before they could enter the web-based survey. No name was requested from the participants, only a description of role (provider, i.e. doctor, nurse, director). The lead researcher was the only individual to see the full survey results. Online data were secured and only accessed by the lead researcher.

**Qualitative Data Overview**

Data analysis was driven by the guiding research questions:

1. What barriers do women face in accessing breast health resources?
2. Why do the target communities see a higher rate of late-stage and death rates compared to the national rate?
3. What can be done to lower the rates and increase access?

In the sections below are the original data, how the data were collected, and how the data were analyzed for each method.

**Focus Groups**

Participant recruitment for focus groups began with phone calls and emails to current and previous grantees by the lead researcher. These individuals were selected as the first point of contact as they were already actively connected with the Affiliate. Many of the grantees were
helpful in scheduling the focus groups, including interview locations and participant recruitment. Patrick County, Henry County, Martinsville City, Roanoke County, and Roanoke City all had focus groups coordinated through grantees. Radford City, Wythe County, and Lynchburg City focus groups were coordinated through personal contacts in the area.

For each community a wide variety of recruitment methods were utilized. They ranged from personal emails, flyers over listservs, postings in churches and grocery stores, survivor groups, and word of mouth. There was a $10 grocery gift card incentive for all women who participated in the focus groups. The recruitment period for focus groups ranged from August 6, 2014 through October 26, 2014. Each focus group was scheduled to last approximately one hour with a group ranging from six to ten women. The focus groups were facilitated by the lead researcher. When women arrived for the focus group they received an informed consent and the demographic form. The focus group protocol is attached in Appendix C. Once all questions were asked and participants felt they had the opportunity to share to their comfort level, the focus group concluded. The facilitator thanked them for their time, turned off the recorder, and handed each woman a $10 grocery gift card for participating in the discussion.

The lead researcher used a digital recorder to capture the proceedings of the focus group in its entirety. This tool was used because it was the most reliable method to capture the stories and experiences told by the focus group participants. The lead researcher also took notes during the focus group. The notes capture salient experiences and emotions during the focus group and reflections. After each focus group ended, the lead researcher listened to the recordings and reviewed field notes. The unit of analysis were the stories and responses shared by participants. Additional notes were made during the review of the recordings. All notes were then analyzed for themes by the lead researcher per each focus group for each target community. The lead researcher coded all the notes, identifying commonalities between them. These themes were then compared with the audio recordings to ensure accuracy. Themes were reviewed by a second member of the Affiliate Community Profile Team. Quotes were then pulled from each target community’s recordings to offer examples of each theme, where appropriate.

**Surveys**

An open ended questionnaire was used to survey health service providers in the target communities. Participants received an initial email explaining the purpose of the survey and were provided the link. Participants then received two subsequent email reminders. In order to participate in the survey, participants had to agree to the informed consent at the beginning of the survey. A copy of the survey is located in Appendix D. The survey consisted of responses to open-ended questions. Written responses were reviewed and analyzed by the lead researcher. The open ended responses were compiled and the overarching themes and recommendations were reported in the findings.

The results of the focus groups and questionnaire were utilized to provide insight into the questions raised as a result of the Quantitative Data Report and Health System and Public Policy Analysis findings. The qualitative data collection provided an opportunity to seek clarification and hear from members of the communities regarding their experiences with breast
health resources. The results of the survey were triangulated with focus group themes in the conclusion to emphasize areas of need and priority. The next section will cover the findings from the focus groups and surveys broken down by community.

Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City): Focus Groups
There were a total of three focus groups facilitated in Roanoke County, Roanoke City, and Radford City. There were 11 women in the first group, six women in the second group and four women in the third group, for a total of 21 women interviewed. Four of the 21 women reported they did not have health insurance coverage and two chose not to respond. Five of the women reported they had been diagnosed with breast cancer, with three of them reporting additional cases in their family. Six women reported they had not been diagnosed with breast cancer but a woman in their family had been. Thirteen women identified as Black/African-American and eight identified as White. The income ranged from less than $10,000 to over $50,000, with two participants who chose not to report their income. The majority of women reported an income less than $20,000. The ages of the women ranged from 34 to 67, with the majority of women in their 50s and 60s. Four of the women did not complete high school, two graduated high school or had their GED, seven had some college credit and five either had a vocational, associates or bachelor’s degree.

The women reported the following barriers to accessing breast health resources:
- Scared of mammograms
- Transportation issues
- Did not know right questions to ask
- Was not aware of resources
- No health insurance

The first barrier raised was fear of having a mammogram done. The women reported they knew many women who did not understand the process and think it will hurt, so they chose not to have one. When asked if there were other reasons women did not have regular mammograms, one woman replied, “I don't know, I'm one of 'em, I put mine off every time.” This was a woman who knew of the free resources but chose not to have one. A survivor shared the following experience about her daughter, “I've been after my daughter, she's 35 and hasn't had one yet.” When asked why she responded, “I think in the back of her mind just thinks she doesn't have it.”

Knowledge and awareness of resources were also raised concerns. Women do not know what resources are available, including free transportation services. Some of the women reported knowledge and use of transportation while others had not heard of any. It was also shared that it was easier to get around in Roanoke City, but hard to find transportation from Radford City or Roanoke County to resources located within Roanoke City. The women also reported a lack of education on what questions to ask. They felt that women were not educated about their options or questions to ask when with their doctor. The women shared that even if you do have a question or know what to ask you do not feel like you are able. One woman said, “Sometimes
you feel rushed. If you do have questions you don’t feel like you can take the time because you feel like that doctors on the clock and he’s watching, only allowed 10 minutes.”

The women shared recommendations to increase awareness in the Central Blue Ridge Region. The first was to start with young women in high school to educate them on the importance of personal breast examinations. They suggested having this as a part of the high school health education curriculum. It is important to note that breast self-exams are not evidence-based. Instead, Komen endorses breast self-awareness (i.e. knowing one’s risk, getting screened, knowing what is normal for the individual, and making healthy lifestyle choices). In addition, women recommended placing a mobile mammography van in areas that are easier to access, such as Wal-Mart or the grocery stores. They also recommended having Sisters Night Out (a local breast health awareness event) every three months. One woman said it did not have to be on the same scale, but a good resource to educate and reach women. One idea shared was to have the mammogram sites include childcare to allow for more flexibility in schedules. The participants also recommended the following ways to advertise resources and upcoming events:

- Bus stop
- Social media
- Flyers in mailboxes
- Churches
- Community centers
- TV channels 7, 10, 13, and 27
- Add information to Women’s Resource Center hotline

Surveys
The survey was sent to the fifteen health service providers for which the Affiliate had contact information. Four participants responded to the survey. Their roles included advanced practice nurse, coordinator of care, clinical manager, and case manager for breast screening services. The respondents described factors that prevent women from seeking breast health care in Roanoke County, Roanoke City, and Radford City, including finances, transportation, education, health literacy, where to go for testing, and fear. Many of the same concerns were also identified as reasons why women to do not follow through on a mammogram referral, in addition to being confused about centers to go to in Roanoke City.

Participants shared the following services as needed to assist women to seek and complete recommended breast health care: financial assistance, transportation, education, advice for dealing with breast cancer, breast cancer screenings, and physicians. One participant shared that she had a screening but some women were unable to have a screening because they needed a physician’s order. The types of programs recommended were educational programs, emotional support groups, information sessions with physicians, as well as a clearly defined path for follow up and community outreach in underserved areas.

In regards to recommended changes to the health care system, one participant shared that there needs to be a continuous funding source to assist low income, at-risk women in need of mammograms and follow up. In addition, it was recommended to have educational programs for
low income individuals who have never had a primary care physician and why it is so important. The last recommendation was more access points. When provided the opportunity to share additional recommendations to better serve women in the community, participants expressed the need for greater community outreach.

**Common Findings**
Focus group findings and survey results were triangulated to identify the following common findings. The first was education for women, related to both resources and knowledge of what questions to ask, as a barrier to accessing breast health resources. In addition, fear of a breast cancer diagnosis along with the inability to cover medical costs was a concern. Transportation was reported in both forms of data collection as a barrier.

**South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City):**

**Focus Groups**
Though identified as one target community, the results for the Patrick County focus group are reported separately because the needs determined for that county were different from those discovered for Henry County and Martinsville City. There was one focus group facilitated in Patrick County with a total of seven participants. All women reported health insurance coverage. Four of the women reported they had been diagnosed with breast cancer, with one woman reporting additional cases in her family. The remaining women did not report any cases of breast cancer. All seven women were identified as White. The income ranged from between $20,001 to over $50,000, with the majority of participants in the over $50,000 range. The ages of the women ranged from 36 to 67, with the majority of women in their 40s and 50s. One of the women reported having a high school degree/GED, one had some college credit, and six had either a bachelor's degree or professional degree.

The women reported the following barriers to accessing breast health resources:
- No breast health resources in area
- Fear
- Financial ability/health insurance
- Gas prices/transportation

The greatest concern raised in Patrick County was the lack of breast health resources in the community with one participant saying, “There is no mammogram facility in Patrick County and without someone paying the cost for the equipment, there never will be.” Women in the community have to travel to Mount Airy, NC, Roanoke City, and Henry County/Martinsville City for a mammogram screening and all breast health appointments. Due to this lack of resources one woman shared the following, "It amazes me that 17 years ago I could come to this hospital and by 2:00 PM I could know my results and know that I had cancer. And today with all the technology we have it takes at least 2-3 days maybe even a week before they will get back and that to me is extremely disturbing." Another woman shared, "I would have like to have known of a place here because I had some questions between doctors’ visits.....ended up doing research online, but if someone who didn't have internet access, that's quite a bit of our county, it would
have been nice to walk into a clinic and ask.” The lack of resources in town presented a barrier as well as lack of transportation and cost of gas every time women have to travel for an appointment.

An additional barrier was financial ability. One woman shared, “Patients are uninsured and under 200 percent of poverty level, as far as preventive care I think it’s typically...unless there is a history in the family or something, it's not until something is suspected that any kind of action is taken.” Another woman shared, "Until it happens to you, they aren't going to think about it.”

The women recommended creating a breast health resource in Patrick County where women can go for mammograms and have questions answered in between doctors’ visits. In addition, they recommended increasing education and awareness by sharing information at the following locations:

- Wal-Mart
- Schools
- African-American churches
- Food banks
- Local grocery store
- Social services

There were a total of three focus groups facilitated in Henry County and Martinsville City. There were eight women in the first group, nine women in the second group, and seven women in the third group for a total of 24 women interviewed. Two of the 24 women reported they did not have health insurance coverage. Four women reported they had not been diagnosed with breast cancer, but at least one female in their family had. Four of the women reported they had been diagnosed with breast cancer with two of them reporting additional cases in their family. The remaining women did not report any cases of breast cancer. Eighteen women identified as Black/African-American and five identified as White. The income ranged from less than $10,000 to over $50,000, with the majority of participants in the range from less than $10,000 to $20,000. The ages of the women ranged from 24 to 81, with the majority of women in their 40s to 60s. One of the 24 women reported not graduating from high school, five reported having a high school degree/GED, one reported a vocational degree,10 had some college credit, and five had either an associate’s or bachelor’s degree, and one did not report. One participant did not complete the demographics form.

The women reported the following barriers to accessing breast health resources:

- Not aware of resources
- Financial cost/no health insurance
- People did not talk about cancer/scared
- Transportation
- Doctors not asking/encouraging mammograms
- Time/competing priorities
One of the barriers to women accessing breast health resources in Henry County and Martinsville City was lack of awareness of resources. There were resources shared in the discussion that many women were not aware existed. The concern was raised that there was not one central location to start if someone was diagnosed with breast cancer. In addition, the participants shared they did not feel comfortable asking the doctors. They felt like the doctors rushed them out and did not take the time to get to know them or provide relevant information and resources. One woman said, "I'm 41 and my doctor hasn't even mentioned it [mammogram] to me so I've never had one." Another woman shared, "Lots of times when you go in to see your doctor, if you don't know what to ask her, you don't know what to ask for when you're going in there, you're not gonna get it, they are in and out." A few women shared a similar concern, providing the following insight, "a lot of people don't have trust in the health care services in their area," "people don't want to utilize health insurance because they have to see doctors in the area and don't trust them," and "if you want to have a good doctor you need to pay out of pocket [as you would go out of network]."

The cost of breast health was a concern, ranging from mammograms to chemotherapy for both insured and uninsured individuals. One participant shared this about a woman she knew. "She didn't take chemo because she couldn't afford it." Another woman said, "I haven't found any resources in the area to assist with chemo cost." The resources exist in the community to assist women financially, but they were not aware of them. One woman shared she had two part time jobs and her health insurance was not that good. Therefore, she could not afford a mammogram or other health care because she was already in debt due to medical bills. She was aware, though, that the health department provided mammograms and shared that she thought they did a good job.

Transportation was reported as a barrier to access breast health resources as well. According to the women, all resources were in town. One woman shared, "If you live on the very edges of the county there's nothing to help you get into town." Women also reported a culture of not talking about cancer as a barrier where women treated it as a secret because it was a taboo topic and did not want others to know. They said, "No one talks about it here, its hush hush I don't know, people just don't talk about it." The women shared that part of this may be fear. "A lot of people don't want to find out cuz they hear cancer and they're scared."

One consistent message through all focus groups was competing priorities. The majority of participants reported the women they knew did not seek preventative health care; they just do not have time. It was shared that people face multiple crises and decide which ones are more important, food on the table or a mammogram? This was one main reason why women did not take the time, it was not a priority.

The women shared recommendations to increase awareness in Henry County and Martinsville City. One was to educate women so they were knowledgeable before they entered the doctor's office and would know what to ask. Another was to have a central location for people to go when they were diagnosed. Women shared these comments that supported their desire for a central location: "rent a space, put a big poster up, maybe at the mall where people go or at the..."
hospital.” “When my mom was diagnosed, I didn't know where to go, no clue.” The participants also recommended the following ways to advertise resources and upcoming events:

- Churches
- TV channels 18 and 21
- Grocery stores
- Health fairs
- Senior center
- Facebook
- Personal testimonies from survivors
- Newspaper

**Surveys**
The survey results for Patrick County, Henry County, and Martinsville City were combined as the providers served the entire targeted community. The survey was sent to the 10 health service providers for which the Affiliate had contact information. Five participants responded to the survey. Their roles included director, registered nurse, nurse practitioner, and care coordinator. The respondents described fear of a diagnosis, transportation, denial that something is wrong, and financial resources as the factors that prevent women from seeking breast health care in that community. In addition, they reported an unclear understanding of Affordable Care Act insurance, not wanting to miss work out of fear of being fired, mammograms not being available at local hospitals, and no health insurance. Participants reported these same reasons as why women did not follow through on a mammogram referral.

Participants shared that the following services were needed to assist women in seeking and completing recommended breast health care: more marketing of existing services, incentives for using services, transportation, increasing awareness of Every Woman’s Life at the health department, and local mammogram screenings at hospitals. The types of programs recommended were ones that help to reduce risk, provide financial support, increase programming targeting Black/African-American populations and Latinas, help women enroll in Medicaid preventative care, and provide reminder calls for appointments. In regards to recommended changes to the health care system, one participant shared the need for incentives for providers to refer mammograms during non-wellness visits. In addition, participants recommended access for the uninsured to mammograms and advertisements that mammograms were available for patients who meet financial guidelines.

When provided the opportunity to share additional recommendations to better serve women in the community, more community involvement and Medicaid expansion were reported. In addition, one participant reported providing physicians and equipment was needed as well as information letting women know there was help for them in the community.

**Common Findings**
Focus group findings and survey results were triangulated to identify the following common findings. The first being transportation as a barrier to accessing breast health resources. In
addition, financial ability to utilize resources and seek proactive health care was identified. Fear of diagnosis was also identified as a barrier in both forms of data collection.

**Washington County, Virginia and Bristol City, Virginia**

**Stakeholder Interviews**

Three stakeholder interviews were conducted in the Washington County, VA/Bristol City, VA community. One stakeholder was a radiology technician at a local hospital in Bristol, Virginia, as well as a Komen Tri-Cities grantee. Another was a health director for the Virginia Department of Health. The third stakeholder was a mammographic technologist serving Washington Co. and Bristol City, Virginia.

**Access** - A major theme emerging from the stakeholder interviews was access; every stakeholder mentioned access as a factor impacting screening in their community. A lack of insurance coverage was thought to be the reason that women in the community might not get screened. Additionally, mobile screening units were mentioned as a way to reach those without insurance, but it was indicated that more funding to do so was needed.

One stakeholder mentioned that insurance coverage could encourage women to get their screenings as they are often required or recommended by the insurance companies. Transportation was also brought up as an access issue as managing the rural terrain of Southwest Virginia. Traveling can be difficult and may take much time to travel to the cancer center. Poverty was also seen as an access issue. Women with little income may delay screening mammograms because of cost. As a result, if cancer was present it could spread thus worsening the outcomes. Stakeholders also believed poverty prevented women from seeing their physician for a mammogram referral.

**Alternative Screening Techniques** - One stakeholder mentioned that there had been an advertisement in their local paper promoting thermal mammography and claiming that it could find cancer eight to ten years earlier than traditional mammography. This claim was false. The stakeholder’s organization had been receiving phone calls about the advertisement raising much concern that local women believed this false claim. This stakeholder expressed a desire for both Komen Tri-Cities and Wellmont Health Systems to help correct this misunderstanding.

**Attitudes/Values** - Women’s attitudes towards breast cancer emerged as a theme during the stakeholder interviews. Denial was mentioned as a reason that women might avoid being screened. One stakeholder stated:

“We see lower screening rates in this community because it’s out of sight out of mind, people don’t want to know if they have a problem. If they don’t know there is a problem, they aren’t going to go looking for one, if they don’t know about it then it’s not real. The moment they have to come back for a follow-up it makes it real.”

Fear of the screening procedure was another reason women might avoid their screenings, as many local women had heard that mammograms are painful. As a result, many women avoid screenings.
Stakeholders believed that women in the community value screenings on multiple levels. One possible reason being that many insurance companies mandate screening mammograms as part of annual assessments. Additionally, stakeholders believed value was placed on screenings because of their importance as stressed by survivors. Many local survivors encourage their friends and family to receive their screening mammograms since theirs had been discovered in its early stages.

**Awareness/Knowledge** - All stakeholders believed that most women in their community are knowledgeable when it comes to mammograms. Even though this is so, stakeholders believe there is still a need for more education. Women may put off screenings due to various reasons while not thinking about the long-term costs of doing so. Concerns were also raised about confusion regarding screening recommendations issued by President Obama’s taskforce that claimed that mammograms were not needed until age 50, not needed annually, and not necessary after age 74. The stakeholders felt that many women, and even some physicians, were confused as to what the correct recommendations were. Each stakeholder said they do not follow these recommendations because the earlier a breast cancer is found, the better the outcome.

All stakeholders felt that women in their area are knowledgeable about where to get mammograms, but that more funding is needed to provide services to uninsured women.

**Impact of Breast Cancer** - Only one stakeholder mentioned the impact of breast cancer on the community. This stakeholder believes that rural Southwest Virginia is disproportionately impacted by numerous health problems, including cancer. This participant mentioned that her region has higher cancer rates than the rest of the state. Another stakeholder mentioned that breast cancer is greatly impacting her community as more women are being diagnosed than ever before. As a result, more women have become aware of the importance of annual mammograms, as they have spoken with others diagnosed in their community.

**Moderators** - Poverty and income level were mentioned repetitively in the Washington County/Bristol City, VA interviews. One stakeholder felt that poverty causes preventative care to be a low ranking priority for people, as exemplified in the following quote: “If they don't have enough food or enough money for their light bill then it will be prioritized lower because of other competing needs which can be a problem at times.”

**Primary Prevention** - A major theme that emerged during the Washington County/Bristol City, VA stakeholder interviews was primary prevention. A high rate of smoking, obesity, and a lack of physical activity in the region were indicated as reasons for negative health outcomes, including elevated cancer rates. One stakeholder stated, “People don't get timely screening or treatment due to their income and their lifestyle choices put them at higher risk.” It was felt by the majority of stakeholders that in order to help decrease cancer rates in their region that lifestyle changes must be made: smoking rates need to decrease, healthier eating habits must ensue (more fruits and vegetables), and daily exercise must increase. However, while one
stakeholder conceded that diet and exercise are great, she did not believe they would decrease local cancer rates. This participant discussed that there are many local women who eat healthy and exercise daily, but are still getting cancer. This indicates a perception that primary prevention, or risk reduction, may not always be effective.

**Screening Percentages/Secondary Prevention** - Secondary prevention was another major theme emerging from the stakeholder interviews. Each stakeholder felt that one of the most important things that would help to decrease breast cancer in her community would be more screenings and more early detection. Insurance companies offering incentives were discussed, something that encouraged women to get their regular screenings, as well as offering things like spa days along with mammograms.

Some stakeholders stated that higher rates of screening are seen at some organizations while not others. For those with higher rates, cancer is being found earlier thus improving outcomes. Project ABC, a Komen Tri-Cities Community Grant Program, has increased their screenings from 30 in the first year to over 600 currently. However, there might be some issue with doctor and nurse practitioner education regarding patient reminders for annual mammograms. One stakeholder mentioned that this could be a reason for low screening percentages in her area:

“I hear people say, ‘I told my doctor that it’s time for my mammogram because he never mentioned it to me.’ We need to make doctors, nurse practitioners, and physician assistants more aware. Maybe this is why the screening rates are down. Maybe there is a lack of education? Yes, screening rates may be down in this area because of a lack of education.”

Poverty was also discussed as another reason that screening percentages might be low; women may not get timely screenings or treatment due to their income of lack of insurance coverage.

**Treatment** - Washington County/Bristol City, VA stakeholders expressed mixed opinions regarding treatment in the region. Some felt that their particular treatment center was wonderful, even saying, “I don’t know of any improvements that could be made.” Other stakeholders expressed the need of an increase of rural cultural knowledge for providers in some treatment facilities. Additionally, stakeholders expressed the need for increased funding for follow-up appointments as many women travel from five to six hours away for treatments. A need for younger doctors was also expressed, some providers are older and it was felt that there is a need to recruit younger oncologists and radiation oncologists.

**Programs** - Stakeholders mentioned the success of Project ABC increasing their screening numbers, but concern was expressed regarding the decrease in funding for this program. Slight confusion was expressed regarding how women find out about this program. Every Woman’s Life, the Virginia Breast and Cervical Cancer Program, and Tennessee’s Breast and Cervical Cancer Program were mentioned as additional resources for women who wouldn’t otherwise be able to afford their screenings.
Suggestions for Komen - There was much positive feedback for Komen. All stakeholders felt that the Affiliate’s Community Grants program was able to benefit many women. Additionally, interviewees expressed that an increase of grants and funding dollars would be beneficial to the community. Most stakeholders believed more funding was needed for gas cards and transportation because women will not receive treatment or screenings if they do not have transportation. There were also concerns about grant funding decreasing, particularly for Project ABC.

Stakeholders expressed the need for Komen to be more visible in the community throughout the year, not only during the month of October. A need for more education was echoed by all of the stakeholders. While the interviewees believed Komen does a good job with education, they still believe there is opportunity for more. Stakeholders suggested having more information, such as pamphlets, in the community and holding women’s days to provide education on breast health, nutrition, and physical activity. Schools or churches were mentioned as good places for these types of events to be located. Providing more education to providers, about recommendations and patient reminders, was also suggested as a great need.

Focus Group
Access - A lack of access was mentioned during the interviews as a barrier to local women receiving screenings and treatment in the community. Gas cards and transportation were mentioned as needs for women receiving cancer treatments who live on the community outskirts. Focus group participants mentioned that women in these areas might live over 40 minutes away from the nearest treatment facility, many who only offer outpatient services.

Awareness/Knowledge - As more cancer diagnosis is being seen in the community, many focus group participants felt that awareness has been increasing. Breast cancer is also being discussed in social clubs and at churches if a woman is diagnosed, thus increasing awareness regarding checkups and mammograms.

Participants mentioned that there is much community support in the area from social groups, churches, and the workplace when a woman receives a breast cancer diagnosis. People in the community aren’t afraid to talk about breast cancer like some other communities.

Focus group attendees felt local health care providers need more education regarding screenings; some don’t know the difference between screenings and diagnostic mammograms. Participants were concerned that if clinicians were not educated on screenings, then it would be very difficult for lay persons to be knowledgeable on the topic. Additionally, group attendees mentioned the lack of bedside manner seen in physicians in their community. As a result, participants advocated for re-educating clinicians on this topic. Most participants felt that additional education is needed regarding the importance of screenings and preventative care. Discussion also ensued surrounding taskforce guidelines associated with the Affordable Care Act. Many stakeholders believe women are being misled on the correct recommendations.
Attitudes/Values - Prioritizing preventative care was discussed in the focus group. Participants stated that individuals who don’t believe screening is important, do not make it a priority. However, participants mentioned that even persons who do value the importance of breast cancer frequently have interruptions in their daily life. As a result, a screening may be delayed, thus making it untimely.

Environmental Factors - Washington County, VA and Bristol City, VA focus group attendees discussed environmental exposures as possible causes of cancer in the community. Antibiotics in chicken were mentioned in interviews, accompanied with the lack of options available for hormone and antibiotic free poultry and meats. One participant, currently undergoing breast cancer treatment, was very concerned with soy consumption. Her family is now soy free, as doctors cannot guarantee that it did not contribute to her cancer. Parabens in shampoo were also mentioned as possible environmental exposures. Participants agreed that growing one’s own vegetables would be a way to prevent certain environmental exposures.

Moderators - Income level was discussed as a moderator. This was thought to be a reason women might not receive preventative care and may not be able to afford to live a healthier lifestyle.

Primary Prevention - The importance of preventative care was mentioned in the focus group. Many participants felt that local women may need more education on this subject. Additionally, the group stated that while many women may want to have a healthier lifestyle, they might not be able to afford organic and natural foods. The lack of healthy food options within the area was also a point of concern. Participants also mentioned that there are women who eat healthy and exercise regularly, but still get breast cancer.

Screening Percentages - Low screening percentages in the region may be due to a lack of education. Focus group participants discussed that some women don’t think they need screenings until there is already a problem. There were also concerns that patients are not being reminded or educated about screenings by their physician. The medical professionals from the group mentioned that frequently patients remind their providers it is time for an annual mammogram instead of vice versa.

Treatment - Focus group participants believed the treatment cancers in their community were “top-notch.” Those individuals who had received treatment, or knew someone who had, felt that all the necessary information needed was provided locally.

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**Focus Group**

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*Moderators* - Income level was discussed as a moderator. This was thought to be a reason
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*Primary Prevention* - The importance of preventative care was mentioned in the focus group.
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exercise regularly, but still get breast cancer.

*Screening Percentages* - Low screening percentages in the region may be due to a lack of
education. Focus group participants discussed that some women don’t think they need
screenings until there is already a problem. There were also concerns that patients are not
being reminded or educated about screenings by their physician. The medical professionals
from the group mentioned that frequently patients remind their providers it is time for an annual
mammogram instead of vice versa.

*Treatment* - Focus group participants believed the treatment cancers in their community were
“top-notch.” Those individuals who had received treatment, or knew someone who had, felt that
all the necessary information needed was provided locally.

**Wythe County, Virginia:**

**Focus Groups**

There were two focus groups facilitated in Wythe County. There were nine women in the first
group and eight women in the second group for a total of 17 women interviewed. All women
reported having health insurance coverage. None of the women reported being diagnosed with
breast cancer; however, nine reported a family member had been. All women identified as
White. The income ranged from $20,000 to over $50,000 with two participants who chose not to
report their income. The majority of women reported an income over $50,000. The ages of the
women ranged from 27 to 67 with the majority of women in their 30s and 40s. All women
reported some level of college education with the majority of women having a bachelor’s or
master’s degree.
The women reported the following barriers to accessing breast health resources:

- Lack of health insurance
- No transportation
- Competing priorities
- Unaware of local resources

Health insurance was reported as a barrier to accessing breast health resources. One woman shared, “Insurance is a luxury. It's not something that's standard.” Though there are some free resources for women without health insurance, they were not common knowledge. Local resources were shared as another barrier. Women have some options, but not many in Wythe County for breast health. Doctors come from out of town to provide services to women, but have a primary practice in another community. If women need breast health care after diagnosis, women go out of town. One woman said she went to Blacksburg when her daughter had a scare because she was referred there by a friend. She did not feel comfortable staying in town. Another woman was encouraged by a friend to have a mammogram out of town because the friend had a bad experience where the doctors did not catch her cancer when she went for a visit with a concern.

As women often have to travel out of town for appointments and follow ups, transportation was considered a large barrier to accessing breast health resources. One woman reported she had to drive to Roanoke multiple times in one week for follow up appointments. Another woman shared that there were a lot of really low income members of the community who could not afford to come into town regularly due to gas prices. Competing priorities was another reason women did not receive yearly mammograms. Women often had to choose between food and a mammogram.

The women shared that the first place a woman goes to find out information once she has been diagnosed was either a friend or the internet. Neither was necessarily accurate. One woman described reading information on the internet as scary. The women do not know where to start once diagnosed. They depend on friends and family members, but with no guarantee their support unit was educated on accurate resources and information.

The women shared recommendations to increase awareness in the Wythe County community. The first was to not forget about them. One woman said, "If they don't reach us then no one else is going to" (referencing the Affiliate). The women wanted the Affiliate to know that the community was unique, and required different attention. One example provided was communication. One woman said, "The way you need to communicate in this area is different...people here want face to face personal interaction in order to hear a message." Another recommendation was to go out into the communities, not just focus efforts in town as not all women had access to town frequently.

The women also recommended having Ladies Night Out (a local breast health awareness event) more than once a year. Even though women in the room were active on Facebook and in the community, they were not aware of the event. By having it more than once a year it could...
reach more women. They also had the idea of having a mobile mammography van on college campuses to reach the younger women and a central location regularly where people knew they could go each year. This could include education on mammograms since many women are scared to have one.

**Surveys**
The survey was sent to the four health service providers for which the Affiliate had contact information. All four participants responded to the survey. Their roles included advanced health director, executive director, and registered nurses. The respondents described cost, transportation, misinformation, fear, and lack of insurance as the factors that prevent women from seeking breast health care in Wythe County. In addition, they reported lack of knowledge of resources available, not understanding importance of a mammogram, and time. Many of the same concerns were also identified as reasons why women did not follow through on a mammogram referral. Also cited was a lack of family support through the process.

Participants shared that the following services were needed to assist women when seeking recommended breast health care: financial support for cost of mammogram and counseling if diagnosed, patient navigation services, and mammography education and community outreach. The types of programs recommended were transportation services, eliminating costs for those who qualify, education about benefits of early detection to decrease fear, more free clinics, and patient navigators.

In regards to recommended changes to the health care system, one participant recommended working together more smoothly with referral agencies to get timely care for patients. In addition, it was recommended to expand hours for mammography services. When provided with the opportunity to share additional recommendations to better serve women in the community, educating providers on how to link clients with available resources was reported.

**Common Findings**
Focus group findings and survey results were triangulated to identify the following common findings. The first being transportation as a barrier to accessing breast health resources. In addition, cost of health resources and lack of health insurance were identified. Also fear and competing priorities that prevent follow through were identified in both forms of data collection as barriers.

**Danville City, Virginia:**
**Focus Groups**
There were a total of three focus groups facilitated in Danville City. There were five women in the first group, five women in the second group, and three women in the third group for a total of 13 women interviewed. Eleven of the 13 women stated they had health insurance coverage. Four of the participants reported they had never been diagnosed with breast cancer and reported no cases of breast cancer in their family. Seven women reported they had not been diagnosed with breast cancer, but at least one female in their family had ranging from daughter, to mother, sister, aunt, cousin, and grandmother. Two of the women reported they had been
diagnosed with breast cancer, but no additional cases in their family. One woman identified as Asian, five identified as Black/African-American, and seven identified as White. The income ranged from between $10,001 and $20,000 to over $50,000. The ages of the women ranged from 22 to 74 with the majority of women in their 50s. Seven of the 13 women had some college credit or associate’s degree, four had a bachelor’s degree and two had master’s degrees.

The women reported the following barriers to accessing breast health resources:

- Trust of doctors
- Transportation
- Financial
- Fear, not wanting to go looking for problems
- Not inconveniencing others
- Competing priorities, not having time for regular check ups
- Topic is taboo

Many women in the group reported they did not trust the doctors in Danville City. They shared that they traveled outside of the city if they had a serious medical issue. One woman shared, “People in the community have a very poor perception of the medical system here.” “That's why we leave, we don’t stay here [referencing using doctors].” Another woman shared that she goes to the University of Virginia for all medical related needs as it was cheaper for her and everything was in one location. Women also shared that they believed doctors treat patients differently based on demographics such as health insurance and race. If a patient said they worked for Goodyear, then they received great service because that meant that person must have good health insurance. A young woman with a college education shared that she had a similar experience and she felt the need to inform the doctor she had a college degree in order to be treated with respect.

They also shared the challenges of finances and transportation in accessing resources if a woman was diagnosed. It was shared that there was no easy way to get into town to visit a doctor if a woman lived in the county. The majority of women were not aware of transportation resources. In conjunction with the financial and transportation barriers, women reported they did not want to ask for help and inconvenience others. As one woman shared, “Women don't want to inconvenience other people. Have to get off work. Hard to ask for help.” She said this was an area she was working on herself. This prevents women from seeking preventive health care and follow up treatments if diagnosed.

Participants also reported that two of the major reasons women did not access resources was not necessarily that they could not, but that either they were scared to or did not have the time. Many women reported they postponed their first mammogram because they were scared of the results. Some did not go until they were concerned that something was wrong. Time and priorities contributed to this as well. The women reported they had multiple competing priorities and did not have time to go to the doctor.
The women shared recommendations to increase awareness in the Danville community. The first was to start with young women in high school to educate them on the importance of personal breast examinations. They suggested having this be a part of the high school health education curriculum. Again, it is important to note that breast self-exams are not evidence-based. Instead, Komen endorses breast self-awareness (i.e. knowing one’s risk, getting screened, knowing what is normal for the individual, and making healthy lifestyle choices). In addition, women recommended partnering with churches in the community to organize transportation services and well care events. Women could share personal testimonies within their church community to decrease the fear and raise the comfort level to talk about breast cancer. In addition, recommendations were made to place the mobile mammography van in areas that were easier to access, such as in the community neighborhoods or at grocery stores where people have to go. The participants also recommended the following ways to advertise resources and upcoming events:

- Piedmont Shopper
- Churches
- Ads in newspaper
- Social media
- News, TV channels
- Community Market (local farmer’s market)
- Grocery stores

Another recommendation centered on empowering women. When asked what else could be done in the area to help educate women, one participant shared, "Empowerment, I think, is a big word. You need to empower these women to take their health into their own hands." This message was echoed by another participant. "Women are their best advocate, they know their body best. They need to get a mammogram, especially a baseline. A baseline mammogram saved my life. I mean there was no breast cancer in my family." The resounding message in all focus groups was that women in the area were not educated and confident enough to advocate for themselves and this needed to be the focus in the Danville community.

**Surveys**

The survey was sent to the six health service providers for which the Affiliate had contact information. Three participants responded to the survey. Their roles included clinical director, education coordinator, and nurse/case manager. The respondents described the cost of services and lack of medical coverage in the area as the factors that prevent women from seeking breast health care in Danville. Medical coverage in the area was also identified as reason women to do not follow through on a mammogram referral in addition to transportation and getting time off work.

Participants shared that the following services were needed to assist women to seek and complete recommended breast health care: local referrals for abnormal mammograms, education from trusted individuals, transportation, increased education about available services to help with payments, and flexible hours for health care providers to work with clients’ schedules. The types of programs recommended were mammograms at no cost to the patient,
educational peer support, transportation, medical services by local providers for low income women, and continued financial support for clients.

In regards to recommended changes to the health care system, one participant shared they did not receive annual funding; therefore, patients got out of the routine of having a mammogram each year. In addition, participants recommended stressing the importance of breast health awareness, including clinical breast exams and mammograms. Compassionate local providers for low income individuals were also raised as a needed change.

When provided the opportunity to share additional recommendations to better serve women in the community, training and support regarding breast health was reported. In addition, one participant reported continued support of agencies to help uninsured women.

**Common Findings**

Focus group findings and survey results were triangulated to identify the following common findings. The first being transportation as a barrier to accessing breast health resources. Also, building trust with health care providers to better educate women on resources and options was identified. In addition cost of medical services was identified in both forms of data collection.

**Lynchburg City, Virginia:**

**Focus Groups**

There were a total of two focus groups facilitated in Lynchburg City. There were two women in the first group and three women in the second group for a total of five women interviewed. All five women reported they had health insurance coverage. Three of the women reported they had been diagnosed with breast cancer, but had no additional cases in their family. No additional women reported any cases of breast cancer in their family. Two women identified as Asian, one identified as Black/African-American, and two identified as White. Two participants chose not to report their income and three reported more than $50,000. The ages of the women ranged from 23 to 65, with the majority of women in their 50s or 60s. One of the five women had a high school degree/GED, one had a bachelor’s degree and three had master’s degrees.

The women reported the following barriers to accessing breast health resources:

- Women who are less educated knowing about importance of mammograms
- Financial resources
- Young women not knowledgeable about risks
- Women are reactive not proactive
- Do not know about resources until diagnosed

The focus groups revealed there were great resources for women once they were diagnosed. There were many compliments about the use of the breast navigators, one woman shared, “If it wasn't for the breast navigators I would never had known where to start.” However; there was concern raised about the importance of education for women prior to diagnosis. In one group, it was shared that a woman’s educational level could affect her access to knowledge, or that women put on blinders because they are scared to know. For example one woman shared, “I
knew it was cancer, but I didn’t want to do anything about it, I was scared.” Women were not aware they should have a mammogram each year. Another woman shared, “There is a lot of misinformation, women just don’t know.”

Access to health insurance and financial resources was another barrier raised as to why women did not receive yearly mammograms. One woman shared, “From a racial perspective I think that women who are Black/African-American are more of a minority….I know I’ve lost several friends who were not diagnosed early enough, or you know, socioeconomic issues that caused them not to have, be able to go.”

The concern was raised in both groups that women were being diagnosed younger and younger. One woman who participated was 20 when she was diagnosed with breast cancer. She shared her challenges in convincing the doctor something was wrong as they did not expect it to be breast cancer since she was so young. One mother shared the following interaction she had with her daughter. "My daughter was 28/29 when I was diagnosed and I told her, it doesn't cost any money to do self-test every month." The daughter also received a mammogram before the age of 30 for a baseline.

The participants shared recommendations to better serve women in the Lynchburg community. This included support groups for caregivers and spouses, specifically husbands. One woman shared that her husband was totally devastated. She told him, "Look. I’m depending on you." She had a support group and women to talk to, but he had no one. It was also encouraged to speak with young women in high school as a part of health education. The groups recognized that high school women may think it will not happen to them, as one participant shared. “Young women think they are invincible.” With this knowledge, participants recommended starting to educate women earlier. Partnering with Black/African-American churches was an additional recommendation as that would be a good way to raise awareness and publicize events and free mammograms.

Finally, it was recommended to put flyers in places women frequent, such as the grocery store, Wal-Mart, hair dresser, and places that have high foot traffic.

**Surveys**

The survey was sent to the 11 health service providers for which the Affiliate had contact information. Two participants responded to the survey. Their roles included nurse and oncology nurse navigator. The respondents described cost, transportation, fear and lack of time as the factors that prevent women from seeking breast health care in Lynchburg City. Transportation, fear, cost, and time available were also identified as reasons women to do not follow through on a mammogram referral.

Participants shared that the following services were needed to assist women to seek and complete recommended breast health care: providing rides, greater access to mobile mammography vans in rural areas, available funding, and spreading the word in the community that funding resources were available. One type of program recommended was transportation to

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assist members of the community. In regards to recommended changes to the health care system, one participant shared that a more affordable health insurance was needed. No new information was shared as recommendations to better serve women in the community.

**Common Findings**
Focus group findings and survey results were triangulated to identify the following common findings. The first being fear combined with lack of education as a barrier to accessing breast health resources. In addition financial resources including ability to access transportation was identified.

**Qualitative Data Findings**

**Limitations of the Qualitative Data**
As with all studies, there were limitations with both the focus groups and surveys. The focus groups presented challenges in coordination and recruitment of participants. The goal was to have three focus groups in each target community with a representative group from the community. As recruitment proceeded, there were communities in which it was a challenge to recruit women. This was apparent in the demographic makeup of some focus groups. Patrick County was not representative of the community as all participants were White and fairly educated with all women covered by health insurance. The women were able to articulate some of the larger community needs, but this was a limitation. Similarly, this was a concern with Wythe County as all women were associated with the community college.

Another limitation was the size of the focus groups. The ideal number was between six and ten women per discussion. Due to the challenges in coordination of the focus groups and recruitment, some groups only had two or three women. In addition, there were only two focus groups facilitated in Wythe County and Lynchburg City. Extensive effort was put forth to connect with community members, grantees, churches, grocery stores, and personal connections to coordinate locations and recruit participants. The information gathered from these groups is still extremely valuable, but may not be fully representative of the community.

The survey also had limitations due to the small number of contacts and response rate. Wythe County had a 100 percent response to the survey; however Roanoke County, Roanoke City, Radford City, and Martinsville City had a limited number of responses. All contacts were emailed, but the limited responses do call into question if there were additional needs or barriers to breast health resources that were not identified. Therefore, the responses may not be representative of all providers in the target communities.

According to the Health Systems and Public Policy Analysis, disparities exist within the Affiliate’s five target communities due to the rural landscape, poverty, unemployment, lack of education, and lack of transportation. Combined with an older and predominantly White (with pockets of high numbers of Black/African-American women) demographic, barriers create a medically underserved environment consisting of increases in late-stage diagnoses and high breast cancer death rates. Through the Health Systems Analysis process, the Affiliate
documented the most relevant, accurate providers of breast health services located in target communities. Given the health systems strengths and weaknesses for each target community, breast health education plays an important role throughout the continuum of care (CoC) and is crucial to the Komen mission to end breast cancer forever. Education can help address barriers, ease fear and anxiety, inspire women to get screened, convince women to keep follow-up appointments, empower through community resources, and encourage women to enter and remain in the CoC.

The Affiliate has not only documented the most relevant, accurate providers of breast health services located in target communities but has also identified providers located outside of target communities who are serving residents of those communities. The Affiliate will use this information to expand partnerships through the Affiliate’s Mission Action Plan of the 2015 Community Profile Report. The Affiliate is fortunate to have a current community grant recipient providing Komen funded services in every target community. Grantees serve as the Affiliate’s foundation for collaboration and information for serving at-risk populations. The following common findings from focus groups and surveys support the barriers identified by the Health Systems and Public Policy Analysis:

Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City):
One identified barrier to accessing breast health resources was lack of education for women as it relates to resources and knowledge of what questions to ask the medical community. In addition, the fear of being diagnosed and the ability to financially cover medical costs were identified as barriers. Transportation was reported as a barrier in both forms of data collection.

South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City):
One identified barrier to accessing breast health resources was lack of transportation. In addition, lack of financial ability to utilize resources and seek proactive health care was identified. Fear of a breast cancer diagnosis was identified in both forms of data collection as a barrier. The fact that women in Patrick County must travel to Mount Airy, NC, Roanoke City, or Henry County/Martinsville City for a mammogram screening and all breast health appointments is a clear indication that lack of available resources impacts the breast health of the residents living there. Patrick County is the Affiliate’s only targeted community without Komen grant funding.

Wythe County, Virginia:
One identified barrier to accessing breast health resources was transportation. In addition, lack of financial ability to utilize resources and seek proactive health care was identified. Fear of a breast cancer diagnosis was identified in both forms of data collection.

Danville City, Virginia:
One identified barrier to accessing breast health resources is transportation. In addition, building trust with health care providers and educating women on resources and options was an
identified need. The financial ability to pay for medical services is identified in both forms of data collection.

**Lynchburg City, Virginia:**
One identified barrier to accessing breast health resources was fear combined with lack of education. In addition, financial resources including ability to access transportation was identified.

The purpose of the study was to answer the questions that came from the Quantitative Data Report and Health Systems and Public Policy Analysis and to better understand access and barriers to breast health resources. The focus groups and survey findings helped to identify these areas. While each community had its own individual needs, the common barriers throughout all communities included health insurance, transportation and lack of knowledge of resources available. This was seen in both the focus groups and survey results. Women who did not have health insurance did not have the financial ability to pay for preventative health care and struggled with the cost if diagnosed with breast cancer. Transportation played a key role as well since many women shared challenges with commutes to resources. Hospitals or centers that provided the necessary resources or treatments were often out of town, where public transportation would not take them. In addition, areas that had public transportation, was often limited to the city or town; there was not regular transportation to the county, the location of where most women needed assistance. The final theme throughout all communities was a lack of awareness of resources in the community. The focus groups and previous reports revealed there are many resources in the communities; women however are not aware of these resources. Concern was raised about how and to whom information about resources is disseminated to reach women of all demographics and that there is a need for wider advertisement.

Through the study, women recommended opportunities to reach more women. These included ideas for advertisement that are specific to the uniqueness of each community. Empowering women to ask questions and take initiative was a recommendation to assist more women to utilize resources and increase education around breast cancer. Many women reported they did not have confidence to ask their doctor questions. The women shared they wish they had known more information so they knew what questions to ask. One of the final recommendations that appeared as a theme throughout the focus groups was the need for one central location for women to start. As many doctors did not have the time or knowledge of resources in the area, the women did not know where to start if they or someone in their family was diagnosed. The women reported the need for a starting place, one hub to go to ask questions and get pointed in the direction of resources for each target community.

Overall, the study revealed there are some resources in each community, minus Patrick County, to assist women with preventative health care and following diagnoses. However, many women in the target communities are not aware of the resources. Through intentional outreach and targeted marketing unique to each community, awareness can be increased. Collaboration with local churches and community members can create opportunities for additional resources such
as increased transportation options and educational programs for women. Through these events and partnerships, the Affiliate could see an increase in women’s knowledge of breast health and the importance of preventative care.
Mission Action Plan

Breast Health and Breast Cancer Findings of the Target Communities

Methodology
Susan G. Komen Virginia Blue Ridge has selected five target communities within the service area as the focus for strategic efforts over the course of the next five years. Target communities are those which have cumulative key indicators showing an increased vulnerability for experiencing gaps in breast health services and/or barriers in access to care.

Central Blue Ridge Region, Virginia (Roanoke County, Roanoke City, Radford City):
The Central Blue Ridge Region is not expected to meet Healthy People 2020 (HP2020) targets for breast cancer late-stage diagnosis and death. Roanoke City and Radford City have some of the highest rates, which continue to be upward trending, for late-stage diagnosis within the Affiliate service area. The Quantitative Data Report indicates a relationship between socioeconomic barriers (low high school graduation rates, high unemployment percentages, high poverty percentages, and lack of health insurance) and their impact on the Central Blue Ridge Region’s late-stage diagnosis and death rates. Roanoke City’s population is 30.4 percent Black/African-American; double that of the Affiliate’s service area (14.9 percent). The Health Systems and Public Policy Analysis reveals that the Central Blue Ridge Region has variable access to mammography sites. Roanoke County has few providers for imaging and screening and although providers may be available within close proximity in the city, there is a lack of public transportation in Roanoke County. Radford City also has limited access to breast health services with the majority of providers being located outside the city limits, while public transportation routes run within the city limits. The Qualitative Data Report reveals barriers to accessing breast health resources including: lack of education related to available resources and the types of questions to ask their medical providers, fear of getting a positive diagnosis after a screening mammogram, lack of financial resources to cover medical costs, and lack of public transportation to medical facilities between cities and counties.

South Central Blue Ridge Region, Virginia (Patrick County, Henry County, Martinsville City):
These rural cities and counties share a common denominator: all communities experience a high number of residents who are likely to have less than a high school education; income below 250.0 percent of the poverty level; a population that is largely medically underserved; and who lack health insurance due to high unemployment percentages. According to the Quantitative Data Report, Henry County and Martinsville City have a large Black/African-American population. Henry County’s population is 23.1 percent Black/African-American while Martinsville City’s population is 46.0 percent Black/African-American. Both Henry County and Martinsville City’s Black/African-American population is higher than that of the Affiliate service area (14.9 percent). In addition, Martinsville City has a female population that is four times smaller than Henry County yet represents one of the highest late-stage diagnosis rates in the service area, which is currently on an upward trend. In-depth analyses show that residents of Patrick and Henry Counties are older than in any of the other cities and counties in the region with more than 60.0 percent of the female population being older than 40 years-of-age. Almost 50.0 percent more women are above 65 years-of-age than in the Affiliate service area as a whole. Of these residents, 100.0 percent are considered medically
underserved, 50.0 percent have an income below 250.0 percent of the poverty level, and the
majority has an education level below high school. The Health Systems and Public Policy
Analysis reveals a lack of health insurance and a limited number of medical providers which
impacts access to health care. The Qualitative Data Report reveals lack of transportation,
financial inability to utilize resources, and fear of diagnosis as barriers to accessing breast
health resources.

Wythe County, Virginia:
Wythe County is not expected to meet HP2020 targets for breast cancer late-stage diagnosis
and death Wythe County has elevated death rates and upward trending incidence rates
compared to the Affiliate service area and national rates. The Quantitative Data Report indicates
a relationship between socioeconomic barriers (low high school graduation rates, high
unemployment percentages, high poverty percentages, and lack of health insurance) and their
impact on Wythe County’s death rates and upward trending incidence rates. The Health
Systems and Public Policy Analysis reveals that Wythe County has only one hospital in the area
and a few private practices, leaving the county relatively absent of breast health services. Wythe
County is rural and lacks public transportation, except within the City of Wytheville. The
Qualitative Data Report reveals barriers to accessing breast health resources including: lack of
transportation to medical facilities; fear of a breast cancer diagnosis following a screening
mammogram; and lack of financial ability to utilize resources and initiate proactive breast health
care.

Danville City, Virginia:
Danville is an urban city that is identified as a target community due to the extent of intervention
that would be needed to achieve the HP2020 goals. Demographics for the city include more
than 50.0 percent of the population identified as Black/African-American, which is three times
higher than the population of the Affiliate service area (14.9 percent), the majority being female.
This is of particular concern since death rates are higher in Black/African-American women and
both late-stage diagnosis and incidence rates are trending upwards. The Quantitative Data
Report indicates a relationship between socioeconomic barriers (low high school graduation
rates, income below both the 100.0 percent and 250.0 percent poverty levels, and lack of health
insurance) and their impact on late-stage diagnosis and death rates. At first glance, it seems
that providers are plentiful. Upon further inspection, the Health Systems and Public Policy
Analysis reveals the health department and one of the community health clinics is located in
nearby Chatham and is not accessible by the Danville Transit System. Despite being contiguous
with a metropolitan area highlight, the Qualitative Data Report reveals the need for breast health
services located within neighborhoods that are no-cost or reduced-cost, culturally sensitive, and
easily accessible as a means to accomplish the proposed goals for HP2020.

Lynchburg City, Virginia:
The Quantitative Data Report reveals that Lynchburg City is a target community due to the
amount of intervention time needed to achieve the HP2020 targets. It has a higher than average
breast cancer death rate when compared to the Affiliate service area. Like all of the target
communities identified, socioeconomic data reveals that the city’s residents are more likely to be
unemployed, have an income below 100.0 percent, and live below 250.0 percent poverty level (higher than the average for the Affiliate service area). The population of Lynchburg City is 30.7 percent Black/African-American, twice the percentage of the Affiliate service area (14.9 percent), which is important given the high death rate experienced by Black/African-American women. The Health Systems and Public Policy Analysis informs us that like other metropolitan areas, Lynchburg City has multiple providers of breast health services and is the only target community that has a mobile mammography van. However, several challenges for residents impact screening, diagnosis, and the continuum of care including: lack of transportation, inconvenient clinic hours, language barriers, fear, and lack of information. The Qualitative Data Report reveals similar barriers found in the Quantitative Data Report and in the Health Systems and Public Policy Analysis. The Qualitative Data Report reveals that fear, lack of breast health education, lack of health insurance, and lack of transportation influence decisions to not get mammograms and to not follow through after receiving abnormal results.

**Mission Action Plan**

Komen Virginia Blue Ridge serves a large, rural geographic area consisting of 42 cities and counties; however, residents living in target communities have similar demographics, barriers to breast health services, and socioeconomic status. Given these common findings, the Affiliate Community Profile Team developed the Mission Action Plan to include strategies to improve their negative impact on the breast health of residents living in target communities. Four of the five target communities have a higher Black/African-American population than the Affiliate service area as a whole, so this disparity is addressed through the following priorities and objectives as well.

Problem statements, priorities, and objectives for the Affiliate Mission Action Plan focus on three main categories: education and outreach, partnership opportunities, and grantmaking. Four problem statements summarize the main issues revealed during the analysis of the Quantitative Data Report, Health System and Public Policy Analysis, and the qualitative data. Priorities establish goals for addressing the specific needs identified in the problem statements. Each priority has several objectives for addressing the breast health needs of residents living in target communities.

The first problem statement acknowledges that all six target communities have higher than average rates of breast cancer diagnosis which correlates with socioeconomic barriers (especially lack of transportation). Screening mammography can find breast cancer early when chances of survival are highest. Priorities established include increasing the number of residents (especially Black/African-American women) who receive breast cancer screenings, increasing mammography screening services with flexible hours through outreach, education, and grant funding, and increasing breast health care provider understanding of Komen BSA messages.
Objectives include:

- By 2017, include a funding priority in the Komen Virginia Blue Ridge Community Grant Request for Application (RFA) for organizations that focus on increased mammography screenings and diagnostic services in one or more of the six target communities.
- By 2019, build one partnership per target community that educates insured residents about Komen screening recommendations and resources.
- By 2019, build one partnership per target community that educates uninsured and underinsured residents about Komen screening recommendations and resources.
- By 2016, identify at least two organizations that offer mobile mammography screening services to serve target communities.
- By 2019, build at least two partnerships with breast health care providers to make one mobile mammography screening visit to each target community per year.
- From 2016 – 2019, before releasing the RFA, review grantmaking processes, explore ways to increase funding for mobile mammography screening services, and offer community grant funding for mobile mammography screening services.
- By 2016, provide small grant funding opportunities for a collaborative meeting aimed at hospitals, primary care providers, health clinics, and community-based organizations concerning continuous improvement of education, referral, screening, diagnosis, treatment, and support processes.
- By 2017, establish an Affiliate breast health advisory board to improve communications between the Affiliate and breast health service providers located in each target community.

The second problem statement affirms that residents of all six target communities have low health literacy and fear of a breast cancer diagnosis. Breast health education plays an important role in addressing barriers, easing fear and anxiety, and encouraging residents to enter and remain in the CoC. Priorities recommended include providing culturally competent educational materials when implementing Komen breast health educational programs, increasing the number of Volunteer Breast Health Educators, Ambassadors, and Speaker’s Bureau members, and cultivating partnerships with organizations that serve at-risk, vulnerable populations.

Objectives include:

- From 2015 – 2019, utilize culturally competent, low literacy materials at education events held in target communities.
- By 2017, coordinate or provide breast health education tables, educational materials, and/or BSA presentations for 50 faith-based organizations (especially Black/African-American churches) located in target communities.
- By 2017, recruit 50 faith-based organizations (especially Black/African-American churches) located in target communities to register and participate in an annual, unified Worship in Pink Weekend held during October Breast Cancer Awareness month.
- By 2017, recruit and train 90 Volunteer Breast Health Educators to staff education tables (10 per community) and speak with residents one-on-one about breast health.
- By 2017, recruit and train nine Breast Health Ambassadors (one per target community) to help train Volunteer Breast Health Educators, locate venues for education tables, schedule educators to staff them, seek speaking opportunities, and provide BSA presentations.
• By 2019, recruit and train one Speaker’s Bureau member from each target community to speak on the Affiliate’s behalf: Affiliate history, the community profile and what it reveals about the state of breast health in target communities, the Komen BSA message, and other requested topics.
• By 2017, cultivate 25 new partnerships in target communities by coordinating or providing education tables, educational materials, and/or BSA presentations.

The third problem statement recognizes that residents of all six target communities have challenges with transportation to medical appointments and health fairs. The priority is increasing transportation opportunities or knowledge of opportunities.

Objectives include:
• By 2016, offer fundable transportation strategies primarily for Patrick County supported by the Affiliate community and small grants programs. There is no mammography facility located in Patrick County.
• By 2016, offer fundable transportation strategies supported by the Affiliate community and small grants programs for Roanoke County, Radford City, Henry County, and Wythe County. There is a lack of access to providers via public transportation in these areas.
• Annually, update Volunteer Breast Health Educator and Ambassador training with the most current transportation resources identified in all five target communities and promote these resources on the Affiliate website.
• By 2016, utilize Affiliate Volunteer Breast Health Educators and Ambassadors to educate residents about available transportation resources identified in all six target communities.
• By 2019, explore transportation related partnerships within all six target communities for providing free transportation to breast health appointments.

The last problem statement acknowledges that all six target communities have a high rate of late-stage diagnosis. Priorities include promoting the meaning and importance of early detection in lowering late-stage diagnosis rates based on Komen BSA messaging and providing psychosocial, emotional, and educational resources for residents who receive a late-stage diagnosis.

Objectives include:
• By 2016, update Affiliate education programs to reflect the Health Belief Model (HBM). The HBM hypothesizes that if women are educated about their risk factors and know what they can do to lessen their vulnerability; if they are convinced that they can be successful in changing their behavior; and if they experience fewer barriers, then they are more likely to take appropriate steps to prevent breast cancer.
• By 2015, survey breast cancer survivors to determine their psychosocial, emotional, and educational needs. Restructure Affiliate Survivor Committee and use survey results to develop and increase the number of survivor activities that meet identified needs.
• By 2016, update Volunteer Breast Health Educator and Ambassador training to include the most current information regarding metastatic breast cancer.
• Starting in 2016 host two metastatic breast cancer related events (one in the Central Blue Ridge Region and one in a different target community each year).
• By 2019, identify at least one breast cancer support group per target community to provide psychosocial, emotional, and educational support to recently diagnosed patients and those with metastatic breast cancer. In the event that no support group can be identified for a target community, the Affiliate will explore bringing stakeholders together to form one.


Appendix A. Focus Group Informed Consent

Title: Susan G. Komen Qualitative Research for the Virginia Blue Ridge Affiliate
Project Director: Pamela Adams
Phone Number: 540-400-8222
Organization: Susan G. Komen Virginia Blue Ridge Affiliate

Introduction:
Thank you for joining us, Susan G. Komen Blue Ridge Affiliate, for this group interview to learn more about your awareness and ability to access breast health resources. The thoughts you share will be used to help to improve breast health in your area.

Purpose:
The purpose of this project is to learn more about what access you have to breast health resources, what issues you have had in gaining access if any, and how you learned about breast health resource.

Procedure
We will ask you to complete a brief form that asks for basic information, no names or addresses. We will ask you a few questions to begin conversation and then allow you to share your own thoughts and experiences. We will not keep any records that link your comments to your identity.

Risk or Discomfort
There is no risk to your health in participating in this group discussion. There may be discomfort in talking about issues you faced in either gaining access to breast health or not being aware of breast health resources.

Benefits
The benefits to joining in this discussion are a $10 Kroger gift card and helping to improve breast health in your local area.

Confidentiality
No records with your name or any personal information will be saved from this interview. Your name will not be connected with any thoughts you share. The meeting will be recorded to help in summarizing thoughts shared during the meeting.

Right to Refuse
You have the right not to join in this interview. If you choose not to join us, please feel free to leave before the interview begins. There will be no penalty for not joining.

Person to Contact
If you have any more questions or would like more information please contact Pamela Adams at 540-400-8222.

Consent
By signing below you agree to join in the interview to discuss your thoughts and experiences on access to breast health in your area, sharing only when you feel safe talking.

Participant Signature
Appendix B. Focus Group Participant Demographic Form

Please complete the following form to the best of your ability and comfort level.

Age___________  County/Zip Code of Residence: _____________

Have you ever had a mammogram? Yes ☐ No ☐

Have you ever been diagnosed with breast cancer? Yes ☐ No ☐

Has anyone else related to you been diagnosed with breast cancer? Please check all that apply.
☐ Grandmother  ☐ Mother  ☐ Sister  ☐ Daughter  ☐ Aunt

What is your primary occupation? Please check one.

☐ Homemaking  ☐ Computer/Office  ☐ Sales
☐ Daycare  ☐ Beautician/Salon  ☐ Health Care
☐ Social Work  ☐ Housekeeping Services  ☐ Unemployed
☐ Education  ☐ Other (please list): ______________________________

What is the highest degree or level of school that you have completed? Please check one.

☐ Did not graduate high school
☐ High school graduate/GED
☐ Vocational certification
☐ Some college credit
☐ Associate’s degree
☐ Bachelor’s degree
☐ Master’s degree
☐ Professional/Doctorate degree

What is your Race? Please check all that apply.

☐ White
☐ Black/African-American or African-American
☐ American Indian or Alaska Native
☐ Asian (e.g. Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
☐ Native Hawaiian or Other Pacific Islander (e.g. Guamanian/Chamorro, Samoan)
☐ Other (please write your race): ______________________________

Are you of Hispanic/Latino, Latino/a or Spanish origin? Please check all that apply.

☐ No, not of Hispanic, Latino/a, or Spanish origin
☐ Yes, Mexican, Mexican-American, Chicano/a
☐ Yes, Puerto Rican
☐ Yes, Cuban
____ Yes, another Hispanic, Latino/a, or Spanish origin
____ Yes, other (please write your origin): ___________________________________

What is your household income in 2014? Please check one.
____ Less than $10,000
____ $10,001- $20,000
____ $20,001-$30,000
____ $30,001-$40,000
____ $40,001-$50,000
____ More than $50,000
____ Don't know/Not sure
____ Would prefer not to disclose

Do you have health insurance coverage? Yes ☐ No ☐
Appendix C. Focus Group Protocol

Purpose statement: The purpose of this qualitative research is to better understand access to breast health and barriers such as health insurance, medically underserved, education, and income.

Participants: Random and purposeful sampling that represents the demographics of the community including women who have experienced barriers to access and/or women who are not knowledgeable of resources.

Focus Group Size: 6-10 participants, with 10 being the max, with three focus groups per target area.

Incentive: $10 grocery store gift card

Questions: Based on quantitative report, the biggest concern was access to resources.
   1. What resources are you aware of in your community for breast health?
   2. How has your experience been in accessing those resources?
   3. If you have faced challenges, what are those challenges?
   4. How did you become aware of resources?
   5. What ideas do you have for reaching more women about the resources in your area?

Focus Group Flow:
   • Snacks and water available as participants enter.
   • Ask them to fill out informed consent and demographics form, ask any questions if they have them.
   • Begin focus group by introducing me and sharing discussion will be recorded, but no personal identification will be associated with specific individuals. Review informed consent.
   • Begin asking questions.
   • Facilitate discussion for approximately one hour, and then wrap up conversation by thanking them for coming, then hand out gift cards to each participant.
Appendix D. Breast Health and Breast Cancer Provider Survey

This survey is for individuals that provide breast health services to women that reside in Southwest Virginia. The Blue Ridge Affiliate of Susan G. Komen has been conducting focus groups with women in your community about their access to breast health resources. As providers, we want to hear from you how we can better serve, educate and bring awareness to women about breast health in your community. This survey will only take about 15 minutes and your feedback will be shared with the Blue Ridge Affiliate to assist in making informed decisions about how best to serve women in Southwest Virginia.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you can withdraw from the survey at any point. It is very important for us to learn your opinions. If you have questions at any time about the survey or the procedures, you may contact Jeananne Knies at 540-231-0099 or by email at jttiffany@vt.edu.

Thank you very much for your time and support. Please start with the survey now by clicking on the “Continue” button below.

1. What options best describes the community your serve?
   - [ ] Martinsville/Henry County/Patrick County
   - [ ] Lynchburg
   - [ ] Danville
   - [ ] Wythe County
   - [ ] Roanoke City/Roanoke County/Radford

2. From your perspective, what factors prevent women from seeking breast health care in your community?

3. From your perspective, what factors prevent women from following through on a referral for a mammogram in your community?

4. From your perspective, what types of services are needed to assist women in seeking and completing recommended breast health care in your community?

5. From your perspective, what types of programs are needed to assist women in seeking and completing recommended breast health care in your community?

6. From your perspective, what health care system changes are needed to assist women in seeking and completing recommended breast health care in your community?

7. From your perspective, what else can be done to best serve the women in your community?

8. Please provide your role at the health care practice. (ex: director, physician, medical assistant, etc.).