



SUSAN G. KOMEN® MID-MISSOURI

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Susan G. Komen Community Profile Team

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## Introduction

#### **Affiliate History**

Nancy G. Brinker promised her dying sister, Susan G. Komen, she would do everything in her power to end breast cancer forever. In 1982, that promise became Susan G. Komen<sup>®</sup>, which launched the global breast cancer movement. Today, Susan G. Komen is the world's largest grassroots network of breast cancer survivors and activists fighting to save lives, empower people, ensure quality care for all and energize science to find the cures. Thanks to events like the Susan G. Komen Race for the Cure<sup>®</sup>, Komen has invested over \$1 billion in the past 25 years to fulfill its promise, becoming the world's largest source of private funds dedicated to breast cancer research and the fight against breast cancer. For more information about Susan G. Komen, breast health care and/or breast cancer, visit www.komen.org.

Susan G. Komen Mid-Missouri was founded in 2006 by the concerted efforts of five Boone County women with a variety of connections to breast cancer. In 2006, Komen Mid-Missouri became the third Affiliate in Missouri and joined more than 110 Affiliates around the country in the fight against breast cancer. It was at that time Komen Mid-Missouri hit the ground running, holding fundraising events, administering community grants, participating in local education and outreach events as well as contributing to national research.

The Komen Mid-Missouri community-based grants program supports non-profit organizations and health care organizations that provide innovative, evidenced-based projects in the areas of breast health and breast cancer education, outreach, screening, treatment and support programs targeting services that would not be available otherwise to the medically underserved populations in the Affiliate service area. Since its inception in 2006, Komen Mid-Missouri has raised just over \$1 million in the fight against breast cancer. Komen Mid-Missouri has funded 66 Community and small grants to 25 different institutions that served women in all 16 counties of the Affiliate service area.

The Affiliate's community-based grants program is made possible through local events, individual donations and the generous support of corporate sponsors for the Komen Mid-Missouri Race for the Cure. For additional information on Komen Mid-Missouri, please visit: <a href="https://www.komenmidmissouri.org">www.komenmidmissouri.org</a>.

The Affiliate's Executive Director currently sits on the Show Me Healthy Women Advisory Board (Missouri BCCT program) and has participated in the State Cancer Coalition efforts to pass legislation in the state to help cancer patients to receive better care. Last year the oral chemo bill was passed in the Missouri Legislature.

#### **Affiliate Organizational Structure**

Komen Mid-Missouri Board of Directors is currently a governing board with nine members. The board is transitioning to a working board. The Affiliate has a full-time Executive Director and a part-time Affiliate Administrator. Affiliate current committees are: PR/Communications,

Governance, Grants, Fund Development, Finance, Education, Special Events, Race (includes survivor & volunteer) (Figure 1.1).

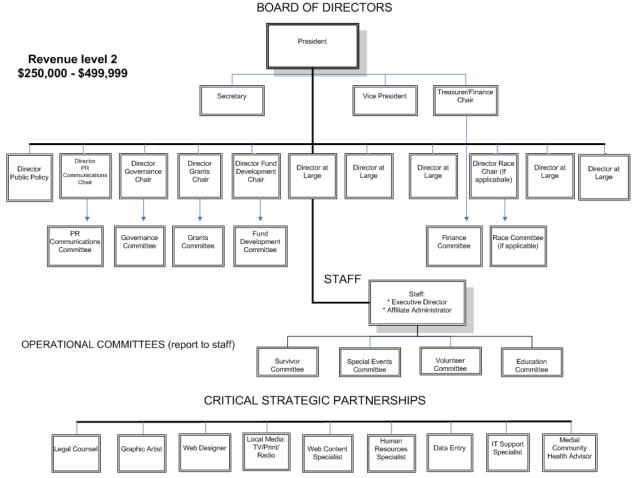


Figure 1.1. Komen Mid-Missouri organizational structure

#### **Affiliate Service Area**

The Komen Mid-Missouri service area serves a large geographic area located in the central Missouri region. Service area counties include: Adair, Audrain, Boone, Callaway, Camden, Chariton, Cole, Cooper, Howard, Macon, Maries, Miller, Moniteau, Morgan, Osage and Randolph (Figure 1.2). These counties include approximately 9,000 square miles. Most of the service area counties are rural farming communities.

## KOMEN MID-MISSOURI SERVICE AREA

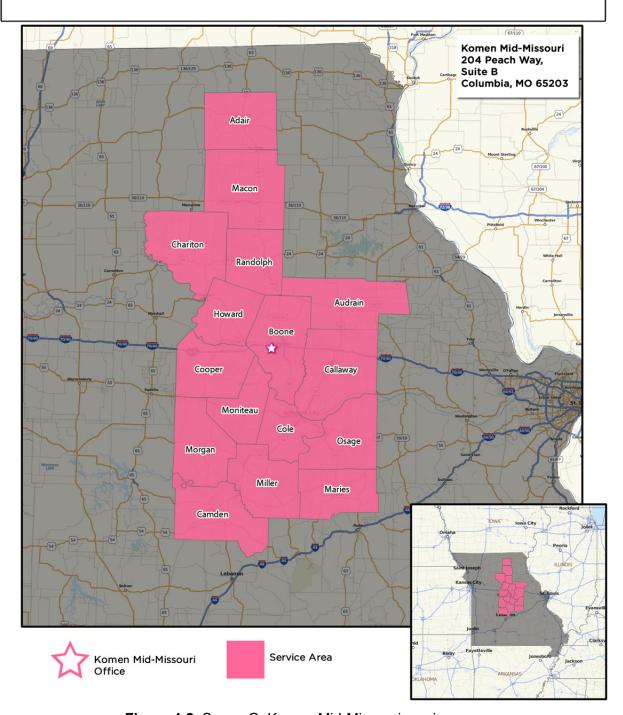


Figure 1.2. Susan G. Komen Mid-Missouri service area

#### **Purpose of the Community Profile Report**

The primary intent of the 2015 Community Profile process undertaken by Komen Mid-Missouri was to better understand the community the Affiliate serves. The Community Profile should 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.

The Community Profile guides the following Affiliate activities:

- Promotion of inclusion efforts in the breast cancer community
- Guidance in community grant priorities
- Informing public policy efforts
- Determining outreach and education needs
- Informing fundraising efforts

The 2015 Community Profile for Mid-Missouri will be shared with Affiliate grantees, health care systems, legislators and other community stakeholders.

# Quantitative Data: Measuring Breast Cancer Impact in Local Communities

#### **Quantitative Data Report**

#### Introduction

The purpose of the quantitative data report for Susan G. Komen<sup>®</sup> Mid-Missouri 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 objectives for breast cancer late-stage diagnosis and death rates (<a href="http://www.healthypeople.gov/2020/default.aspx">http://www.healthypeople.gov/2020/default.aspx</a>).

The following is a summary of Komen Mid-Missouri'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 (<a href="http://seer.cancer.gov/tools/ssm/">http://seer.cancer.gov/tools/ssm/</a>). 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

		Incidence Rates and Trends		Death Rates and Trends			Late-stage Rates and Trends			
Population Group	Female Population (Annual Average)	# of New Cases (Annual Average)	Age- adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of Deaths (Annual Average)	Age- adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of New Cases (Annual Average)	Age- adjusted Rate/ 100,000	Trend (Annual Percent Change)
US	154,540,194	198,602	122.1	-0.2%	40,736	22.6	-1.9%	70,218	43.7	-1.2%
HP2020		-	-	-	-	20.6*	-	-	41.0*	-
Missouri	3,024,156	4,264	121.5	0.0%	890	24.2	-1.5%	1,574	45.7	-0.1%
Komen Mid-Missouri Service Area	267,364	362	121.3	-2.6%	74	24.0	NA	123	42.0	-6.1%
White	245,148	340	120.0	-2.5%	71	23.9	NA	112	40.4	-6.0%
Black/African-American	16,179	16	152.3	-5.0%	SN	SN	SN	8	76.3	-10.8%
American Indian/Alaska Native (AIAN)	1,318	SN	SN	SN	SN	SN	SN	SN	SN	SN
Asian Pacific Islander (API)	4,719	SN	SN	SN	SN	SN	SN	SN	SN	SN
Non-Hispanic/ Latina	262,025	361	122.3	-2.6%	74	24.1	NA	123	42.4	-6.0%
Hispanic/ Latina	5,339	SN	SN	SN	SN	SN	SN	SN	SN	SN
Adair County - MO	13,292	13	102.5	-14.3%	4	29.9	NA	5	41.6	-17.8%
Audrain County - MO	13,868	25	147.4	10.5%	3	20.8	NA	9	55.9	15.5%
Boone County - MO	81,437	93	129.5	-4.2%	17	23.2	-2.5%	31	43.0	-8.0%
Callaway County - MO	21,286	28	119.7	1.2%	5	24.0	-3.3%	10	45.8	3.6%
Camden County - MO	21,688	42	130.9	-3.0%	8	22.5	-0.4%	13	41.0	6.5%
Chariton County - MO	3,987	8	149.2	-6.4%	SN	SN	SN	3	59.2	1.2%
Cole County - MO	36,929	53	129.5	-3.7%	11	26.0	-1.1%	15	39.0	-20.9%
Cooper County - MO	8,282	15	131.8	-8.0%	3	25.4	NA	6	58.4	-18.8%
Howard County - MO	5,112	6	92.0	-12.4%	SN	SN	SN	SN	SN	SN
Macon County - MO	7,909	14	129.5	-5.7%	4	34.2	NA	4	41.9	-4.9%
Maries County - MO	4,577	4	70.4	-14.2%	SN	SN	SN	SN	SN	SN
Miller County - MO	12,479	14	92.7	-3.6%	3	22.2	-1.9%	6	39.3	-5.9%
Moniteau County - MO	7,299	8	97.5	13.4%	SN	SN	SN	SN	SN	SN
Morgan County - MO	10,369	14	88.3	2.2%	SN	SN	SN	4	24.0	21.0%
Osage County - MO	6,656	8	93.2	2.0%	SN	SN	SN	SN	SN	SN
Randolph County - MO	12,193	17	115.7	-6.4%	4	25.3	-3.6%	6	41.3	-17.0%

<sup>\*</sup>Target as of the writing of this report.

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 2006-2010.

Rates are in cases or deaths per 100,000.

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

Source of incidence and late-stage data: North American association of Central Cancer Registries (NAACCR) – Cancer in North America (CINA) Deluxe Analytic File.

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 Mid-Missouri service area was similar to that observed in the US as a whole and the incidence trend was lower than the US as a whole. The incidence rate and trend of the Affiliate service area were not significantly different than that observed for the State of Missouri.

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 Asians and Pacific Islanders (APIs) and American Indians and Alaska Natives (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 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 incidence rate was significantly lower in the following counties:

- Maries County
- Morgan County

The rest of the counties had incidence rates and trends that were not significantly different than the Affiliate service area 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 Mid-Missouri 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 Missouri.

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. There were not enough data available within the Affiliate service area to report on Blacks/African-Americans, 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.

None of the counties in the Affiliate service area had substantially different death rates than the Affiliate service area as a whole.

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

Overall, the breast cancer late-stage incidence rate in the Komen Mid-Missouri service area was slightly lower than that observed in the US as a whole and the late-stage incidence trend was lower 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 Missouri.

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.

None of the counties in the Affiliate service area had substantially different late-stage incidence rates than the Affiliate service area as a whole.

#### **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\*

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

<sup>\*</sup>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

Population Group	# of Women Interviewed (Sample Size)	# w/ Self- Reported Mammogram	Proportion Screened (Weighted Average)	Confidence Interval of Proportion Screened
US	174,796	133,399	77.5%	77.2%-77.7%
Missouri	2,778	2,055	77.0%	74.9%-79.0%
Komen Mid-Missouri Service Area	263	197	76.5%	68.9%-82.7%
White	252	189	76.1%	68.4%-82.4%
Black/African-American	SN	SN	SN	SN
AIAN	SN	SN	SN	SN
API	SN	SN	SN	SN
Hispanic/ Latina	SN	SN	SN	SN
Non-Hispanic/ Latina	259	195	76.5%	68.9%-82.8%
Adair County - MO	23	14	63.2%	37.4%-83.1%
Audrain County - MO	12	7	65.1%	31.3%-88.4%
Boone County - MO	61	50	83.4%	66.7%-92.7%
Callaway County - MO	17	14	76.0%	42.5%-93.1%
Camden County - MO	25	16	64.7%	38.3%-84.4%
Chariton County - MO	SN	SN	SN	SN
Cole County - MO	29	23	85.7%	63.9%-95.3%
Cooper County - MO	SN	SN	SN	SN
Howard County - MO	SN	SN	SN	SN
Macon County - MO	18	15	73.3%	39.8%-91.9%
Maries County - MO	SN	SN	SN	SN
Miller County - MO	15	9	60.8%	29.8%-85.0%
Moniteau County - MO	SN	SN	SN	SN
Morgan County - MO	13	9	77.8%	50.3%-92.4%
Osage County - MO	SN	SN	SN	SN
Randolph County - MO	31	26	85.8%	62.4%-95.6%

 $\ensuremath{\mathsf{SN}}$  – data suppressed due to small numbers (fewer than 10 samples).

Data are for 2012.

Source: CDC - Behavioral Risk Factor Surveillance System (BRFSS).

#### Breast cancer screening proportions summary

The breast cancer screening proportion in the Komen Mid-Missouri 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 Missouri.

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 AlANs are similar to those among Whites. Screening proportions among Hispanics/Latinas are similar to those among Non-Hispanic Whites and Blacks/African-Americans. There were not enough data available within the Affiliate service area to report on Blacks/African-Americans, APIs, and AlANs 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.

None of the counties in the Affiliate service area had substantially different screening proportions than the Affiliate service area 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

		•		4.4010		<u> </u>			
Population Group	White	Black /African- American	AIAN	API	Non- Hispanic /Latina	Hispanic /Latina	Female Age 40 Plus	Female Age 50 Plus	Female Age 65 Plus
US	78.8 %	14.1 %	1.4 %	5.8 %	83.8 %	16.2 %	48.3 %	34.5 %	14.8 %
Missouri	84.6 %	12.7 %	0.6 %	2.1 %	96.5 %	3.5 %	49.3 %	36.0 %	15.8 %
Komen Mid-Missouri Service Area	91.1 %	6.4 %	0.5 %	2.0 %	97.7 %	2.3 %	47.4 %	35.0 %	15.3 %
Adair County - MO	95.2 %	2.1 %	0.3 %	2.3 %	97.8 %	2.2 %	39.4 %	29.5 %	14.0 %
Audrain County - MO	90.6 %	8.4 %	0.5 %	0.5 %	97.9 %	2.1 %	49.1 %	36.2 %	17.3 %
Boone County - MO	84.7 %	10.6 %	0.6 %	4.2 %	97.0 %	3.0 %	38.4 %	26.9 %	10.4 %
Callaway County - MO	94.1 %	4.3 %	0.7 %	0.9 %	98.3 %	1.7 %	48.7 %	35.0 %	14.3 %
Camden County - MO	97.9 %	0.7 %	0.7 %	0.7 %	97.8 %	2.2 %	62.1 %	49.7 %	22.7 %
Chariton County - MO	97.0 %	2.4 %	0.4 %	0.2 %	99.6 %	0.4 %	57.7 %	46.6 %	24.1 %
Cole County - MO	87.6 %	10.3 %	0.5 %	1.6 %	97.5 %	2.5 %	48.8 %	35.5 %	14.4 %
Cooper County - MO	94.1 %	4.8 %	0.5 %	0.7 %	98.6 %	1.4 %	53.4 %	40.1 %	18.3 %
Howard County - MO	92.9 %	5.9 %	0.6 %	0.5 %	98.6 %	1.4 %	50.5 %	38.6 %	17.1 %
Macon County - MO	96.1 %	2.9 %	0.3 %	0.7 %	99.0 %	1.0 %	55.3 %	43.3 %	22.3 %
Maries County - MO	98.4 %	0.7 %	0.7 %	0.2 %	99.2 %	0.8 %	55.2 %	41.1 %	19.4 %
Miller County - MO	97.7 %	0.9 %	0.7 %	0.6 %	98.5 %	1.5 %	51.5 %	38.3 %	17.2 %
Moniteau County - MO	98.1 %	0.9 %	0.4 %	0.7 %	96.3 %	3.7 %	48.7 %	35.3 %	16.2 %
Morgan County - MO	97.6 %	1.1 %	0.8 %	0.5 %	98.3 %	1.7 %	58.5 %	46.4 %	23.4 %
Osage County - MO	98.9 %	0.6 %	0.3 %	0.2 %	99.3 %	0.7 %	51.2 %	36.6 %	17.4 %
Randolph County - MO	94.2 %	4.8 %	0.4 %	0.6 %	98.3 %	1.7 %	49.9 %	37.0 %	17.2 %

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

Population Group	Less than HS Education	Income Below 100% Poverty	Income Below 250% Poverty (Age: 40-64)	Un- employed	Foreign Born	Linguistic- ally Isolated	In Rural Areas	In Medically Under- served Areas	No Health Insurance (Age: 40-64)
US	14.6 %	14.3 %	33.3 %	8.7 %	12.8 %	4.7 %	19.3 %	23.3 %	16.6 %
Missouri	13.2 %	14.3 %	34.4 %	8.1 %	3.8 %	1.3 %	29.6 %	22.9 %	15.4 %
Komen Mid-Missouri Service Area	12.3 %	15.8 %	35.7 %	6.5 %	3.0 %	1.1 %	46.5 %	10.7 %	15.4 %
Adair County - MO	12.7 %	25.3 %	43.3 %	7.3 %	2.7 %	0.2 %	37.9 %	0.0 %	16.1 %
Audrain County - MO	17.1 %	17.2 %	41.7 %	6.8 %	1.4 %	1.4 %	41.2 %	4.7 %	17.7 %
Boone County - MO	7.6 %	19.2 %	30.6 %	6.0 %	6.1 %	2.3 %	18.8 %	0.0 %	13.2 %
Callaway County - MO	13.3 %	11.1 %	33.5 %	5.5 %	1.4 %	0.2 %	62.0 %	3.3 %	13.2 %
Camden County - MO	10.2 %	13.1 %	37.2 %	7.0 %	1.9 %	0.7 %	74.2 %	32.6 %	17.4 %
Chariton County - MO	16.0 %	14.6 %	37.7 %	4.6 %	0.6 %	0.0 %	100.0 %	100.0 %	16.8 %
Cole County - MO	10.5 %	10.7 %	26.4 %	4.8 %	2.9 %	0.8 %	29.1 %	0.0 %	12.0 %
Cooper County - MO	15.7 %	14.7 %	38.9 %	9.0 %	1.3 %	0.2 %	53.2 %	0.0 %	15.4 %
Howard County - MO	14.7 %	14.1 %	38.5 %	7.1 %	1.4 %	0.1 %	64.1 %	100.0 %	16.3 %
Macon County - MO	15.6 %	13.2 %	42.8 %	5.9 %	0.2 %	0.2 %	67.8 %	9.8 %	17.4 %
Maries County - MO	19.3 %	15.4 %	45.5 %	10.1 %	1.2 %	0.8 %	100.0 %	100.0 %	20.6 %
Miller County - MO	16.8 %	17.1 %	46.9 %	8.1 %	1.4 %	0.3 %	79.8 %	29.6 %	20.6 %
Moniteau County - MO	18.4 %	12.4 %	37.4 %	5.5 %	1.8 %	1.5 %	52.7 %	0.0 %	19.5 %
Morgan County - MO	19.1 %	18.4 %	50.6 %	12.3 %	1.3 %	2.0 %	100.0 %	0.0 %	21.9 %
Osage County - MO	12.9 %	10.5 %	35.0 %	3.3 %	0.3 %	0.2 %	100.0 %	26.2 %	15.8 %
Randolph County - MO	17.4 %	17.8 %	43.0 %	7.3 %	1.2 %	0.4 %	45.2 %	3.8 %	16.2 %

Data are in the percentage of people (men and women) in the population.

Source of health insurance data: US Census Bureau – Small Area Health Insurance Estimates (SAHIE) for 2011.

Source of rural population data: US Census Bureau - Census 2010.

Source of medically underserved data: Health Resources and Services Administration (HRSA) for 2013.

Source of other data: US Census Bureau - American Community Survey (ACS) for 2007-2011.

#### Population characteristics summary

Proportionately, the Komen Mid-Missouri service area has a substantially larger White female population than the US as a whole, a substantially smaller Black/African-American female population, a substantially smaller Asian and Pacific Islander (API) female population, a smaller American Indian and Alaska Native (AIAN) female population, and a substantially smaller Hispanic/Latina female population. The Affiliate's female population is about the same age as that of the US as a whole. The Affiliate's education level is slightly higher than and income level is slightly lower than those of the US as a whole. There are a 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

living in rural areas, a slightly smaller percentage of people without health insurance, and a substantially smaller percentage of people living in medically underserved areas.

The following counties have substantially older female population percentages than that of the Affiliate service area as a whole:

- Camden County
- Chariton County
- Macon County
- Morgan County

The following counties have substantially lower education levels than that of the Affiliate service area as a whole:

- Maries County
- Moniteau County
- Morgan County
- Randolph County

The following county has substantially lower income levels than that of the Affiliate service area as a whole:

Adair County

The following counties have substantially lower employment levels than that of the Affiliate service area as a whole:

- Maries County
- Morgan County

The following counties have substantially larger percentage of adults without health insurance than does the Affiliate service area as a whole:

- Maries County
- Miller County
- Morgan County

#### **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 Mid-Missouri 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 death rates and late-stage diagnoses 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

		Time to A	Time to Achieve Late-stage Incidence Reduction Target				
		13 years or longer	7-12 yrs.	0 – 6 yrs.	Currently meets target	Unknown	
	13 years or longer	Highest	High	Medium High	Medium	Highest	
Time to Achieve Death Rate	7-12 yrs.	High	Medium High	Medium	Medium Low	Medium High	
Reduction Target	0 – 6 yrs.	Medium High	Medium	Medium Low	Low	Medium Low	
	Currently meets target	Medium	Medium Low	Low	Lowest	Lowest	
	Unknown	Highest	Medium High	Medium Low	Lowest	Unknown	

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 Mid-Missouri service area with predicted time to achieve the HP2020 breast cancer targets and key population characteristics

Callaway County - MO  Medium High  5 years  13 years or longer  Cole County - MO  Medium Low  NA  1 year  Boone County - MO  Medium Low  NA  1 year  Cooper County - MO  Medium Low  NA  2 years  Macon County - MO  Medium Low  NA  1 year  NA  2 years  Macon County - MO  Medium Low  NA  1 year  Cooper County - MO  Medium Low  NA  1 year  Miller County - MO  Medium Low  A years  Currently meets target  Randolph County - MO  Low  4 years  Currently meets Randolph County - MO  Undetermined  NA  NA  Ru  Ru  Ru  Ru  Ru  Ru  Ru  Ru  Ru  R	County Priori	Predicted Time to Achieve Death Rat Target		Key Population Characteristics
Chariton County - MO Highest SN 13 years or longer  Morgan County - MO Highest SN 13 years or longer Old  Callaway County - MO Medium High 5 years 13 years or longer  Cole County - MO Medium Medium Low NA 1 year  Boone County - MO Medium Low NA 2 years  Macon County - MO Medium Low NA 1 year  Macon County - MO Medium Low NA 1 year  Macon County - MO Medium Low NA 1 year  Miller County - MO Medium Low NA 1 year  Currently meets target  NA 1 year  Medium Low NA 1 year  Cooper County - MO Medium Low NA 1 year  Miller County - MO Medium Low NA 1 year  NA 1 year  NA 1 year  Miller County - MO Medium Low NA 1 year  NA 1 year  Miller County - MO Medium Low NA 1 year  NA 1 year  NA 1 year	County - MO Highe	NA	13 years or longer	
Morgan County - MO Highest SN 13 years or longer Old Callaway County - MO Medium High 5 years 13 years or longer  Cole County - MO Medium Low NA 1 year  Boone County - MO Medium Low NA 2 years  Macon County - MO Medium Low NA 1 year  Medium Low NA 1 year  Cooper County - MO Medium Low NA 1 year  Macon County - MO Medium Low NA 1 year  Miller County - MO Medium Low A years Currently meets target  Rundolph County - MO Medium Low NA	County - MO Highe	13 years or longer	ger 13 years or longer	Older, rural, medically underserved
Callaway County - MO  Medium High  5 years  13 years or longer  Currently meets target  Adair County - MO  Medium Low  NA  1 year  Boone County - MO  Medium Low  NA  2 years  Macon County - MO  Medium Low  NA  1 year  Cooper County - MO  Medium Low  NA  1 year  County - MO  Medium Low  NA  1 year  Currently meets target  1 year  Cooper County - MO  Medium Low  NA  1 year  Miller County - MO  Medium Low  4 years  Currently meets target  Rundolph County - MO  Low  4 years  Currently meets Runget  Howard County - MO  Undetermined  SN  SN  Ru	County - MO Highe	SN	13 years or longer	Older, rural, medically underserved
Cole County - MO  Medium  Medium Low  NA  1 year  Boone County - MO  Medium Low  NA  1 year  1 year  Cooper County - MO  Medium Low  NA  2 years  Macon County - MO  Medium Low  NA  1 year  Medium Low  NA  1 year  Cooper County - MO  Medium Low  NA  1 year  Miller County - MO  Medium Low  A years  Currently meets target  Randolph County - MO  Medium Low  A years  Currently meets target  Ru  Howard County - MO  Undetermined  SN  SN  Ru	County - MO Highe	SN	13 years or longer	Older, education, employment, rural, insurance
Adair County - MO Medium Low NA 1 year  Boone County - MO Medium Low 5 years 1 year  Cooper County - MO Medium Low NA 2 years  Macon County - MO Medium Low NA 1 year  Randolph County - MO Medium Low 6 years 1 year  Miller County - MO Low 4 years Currently meets target  Howard County - MO Undetermined SN SN Ru	County - MO Medium	5 years	13 years or longer	Rural
Boone County - MO Medium Low 5 years 1 year  Cooper County - MO Medium Low NA 2 years  Macon County - MO Medium Low NA 1 year  Randolph County - MO Medium Low 6 years 1 year  Miller County - MO Low 4 years Currently meets target  Howard County - MO Undetermined SN SN Ru	nty - MO Mediu	13 years or longer	-	
Cooper County - MO Medium Low NA 2 years  Macon County - MO Medium Low NA 1 year  Randolph County - MO Medium Low 6 years 1 year  Miller County - MO Low 4 years Currently meets target  Howard County - MO Undetermined SN SN Ru	ınty - MO Medium	NA	1 year	Poverty
Macon County - MO  Medium Low  NA  1 year  Randolph County - MO  Medium Low  6 years  1 year  Miller County - MO  Low  4 years  Currently meets target  Howard County - MO  Undetermined  SN  SN  Ru	ounty - MO Medium	5 years	1 year	
Randolph County - MO Medium Low 6 years 1 year  Miller County - MO Low 4 years Currently meets target  Howard County - MO Undetermined SN SN Ru	ounty - MO Medium	NA	2 years	Rural
Miller County - MO  Low 4 years Currently meets target  Howard County - MO Undetermined SN SN Ru	ounty - MO Medium	NA	1 year	Older, rural
Howard County - MO Undetermined SN SN Ru	County - MO Medium	6 years	1 year	Education
	unty - MO Low	4 years	· · · · · · · · · · · · · · · · · · ·	Rural, insurance, medically underserved
Maries County - MO Undetermined SN SN Edu	County - MO Undeterm	SN	SN	Rural, medically underserved
	ounty - MO Undeterm	SN	SN	Education, employment, rural, insurance, medically underserved
Moniteau County - MO Undetermined SN SN	County - MO Undeterm	SN	SN	Education, rural
Osage County - MO Undetermined SN SN Ru	ounty - MO Undeterm	SN	SN	Rural, medically underserved

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.

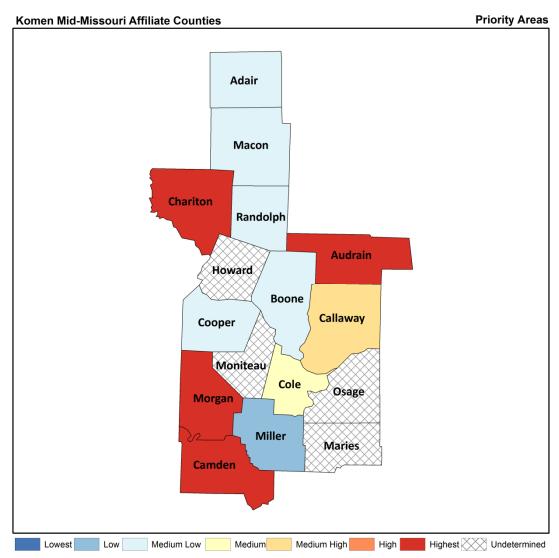


Figure 2.1. Intervention priorities

#### **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

Four counties in the Komen Mid-Missouri service area are in the highest priority category. One of the four, Camden County is not likely to meet either the death rate or late-stage incidence rate HP2020 targets. Three of the four, Audrain County, Chariton County and Morgan County, are not likely to meet the late-stage incidence rate HP2020 target.

Camden County has an older population. Chariton County has an older population. Morgan County has an older population, low education levels and high unemployment.

#### Medium high priority areas

One county in the Komen Mid-Missouri service area is in the medium high priority category. Callaway County is not likely to meet the late-stage incidence rate HP2020 target.

#### **Selection of Target Communities**

In order to be the most efficient stewards of resources, Susan G. Komen Mid-Missouri has chosen four target communities within its 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 Healthy People 2020 (HP2020), a major federal government initiative that provides specific health objectives for communities and the country as a whole. Specific to Komen Mid-Missouri's work, goals around reducing women's death rate from breast cancer and reducing the number of breast cancers found at a late-stage were analyzed. Through this review, areas of priority were identified based on the time needed to meet Healthy People 2020 targets for breast cancer.

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
- Residents who are linguistically isolated and/or foreign born

#### The selected target communities:

- Audrain County, Missouri
- Camden County, Missouri
- Chariton County, Missouri
- Morgan County, Missouri

**Audrain County, Missouri (Mexico, MO)**: Audrain County, Missouri is comprised of four towns, (Mexico, being the largest), four villages, and two unincorporated towns. It is a rural county located along highway 54 in Missouri. The county's 13,868 women represent the third largest diverse population in the Affiliate's service area. However, only 8.4 percent of these women are Black, which is lower than both the national and state average; but higher than the service area's average. There is no information regarding the death rate for Black/African-American women as the data are suppressed due to small numbers.

Audrain has been identified as a high priority county due to the amount of intervention time needed to achieve the HP2020 late-stage target. Late-stage breast cancer rate for Audrain County was 55.9 per 100,000 cases. This is higher than the target rate of 41.0, as well as the Affiliate service area rate (42.0). Audrain County will not achieve the HP2020 target. Audrain County has the second highest incidence rate among the Affiliate's service area counties. It also has the third highest late-state rate among the Affiliate's service area counties.

The county's death rate of breast cancer was 20.8 per 100,000 (Table 2.8). Due to the data for the small number of people, it cannot be predicted whether Audrain County will reach the death rate target.

**Table 2.8.** Audrain County breast cancer statistics

Measurement	Audrain County	Affiliate Service Area Rate	US Rate
Incidence Rate*	147.4	121.3	122.1
Death Rates*	20.8	24.0	22.6
Late-Stage Rates*	55.9	42.0	43.7

<sup>\*</sup>Rates are age-adjusted and are figured per 100,000 women

Screening percentages in Audrain County are lower than the United States; and the service area averages and socioeconomic data for the county show several concerning areas. Audrain County residents have a higher percentage of individuals with less than a high school education compared to the national and the Affiliate's averages. In addition, residents are more likely to have an income below the 250 percent poverty level, and a high percentage of individuals with no health insurance.

Residents within Audrain County have access to a hospital that is located within its county. However, it appears that many residents would benefit from services within their area at no-to reduced cost. The actual availability of these services will be reviewed in a health system analysis.

Camden County, Missouri (Lake Ozarks, MO): Camden County, Missouri is comprised of fourteen towns (Camdenton, Lake Ozark and Osage Beach, being the largest). It is a rural county located along highway 54 in Missouri. However, a large portion of this county is considered a high tourism attraction for the state of Missouri. The county's' female population of 21,688 is made up primarily of White women at 97.9 percent. However, only 0.7 percent of these women are Black, which is lower than the national, state and the service area's averages. There is no information regarding the death rate for Black/African-American women as the data are suppressed due to small numbers.

Camden has been identified as a high priority county due to the amount of intervention time needed to achieve the HP2020 targets. For instance, the county's death rate of breast cancer was 22.5 per 100,000 (Table 2.9). It is predicted that the number of years needed to achieve the target rate is 13 or more.

 Table 2.9. Camden County breast cancer statistics

		Affiliate	
	Camden	Service	US
Measurement	County	Area Rate	Rate
Incidence Rate*	130.9	121.3	122.1
Death Rates*	22.5	24.0	22.6
Late-Stage Rates*	41.0	42.0	43.7

<sup>\*</sup>Rates are age-adjusted and are figured per 100,000 women

Late-stage breast cancer rate for Camden County was 41.0 per 100,000 cases. Even though this county currently meets the HP2020 target, the trend is increasing at a rate that it should be treated the same as a county that will not meet the target. It is predicted that the number of years needed to achieve the target rate is 13 or more.

Screening percentages in Camden County are lower than the United States; and the service area averages and socioeconomic data for the county show several concerning areas. Camden County residents are more likely to have an income below the 250 percent poverty level, and a higher percentage of individuals with no health insurance than both the national and Affiliate averages. Camden County is also the fourth highest county for being medically underserved for health services.

Residents within Camden County have access to a hospital that is located within its county. However, it appears that many residents would benefit from services within their area at no-to reduced cost. Health services outside the main city of Camden County, Lake Ozarks/Camdenton/Osage Beach need to be reviewed as they appear to be limited. The actual availability of these services will be reviewed in a health system analysis.

Chariton County, Missouri (Salisbury, MO): Chariton County, Missouri is comprised of fourteen towns (Salisbury and Brunswick being the largest). It is an extremely rural county located along route 24 in Missouri. The county's female population of 3,987 is made up primarily of White women at 97.0 percent. However, only 2.4 percent of these women are Black/African-American, which is lower than the national, state and the service area's averages. There is no information regarding the death rate for Black/African-American women as the data are suppressed due to small numbers.

Chariton has been identified as a high priority county due to the amount of intervention time needed to achieve the HP2020 targets. For instance, the county's late-stage breast cancer rate is 59.2 per 100,000 (Table 2.10). This is the highest among all the counties within the Affiliate's service area. It is predicted that the number of years needed to achieve the HP2020 target rate is 13 or more. Chariton County has the highest incidence rate among the Affiliate's service area counties.

Measurement	Chariton County	Affiliate Service Area Rate	US Rate
Incidence Rate*	149.2	121.3	122.1
Death Rates*	SN	24.0	22.6
Late-Stage Rates*	59.2	42.0	43.7

Table 2.10. Chariton County breast cancer statistics

Screening percentages in Chariton County were not reported due to the small number. However, Chariton County's socioeconomic data show several concerning areas. Chariton County residents have a higher percentage of individuals with less than a high school education

<sup>\*</sup>Rates are age-adjusted and are figured per 100,000 women

compared to the national and the Affiliate's averages; in addition they are more likely to have an income below the 250 percent poverty level, and a high percentage of individuals with no health insurance.

Chariton County is also considered to be a medically underserved area (100 percent). There are very limited health services available for Chariton County resident. The nearest rural hospital is located a county away; while the nearest major medical center is located over an hour away. The actual availability of these services will be reviewed in a health system analysis.

**Morgan County, Missouri (Versailles, MO)**: Morgan County, Missouri is comprised of nine towns (Versailles is the largest). It is an extremely rural county located along route 50 in Missouri. The county's female population of 10,369 is made up primarily of White women at 97.6 percent. However, only 1.1 percent of these women are Black/African-American, which is lower than the national, state and the service area's averages. There is no information regarding the death rate for Black/African-American women as the data are suppressed due to small numbers.

Morgan has been identified as a high priority county due to the amount of intervention time needed to achieve the HP2020 targets. For instance, the county's late-stage breast cancer rate is 24.0 per 100,000. Even though this county currently meets the HP2020 target, the trend is increasing at a rate that it should be treated the same as a county that will not meet the target. It is predicted that the number of years needed to achieve the target rate is 13 or more. Morgan County's incidence rate has shown a slight increase however, it is still below both the national and Affiliate's service area averages (Table 2.11).

In addition, Morgan County women (ages 50-74) self-reported obtaining a screening mammogram within the last two years at a rate higher than national and Affiliate's service area averages. This might account for the slight increase in the breast cancer incidence rate within this county.

Measurement	Morgan County	Affiliate Service Area Rate	US Rate
Incidence Rate*	88.3	121.3	122.1
Death Rates*	SN	24.0	22.6
Late-Stage Rates*	24.0	42.0	43.7

**Table 2.11.** Morgan County breast cancer statistics

Morgan County's socioeconomic data show several concerning areas. Morgan County residents have a higher percentage of individuals with less than a high school education compared to the national and the Affiliate's averages. In addition, Morgan County residents are more likely to have an income below the 250 percent poverty level, the highest among all counties within the Affiliate's service area, and the highest percentage of individuals with no health insurance.

<sup>\*</sup>Rates are age-adjusted and are figured per 100,000 women

However, Morgan County reportedly has no medically underserved areas. There are limited health services available for Morgan County residents. The nearest rural hospital is located a county away; while the nearest major medical center is located over an hour away. The actual availability of these services will be reviewed in a health system analysis.

## **Health Systems and Public Policy Analysis**

## **Health Systems Analysis Data Sources**

Susan G. Komen Mid-Missouri utilized multiple sources for comprehensive understanding regarding the programs within the service area. The information and data gathered from these resources were obtained and analyzed in order to create an accurate depiction of the systems and services impacting breast health in the target communities of Mid-Missouri. The three sources included: internet research, in-person discussions with health care members in the community and phone calls to area health care providers.

The service area was divided into three regions: northern, southern/western and eastern counties within the service area. Information was obtained for services provided within these counties. The team also reviewed health services provided by counties bordering the service area, as patients are likely to travel to health services closest to their residence. The data collection took place over a period of two months, from June 1, 2014 – July 28, 2014. An initial search for health services was conducted via internet through reliable sources such as:

- Mammography centers: US Food and Drug Administration (http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfMQSA/mgsa.cfm)
- **Hospitals:** Medicare (<a href="https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/v287-28n3">https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/v287-28n3</a>)
- Health Departments: National Association of County and City Health Officials (<a href="http://www.naccho.org/about/lhd/">http://www.naccho.org/about/lhd/</a>)
- **Community Health Centers:** Health Resources and Services Administrations (http://findahealthcenter.hrsa.gov/Search\_HCC.aspxH)
- Free Clinics: National Association of Free and Charitable Clinics (<a href="http://www.nafcclinics.org/clinics/search">http://www.nafcclinics.org/clinics/search</a>)

In addition to the websites listed above, the Affiliate team utilized the following websites to obtain a more local picture of the breast health services available in Mid-Missouri:

- Healthgrades: (http://www.healthgrades.com/)
- Missouri Hospital Association: (<a href="http://web.mhanet.com/">http://web.mhanet.com/</a>)
- Missouri Rural Health Association: (http://www.morha.org/)
- Missouri Department of Health & Senior Services: (<a href="http://health.mo.gov/index.php">http://health.mo.gov/index.php</a>)

An assessment regarding the quality of care received at health centers is critical in order to determine the level of services patients are receiving within the Affiliate service area. The following sources were utilized to identify the Quality of Care Certifications and Accreditations of the facilities:

- American College of Surgeons Commission on Cancer: (http://datalinks.facs.org/cpm/CPMApprovedHospitals Search.htm)
- American College of Radiology Centers of Excellence: (<a href="http://www.acr.org/Quality-Safety/Accreditation/Accredited-Facility-Search">http://www.acr.org/Quality-Safety/Accreditation/Accredited-Facility-Search</a>)
- American College of Surgeons National Accreditation Program for Breast Centers (NAPBC): (http://napbc-breast.org/resources/find.html)
- National Cancer Institute Designated Cancer Centers:
   (<a href="http://www.cancer.gov/researchandfunding/extramural/cancercenters/find-a-cancercenter">http://www.cancer.gov/researchandfunding/extramural/cancercenters/find-a-cancercenter</a>)

Research regarding the public policy initiative within the state of Missouri concluded the Affiliate analysis. Public policy plays a critical role in the success of breast health. The following sources were utilized to analyze the public policies impacting Komen Mid-Missouri service area:

- Kaiser Family Foundation
- Show Me Healthy Women
   (http://health.mo.gov/living/healthcondiseases/chronic/showmehealthywomen/)
- MO Cancer (http://www.mocancer.info)

For full reference list and more information, please see the references section of the Community Profile.

Once information was obtained from these sites, the team reviewed any gaps in the data, and conducted phone calls with area hospitals & clinics to see if additional outreach services were provided. The team also had access to a health care professional who knew the service area's health care environment, and provided information regarding any health services they might have missed in their initial assessment. The team also collected and reviewed data on the top hospitals within the state that provide breast cancer services. This information will be used to determine distance from counties within the Mid-Missouri service area and possible outreach initiatives.

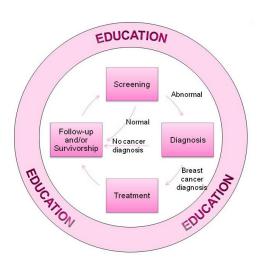
Bi-weekly meetings were held to review the findings and assess the progress of the project. Once the data was complete, a comprehensive review was conducted by the team in order to assess the gaps in health services in the service area. A point system was established in order to analyze the services within the area. The final score for the county depicted their lack of or access to breast cancer health care. Special emphasis was concentrated on the targeted communities selected to be reviewed by Komen Mid-Missouri: Audrain, Camden, Chariton and Morgan.

#### **Health Systems Overview**

#### **Continuum of Care**

Assurance of quality care is vital to achieve optimal breast cancer outcomes. The Breast Cancer Continuum of Care (CoC) provides a protocol of care for breast cancer services from screening to follow-up care (survivorship) (Figure 3.1). Although not all organizations are able to provide all breast health services, organizations should be able to refer a patient, as needed, to the appropriate resource.

The CoC begins with education. Education regarding self-exams and screenings is the first point of entry for women into the CoC. Women with normal results should be given follow-up care, including annual reminders to



**Figure 3.1.** Breast Cancer Continuum of Care (CoC)

follow-up for routine screenings. However, if a woman receives an abnormal reading in the screening process, she will continue in the CoC to the diagnosis stage. This may include further imaging care or a biopsy procedure. If a diagnosis is determined, the woman continues to the treatment stage of the CoC. Upon completion of treatment; she will continue to receive follow-up care and begin the CoC process. On the other hand, if a woman does not receive a breast cancer diagnosis, she will also return to the follow-up care stage of the CoC. Education regarding all aspects of breast health with the CoC and breast cancer should be integrated into each stage of the continuum.

Utilizing the Breast Cancer Continuum of Care as the standard of care for breast health, targeted communities are analyzed based on their health system's ability to provide all aspects of the CoC and with the highest level of quality achievable. This is vital in understanding where gaps and barriers in services lie within these counties. Gaps and barriers greatly impact breast cancer statistics and survival rates.

## **Analysis of Target Communities**

#### **Audrain County**

Although Audrain County has a hospital, there are still limited breast health services available to residents. Audrain Medical Center offers services for screening, diagnosis and follow-up care (Figure 3.2). They do have some onsite treatment services available; however, no surgical intervention. Komen Mid-Missouri has granted many screening and follow-up care grants within Audrain County, including funding sources to obtain a mammography for low income individuals. However, after review of the health systems analysis, a greater need for treatment within the county is needed. Audrain county residents are located about an hour from Boone County, which does provide treatment services for breast cancer, along with the entire spectrum of CoC services. Given that the screening percentages for Audrain County are lower than the service area along with high late-stage diagnosis in the county; there needs to be a greater emphasis on screening by health providers within the county. A greater need for outreach and education regarding screening services is needed in order to achieve improved rates for Audrain residents, since the health service providers are only located in the city of Mexico within Audrain County.

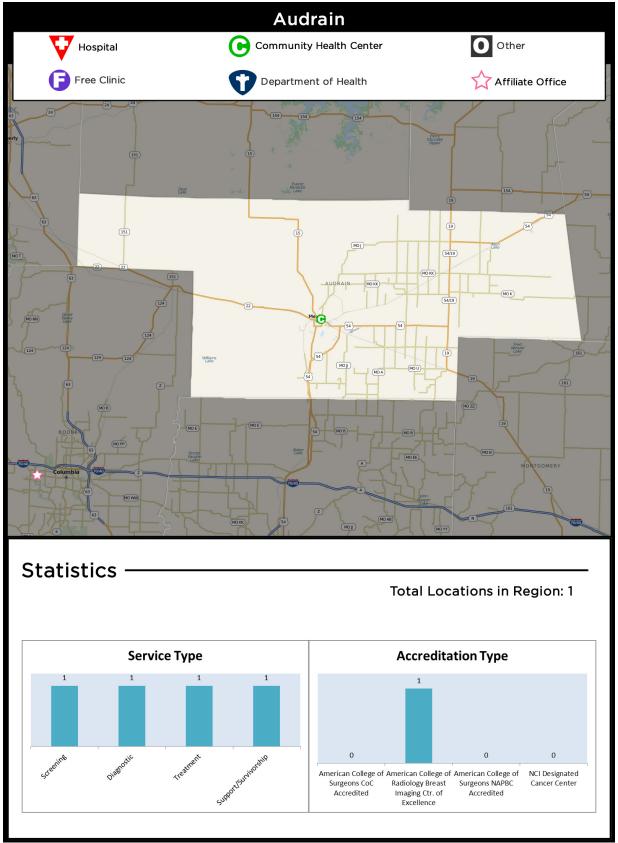


Figure 3.2. Breast cancer services available in Audrain County

## **Camden County**

Camden County has a substantial amount of breast health services available to residents through a hospital located within Camden County (Figure 3.3). However, Camden County has a relatively high number of breast cancer deaths and late-stage diagnosis rate. Although Camden County has a larger tourism city within it, much of the county is considered very rural. Given the high death rates and late-stage diagnosis, along with screening percentages lower than the service area, increased concentration and access throughout the county is needed. The analysis revealed that the services provided by the hospital within Camden County are not reaching all districts within the county. Those in other regions of the county have very few readily accessible breast health services. Komen Mid-Missouri will continue to look for ways to partner with Camden County in the future.

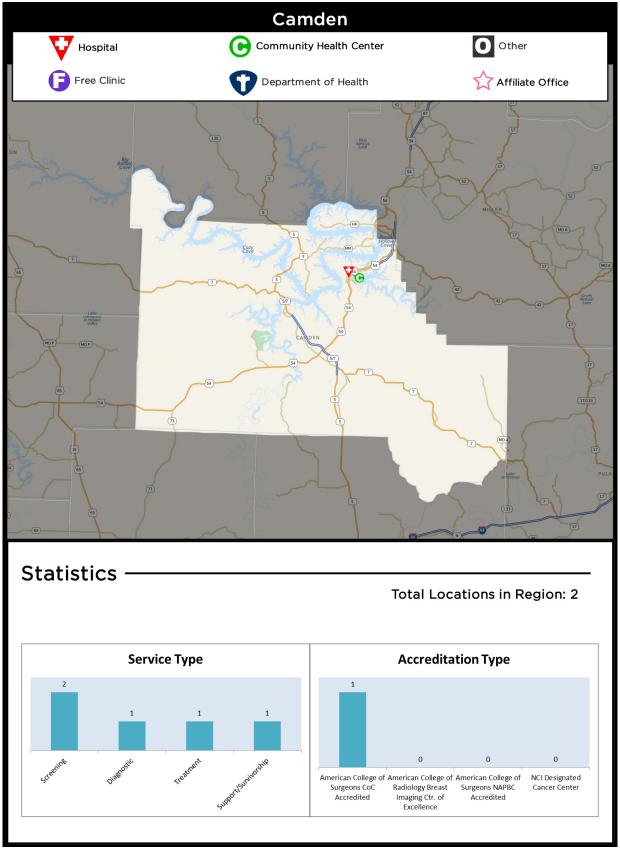


Figure 3.3. Breast cancer services available in Camden County

#### **Chariton County**

Chariton County lacks breast health services for its residents (Figure 3.4). Other than access to mammography through a mobile mammography van, there are only family health providers within the county for health care services. Chariton County residents are likely traveling over an hour away to Boone County for breast health services. As mentioned previously, Boone County provides all levels of breast care health through its two major hospitals, one of which is a major academic medical center, University of Missouri, who has partnered with MD Anderson Cancer Center. There are no outreach services provided for treatment or follow-up care within Chariton County. However, a county bordering Chariton County has a community hospital within it. This community hospital provides limited breast health services, mainly focusing on screening and diagnostic services. This still requires travel by Chariton County residents to receive this care. On the other hand, it provides a closer potential partner for Komen Mid-Missouri to improve access to breast health. Komen Mid-Missouri has not provided any direct grant funding to this county for breast services. However, Komen Mid-Missouri hopes to find partners in this community in the future to provide breast health education and barrier-reducing services.

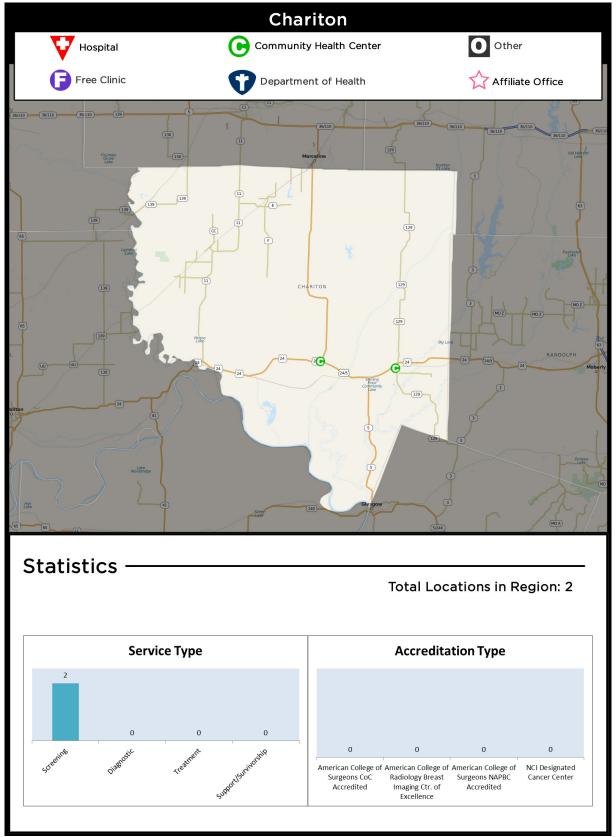


Figure 3.4. Breast cancer services available in Chariton County

## **Morgan County**

Morgan County lacks breast health services for its residents (Figure 3.5). Other than access to mammography through a mobile mammography van, there are only family health providers within the county for health care services. Morgan County residents are likely traveling over an hour away to either Cole or Boone County for breast health services. There are clinics located in this county that are affiliated with hospitals located in Cole County. As mentioned above, Boone County provides all levels of breast care health through its two major hospitals. Cole County has two large community hospitals that provide a wide range of breast health services from education to follow-up, including treatment. On the other hand, several bordering counties to Morgan provide very limited breast health services. These are mainly in screening and diagnostic care. This still requires travel by Morgan residents to receive services. There are no outreach services provided for treatment or follow-up care within Morgan County. Komen Mid-Missouri has provided funding within this county for breast cancer education. However, Komen Mid-Missouri hopes to find partners in this community in the future to provide breast health education and barrier-reducing services.

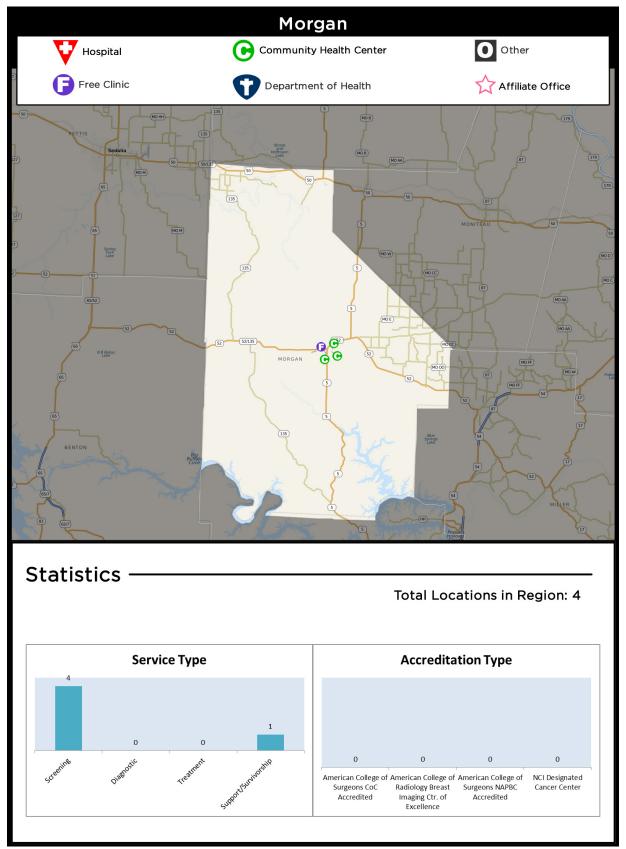


Figure 3.5. Breast cancer services available in Morgan County

## **Public Policy Overview**

## National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

The Centers for Disease Control and Prevention (CDC) provides low-income, uninsured, and underserved women access to timely, high-quality screening and diagnostic services through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). Through the NBCCEDP, uninsured women under age 65 who are diagnosed with cervical or breast cancer may have access to full Medicaid benefits under the Breast and Cervical Cancer Prevention and Treatment Act of 2000.

The NBCCEDP in Missouri, Show Me Healthy Women (SMHW), is managed by the Department of Health and Senior Services. There are approximately 189 facilities throughout the state of Missouri that provide these free cancer screenings. The objective of the SMHW program is to offer screening services to women who are considered high risk. SMHW defines a woman to be at "high risk" if she meets one of the following criteria elements: low income, over 50, little or no insurance, has rarely or never been screened, lives in a rural area, woman of color, or with disabilities.

SMHW is funded in part through a federal grant provided by the CDC. It also receives funding from the state general fund and has previously been funded by Komen Affiliates. Additionally, Missouri has a pink license plate fund which is administered by the Department of Revenue with a portion of proceeds being donated back to the program.

Women are enrolled into SMHW through a visit with a qualified provider of the program. The following women are eligible for SMHW:

- Age 35 to 64, or older if they do not receive Medicare Part B, and
- No insurance to cover program services
- Meeting the following income guidelines:

Persons in family/household 2014 Poverty guideline:

- 1 \$23,340
- 2 \$31.460
- 3 \$39,580
- 4 \$47,700
- 5 \$55,820
- 6 \$63,940
- 7 \$72,060
- 8 \$80,180

For families/households with more than eight persons, add \$8,120 for each additional person. Based on the US Census Bureau population estimates in 2012, 119,364 Missouri women, aged 35-64 (10.1 percent) are eligible for SMHW services. Statewide, SMHW provides services for about 9,000 to 10,000 women each year, identifying about 200 breast cancer cases.

SMHW has worked closely with the MO HealthNet (Missouri Medicaid) program since 2001, when legislation was signed for Missouri to participate in the Missouri Medicaid program. Free diagnostic or treatment services are available through MO HealthNet to women who are US citizens and diagnosed with breast or cervical abnormalities or cancer by a Show Me Healthy Women provider. Once enrolled, the woman is qualified for full MO HealthNet benefits along with medical services for cancer care.

Komen Mid-Missouri is an official listed partner of SMHW, as are the Kansas City and St. Louis Affiliates. Komen Mid-Missouri has also funded many grants provided by SMHW over the course of its funding history.

Three of the targeted communities: Camden, Chariton and Morgan counties have providers who are partnered with SMHW. SMHW also provides transportation for its covered patients to health services for breast care treatment.

## **State Comprehensive Cancer Control Coalitions**

The CDC started the National Comprehensive Cancer Control Program (NCCCP) to help states, tribes, and territories form coalitions to fight cancer. Missouri has State Comprehensive Cancer Control (CCC) Coalitions. These coalitions create and implement action plans in order to reduce cancer and enhance survivorship in their respective states.

The Missouri Cancer Control Unit is controlled through the Missouri Department of Health and Senior Services. This Unit released "The Burden of Cancer in Missouri- A Comprehensive Analysis and Plan" for the years 2010-2015. This plan includes one initiative relevant to breast cancer screening:

# GOAL: Increase early detection and appropriate screening for cancer using evidence-based guidelines

Objective 1: Increase the percentage of women who receive regular breast cancer screenings

**Measure**: Women over 50 who receive a screening mammogram in the past one or two years from 83.9% in 2008 to 90% in 2015 (BRFSS)

Target Audience: Missouri women ages 40 and over

#### Strategies:

- 1. Promote evidence-based interventions and recommended screening/early detection exams according to the American Cancer Society (ACS) guidelines
- 2. Disseminate information about Show Me Healthy Women and other breast and cervical screening services to all Missourians
- 3. Promote statewide and local media campaigns about the need for recommended breast and cervical cancer screening exams according to ACS

- 4. Increase health care providers' awareness of current cancer screening guidelines and follow-up recommendations
- 5. Analyze health insurance coverage for cancer screening/early detection exams to determine coverage needs in legislative process
- 6. Disseminate culturally sensitive information related to cancer screening/early detection
- 7. Identify geographic disparities to increase utilization

The Missouri Cancer Control Unit also aligns its goals with Healthy People 2020 objectives, including a goal to decrease late-stage breast cancer diagnosis in Missouri from 43.9 to 41.0 per 100,000 by the year 2020.

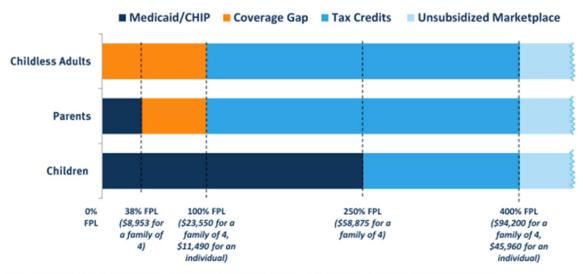
#### **Affordable Care Act**

The Affordable Care Act (ACA) works to expand access to care through insurance, enhance the quality of health care, improve coverage for those with insurance, and make health care more affordable. ACA mandates health insurance for Americans (with a few exemptions). ACA prohibits denying coverage based on pre-existing conditions, annual or lifetime caps, and rescinding coverage. It also establishes minimum benefit standards and coverage for preventative services.

For breast cancer, ACA impacts all parts of the continuum of care. ACA includes breast cancer education for young women, mammography as a required benefit, and increased access to clinical trials and patient navigation. Eliminating pre-condition exclusion and lifetime and annual caps are also vital for breast cancer treatment and follow-up care.

Despite these changes, issues are present. Undocumented immigrants, un-enrolled Medicaid eligible individuals, those exempt from the mandate, and those that choose not to enroll will remain without insurance. It is estimated that this will make up 30 million Americans who will remain uninsured in 2016.

Missouri has elected not to expand Medicaid at this time, resulting in a coverage gap for individuals not qualified for federal assistance (Figure 3.6). The authors of ACA had intended these individuals to be covered by individual state Medicaid expansions; however, Missouri has opted to not expand. Therefore, Missouri residents under age 65 and below the poverty line of \$11,490 for an individual and \$15,510 for a couple will not be eligible for government assistance. In Missouri, 93,000 of the 834,000 uninsured adults (11 percent of the uninsured) will likely fall into this gap.



Notes: Medicaid eligibility is based on current Medicaid eligibility rules converted to MAGI. Applies only to MAGI populations. Medicaid eligibility levels as a share of poverty vary slightly by family size; levels shown are for a family of four. People who have an affordable offer of coverage through their employer or other source of public coverage (such as Medicare or CHAMPUS) are ineligible for tax credits. Unauthorized immigrants are ineligible for either Medicaid/CHIP or Marketplace coverage.

Source: Kaiser Family Foundation analysis based on 2014 Medicaid eligibility levels.



Figure 3.6. Insurance coverage data

This coverage gap, as well as the previously mentioned exempt groups, will be a target population for Komen Mid-Missouri as the Affordable Care Act (ACA) goes into full effect. There are an estimated 1.7 million American women who will remain uninsured and will be eligible for breast screening through NBCCEDP. These women will most likely be more difficult to reach than those currently using these services (e.g. undocumented women may have limited English). As a result of this and the newly required coverage of screening, Komen Mid-Missouri's funding priorities may change. Education and patient navigation will be increasingly important to navigate the increasingly complex systems.

In addition, it will be important to continually educate the public on how the ACA has affected programs such as NBCCEDP. It is known that the implementation of ACA will not eliminate the need for the Show Me Healthy Women program. It will be important for Komen Mid-Missouri and other partners to continue to educate on the need for sustainable funding of these programs in the future.

Furthermore, the need of diagnostics and treatment will increase as screening percentages go up. Providers may need to adjust to higher screening percentages, making it difficult to provide for all women who need these services. However, at this time, the full future impacts of ACA are unknown. This will require Komen Mid-Missouri to be adaptable in the coming years as patients and providers adjust to the changes.

#### **Affiliate's Public Policy Activities**

Komen Mid-Missouri partners with Komen Kansas City and Komen St. Louis as an advocate for public policy initiatives that will further breast health care, research and treatment. This includes maintaining relationships with representatives in Missouri. In addition, Komen Mid-Missouri has

maintained relationships with other cancer advocacy groups, supporting advocacy efforts in the State of Missouri.

In the fall of 2013, Komen Mid-Missouri joined with Komen Kansas City and Komen St. Louis to partner with the Missouri Coalition for Cancer Treatment Access, a coalition focusing on coverage for oral anti-cancer drugs. The Leukemia and Lymphoma Society established this coalition. Other organizations involved in The Missouri Coalition for Cancer Treatment Access include St. Louis Breast Cancer Coalition, International Myeloma Foundation, and American Cancer Society Cancer Action Network. Together, these organizations educated and urged state legislators to pass legislation to assure that oral cancer treatments had equal out-of-pocket costs as Intravenously Infused (IV) medications. In March 2014, these efforts led to a bill being passed through Missouri lawmakers for the governor to sign into law.

Komen Mid-Missouri will continue to work with fellow Missouri Affiliates, Kansas City and St. Louis to help maintain state and federal BCCCEDP funding to Missouri SMHW.

In the future, Komen Mid-Missouri will continue to support Komen Kansas City in monitoring legislation and other advocacy related items which may need attention. Komen Mid-Missouri will continue support in advocating for federal funding of breast cancer research at the National Institutes of Health (NIH) and Department of Defense (DOD). Komen Mid-Missouri will work to protect federal and state funding for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) and advocate for Medicaid expansion in the state for the benefit of underserved women.

### **Health Systems and Public Policy Analysis Findings**

Komen Mid-Missouri target communities each face different but equally challenging barriers to breast health. While Audrain and Camden Counties have various services available in most of the areas of the Continuum of Care (COC), education and access remain lacking. Chariton and Morgan Counties lack readily available services in all areas of the COC. Residents of these counties face the barrier of traveling to other counties for many of their necessary screening, diagnostic, treatment, and survivorship services.

Public Policy and government programs are estimated to create more access to screenings in the near future; however, some gaps may remain. Funding priorities will shift to focus on reaching diverse populations and covering an increased amount of diagnostic and treatment services. Komen Mid-Missouri is prepared to be adaptable as the ACA is fully implemented. Komen Mid-Missouri currently has no grantees focused in the area of treatment, so this will be an area of emphasis as the need grows, to address the results of the shifts in public policy.

Through advocacy efforts and partnerships, Komen Mid-Missouri continues to be a voice for breast health in Missouri for its service area. Komen Mid-Missouri advocates for funding of breast health screening, research, and treatment programs.

## **Qualitative Data: Ensuring Community Input**

## **Qualitative Data Sources and Methodology Overview**

## Methodology

Based on the quantitative data and the health system analysis, Komen Mid-Missouri used surveys and key informant interviews in each target community to gather information related to services throughout the continuum of care.

Komen Mid-Missouri worked with four interns from the University of Missouri to gather and compile the data. The students are in the Masters of Public Health and Masters of Public Policy programs.

## **Community Surveys**

Community data collection was performed through surveys at three different events: the Missouri State Fair, Pride Fest in Columbia and the Komen Mid-Missouri Race for the Cure in October 2014 in Columbia, MO.

The survey asked 15 questions regarding how often the participant received a mammogram beginning at age 40 or beyond, ease of getting a mammogram, health insurance status, the primary reasons for not seeking an annual breast health screening, priorities of breast health services and basic demographic questions. For survivors, additional questions included the awareness of treatment options and breast cancer support group participation.

## Key informant interviews

Telephone interviews with breast health care providers in Mid-Missouri provided a more personal perspective with which to view the quantitative and health system data. The following questions were used as a general guide for each conversation with the interviewees providing supplemental information as the interviews progressed.

- Who or which group of women is the least likely to obtain regular breast cancer screening? Why do you think that is?
- About how many patients a month require a diagnostic mammogram referral? Where are they referred?
- Can you tell me about any kind of collaborative efforts among health practitioners to get women screened?
- What type of breast health campaigns or outreach services are available to encourage screening?
- What do you think are biggest barriers are for women in obtaining health services and mammography?

#### Sampling

## **Community Surveys**

The target group for surveys was female Missouri residents. Community survey data was gathered at three local events in Mid-Missouri: Missouri State Fair, Pride Fest and Susan G. Komen Mid-Missouri Race for the Cure. While the survey resulted in 254 participants who live in

Missouri, only those who reside within one of the target communities were used for further analysis. This resulted in a total of nine residents from Audrain, Camden, Chariton and Morgan counties completing the community survey (Table 4.1).

Table 4.1. Community surveys by target community

Target Community	Number of Participants
Audrain County	3
Camden County	2
Chariton County	1
Morgan County	3

## Key Informant Interviews

The population of interest for key informant interviews was health care professionals in the target communities of Audrain, Camden, Chariton and Morgan Counties. While attempts were made to get representation from each county, only two key informant interviews were completed – one from Audrain County and one from Chariton County (Table 4.2).

**Table 4.2.** Key informants by target community

	Number of Key Informant
Target Community	Interviews
Audrain County	1
Camden County	0
Chariton County	1
Morgan County	0

#### **Ethics**

Personal information was not collected on the provider surveys. Participants were told why the information was being collected and that the information would be used to inform decisions about breast health care services in the Affiliate area. Sources from the key informant interviews were not revealed in the report. The interviewed women all wish to remain anonymous, and only the informant from Audrain County wished to allow direct quotes. The consent forms from the interviews will be kept with the provider surveys.

## **Qualitative Data Overview**

Data from participants at three local events were collected through a paper survey. The paper survey was developed prior to completion of the health systems and public policy section. As a result, the survey questions did not match what the data had indicated were areas of importance. This survey was taken to three events in central Missouri. The Affiliate attended the Missouri State Fair, located about an hour from the Affiliate office, and took surveys for about seven hours one day. The Affiliate had hoped to gather surveys from a diverse section of central Missouri. The second location was the Pride Festival in Columbia. The Affiliate hoped to gather surveys from a more diverse population and maybe a more interested group of participants. The third location was the Race for the Cure. The hope was to get more surveys from the target

counties and from survivors. The data from the paper survey were entered into Microsoft Excel. Within Excel, the data were analyzed to determine common themes within each county and between the counties.

The key informant interviews occurred via phone. During the key informant interviews, interviewers documented the perceptions of the individuals in note format. After the interviews, the notes were analyzed for development of a summary of each interview.

### **Community Surveys**

A total of nine surveys were received from the target communities. All participants self-identified as White. A majority of the participants were 49 years of age and younger, had health insurance and had received a well-woman exam within the past 12 months. As a whole, the participants agreed that within their communities it was not difficult to get a mammogram, if needed.

### **Audrain County**

Three women from Audrain County participated in the community survey. When asked about the primary reason that people do not seek annual breast health screening, all three women indicated that no insurance or being underinsured was the main reason. There was a mix of responses on what needed to change to improve breast cancer services in the community. Some indicated that there needed to be an increase in breast cancer awareness and others indicated that more free examinations were needed.

#### Camden County

Two women from Camden County completed the community survey. When asked about the primary reason that people do not seek annual breast health screenings, both women indicated that no insurance or being underinsured was the main reason. One of the participants indicated that an increase in breast health awareness and free examinations may assist women in getting recommended services. Both agreed that financial assistance programs are needed for individuals undergoing breast cancer treatment.

## **Chariton County**

Only one person completed the community survey from Chariton County. This participant indicated three reasons that she believes women do not to receive screening services: no insurance/underinsured, lack of transportation and women being unaware that annual breast health visits are recommended. She indicated that increased awareness about breast cancer might assist in women understanding recommendations. In addition, she indicated that transportation and financial assistance programs are needed for women undergoing breast cancer treatment.

#### Morgan County

A total of three women from Morgan County participated in the community survey. When asked about the primary reason that people do not seek annual breast health screenings, all three women indicated that no insurance or being underinsured was the main reason. The women indicated that to assist women in receiving breast cancer screenings that more free screening

opportunities. In addition, to assist women who are diagnosed with breast cancer, financial assistance programs are needed to assist them in completing their treatment.

## **Key Informant Interviews**

In order to understand gaps in health coverage and barriers to breast health screening, key informant interviews were conducted with two Mid-Missouri health care professionals. Depending on the interview, Black/African-American women, Hispanic/Latina women, and women over 70 were all listed as groups who are unlikely to obtain breast health services, and one informant suggested that the current media or campaign technologies might not be appropriate for these demographics. Also, another informant observed that breast health awareness reaches a peak in October (national breast cancer awareness month), implying that breast health awareness activities are less visible other times of the year.

Some observations were similar from county to county, but each practitioner also provided a unique perspective on certain questions. Both women interviewed mentioned the related factors of those patients who are uninsured and the high cost of health care, as both the barriers to seeking care and of defining characteristics of groups that don't seek breast health services. When asked about available outreach or campaigns, all the interviewees mentioned Show Me Healthy Women, the Ellis Fischel "mamm van" (the mobile mammography unit), and Komen's various activities.

The two key informant interviews were helpful in providing some insight into access barriers and gaps in coverage for Audrain County and Chariton County.

#### **Audrain County**

In Mexico, Missouri, Black/African-Americans are the least likely demographic of women to receive breast health services. However, there is reason to be optimistic, according to the key informant in Mexico. The more outreach conducted, the more likely Black/African-Americans are to get annual mammograms. "All women need to be reminded and educated," she said, "but African-Americans and Hispanics are most at-risk for breast cancer because they don't seek the services." A provider push is most important with those women, she said. In addition, she said, Hispanic/Latina women may not seek out care because of the language barrier.

Overall, though, SSM Health St. Mary's Hospital provides effective outreach. Providers there send about five to eight patients a month for diagnostic mammogram referral, and have received three grants from Komen Mid-Missouri for outreach services and breast health education. Also, the providers collaborate with local churches by connecting with health ministers, who are key figures in breast cancer outreach in Audrain County.

She cited Ellis Fischel's mammography van as being integral to encouraging screening in Audrain County. The van visits the rural health centers and is there for a whole day, allowing women who otherwise may not have been screened to receive mammograms and clinical breast exams. Show Me Healthy Women also plays a part in promoting and providing breast health services in Audrain County. From a provider's perspective, the Missouri Cancer Coalition

is also important, she said. The Coalition provides grants and awards for physician-scientists in support of cancer research.

Patients who are uninsured face the biggest barrier to breast health in Audrain County, she said, and transportation is a major issue for others. Individuals may not have insurance and live in remote areas that are far from rural health clinics and off the major mass transit routes. Therefore, providers at St. Mary's try to promote the Ellis Fischel Cancer Center mamm van and Show Me Healthy Women program to those who may not have money or the ability to travel long distances.

### **Chariton County**

A key informant in Chariton County feels the biggest barrier to breast health services is insurance. In Mid-Missouri, the ability to pay for health services is a major deterrent in seeking mammography or clinical breast exams. However, she said, Chariton County receives the services of a mobile mammography unit based out of the Ellis Fischel Cancer Center in Columbia, MO. The van visits 26 counties and 60 locations, providing free screenings if patients meet certain financial guidelines.

Chariton County is not a densely populated area, so practitioners at the Family Health Center do not see too many patients who need diagnostic mammogram referrals – perhaps only a couple per month, and they are typically referred to Ellis Fischel Cancer Center. Mammography van visits are the extent of breast health outreach services in Chariton County, but Family Health Center is a federally qualified clinic that requires practitioners to encourage breast health screenings, so word of mouth probably encourages the majority of screenings. The interviewee feels patients listen to that advice and seek services, whether from the mammography van or at Ellis. She also mentioned Show Me Healthy Women, which is a free breast and cervical health care service for the state of Missouri.

But fear is still a big barrier, she said. Communication and talking more about breast health can encourage women to overcome their fear and seek breast health services.

## **Qualitative Data Findings**

#### Limitations of the data

One limitation of the participant survey was the possible bias from different events. The assigned survey locations included people with different interests, which may have caused skewed answers due to their various level of awareness of breast cancer. Also, conducting a survey with a variety of questions rather than a shortened survey may have been a challenge for people at busy events. Survey conductors found some respondents did not agree with provided options.

Additionally, the surveys did not provide enough data for the target counties. If the Affiliate had realized this at an earlier time, it may have been able to try to reach more participants in those counties.

The same is true of the key informant interviews. It was difficult to get an adequate number of health professionals to respond to the emails and phone calls to set up the interviews.

Therefore, due to the limited number of surveys completed and key informant interviews from the target communities, the perspectives provided represent only those who participated in the surveys and key informant interviews and do not represent the general population of the community or providers as a whole.

#### Conclusions

Responses from the community surveys and key informant interviews found that being uninsured or underinsured may determine whether or not a woman seeks out breast cancer screening services. To assist women who may be at a higher risk of not entering the breast cancer continuum of care, survey participants and key informants indicated that year-long breast cancer awareness or education coupled with services provided via the mammography van that provides free services may assist women in receiving care. Programs such as Show Me Healthy Women and funders such as Komen Mid-Missouri are important in being able to provide needed services. In addition, to assist women diagnosed with breast cancer in completing recommended treatments, financial assistance programs (including transportation) are needed.

## **Mission Action Plan**

## **Breast Health and Breast Cancer Findings of the Target Communities**

Using data on female breast cancer death rates, late-stage diagnosis, and the time needed to reach Healthy People 2020 targets, as well as information on barriers to accessing quality breast cancer education, diagnosis and treatment that are prevalent in the service area, four counties – Audrain County, Camden County, Chariton County, and Morgan County - have been selected to be priority communities.

#### **Quantitative Data Summary**

Audrain County, Camden County, Chariton County and Morgan County are all in the highest priority category to achieve the Healthy People 2020 breast cancer targets and key populations. All four of the target communities will take 13 years or longer to achieve the late-stage incidence target for Healthy People 2020. Camden County is predicted to take 13 years or longer to achieve the Healthy People 2020 target for death rate as well.

Key population characteristics for Camden County, Chariton County and Morgan County include an older population and rural county demographics. Camden County and Chariton County are also considered medically underserved. Audrain County has lower screening percentages in comparison to the service area and United States.

## **Health Systems Analysis Summary**

In Audrain County there is one location that provides screening, diagnostic, treatment and survivorship services. In Camden County there are two locations that provide screening services and one location that provides diagnostic, treatment and survivorship services. In Chariton County there are two locations that provide screening services and no locations that provide diagnostic, treatment, or survivorship services. In Morgan County there are four locations that provide screening services and no locations that provide diagnostic or treatment services, one location that provides survivorship services. Komen Mid-Missouri target communities each face different but equally challenging barriers to breast health. While Audrain and Camden Counties have various services available in most of the areas of the Continuum of Care (COC), education and access remain lacking. Chariton and Morgan Counties lack readily available services in all areas of the COC. Residents of these counties face the barrier of traveling to other counties for many of their necessary screening, diagnostic, treatment, and survivorship services.

#### **Qualitative Data Summary**

Responses from the community surveys and key informant interviews found that being uninsured or underinsured may determine whether or not a woman seeks out breast cancer screening services. To assist women who may be at a higher risk of not entering the breast cancer continuum of care, survey participants and key informants indicated that year-long breast cancer awareness or education coupled with services provided via the mammography van that provides free services may assist women in receiving care. Programs such as Show Me Healthy Women and funders such as Komen Mid-Missouri are important in being able to provide needed services. In addition, to assist women diagnosed with breast cancer in

completing recommended treatments, financial assistance programs (including transportation) are needed.

#### **Mission Action Plan**

The Mission Action Plan was developed directly from quantitative and health system analysis data. Major themes were drawn from these data and priorities and objectives were set to address the concerns that were identified.

## **Audrain County**

**Problem Statement:** Audrain County is categorized as highest priority with predicted time to achieve the HP2020 breast cancer targets and key populations characteristics. The county is predicted 13 years or longer to achieve late-stage incidence targets for Healthy People2020. Quantitative Data provided showed that Audrain County has a high percentage of persons with no health insurance and who have incomes below 250 percent of the federal poverty level.

*Priority:* Increase access to low or reduced cost breast cancer services for women residing in Audrain County.

 Objective: From FY2017 through FY2019, Komen Mid-Missouri Community Grant Request for Application (RFA) will specify that evidence-based programs providing assistance for women in Audrain County to access available breast cancer services are a funding priority.

## **Camden County**

**Problem Statement:** Camden County is categorized as highest priority with predicted time to achieve the HP2020 breast cancer targets and key populations characteristics. The County is predicted to take 13 years or more to achieve death rate and late-stage incidence targets for Healthy People2020. According to Quantitative Data Camden County also has key characteristics that include an older, medically underserved and rural population that may have unique access barriers to breast cancer services.

*Priority:* Increase access to breast cancer services for women residing in Camden County.

Objective: From FY2017 through FY2019, the Komen Mid-Missouri
Community Grant Request for Application (RFA) will specify that evidencebased programs providing assistance for women in Camden County to
access available breast cancer services are a funding priority.

#### **Chariton County:**

**Problem Statement:** Chariton County is categorized as highest priority with predicted time to achieve the HP2020 breast cancer targets and key populations characteristics. The County is predicted to take 13 years or more to achieve late-stage incidence targets for Healthy People2020. According to Quantitative Data Chariton County also has key characteristics that

include an older, medically underserved and rural population that may have unique access barriers to breast cancer services.

*Priority:* Increase access to breast cancer services for rural, older and medically-underserved women residing in Chariton County.

Objectives: From FY2017 through FY2019, the Komen Mid-Missouri
Community Grant Request for Application (RFA) will specify that evidencebased programs providing assistance for women in Chariton County to
access available breast cancer services are a funding priority.

### **Morgan County**

**Problem Statement:** Morgan County is categorized as highest priority with predicted time to achieve the HP2020 breast cancer targets and key populations characteristics. The county is predicted to take 13 years or more to achieve late-stage incidence targets for Healthy People2020. According to Quantitative Data Morgan County also has key characteristics that include an older, lower education level, lower employment levels, lack of health insurance and rural population that may have unique access barriers to breast cancer services.

*Priority:* Increase access to low or reduced cost breast cancer services for women residing in Morgan County.

Objectives: From FY2017 through FY2019, the Komen Mid-Missouri
Community Grant Request for Application (RFA) will specify that evidencebased programs providing assistance for women in Morgan County to access
available breast cancer services are a funding priority.

## References

HP 2020. Healthy People 2020. US Department of Health and Human Services. December 2, 2010. Available online at <a href="http://www.healthypeople.gov/2020/about/">http://www.healthypeople.gov/2020/about/</a> (accessed 8/2/2013).

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