

Quantitative Data: Measuring Breast Cancer Impact in Local Communities

Quantitative Data Report

Introduction

The purpose of the quantitative data report for the Lowcountry Affiliate of Susan G. Komen® 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 mortality (<http://www.healthypeople.gov/2020/default.aspx>).

The following is a summary of the Komen Lowcountry Affiliate'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 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 1). Like incidence rates, death rates may be calculated for all women or for specific groups of women (e.g. Black 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 diagnosis

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 [SEER Summary Stage]. 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 1). Late-stage incidence rates are often shown in terms of 100,000 women and adjusted for age.

Table 1. Female breast cancer incidence rates and trends, death rates and trends, and late-stage rates and trends.

Population Group	Incidence Rates and Trends				Death Rates and Trends			Late-stage Rates and Trends		
	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	182,234	122.1	-0.2%	40,736	22.6	-1.9%	64,590	43.8	-1.2%
HP2020	-	-	-	-	-	20.6	-	-	41.0	-
South Carolina	2,316,194	3,267	122.3	-0.7%	638	23.5	-1.7%	1,212	45.9	-1.0%
Komen Lowcountry Affiliate Service Area	801,280	1,140	121.2	1.2%	218	23.0	NA	428	46.0	1.8%
White	515,036	802	122.5	0.7%	140	20.8	NA	277	43.2	1.9%
Black	270,411	318	116.1	1.8%	78	28.5	NA	145	53.0	1.8%
AIAN	4,164	SN	SN	SN	SN	SN	SN	SN	SN	SN
API	11,669	10	97.0	7.0%	SN	SN	SN	SN	SN	SN
Non-Hispanic/ Latina	768,430	1,127	121.7	0.9%	213	22.7	NA	421	46.1	1.7%
Hispanic/ Latina	32,850	14	81.7	20.6%	SN	SN	SN	7	43.5	5.2%
Allendale County - SC	4,974	8	126.1	0.5%	SN	SN	SN	SN	SN	SN
Bamberg County - SC	8,481	12	115.3	13.0%	SN	SN	SN	4	36.5	NA
Barnwell County - SC	11,859	16	112.4	7.4%	SN	SN	SN	6	45.4	11.8%
Beaufort County - SC	78,504	130	126.8	-1.6%	23	21.2	-2.7%	47	49.1	-0.7%
Berkeley County - SC	84,840	96	112.8	-1.2%	17	21.2	-2.7%	36	42.1	-4.4%
Calhoun County - SC	7,802	14	140.5	22.7%	SN	SN	SN	6	59.5	21.4%
Charleston County - SC	176,426	261	134.0	-2.6%	48	23.5	-1.9%	98	51.0	-3.5%
Colleton County - SC	20,141	27	104.8	8.9%	6	22.9	-0.8%	9	36.7	16.8%
Dorchester County - SC	66,540	84	125.3	6.8%	13	19.6	-0.1%	33	49.3	7.8%
Florence County - SC	71,547	100	122.0	-1.1%	22	26.5	-1.9%	41	51.1	-5.9%
Georgetown County - SC	31,535	57	129.5	0.1%	9	21.5	-0.9%	21	49.2	2.4%
Hampton County - SC	10,346	14	117.5	10.2%	SN	SN	SN	5	39.2	17.3%
Horry County - SC	131,798	194	114.1	1.5%	35	20.8	-2.5%	66	38.7	4.7%
Jasper County - SC	11,216	11	91.7	-4.8%	SN	SN	SN	5	44.4	-4.8%
Marion County - SC	18,183	25	112.2	7.9%	6	28.5	0.4%	9	42.8	20.9%
Orangeburg County - SC	49,126	70	122.5	3.2%	18	30.8	-0.8%	31	55.6	7.4%
Williamsburg County - SC	17,962	23	97.8	0.3%	6	30.2	-3.4%	8	36.1	-3.7%

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: NAACCR – CINA Deluxe Analytic File.

Source of death rate data: CDC – NCHS mortality data in SEER*Stat.

Source of death trend data: NCI/CDC State Cancer Profiles.

Incidence rates and trends summary

Overall, the breast cancer incidence rate in the Komen Lowcountry Affiliate service area was similar to that observed in the US as a whole and the incidence trend was higher 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 South Carolina.

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

The following county had an incidence rate **significantly higher** than the Affiliate service area as a whole:

- Charleston 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 Lowcountry Affiliate service area was similar to 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 South Carolina.

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

The following county had a death rate **significantly higher** than the Affiliate service area as a whole:

- Orangeburg County

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

Late-stage incidence rates and trends summary

Overall, the breast cancer late-stage incidence rate in the Komen Lowcountry Affiliate service area was slightly higher than that observed in the US as a whole and the late-stage incidence trend was higher than the US as a whole. The late-stage incidence rate and trend of the Affiliate service area were not significantly different than that observed for the State of South Carolina.

For the United States, late-stage incidence rates in Blacks 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 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. The late-stage incidence rate among Hispanics/Latinas was slightly lower than among Non-Hispanics/Latinas.

The late-stage incidence rate was significantly lower in the following county:

- Horry County

The rest of the counties had late-stage incidence rates and trends that were not significantly different than the Affiliate service area as a whole or did not have enough data available.

Mammography Screening

Getting regular screening mammograms (and treatment if diagnosed) lowers the risk of dying from breast cancer. Screening mammography can find breast cancer early, when the chances of survival are highest. Table 2 shows some screening recommendations among major organizations for women at average risk.

Table 2. Breast cancer screening recommendations for women at average risk.

Susan G. Komen	American Cancer Society	National Cancer Institute	National Comprehensive Cancer Network	US Preventive Services Task Force
Mammography every year starting at age 40	Mammography every year starting at age 40	Mammography every 1-2 years starting at age 40	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

Because having 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. BRFSS is the best and most widely used source available for information on mammography usage among women in the United States, although it does not collect data matching Komen screening recommendations (i.e. from women age 40 and older). The proportions in Table 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 Latina, but only 10.0 percent of the total women in the area are 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 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 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%
South Carolina	5,066	3,875	74.7%	73.1%-76.2%
Komen Lowcountry Affiliate Service Area	2,300	1,781	76.9%	74.6%-79.1%
White	1,542	1,177	75.9%	73.2%-78.5%
Black	704	566	80.3%	75.8%-84.1%
AIAN	15	8	54.0%	25.3%-80.3%
API	SN	SN	SN	SN
Hispanic/ Latina	17	13	80.9%	32.6%-97.4%
Non-Hispanic/ Latina	2,232	1,729	76.9%	74.5%-79.1%
Allendale County - SC	SN	SN	SN	SN
Bamberg County - SC	39	28	71.6%	52.6%-85.1%
Barnwell County - SC	39	24	64.1%	45.7%-79.1%
Beaufort County - SC	367	301	77.9%	71.8%-83.0%
Berkeley County - SC	157	119	81.0%	71.5%-87.9%
Calhoun County - SC	42	34	70.0%	48.9%-85.0%
Charleston County - SC	389	313	82.2%	76.7%-86.7%
Colleton County - SC	126	91	69.6%	58.2%-79.1%
Dorchester County - SC	70	51	76.2%	62.4%-86.1%
Florence County - SC	98	70	73.9%	61.9%-83.1%
Georgetown County - SC	166	136	82.7%	74.7%-88.5%
Hampton County - SC	57	46	82.5%	62.9%-92.9%
Horry County - SC	300	224	71.8%	65.3%-77.6%
Jasper County - SC	53	42	78.8%	62.8%-89.1%
Marion County - SC	71	51	69.9%	55.9%-81.0%
Orangeburg County - SC	187	150	80.2%	71.2%-86.9%
Williamsburg County - SC	139	101	77.2%	65.8%-85.5%

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 Lowcountry Affiliate 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 South Carolina.

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

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 4 and 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 4. Population characteristics – demographics.

Population Group	White	Black	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 %
South Carolina	68.2 %	29.6 %	0.5 %	1.6 %	95.4 %	4.6 %	49.5 %	36.0 %	15.5 %
Komen Lowcountry Affiliate Service Area	64.9 %	33.0 %	0.6 %	1.6 %	95.3 %	4.7 %	50.1 %	37.1 %	16.1 %
Allendale County - SC	24.1 %	75.2 %	0.2 %	0.5 %	97.9 %	2.1 %	53.2 %	40.4 %	16.9 %
Bamberg County - SC	35.8 %	63.3 %	0.4 %	0.5 %	98.6 %	1.4 %	51.9 %	39.7 %	18.3 %
Barnwell County - SC	52.6 %	46.3 %	0.4 %	0.6 %	98.5 %	1.5 %	51.1 %	37.6 %	16.3 %
Beaufort County - SC	76.6 %	21.3 %	0.5 %	1.6 %	89.4 %	10.6 %	54.6 %	43.6 %	22.1 %
Berkeley County - SC	69.0 %	27.4 %	0.8 %	2.8 %	94.6 %	5.4 %	45.0 %	30.7 %	11.3 %
Calhoun County - SC	53.3 %	45.9 %	0.4 %	0.4 %	97.3 %	2.7 %	56.5 %	42.5 %	18.1 %
Charleston County - SC	66.2 %	31.6 %	0.5 %	1.8 %	95.6 %	4.4 %	47.3 %	34.5 %	14.5 %
Colleton County - SC	57.0 %	41.5 %	0.9 %	0.6 %	97.6 %	2.4 %	52.7 %	39.1 %	17.3 %
Dorchester County - SC	69.5 %	27.5 %	0.7 %	2.3 %	95.7 %	4.3 %	45.7 %	30.8 %	11.7 %
Florence County - SC	54.5 %	43.8 %	0.4 %	1.3 %	97.9 %	2.1 %	48.8 %	35.3 %	15.1 %
Georgetown County - SC	63.8 %	35.3 %	0.3 %	0.6 %	97.4 %	2.6 %	59.2 %	46.7 %	21.5 %
Hampton County - SC	43.3 %	55.8 %	0.3 %	0.5 %	98.0 %	2.0 %	50.8 %	37.3 %	15.9 %
Horry County - SC	83.1 %	14.8 %	0.6 %	1.5 %	94.7 %	5.3 %	54.0 %	41.1 %	18.6 %
Jasper County - SC	50.0 %	48.4 %	0.5 %	1.0 %	87.7 %	12.3 %	46.7 %	33.0 %	13.3 %
Marion County - SC	40.4 %	58.4 %	0.5 %	0.7 %	97.8 %	2.2 %	52.6 %	39.8 %	16.8 %
Orangeburg County - SC	34.2 %	64.2 %	0.6 %	0.9 %	98.4 %	1.6 %	50.2 %	37.6 %	16.8 %
Williamsburg County - SC	31.9 %	67.2 %	0.4 %	0.4 %	99.0 %	1.0 %	53.8 %	40.8 %	17.3 %

Data are for 2011.

Data are in the percentage of women in the population.

Source: US Census Bureau – Population Estimates

Table 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 %
South Carolina	16.4 %	17.0 %	39.5 %	10.2 %	4.8 %	1.8 %	33.7 %	41.8 %	19.0 %
Komen Lowcountry Affiliate Service Area	14.6 %	17.5 %	40.4 %	10.3 %	5.2 %	1.9 %	32.9 %	59.2 %	20.1 %
Allendale County - SC	28.0 %	40.2 %	64.2 %	25.2 %	1.1 %	1.3 %	68.3 %	100.0 %	20.4 %
Bamberg County - SC	21.7 %	30.6 %	51.5 %	9.4 %	1.6 %	0.0 %	54.5 %	100.0 %	19.0 %
Barnwell County - SC	22.0 %	26.4 %	51.2 %	15.0 %	1.2 %	1.3 %	82.5 %	100.0 %	18.4 %
Beaufort County - SC	9.4 %	10.7 %	29.9 %	8.6 %	10.5 %	3.8 %	19.6 %	40.1 %	18.2 %
Berkeley County - SC	14.0 %	13.9 %	36.9 %	10.0 %	6.1 %	2.3 %	29.0 %	7.3 %	19.8 %
Calhoun County - SC	16.9 %	17.4 %	43.9 %	11.4 %	1.5 %	0.6 %	100.0 %	100.0 %	18.0 %
Charleston County - SC	12.1 %	16.8 %	35.2 %	8.7 %	5.6 %	1.8 %	10.9 %	29.3 %	17.7 %
Colleton County - SC	24.0 %	22.8 %	53.6 %	15.3 %	2.3 %	0.8 %	75.6 %	100.0 %	23.4 %
Dorchester County - SC	11.1 %	12.1 %	33.0 %	8.8 %	4.1 %	1.3 %	19.5 %	100.0 %	17.5 %
Florence County - SC	18.4 %	19.4 %	44.8 %	11.0 %	2.7 %	1.1 %	38.5 %	33.9 %	18.2 %
Georgetown County - SC	15.5 %	20.9 %	41.6 %	12.3 %	2.6 %	1.0 %	41.5 %	30.1 %	21.3 %
Hampton County - SC	23.4 %	22.6 %	51.9 %	14.2 %	2.5 %	0.9 %	78.5 %	100.0 %	20.9 %
Horry County - SC	12.6 %	16.7 %	41.2 %	9.8 %	6.6 %	2.4 %	30.4 %	100.0 %	24.3 %
Jasper County - SC	24.2 %	21.4 %	52.6 %	9.7 %	9.7 %	2.3 %	66.7 %	100.0 %	27.0 %
Marion County - SC	19.8 %	24.2 %	58.4 %	13.0 %	2.6 %	1.1 %	60.8 %	64.1 %	21.8 %
Orangeburg County - SC	21.6 %	24.5 %	51.7 %	13.7 %	1.9 %	1.2 %	63.8 %	100.0 %	21.5 %
Williamsburg County - SC	22.2 %	32.8 %	59.2 %	10.8 %	1.1 %	0.0 %	81.9 %	100.0 %	22.4 %

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 Lowcountry Affiliate service area has a substantially smaller White female population than the US as a whole, a substantially larger Black female population, a substantially smaller Asian and Pacific Islander (API) female population, a slightly smaller

American Indian and Alaska Native (AIAN) female population, and a substantially smaller Hispanic/Latina female population. The Affiliate's female population is slightly older than that of the US as a whole. The Affiliate's education level is similar to and income level is slightly lower than those of the US as a whole. There is a slightly larger 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 slightly smaller percentage of people who are linguistically isolated. There is a substantially larger percentage of people living in rural areas, a slightly larger percentage of people without health insurance, and a substantially larger percentage of people living in medically underserved areas.

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

- Allendale County
- Bamberg County
- Barnwell County
- Calhoun County
- Colleton County
- Florence County
- Hampton County
- Jasper County
- Marion County
- Orangeburg County
- Williamsburg County

The following counties have substantially larger Hispanic/Latina female population percentages than that of the Affiliate service area as a whole:

- Beaufort County
- Jasper County

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

- Beaufort County
- Georgetown County

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

- Allendale County
- Bamberg County
- Barnwell County
- Colleton County
- Hampton County
- Jasper County
- Marion County
- Orangeburg County
- Williamsburg County

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

- Allendale County
- Bamberg County
- Barnwell County
- Colleton County
- Hampton County
- Marion County
- Orangeburg County
- Williamsburg County

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

- Allendale County
- Barnwell County
- Colleton County
- Hampton County
- Orangeburg County

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

- Jasper 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 20.6 per 100,000 women).
- Reducing the number of breast cancers that are found at a late-stage (Target: 41.0 cases per 100,000 women).

To see how well counties in the Komen Lowcountry Affiliate service area are progressing toward this target, 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 it 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 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 6. Needs/priority classification based on the projected time to achieve HP2020 breast cancer targets.

		Time to Achieve Late-stage Incidence Reduction Target				
		13 years or longer	7-12 yrs.	0 – 6 yrs.	Currently meets target	Unknown
Time to Achieve Death Rate Reduction Target	13 years or longer	Highest	High	Medium High	Medium	Highest
	7-12 yrs.	High	Medium High	Medium	Medium Low	Medium High
	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 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 these tables should be considered together with other information on factors that affect breast cancer death rates such as screening rates and key breast cancer death determinants such as poverty and linguistic isolation.

Table 7. Intervention priorities for Komen Lowcountry Affiliate service area with predicted time to achieve the HP2020 breast cancer targets and key population characteristics.

County	Priority	Predicted Time to Achieve Death Rate Target	Predicted Time to Achieve Late-stage Incidence Target	Key Population Characteristics
Barnwell County - SC	Highest	SN	13 years or longer	%Black, education, poverty, employment, rural, medically underserved
Calhoun County - SC	Highest	SN	13 years or longer	%Black, rural, medically underserved
Colleton County - SC	Highest	13 years or longer	13 years or longer	%Black, education, poverty, employment, rural, medically underserved
Hampton County - SC	Highest	SN	13 years or longer	%Black, education, poverty, employment, rural, medically underserved
Marion County - SC	Highest	13 years or longer	13 years or longer	%Black, education, poverty, rural
Orangeburg County - SC	Highest	13 years or longer	13 years or longer	%Black, education, poverty, employment, rural, medically underserved
Beaufort County - SC	Medium High	2 years	13 years or longer	%Hispanic, foreign
Charleston County - SC	Medium High	7 years	7 years	
Florence County - SC	Medium High	13 years or longer	4 years	%Black, rural
Georgetown County - SC	Medium High	5 years	13 years or longer	Older, rural
Horry County - SC	Medium High	1 year	13 years or longer	Medically underserved
Dorchester County - SC	Medium	Currently meets target	13 years or longer	Medically underserved
Berkeley County - SC	Medium Low	2 years	1 year	
Jasper County - SC	Medium Low	SN	2 years	%Black, %Hispanic, education, rural, insurance, medically underserved
Williamsburg County - SC	Medium Low	12 years	Currently meets target	%Black, education, poverty, rural, medically underserved
Allendale County - SC	Undetermined	SN	SN	%Black, education, poverty, employment, rural, medically underserved
Bamberg County - SC	Undetermined	SN	NA	%Black, education, poverty, 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 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.

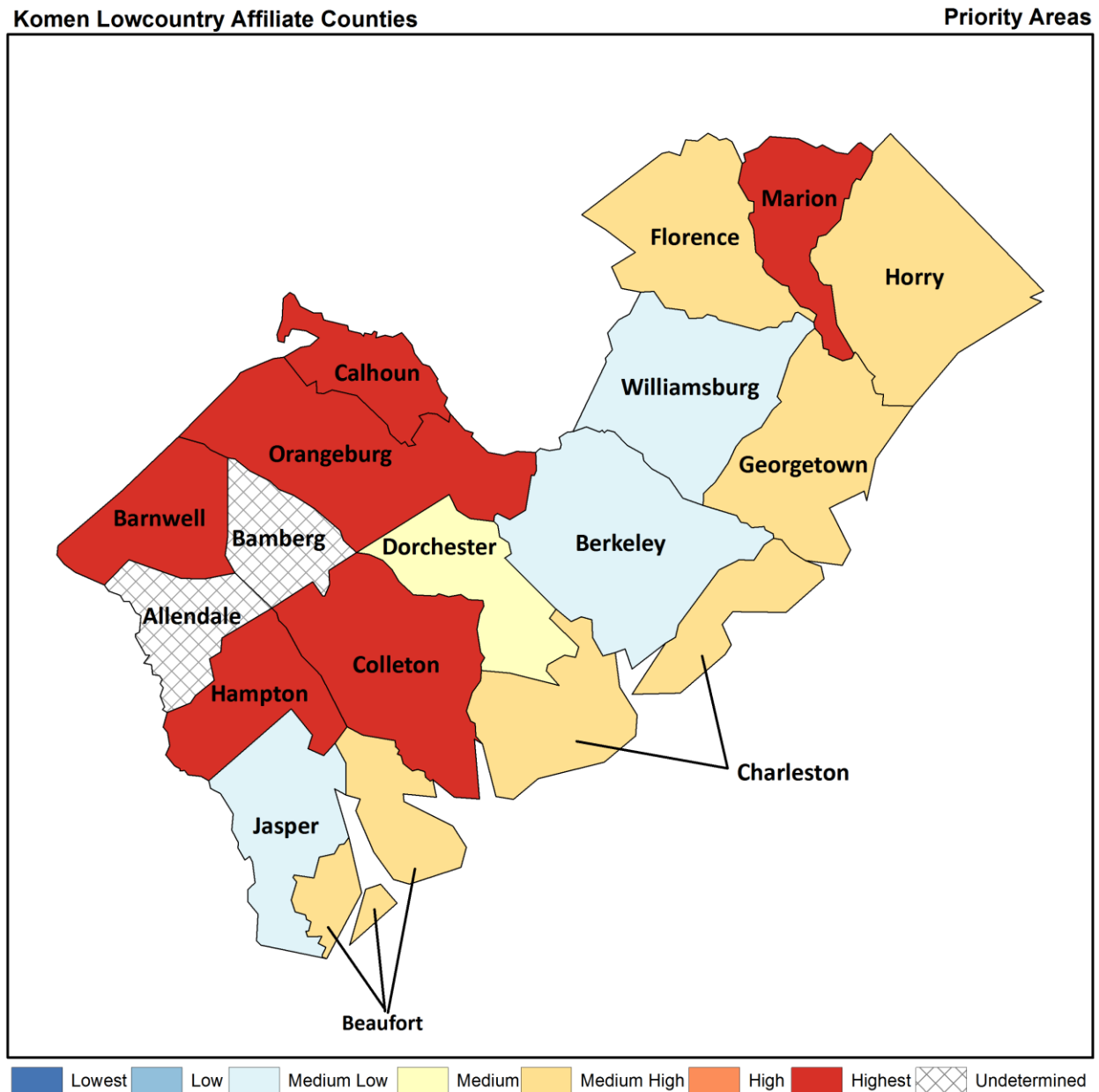


Figure 1. Intervention priorities.

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 mortality, 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

Six counties in the Komen Lowcountry Affiliate service area are in the highest priority category. Three of the six, Colleton County, Marion County and Orangeburg County, are not likely to meet either the death rate or late-stage incidence rate HP2020 targets. Three of the six, Barnwell County, Calhoun County and Hampton County, are not likely to meet the late-stage incidence rate HP2020 target.

The death rates in Orangeburg County (30.8 per 100,000) are significantly higher than the Affiliate service area as a whole (23.0 per 100,000).

Barnwell County has a relatively large Black population, low education levels, high poverty rates and high unemployment. Calhoun County has a relatively large Black population. Colleton County has a relatively large Black population, low education levels, high poverty rates and high unemployment. Hampton County has a relatively large Black population, low education levels, high poverty rates and high unemployment. Marion County has a relatively large Black population, low education levels and high poverty rates. Orangeburg County has a relatively large Black population, low education levels, high poverty rates and high unemployment.

Medium high priority areas

Five counties in the Komen Lowcountry Affiliate service area are in the medium high priority category. One of the five, Florence County is not likely to meet the death rate HP2020 target. Three of the five, Beaufort County, Georgetown County and Horry County, are not likely to meet the late-stage incidence rate HP2020 target. One of the five, Charleston County is expected to take seven years to reach both the death rate and late-stage incidence rate HP2020 targets.

The incidence rates in Charleston County (134.0 per 100,000) are significantly higher than the Affiliate service area as a whole (121.2 per 100,000).

Beaufort County has a relatively large Hispanic/Latina population and a relatively large foreign-born population. Florence County has a relatively large Black population. Georgetown County has a relatively older population.

Additional Quantitative Data Exploration (if applicable)

Selection of Target Communities