susan g. komen.

COMMUNITY PROFILE REPORT 2015

NORTH CENTRAL REGION

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ABOUT SUSAN G. KOMEN®

In 1980, Nancy G. Brinker promised her dying sister, Susan, that she would do everything in her power to end breast cancer forever. In 1982, that promise became a global movement. What started with $200 and a shoebox full of potential donor names has now grown into the world's largest nonprofit source of funding for the fight against breast cancer - the Susan G. Komen® organization.

Komen funds more breast cancer research than any other nonprofit organization outside of the US government while also providing real-time help to those facing the disease. Since 1982, Komen and its local Affiliates have funded more than $920 million in research and provided more than $2 billion for breast cancer screening, education and treatment programs serving millions of people in more than 30 countries worldwide.

Our efforts have contributed to advancements in early detection and treatment that have reduced death rates from breast cancer by 37 percent (between 1990 and 2013).

COMMUNITY PROFILE INTRODUCTION

The Community Profile is a needs assessment completed by Susan G. Komen and its Affiliates to assess breast cancer burden within the US by identifying areas at highest risk of negative breast cancer outcomes. Through the Community Profile, populations most at-risk of dying from breast cancer can be identified. The Community Profile provides detailed information about these populations, including demographic and socioeconomic characteristics, as well as, needs and disparities that exist in availability, access and utilization of quality care. This assessment allows Komen to make data-driven decisions in the development of collaborative opportunities, grant funding priorities and implementation of evidence-based community health programs that will meet the most urgent needs and address the most common barriers to breast cancer care in order to make the biggest impact.

This report contains data for Komen's North Central Region. This region includes the states of Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota and Wisconsin.

As of August 2016, there were 14 Komen Affiliates[1] located in the North Central Region:

- Komen Central Wisconsin
- Komen Chicagoland Area
- Komen Greater Kansas City
- Komen Iowa
- Komen Kansas
- Komen Memorial
- Komen Minnesota
- Komen Missouri
- Komen Nebraska
- Komen Quad Cities
- Komen Siouxland
- Komen South Central Wisconsin
- Komen South Dakota
- Komen Southeast Wisconsin

[1] While 15 Affiliates within the North Central Region completed the Community Profile process, only 14 remain due to mergers and/or dissolution

ANALYSIS OF THE 2015 COMMUNITY PROFILE DATA

Purpose

From 2014-2016, Komen Affiliates completed Community Profiles of their local service areas while Komen Headquarters completed State Community Profiles.

While Komen Affiliates provide services at the community level, they are also grouped into seven regions that provide an opportunity for collaboration on a multi-state level. Although local and state data are included in the Affiliate and State Community Profile Reports, regional data about breast cancer outcomes, needs and disparities are not. In addition, there is a lack of information regarding common strategies that Affiliates are implementing to address Community Profile findings.

Therefore, the Evaluation and Outcomes team at Komen Headquarters conducted an analysis of the Affiliate and State Community Profiles in order to compile data and provide a broader perspective of the results found within the Komen North Central Region. The data provided in this report are meant to aid Komen Headquarters and the Affiliates within the North Central Region in identifying issues and barriers to care that are common in the region, and enable Affiliates to work together to address common goals, when appropriate.

Methods

Komen Headquarters Evaluation and Outcomes team reviewed data from the nine State and 15 Affiliate Community Profile Reports[2] from the Komen North Central Region and compiled the available data this Komen North Central Regional Community Profile Report. Komen Regional reports.

Quantitative Data

To determine which communities (e.g., counties, cities) in the North Central Region bear the greatest burden of breast cancer, data representing all communities from the State Community Profiles were compared to Healthy People 2020 breast cancer targets, the benchmark for each community. Healthy People 2020 (HP2020) is a major federal government initiative that provides specific health objectives for communities and for the country as a whole. HP2020 has several cancer-related objectives, including the targets used in this report: reducing the number of breast cancers that are found at a late-stage and reducing women's death rate from breast cancer.

For this report, late-stage breast cancer is defined as regional (Stage III) or distant stage (Stage IV) using the Surveillance, Epidemiology and End Results (SEER)

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Summary Stage definitions (Young et al., 2001). The breast cancer late-stage diagnosis rate is calculated as the number of women with regional (Stage III) or distant (Stage IV) breast cancer at the time of diagnosis in a particular geographic area divided by the number of women living in that area. Late-stage diagnosis rates are presented in terms of 100,000 women and have been adjusted for age. Late-stage diagnosis rates are important because medical experts agree that it's best for breast cancer to be detected early. Women whose breast cancers are found at an early stage (Stage I or Stage II) usually need less aggressive treatment and do better overall than those whose cancers are found at a later stage (US Preventive Services Task Force, 2016).

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. 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 presented in terms of 100,000 women and have been adjusted for age.

The Evaluation and Outcomes team compiled breast cancer late-stage diagnosis and death rates and trends (changes over time) from the nine State Community Profile Reports reflecting the North Central Region. Communities that are predicted not to meet both the breast cancer late-stage diagnosis rate and death rate benchmarks are referred to as "Highest Priority" communities, since they carry the highest burden of breast cancer within the region.

The Evaluation and Outcomes team also compiled key demographic and socioeconomic characteristics from the State Community Profile Reports including race, ethnicity, age, education level, poverty, unemployment, immigration (i.e., foreign born), use of English language (e.g., linguistically isolated), medically underserved, rural areas and uninsured. These population characteristics are known to impact health outcomes and may provide information on the types of services and interventions necessary to alleviate the burden of breast cancer in these areas (Adler and Rehkopf, 2008; American Cancer Society, 2015a; American Cancer Society, 2015c; Braveman, 2010; Danforth, 2013; Lurie and Dubowitz, 2007; Robert Wood Johnson Foundation, 2008;).

The following sources were used for gathering the quantitative data:

- Death rate data: Centers for Disease Control and Prevention (CDC)- National Center for Health Statistics- Surveillance, Epidemiology and End Results (SEER)* Stat, 2006-2010
- Death trend data: National Cancer Institute (NCI) and CDC- State Cancer Profiles, 2006-2010
- Late-stage diagnosis and trends data: North American Association of Central Cancer Registries (NAACCR)-CINA Deluxe Analytic File, 2006-2010

- Race, ethnicity and age data: US Census Bureau- Population Estimates, 2011
- Education level, poverty, unemployment, immigration and use of English language data: US Census Bureau- American Community Survey, 2007-2011
- Rural population data: US Census Bureau- Census, 2010
- Medically underserved data: Health Resources and Services Administration, 2013
- Health insurance data: US Census Bureau- Small Area Health Insurance Estimates, 2011

Health System Analysis

The Evaluations and Outcomes team used a comprehensive internet search to identify and classify facilities offering breast cancer services including screening providers, diagnostic providers and treatment providers for each state.

The internet search included the following sites. For additional detail regarding the internet search please see Appendix A.

- Community Health Centers: http://nachc.org/about-our-health-centers/find-a-health-center/
- Title X: http://www.hhs.gov/opa/title-x-family-planning/initiatives-and-resources/title-x-grantees-list/
- Mammography Centers: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfMQSA/mqsa.cfm
- Hospitals: https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/v287-28n3

The internet search consisted of locating the following types of facilities in each of the communities identified as having the greatest need ("Highest Priority" communities):

- Hospitals (e.g., public or private, for-profit or non-profit)
- Community health centers that provide care regardless of an individual's ability to pay (e.g., Federally Qualified Health Centers (FQHCs) and FQHC look-alikes)
- Free and charitable clinics that utilize a volunteer staff model and restrict eligibility to individuals who are uninsured, underinsured and/or have limited to no access to primary health care
- Health departments (e.g., local county or city health department funded by a government entity)
- Title X providers that are usually family planning centers that also offer breast cancer screening services
- Facilities that provide breast cancer services, but do not fit under any of the other categories. (e.g., non-medical service providers)

Facilities were classified as screening if they provided clinical breast exams, screening mammograms and/or patient navigation into screening. Classification as a diagnostic service provider includes locations that provide diagnostic mammography, ultrasound, biopsy, magnetic resonance imaging (MRI) scanning and/or patient navigation into diagnostic services. Classification as a treatment

service provider includes locations that provide chemotherapy, radiation, surgery, reconstruction and/or patient navigation into treatment services. A facility may be classified under more than one classification depending on the breast cancer services provided.

The comprehensive internet search also included the identification of facilities that provide breast cancer services that are accredited by a national organization that monitors the facility to ensure that the quality of care being provided meets specific benchmark measures. Each national organization's website was used to identify the accredited facilities in each state. For this report, the following are the national accreditations used to measure the quality of care available:

- American College of Surgeons Commission on Cancer Certification (CoC) - https://www.facs.org/quality-programs/cancer/coc
- American College of Surgeons National Accreditation Program for Breast Centers (NAPBC)- https://www.facs.org/quality-programs/napbc)
- American College of Radiology Breast Imaging Centers of Excellence (BICOE)- http://www.acr.org/Quality-Safety/Accreditation/BICOE
- National Cancer Institute's designated Cancer Centers - http://www.cancer.gov/research/nci-role/cancer-centers

Each State Community Profile Report contains the number, type and location of facilities that provide breast cancer services along with the number of accredited facilities that are available. The Evaluations and Outcomes team extracted from the State Community Profile Reports the number, type and location of facilities that provide breast cancer services in the North Central Region's "Highest Priority" communities. In addition, the number and type of accredited facilities in the North Central Region's "Highest Priority" community were also extracted and used in this report.

The following icons were used in the health systems analysis and discussion section to represent the different types of breast cancer services available in the "Highest Priority" communities.


Screening


Diagnostic


Treatment

Qualitative Data

The Evaluations and Outcomes team analyzed qualitative data from 14 Komen Affiliates in the North Central Region, which were collected during 2014-2015. Data were gathered from health care providers, breast cancer survivors and community members who represented the target communities. These communities were selected by local Affiliates based on their Community Profile Quantitative Data

Report. The methods used by Affiliates to collect an individual's attitude and beliefs about breast cancer care in the local community included:

- Surveys: open-ended questions to gather information in an online or paper format
- Focus groups: structured discussion used to obtain in-depth information from a group of people
- Key informant interviews: in-depth, structured discussions with people who are very familiar with the community
- Document review: review of published materials that used qualitative data collection methods

Using thematic analysis, the Evaluations and Outcomes team identified common themes from the qualitative data findings presented in the Affiliate Community Profile Reports. Themes were added, combined and revised as commonalities became more prevalent. The themes were tracked in a spreadsheet and were classified by Affiliates and community of interest. The most frequently cited themes are discussed in the qualitative data section of this report. A list of all themes and their corresponding definitions are located in Appendix B.

The following icons were used in the qualitative data analysis section to represent different data collection methods conducted by the Affiliates.


Survey


Focus Group


Key Informant Interview


Document Review

Mission Action Plan

Using the data collected during the Community Profile process, Komen Affiliates developed an action plan, referred to as the Mission Action Plan (MAP), to implement within a four-year time period to address the breast cancer needs identified for their target communities. Each Affiliate's MAP consists of problem statements, priorities and objectives. The problem statements summarize the issues revealed during the Community Profile process in the communities of interest. Priorities represented the goals that the Affiliates expected to achieve within four years. Objectives are the activities that an Affiliate is going to do to reach the priorities. There were 15 Affiliates[3] in Komen's North Central Region that completed a Mission Action Plan. The Evaluations and Outcomes team used descriptive analysis to identify commonalities within the problem statements, priorities and objectives in each Affiliate's Mission Action Plans. The problem statements, priorities and objectives

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were first classified into descriptive categories. The categories were then analyzed to identify commonalities. Commonalities identified from the North Central Region Affiliates' MAPs are presented in the conclusions section of this report.

Challenges and Limitations

The various methods used to gather data for the 2015 Community Profile process resulted in challenges that limit the generalizability of the data collected.

Recent data

At the time of quantitative data collection for the State and Affiliate Community Profile Reports, the most recent data available were used but, for breast cancer late-stage diagnosis and death rates, these data are still several years behind. For example, the breast cancer late-stage diagnosis and death rates that were available in 2013, when data were being collected, were from 2010. For the US as a whole and for most states, breast cancer late-stage diagnosis and death rates do not often change rapidly. Rates in individual communities might change more rapidly. In particular, if a cancer control program has been implemented in 2011-2013, any impact of the program on death and late-stage diagnosis rates would not be reflected in this report.

As time passes, the data in this report will become more out-of-date. However, the trend data included in the report can help estimate current values. Also, the State Cancer Profiles Web site (http://statecancerprofiles.cancer.gov/) is updated annually with the latest cancer data for states and can be a valuable source of information about the latest breast cancer rates. However, it is unlikely that the data that is presented in this report will change significantly in the five years between Community Profile updates to result in changes to the "Highest Priority" communities.

The available breast cancer services (e.g., screening, diagnostic and treatment) and accredited facilities (e.g., CoC, BICOE, NAPBC, and NCI Cancer Centers) identified in the health system analysis section of this report were collected between September 2014 – March 2015. Therefore, local facilities that provide breast cancer services (e.g., screening, diagnostics and treatment) may have changed since March 2015 and may be either over-represented or under-represented in the community.

Data Availability

For some communities, data might not be available or might be of varying quality. Cancer surveillance programs vary from state to state in their level of funding and this can impact the quality and completeness of the data in the cancer registries and the state programs for collecting death information. There are also differences in the legislative and administrative rules for the release of cancer statistics used for studies

such as community needs assessments. These factors can result in missing data for some of the data categories in this report. Communities missing both death and late-stage diagnosis rate data were excluded from HP2020 priority classification. This does not mean that the community may not have high needs; it only means that sufficient data are not available to classify the community.

There are also 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. Good quantitative data are not available on how factors such as these vary from place to place.

Qualitative Data

Qualitative methods (e.g., surveys, focus groups, key informant interviews) that were used during the Affiliate Community Profile process gathered information regarding an individual's attitude and beliefs about breast cancer care in their local community. The qualitative data used in this report have some specific limitations that were unable to be controlled for because the methods implemented and data collected were completed by 15 different Affiliates. These limitations include, but are not limited to:

- Small sample sizes limit the ability of the data to accurately represent everyone in the community
- Data collected by the Affiliates were not always from communities that were classified as "Highest Priority" in this report
- Bias of the facilitator and/or interviewer in which they give preference to their own view over others and recall information that favors their view only
- Response bias in which participants provide answers they believe the facilitator or interviewer wants to hear, even if untrue
- Poor wording of questions may have resulted in inaccurate, or unrelated responses that do not match the intent of the question
- Sampling bias in which attitudes and beliefs of those that participated in the different qualitative methods may be different than those that did not (e.g., those that participated may have less barriers than those that did not participate)

These qualitative data limitations may result in the qualitative data in this report not being representative of the geographic areas that are not predicted to meet HP2020 targets for death and late-stage diagnosis rates and may only represent the perspectives of those that participated in the surveys, focus groups and key informant interviews.

DISCUSSION

In order to better understand the breast cancer issues and barriers to care that are common across the Komen North Central Region and enable Affiliates within the region to work together to address common goals, Komen Headquarters Evaluation and Outcomes team compiled available quantitative, health systems and qualitative data within the North Central Region. This section details the findings of this regional analysis.

Quantitative Data Analysis

Breast cancer late-stage diagnosis and death rates and trends were analyzed across the North Central Region in order to assess the burden of breast cancer within the region. These data were then compared to Healthy People 2020 targets for breast cancer to identify the areas of greatest need within the region. Table 1 shows both late-stage diagnosis and death rates and trends for the states within Komen's North Central Region.

Table 1. Female breast cancer late-stage diagnosis and death rates and trends- Komen North Central Region

Population Group	Female Population (Annual Average)	Late-Stage Diagnosis and Trends			Death Rates and Trends		
		# of New Late-stage Cases (Annual Average)	Age-adjusted Late-stage Diagnosis Rate /100,000	Late-stage Trend (Annual Percentage Change)	# of Deaths (Annual Average)	Age-adjusted Death Rate /100,000	Death Trend (Annual Percent Change)
US (states with available data)	145,332,861	70,218	43.7	-1.2%	40,736	22.6	-1.9%
Illinois	6,492,949	3,341	47.1	0.1%	1,763	23.6	-2.4%
Iowa	1,525,409	755	42.7	1.0%	431	21.3	-2.4%
Kansas	1,416,658	692	44.5	-3.2%	378	22.2	-1.8%
Minnesota	NA	NA	NA	NA	652	20.9	-2.5%
Missouri	3,024,156	1,574	45.7	-0.1%	890	24.2	-1.5%
Nebraska	907,187	426	42.4	-4.3%	224	20.1	-2.6%
North Dakota	327,214	179	47.6	1.3%	94	21.6	-2.2%
South Dakota	400,083	200	44.1	-0.3%	105	20.3	-2.2%
Wisconsin	2,841,001	NA	NA	NA	745	21.3	-2.5%

NA – data not available.
Late-stage diagnosis data are for years 2006-2010
Death data are for years 2006-2010.
Rates are cases/deaths per 100,000.
Age-adjusted rates are adjusted to the 2000 US standard population.
Source of late-stage diagnosis rate and trend 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.

Comparison to Healthy People 2020 Targets

Healthy People 2020 (HP2020) is a major federal government initiative that provides specific health objectives for communities and for the country as a whole. HP2020 targets for breast cancer late-stage diagnosis and death rates were used as a benchmark to determine which communities (e.g., county, city) in the North Central Region have the highest breast cancer needs. In 2014, the HP2020 target for late-stage diagnosis rate was 41.0 per 100,000 females and the target for breast cancer death rate was 20.6 per 100,000 females.

Breast cancer late-stage diagnosis and death rates and trends (changes over time) were used to calculate whether each community in the North Central Region would meet the HP2020 target, assuming that the trend seen in years 2006 to 2010 continue for 2011 and beyond. A negative trend means that the rates are predicted to decrease each year; while a positive trend indicates that rates are increasing each year. For breast cancer late-stage diagnosis and death rate, a negative trend is desired.

Communities are classified as follows:

- Communities that are not likely to achieve either of the HP2020 targets for late-stage diagnosis or death rates are considered to have the highest needs.
- Communities that have already achieved both targets are considered to have the lowest needs.
- Other communities are classified based on the number of years needed to achieve the two targets.

Table 2 shows how communities are assigned to priority categories. 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.

Table 2. Priority classification based on the projected time to achieve HP2020 breast cancer targets

		Time to Achieve Late-stage Diagnosis Reduction Target				
Time to Achieve Death Rate 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
	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 the HP2020 target cannot be calculated for one of the HP2020 indicators (i.e., late-stage diagnosis rate or death rate), then the community is classified based on the other indicator. If both indicators are missing, then the community is classified as "unknown". This doesn't mean that the community may not have high needs; it only means that sufficient data are not available to classify the community.

Table 3 represents communities in the Komen North Central Region that have been designated "Highest Priority". The "Highest Priority" designation means that they are not likely to meet the Healthy People 2020 targets for breast cancer late-stage diagnosis or deaths. In addition, key demographic and socioeconomic characteristics have been provided in Table 3 that may assist in identifying who in these communities may be most in need of help. For this report, demographic and socioeconomic characteristics are considered influential factors when the percentage is substantially higher than the state. Substantially higher is defined as three percentage points higher for a factor less than 10.0 percent and five percentage points higher for a factor equal to or greater than 10.0 percent. Detailed information regarding key population characteristics of each of the "Highest Priority" communities can be located in Appendix C.

Demographic characteristics include populations that have been found to less favorable breast cancer outcomes:

- Black/African-American women: Breast cancer is the most common cancer among Black/African-American women. In 2013, breast cancer deaths were 39 percent higher in Black/African-American women than in white women (Howlader et al., 2016). Although breast cancer survival in Black/African-American women has increased over time, survival rates remain lower than among white women.
- Hispanic/Latina women: Breast cancer is the leading cause of cancer death in Hispanic/Latina women (American Cancer Society, 2015b).
- Asian and Pacific Islander (API) women: Breast cancer incidence among Asian-American, Native Hawaiian and Pacific Islander women have increased since 2005 (American Cancer Society, 2016). Breast cancer is the second leading cause of cancer death in Asian-American, Native Hawaiian and Pacific Islander women (American Cancer Society, 2016).
- American Indian and Alaska Native (AIAN) women: The last two decades have seen large increases in both incidence and death rates for American Indian and Alaska Native women (American Cancer Society, 2015a). Among AIAN women, those who live in Alaska and the Southern Plains have the highest death rates and women who live in the Southwest have the lowest mortality rates (White et al., 2014).

- Older women (65 and older): The risk of breast cancer increases as an individual becomes older. Most breast cancers and breast cancer deaths occur in women aged 50 and older (American Cancer Society, 2015a)

Socioeconomic characteristics include factors that have been identified as barriers that may prevent individuals from being able to access care, afford care and/or understand the care that their doctor recommends. For example, uninsured individuals that have an annual income below 200 percent Federal Poverty Level may not have the financial resource to pay for diagnostic services if they have an abnormal mammogram. Immigrants that do not speak English fluently may experience cultural and language barriers in receiving care. Individuals that reside in rural and/or medically underserved areas may have to travel outside of their community to access care which requires transportation resources as well as longer periods of time off work.

Table 3. Healthy People 2020 "Highest Priority" communities in the Komen North Central Region

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Healthy People 2020 Target			41.0*	20.6*	
United States (states with available data)			43.7 (-1.2%)	22.6 (-1.9%)	
Illinois	Bond County	Not Currently Served By A Komen Affiliate	49.6 (+4.3%)	SN	Rural
Illinois	Carroll County	Not Currently Served By A Komen Affiliate	56.9 (+12.8%)	30.0 (-1.4%)	Older, rural, medically underserved
Illinois	Cass County	Komen Memorial	39.8 (+2.9%)**	SN	Rural, medically underserved
Illinois	Fayette County	Komen Memorial	47.8 (+2.4%)	SN	Rural, medically underserved
Illinois	Fulton County	Komen Memorial	48.9 (+5.9%)	27.7 (-1.7%)	Older, rural
Illinois	Grundy County	Komen Memorial	41.0 (+8.9%)**	29.3 (NA)	Rural
Illinois	Hancock County	Komen Memorial	50.1 (+9.5%)	SN	Older, rural
Illinois	Kankakee County	Not Currently Served By A Komen Affiliate	45.8 (+13.5%)	28.1 (-1.9%)	Rural
Illinois	Macon County	Komen Memorial	47.1 (+0.6%)	26.4 (-0.8%)	
Illinois	Mason County	Komen Memorial	54.5 (+8.0%)	SN	Older, rural
Illinois	Moultrie County	Komen Memorial	58.9 (+0.4%)	SN	Rural
Illinois	Piatt County	Komen Memorial	55.0(+6.4%)	SN	Rural
Iowa	Adair County	Komen Iowa	66.9 (+16.3%)	SN	Older, rural
Iowa	Buena Vista County	Komen Iowa	47.3 (+5.3%)	SN	%API, %Hispanic/Latina, education, foreign, language, rural
Iowa	Cherokee County	Komen Iowa	38.9 (+11.4%)**	SN	Older, rural
Iowa	Clay County	Komen Iowa	27.0 (+5.7%)**	SN	
Iowa	Clinton County	Komen Quad Cities	45.3 (+5.8%)	26.6 (-1.6%)	
Iowa	Decatur County	Komen Iowa	65.5 (-17.6%)	SN	Education, poverty, rural, medically underserved
Iowa	Dickinson County	Komen Iowa	34.5 (+2.9%)**	SN	Older

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Iowa	Guthrie County	Komen Iowa	46.2 (+52.6%)	SN	Older, rural
Iowa	Henry County	Komen Iowa	29.7 (+33.1%)**	SN	Rural
Iowa	Ida County	Komen Iowa	81.9 (+2.0%)	SN	Older, rural
Iowa	Jackson County	Komen Iowa	39.2 (+18.8%)**	SN	Rural
Iowa	Jones County	Komen Iowa	32.4 (+10.4%)**	SN	Rural
Iowa	Keokuk County	Komen Iowa	46.1 (+84.0%)	SN	Older, rural, medically underserved
Iowa	Lyon County	Komen Siouxland	55.1 (+25.5%)	SN	Rural
Iowa	Madison County	Komen Iowa	59.5 (+13.3%)	36.2 (+1.5%)	Rural
Iowa	Montgomery County	Komen Iowa	35.6 (+1.5%)**	SN	Older, rural
Iowa	Osceola County	Komen Iowa	77.1 (+6.3%)	SN	Older, rural
Iowa	Page County	Komen Iowa	39.4 (+20.4%)**	SN	Older
Iowa	Warren County	Komen Iowa	45.9 (+2.0%)	26.8 (+0.3%)	Rural
Iowa	Wright County	Komen Iowa	43.6 (+5.6%)	SN	Older, rural
Kansas	Cherokee County	Komen Kansas	NA	26.1 (-1.6%)	%AIAN, rural, medically underserved
Kansas	Douglas County	Komen Greater Kansas City	NA	27.3 (+1.5%)	
Kansas	Ellis County	Komen Kansas	NA	26.2 (+1.4%)	
Kansas	Franklin County	Komen Kansas	NA	27.3 (-2.1%)	Rural
Kansas	McPherson County	Komen Kansas	NA	26.2 (-1.7%)	Older, rural
Kansas	Montgomery County	Komen Kansas	NA	32.8 (-0.4%)	%AIAN, older, employment, rural
Kansas	Wyandotte County	Komen Greater Kansas City	NA	28.5 (-1.3%)	%Black/African-American, %Hispanic/Latina, education, poverty, employment, foreign, language, insurance

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Minnesota	Faribault County	Komen Minnesota	NA	27.9 (-1.7%)	Older, rural
Minnesota	Fillmore County	Komen Minnesota	NA	26.0 (-0.9%)	Older, rural, medically underserved
Minnesota	Freeborn County	Komen Minnesota	NA	25.8 (-1.2%)	Older, rural
Minnesota	Isanti County	Komen Minnesota	NA	23.4 (-0.1%)	Rural
Minnesota	Martin County	Komen Minnesota	NA	32.6 (+1.3%)	Older, rural
Minnesota	Pine County	Komen Minnesota	NA	29.0 (0.0%)	Rural, medically underserved
Minnesota	Renville County	Komen Minnesota	NA	37.4 (+2.7%)	Older, rural
Missouri	Audrain County	Komen Missouri	55.9 (+15.5%)	20.8 (NA)	Rural
Missouri	Barton County	Not Currently Served By A Komen Affiliate	46.0 (+13.5%)	SN	Rural
Missouri	Bates County	Komen Greater Kansas City	SN	27.1 (-2.2%)	Rural
Missouri	Camden County	Komen Missouri	41.0 (+6.5%)**	22.5 (-0.4%)	Older, rural, medically underserved
Missouri	Carter County	Not Currently Served By A Komen Affiliate	96.8 (+8.3%)	SN	Education, poverty, rural, insurance, medically underserved
Missouri	Chariton County	Komen Missouri	59.2 (+1.2%)	SN	Older, rural, medically underserved
Missouri	Clay County	Komen Greater Kansas City	49.2 (+7.1%)	27.2 (-1.1%)	
Missouri	Dallas County	Not Currently Served By A Komen Affiliate	52.9 (+10.5%)	31.6 (+1.6%)	Education, poverty, employment, rural, insurance, medically underserved
Missouri	Dent County	Not Currently Served By A Komen Affiliate	SN	36.1 (+1.6%)	Older, education, rural
Missouri	Harrison County	Not Currently Served By A Komen Affiliate	48.2 (+15.1%)	SN	Older, rural, medically underserved
Missouri	Jackson County	Komen Greater Kansas City	49.9 (-1.1%)	26.7 (-1.0%)	%Black/African-American

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Missouri	Johnson County	Komen Greater Kansas City	50.6 (+7.6%)	30.6 (NA)	Rural
Missouri	Lewis County	Not Currently Served By A Komen Affiliate	59.5 (-0.4%)	SN	Rural
Missouri	Linn County	Not Currently Served By A Komen Affiliate	45.9 (+14.7%)	SN	Older, rural, medically underserved
Missouri	Livingston County	Not Currently Served By A Komen Affiliate	43.8 (+38.8%)	SN	Rural
Missouri	McDonald County	Not Currently Served By A Komen Affiliate	32.0 (+20.6%)**	SN	%AIAN, %Hispanic/Latina, education, rural, insurance, medically underserved
Missouri	Mississippi County	Not Currently Served By A Komen Affiliate	SN	40.0 (0.0%)	%Black/African-American, education, poverty, employment, medically underserved
Missouri	Morgan County	Komen Missouri	24.0 (+21.0%)**	SN	Older, education, employment, rural, insurance
Missouri	New Madrid County	Not Currently Served By A Komen Affiliate	28.6 (+6.7%)**	22.3 (NA)	Education, poverty, rural, medically underserved
Missouri	Perry County	Komen Missouri	48.7 (+14.5%)	SN	Education, rural
Missouri	Pettis County	Not Currently Served By A Komen Affiliate	48.4 (+3.8%)	34.1 (+0.6%)	Rural
Missouri	Pike County	Not Currently Served By A Komen Affiliate	55.3 (+5.6%)	SN	Education, rural
Missouri	Polk County	Not Currently Served By A Komen Affiliate	49.2 (+9.4%)	19.8 (NA)	Poverty, rural
Missouri	Pulaski County	Not Currently Served By A Komen Affiliate	50.1 (+9.5%)	20.8 (NA)	%Hispanic/Latina, employment, rural, medically underserved
Missouri	Ray County	Not Currently Served By A Komen Affiliate	50.3 (+10.1%)	22.7 (+0.6%)	Rural
Missouri	St. Louis City	Komen Missouri	52.1 (+3.0%)	27.2 (-1.9%)	%Black/African-American, poverty, employment, insurance, medically underserved
Missouri	St. Louis County	Komen Missouri	52.1 (+1.1%)	25.6 (-1.0%)	%Black/African-American
Missouri	Wayne County	Not Currently Served By A Komen Affiliate	34.9 (+5.4%)**	33.0 (NA)	Older, education, poverty, rural, medically underserved
Nebraska	Custer County	Komen Nebraska	63.2 (+19.5%)	SN	Older, rural

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Nebraska	Dawson County	Komen Nebraska	37.2 (+12.0%)**	SN	%Hispanic/Latina, education, foreign, language, insurance
Nebraska	Lincoln County	Komen Nebraska	60.1 (-0.9%)	28.7 (-0.1%)	
Nebraska	Saunders County	Komen Nebraska	50.4 (+5.0%)	25.3 (+0.7%)	Rural
North Dakota	Rolette County	Not Currently Served By A Komen Affiliate	64.3 (+18.0%)	SN	%AIAN, education, poverty, rural, insurance, medically underserved
North Dakota	Stark County	Not Currently Served By A Komen Affiliate	27.4 (+19.0%)**	20.8 (+0.1%)	
North Dakota	Stutsman County	Not Currently Served By A Komen Affiliate	53.5 (-1.5%)	26.6 (-1.3%)	
North Dakota	Walsh County	Not Currently Served By A Komen Affiliate	48.6 (+12.6%)	35.5 (NA)	%Hispanic/Latina, older, education, rural
North Dakota	Ward County	Not Currently Served By A Komen Affiliate	57.3 (+19.0%)	23.7 (-0.5%)	
North Dakota	Williams County	Not Currently Served By A Komen Affiliate	40.7 (+4.1%)**	SN	
South Dakota	Beadle County	Komen South Dakota	38.9 (+6.0%)**	24.4 (NA)	Education
South Dakota	Lake County	Komen South Dakota	57.2 (+13.2%)	SN	
South Dakota	Lawrence County	Komen South Dakota	37.4 (+1.2%)**	31.4 (+3.4%)	
South Dakota	Union County	Komen Siouxland	62.8 (+0.5%)	SN	Rural, medically underserved
South Dakota	Yankton County	Komen South Dakota	27.3 (+7.4%)**	SN	
Wisconsin	Ashland County	Not Currently Served By A Komen Affiliate	NA	42.7 (+1.8%)	%AIAN, poverty, rural
Wisconsin	Chippewa County	Not Currently Served By A Komen Affiliate	NA	21.9 (+0.3%)	Rural, medically underserved
Wisconsin	Lincoln County	Komen Central Wisconsin	NA	27.7 (+9.0%)	Older, rural
Wisconsin	Oconto County	Not Currently Served By A Komen Affiliate	NA	26.5 (-0.4%)	Rural, medically underserved
Wisconsin	Pierce County	Not Currently Served By A Komen Affiliate	NA	32.5 (-0.5%)	Rural

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Wisconsin	Shawano County	Komen Central Wisconsin	NA	24.9 (+0.6%)	%AIAN, rural, medically underserved
Wisconsin	Vilas County	Not Currently Served By A Komen Affiliate	NA	29.9 (-2.5%)	%AIAN, older, rural, insurance, medically underserved
Wisconsin	Washington County	Komen Southeast Wisconsin	NA	24.5 (-0.2%)	

*Target as of the writing of this report.

** While this community currently meets the HP2020 target, because the trend is increasing it should be treated the same as a community that will not meet the HP2020 target.

NA – data not available.

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

Late-stage diagnosis data are for years 2006-2010.

Death data are for years 2006-2010.

Rates are cases/deaths per 100,000.

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

Source of late-stage diagnosis rate and trend 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.

In the Komen North Central Region, there are 97 communities that are considered "Highest Priority" based on the prediction of meeting HP2020 breast cancer late-stage diagnosis and/or death rates. There are 31 "Highest Priority" communities in the North Central Region that are not within a local Komen Affiliate service area (Table 4).

Table 4. HP2020 "Highest Priority" communities not served by a Komen Affiliate

State	Community	Key Population Characteristics
Illinois	Bond County	Rural
Illinois	Carroll County	Older, rural, medically underserved
Illinois	Kankakee County	Rural
Missouri	Barton County	Rural
Missouri	Carter County	Education, poverty, rural, insurance, medically underserved
Missouri	Dallas County	Education, poverty, employment, rural, insurance, medically underserved
Missouri	Dent County	Older, education, rural
Missouri	Harrison County	Older, rural, medically underserved
Missouri	Lewis County	Rural
Missouri	Linn County	Older, rural, medically underserved
Missouri	Livingston County	Rural
Missouri	McDonald County	%AIAN, %Hispanic/Latina, education, rural, insurance, medically underserved
Missouri	Mississippi County	%Black/African-American, education, poverty, employment, medically underserved
Missouri	New Madrid County	Education, poverty, rural, medically underserved
Missouri	Pettis County	Rural
Missouri	Pike County	Education, rural
Missouri	Polk County	Poverty, rural
Missouri	Pulaski County	%Hispanic/Latina, employment, rural, medically underserved
Missouri	Ray County	Rural
Missouri	Wayne County	Older, education, poverty, rural, medically underserved
North Dakota	Rolette County	%AIAN, education, poverty, rural, insurance, medically underserved
North Dakota	Stark County	
North Dakota	Stutsman County	
North Dakota	Walsh County	%Hispanic/Latina, older, education, rural
North Dakota	Ward County	
North Dakota	Williams County	
Wisconsin	Ashland County	%AIAN, poverty, rural
Wisconsin	Chippewa County	Rural, medically underserved
Wisconsin	Oconto County	Rural, medically underserved
Wisconsin	Pierce County	Rural
Wisconsin	Vilas County	%AIAN, older, rural, insurance, medically underserved

When viewing the region as a whole, 73 of the 97 communities have a substantially higher percentage of individuals residing in rural areas (Appendix D). A substantially older female population was identified in 32 of the 97 "Highest Priority" communities (Appendix E). In addition, 26 of 97 communities have a substantially larger percentage of individuals living in medically underserved areas (Appendix F). According to the US Department of Health and Human Services, areas are designated as medically underserved when they have too few primary care providers to serve the area residents, a high percentage of residents with incomes below the poverty level and/or a high percentage of the population being over the age of 65. All three of these factors have been linked to barriers associated with accessing quality and timely care.

Additional commonalities in the Komen North Central "Highest Priority" communities were high percentage of individuals with less than a high school education (17 communities), high percentage of individuals with incomes below poverty level (11 communities) and high percentage of residents (ages 40-64) that are uninsured (9 communities.

Within Komen's North Central Region, there are "Highest Priority" communities that are adjacent to each other. Individuals residing in areas where two or more "High Priority" communities are adjacent to each other may experience additional barriers compared to a "Highest Priority" adjacent to lower priority communities. These additional barriers (e.g., transportation, acceptance of health insurance) may lead individuals to forgo doctor recommended screening and/or follow up, thus resulting in the possibility that breast cancer is found and treated at a later stage when prognosis is poorer.

Adding further to the complexity of accessing care in "Highest Priority" communities is when the community is located on a state border and closest breast cancer care is across that border in another state. When individuals cross state borders, there is potential that the individual's health insurance may not be accepted. For example, Medicaid coverage is a state health insurance and therefore varies by state. An individual with Medicaid coverage may not be able to access the closest breast cancer services if those services are in another state because their Medicaid health insurance is only accepted within their state of residency.

In the North Central Region, there are sixteen clusters of two or more 'Highest Priority" communities that may indicate greater needs than a single "Highest Priority" community bordered by lower priority communities. Some of these clusters cross state borders which may add additional barriers to someone seeking breast cancer care (e.g., insurance coverages change between states, transportation).

- Page County (IA) and Montgomery County (IA) served by Komen Iowa

- Adair County (IA), Guthrie County (IA), Madison County (IA) and Warren County (IA) served by Komen Iowa
- Grundy County (IL) served by Komen Memorial; and Kankakee County (IL), Lake County, IN and Jasper County, IN which are not currently served by a Komen Affiliate
- Piatt County (IL), Macon County (IL) and Moultrie County (IL) served by Komen Memorial
- Fayette County (IL) served by Komen Memorial and Bond County which is not served by a Komen Affiliate.
- Audrain County (MO) served by Komen Missouri and Pike County (MO) which is currently not served by a Komen Affiliate
- Camden County (MO) and Morgan County (MO) served by Komen Missouri; and Dallas County (MO), Polk County (MO) and Pulaski County (MO) which are not currently served by an Affiliate
- Mississippi County (MO) and New Madrid County (MO) which are not currently served by a Komen Affiliate
- Shawano County (WI) served by Komen Central Wisconsin; and Oconto (WI) which is not currently served by a Komen Affiliate
- Isanti County (MN) and Pine County (MN) served by Komen Minnesota
- Faribault County (MN), Freeborn County (MN) and Martin County (MN) served by Komen Minnesota
- Custer County (NE), Dawson County (NE) and Lincoln County (NE) served by Komen Nebraska
- Clinton County (IA), Jackson County (IA) and Jones County (IA) served by Komen Quad Cities and Komen Iowa; and Carroll County (IL) which is not currently served by a Komen Affiliate
- Decatur County (IA) served by Komen Iowa and Harrison County (MO) which is currently not served by a Komen Affiliate
- Douglas County (KS), Franklin County (KS), Wyandotte County (KS), Bates County (MO), Clay County (MO), Jackson County (MO), Johnson County (MO), Perry County (MO), served by Komen Greater Kansas City, Komen Kansas and Komen Missouri; and Pettis County (MO) which is not currently served by a Komen Affiliate
- Buena Vista County (IA), Cherokee County (IA), Clay County (IA), Dickinson County (IA), Ida County (IA), Lyon County (IA), Osceola County (IA), and Union County (SD) served by Komen Iowa and Komen Siouxland

Figure 1 shows each community within Komen's North Central Region according to their priority classification based on HP2020 targets in Table 2. When both of the indicators used to establish a priority for a community are not available, the priority is shown as "undetermined" on the map.

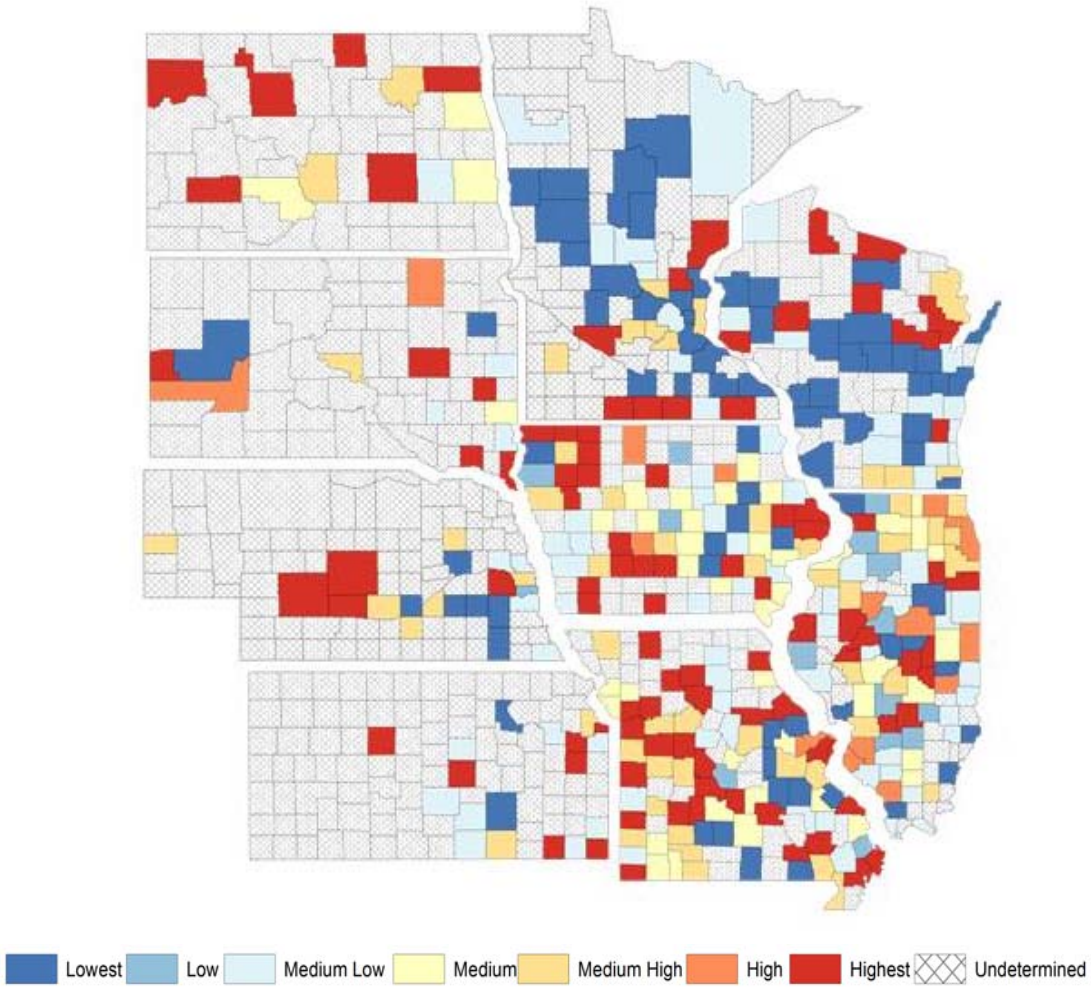


Figure 1. Komen North Central Region Healthy People 2020 priority classifications

Health Systems Analysis

An inventory of breast cancer programs and services in the Komen North Central Region was collected by Komen Headquarters Evaluation and Outcomes team through a comprehensive internet search (Appendix A) to identify the following types of health care facilities or community organizations that may provide breast cancer related services: hospitals, community health centers, free clinics, health departments, Title X providers, and additional facilities that provide breast cancer services (e.g., non-medical service providers).

In Komen's North Central Region, there are 2,750 facilities that provide screening services (i.e. clinical breast exam, screening mammography and/or patient navigation into screening services). Of those facilities that provide screening services, 297 are located in a "Highest Priority" community.

In Komen's North Central Region, there are 1,478 facilities that provide diagnostic services (i.e. diagnostic mammography, ultrasound, biopsy, magnetic resonance imaging (MRI) scanning and/or patient navigation into diagnostic services). Of those facilities that provide diagnostic services, 174 are located in a "Highest Priority" community.

In Komen's North Central Region, there are 602 facilities that provide treatment services (i.e. chemotherapy, radiation, surgery, reconstruction and/or patient navigation into treatment services). Of those facilities that provide treatment services, 86 are located in a "Highest Priority" community.

A facility may be classified under more than one classification depending on the services provided. Appendix G provides the total number of screening, diagnostic and treatment facilities for the North Central Region's "Highest Priority" communities and states.

These numbers, however, do not tell the whole story about the availability of services for individuals that are residing in a "Highest Priority" community. An individual residing in a "Highest Priority" community may only have only one or two of the services available within a short distance from their residence and would have to travel a greater distance within the community or to another community to receive additional care. The lack of local services increases the likelihood that an individual will have difficulty accessing initial screening services and follow-up care after an abnormal screening which may contribute to breast cancer being diagnosed at a later stage when treatment options are limited, costly and prognosis is poor or to delays in treatment after diagnosis, which contribute to poorer outcomes.

In the Komen North Central Region, four HP2020 "Highest Priority" communities do not have any in-community breast cancer services (e.g., screening, diagnostic and treatment):

Komen Iowa
- Warren County, IA

Komen Minnesota
- Fillmore County, MN

Currently Not Served by a Komen Affiliate
- Carroll County, IL
- Dallas County, MO

In the Komen North Central Region, 21 HP2020 "Highest Priority" communities have in-community screening services, but do not have any facilities that provide diagnostic and treatment services (Table 5).

Table 5. North Central Region HP2020 "Highest Priority" communities that have only screening services in the community

Affiliate Service Area	Community
Komen Central Wisconsin	Shawano County, WI
Komen Iowa	Keokuk County, IA
Komen Kansas	Franklin County, KS
Komen Memorial	Cass County, IL
	Fayette County, IL
	Hancock County, IL
Komen Missouri	Chariton County, MO
	Morgan County, MO
	Perry County, MO
Komen Siouxland	Lyon County, IA
Komen South Dakota	Lake County, SD
Not Currently Served by a Komen Affiliate	Carter County, MO
	Lewis County, MO
	Linn County, MO
	Livingston County, MO
	McDonald County, MO
	Mississippi County, MO
	New Madrid County, MO
	Pike County, MO
	Wayne County, MO
	Vilas County, WI

In the Komen North Central Region, 53 HP2020 "Highest Priority" communities have in-community screening and diagnostic services, but do not have any facilities that provide treatment services (Table 6).

Table 6. North Central Region HP2020 "Highest Priority" communities that have only screening and diagnostic services in the community

Affiliate Service Area	Community
Komen Iowa	Adair County, IA
	Cherokee County, IA
	Decatur County, IA
	Jackson County, IA
	Jones County, IA
	Madison County, IA
Komen Kansas	Cherokee County, KS
Komen Kansas	Ellis County, KS
Komen Memorial	Fulton County, IL
	Moultrie County, IL

Affiliate Service Area	Community
Komen Minnesota	Isanti County, MN
	Pine County, MN
	Renville County, MN
Komen Nebraska	Saunders County, NE
Komen Siouxland	Union County, SD
Not currently served by a Komen Affiliate	Faribault County, MN
	Barton County, MO
	Barton County, MO
	Dent County, MO
	Dent County, MO
	Harrison County, MO
	Harrison County, MO
	Pulaski County, MO
	Pulaski County, MO
	Rolette County, ND
	Stark County, ND
	Williams County, ND

The remaining communities have breast cancer screening, diagnostics and treatment services available locally.

Although these communities may have services, this doesn't account for quality of care that may be provided at these facilities. The Institute of Medicine defines quality of care as "providing patients with appropriate services in a technically competent manner, with good communication, shared decision-making and cultural sensitivity" (Hewitt and Simone, 1999). Hospitals and medical centers that provide quality care tend to have up-to-date facilities and equipment, follow current breast cancer screening, diagnostic and treatment guidelines, and have doctors with appropriate credentials and experience in treating breast cancer. Overall, quality of care is about the process of care, outcomes of care, and patient satisfaction levels from a particular program and/or organization.

Komen Headquarters Evaluation and Outcomes team collected data on the number of facilities in the North Central Region that were accredited by standard quality programs for breast cancer care in the United States. The specific breast cancer related accreditations considered for this report include American College of Radiology Breast Imaging Centers of Excellence, American College of Surgeons Accreditation Program for Breast Centers, American College of Surgeons Commission on Cancer Certification and the National Cancer Institute's designated Cancer Centers.

While screening, diagnostic and treatment services are available through facilities located in HP2020 "Highest Priority" communities, the services provided may not follow recommended guidelines and lack care coordination to diagnostic and treatment services. This may result in the individual having to coordinate their own care within a complex health care system. Confusion and frustration of navigating a complex health care system may lead to individuals forgoing care, not being aware that additional tests are needed, or taking longer to be diagnosed leading to potential delays in beginning recommended breast cancer treatment. Additionally, patients may not be made aware of breast cancer clinical trials that they may be eligible to participate in, and planning and coordination of care may be "siloed" (e.g., each medical provider focused one isolated part of care and not how that care functions within a larger treatment plan).

American College of Radiology Breast Imaging Centers of Excellence (BICOE)
http://www.acr.org/Quality-Safety/Accreditation/BICOE

The American College of Radiology (ACR) BICOE "designation is awarded to breast imaging centers that achieve excellence" in providing effective, safe and quality breast imaging care to patients (American College of Radiology, n.d.).

In order for a facility to receive designation as a BICOE, the facility must meet quality breast imaging screening and diagnostic performance measures for mammography, stereotactic breast biopsy, breast ultrasound and breast MRI.

In the US, there are 8,283 facilities that provide breast cancer screening and diagnostic services; of those facilities, 1,343 (16.2%) are accredited as an ACR BICOE facility.

In Komen's North Central Region, there are 1,478 facilities that provide breast cancer screening and diagnostic services; of those facilities, 157 (10.6%) are accredited as an ACR BICOE facility.

Within the North Central Region's HP2020 "Highest Priority" communities, there are 187 facilities that provide breast cancer screening and diagnostic services; of those

facilities, 16 (8.6%) are accredited as an ACR BICOE facility (Table 7). Individuals that reside in communities that have accredited screening and diagnostic facilities have access to services that meet quality breast imaging performance measures. However, in the North Central Region, there are 171 facilities located in 65 HP2020 "Highest Priority" communities that are not BICOE accredited and the services provided to individuals seeking care may not meet quality breast imaging performance measure (Appendix H).

Table 7. HP2020 "Highest Priority" communities in the North Central Region with ACR BICOE accredited facilities

Komen Affiliate	Community	Total number of facilities in the community*	Number of BICOE accredited facilities in the community	Key demographic/ socioeconomic factors
Komen Greater Kansas City	Jackson County, MO	27	3	%Black/African-American
Komen Kansas	Ellis County, KS	1	1	
Komen Missouri	St. Louis County, MO	8	4	%Black/African-American
	St. Louis City, MO	23	5	%Black/African-American, poverty, employment, insurance, medically underserved
Komen Siouxland	Union County, SD	2	1	Rural, medically underserved
Komen Southeast Wisconsin	Washington County, WI	4	1	
Not Currently Served by an Affiliate	Kankakee County, IL	5	1	Rural

* Note: Facilities that provide screening and diagnostic services in the HP2020 "Highest Priority" communities with a least one BICOE accredited facility. These numbers do not represent the number of facilities that provide screening and diagnostic services in all HP2020 "Highest Priority" communities.

American College of Surgeons National Accreditation Program for Breast Centers (NAPBC)

https://www.facs.org/quality-programs/napbc

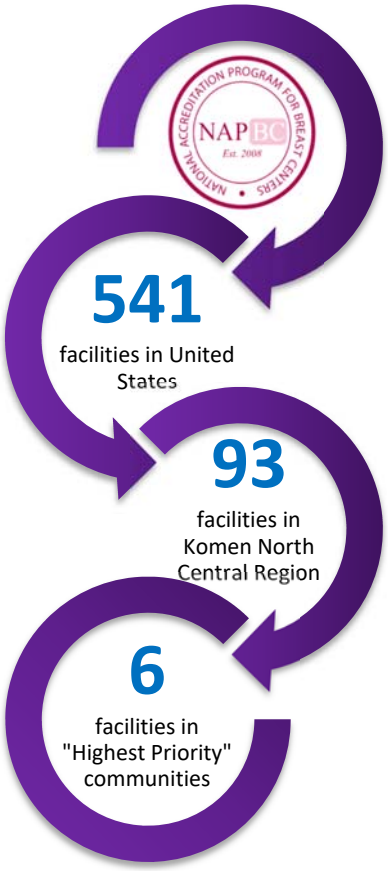
The American College of Surgeons' (ACS) NAPBC is focused on improving quality of care and outcomes for patients with diseases of the breast (American College of Surgeons, 2014b). The NAPBC utilizes evidence-based standards, patient and provider education, and encourages leaders from major disciplines to work together to diagnose and treat breast disease.

In order to be an ACS NAPBC programs, the breast center must demonstrate a multidisciplinary, integrated and comprehensive model for providing breast care services and meet high-quality breast cancer care performance measures. NAPBC facilities must meet performance standards in providing screening, diagnostic and treatment services, employing medical providers with specialized knowledge and

skills in diseases of the breast, participation in clinical trials, and implementation of education, support and survivorship programs.

In the US, there are 2,925 facilities that provide breast cancer screening, diagnostic and treatment services; of those facilities, 541 (18.5%) are accredited as an ACS NAPBC facility.

In Komen's North Central Region, there are 590 facilities that provide breast cancer screening, diagnostic and treatment services; of those facilities, 93 (15.8%) are accredited as an ACS NAPBC facility.



Within the North Central Region's "Highest Priority" communities there are 86 facilities that provide the full continuum of breast cancer care services (e.g., screening, diagnostic and treatment); of those facilities, six (7.0%) are accredited as an ACS NAPBC facility (Table 8). Individuals that reside in communities that have NAPBC facilities have access to services that meet high-quality breast cancer care performance measures. However, in the North Central Region, there are 80 facilities located in 45 HP2020 "Highest Priority" communities that are not ACS NAPBC accredited and the services provided to individuals seeking care may not meet high-quality breast cancer care performance measures (Table 9).

Table 8. HP2020 "Highest Priority" communities in the North Central Region with ACS NAPBC accredited facilities

Komen Affiliate	Community	Total number of facilities in the community*	Number of NAPBC accredited facilities in the community	Key demographic/ socioeconomic factors
Komen Greater Kansas City	Jackson County, MO	27	3	%Black/African-American
Komen Missouri	St. Louis County, MO	8	2	%Black/African-American
Komen Southeast Wisconsin	Washington County, WI	4	1	

* Note: Facilities that provide screening, diagnostic and treatment services in the HP2020 "Highest Priority" communities with a least one NAPBC accredited facility. These numbers do not represent the number of facilities that provide screening, diagnostic and treatment services in all HP2020 "Highest Priority" communities.

Table 9. HP2020 "Highest Priority" communities in the North Central Region without an ACS NAPBC accredited facility

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Wisconsin	Lincoln County, WI	Older, Rural
Komen Greater Kansas City	Douglas County, KS	
	Wyandotte County, KS	%Black/African-American, %Hispanic/Latina, education, poverty, employment, foreign, language, insurance
	Bates County, MO	Rural
	Clay County, MO	
	Johnson County, MO	Rural
Komen Iowa	Adair County, IA	Older, Rural
	Buena Vista, IA	%API, %Hispanic/Latina, education, foreign, language, rural
	Clay County, IA	
	Guthrie County, IA	Older, Rural
	Henry County, IA	Rural
	Ida County, IA	Older, Rural
	Osceola County, IA	Older, Rural
	Page County, IA	Older
	Wright County, IA	Older, Rural
Komen Kansas	McPherson County, KS	Older, Rural
	Montgomery County, KS	%AIAN, Older, Employment, Rural
	Freeborn County, MN	Older, Rural
	Martin County, MN	Older, Rural
Komen Memorial	Fulton County, IL	Older, rural
	Grundy County, IL	Rural
	Macon County, IL	
	Mason County, IL	Older, Rural
	Piatt County, IL	Rural
Komen Missouri	Audrain County, MO	Rural
	Camden County, MO	Older, rural, medically underserved
Komen Nebraska	Custer County, NE	Older, Rural
	Dawson County, NE	%Hispanic/Latina, education, foreign, language, insurance
	Lincoln County, NE	
Komen Quad Cities	Clinton County, IA	
Komen South Dakota	Beadle County, SD	Education
	Lawrence County, SD	
	Yankton County, SD	
Not Currently Served By a Komen Affiliate	Bond County, IL	Rural
	Kankakee County, IL	Rural
	Pettis County, MO	Rural
	Ray County, MO	Rural
	Stark County, ND	

Komen Affiliate	Community	Key demographic/socioeconomic factors
	Stutsman County, ND	
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Ward County, ND	
	Ashland County, WI	%AIAN, poverty, rural
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved
	Pierce County, WI	Rural

American College of Surgeons Commission on Cancer (CoC)

https://www.facs.org/quality-programs/cancer/coc

The American College of Surgeons (ACS) CoC "recognizes cancer care programs for their commitment to providing comprehensive, high-quality and multidisciplinary patient centered care" (American College of Surgeons, 2014a).

Throughout the cancer continuum of care accredited programs are at the forefront of improving survival and quality of life for those diagnosed with cancer by setting care standards, research, prevention, education and monitoring to ensure comprehensive quality care is being provided (American College of Surgeons, 2014a).

The benefits of having an ACS CoC accredited facility in the local community include (American College of Surgeons, 2014a):

- Dedicated resources to ensure quality treatment and supportive care services are provided
- Community-based cancer prevention and screening events
- Guarantee that patients have access to treatment recommended by Health and Medicine Division (formerly the Institute of Medicine), National Cancer Comprehensive Network and American Society of Clinical Oncology
- Patients' care is coordinated through a multidisciplinary oncology team
- Patients are informed about clinical trials
- Patients are provided a standard of care verified by a national organization
- Patients have access to quality cancer care that is close to home

In the US, there are 2,997 facilities that provide breast cancer treatment services; of those facilities, 1,422 (47.5%) are accredited as an ACS CoC facility.

In Komen's North Central Region, there are 602 facilities that provide breast cancer treatment services; of those facilities, 215 (35.7%) are accredited as an ACS CoC facility.

Within the North Central Region's "Highest Priority" communities, there are 86 facilities that provide breast cancer treatment services; of those facilities, 30 (34.8%) are accredited as an ACS CoC facility (Table 10). Individuals that reside in communities with ACS CoC accredited facilities have access to comprehensive, quality breast cancer treatment close to home. However, in the North Central Region, there are 56 facilities located in 38 HP2020 "Highest Priority" communities that are not ACS COC accredited and the service provided to individual seeking care may not meet ACS cancer care standards (Table 11).

Table 10. HP2020 "Highest Priority" communities in the North Central Region with ACS CoC accredited facilities

Komen Affiliate	Community	Total number of facilities in the community*	Number of CoC accredited facilities in the community	Key demographic/ socioeconomic factors
Komen Greater Kansas City	Wyandotte County, KS	2	1	%Black/African-American, %Hispanic/Latina, education, poverty, employment, foreign, language, insurance
	Clay County, MO	2	1	
	Jackson County, MO	15	7	%Black/African-American
Komen Kansas	Montgomery County, KS	1	1	%AIAN, older, employment, rural
Komen Memorial	Grundy County, IL	1	1	Rural
	Macon County, IL	1	1	
Komen Missouri	Audrain County, MO	1	1	Rural
	St. Louis City, MO	23	7	
	St. Louis County, MO	5	2	%Black/African-American
Komen Nebraska	Lincoln County, NE	1	1	
Komen South Dakota	Yankton County, SD	1	1	
Komen Southeast Wisconsin	Washington County, WI	1	1	
Not Currently Served by a Komen Affiliate	Kankakee County, IL	2	2	Rural
	Stutsman County, ND	2	1	
	Ward County, ND	3	1	
	Pierce County, WI	1	1	Rural

* Note: Facilities that provide screening, diagnostic and treatment services in the HP2020 "Highest Priority" communities with a least one CoC accredited facility. These numbers do not represent the number of facilities that provide screening, diagnostic and treatment services in all HP2020 "Highest Priority" communities.

Table 11. HP2020 "Highest Priority" communities in the North Central Region without an ACS CoC accredited facility

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Wisconsin	Lincoln County, WI	Older, Rural
Komen Greater Kansas City	Douglas County, KS	
	Bates County, MO	Rural
	Johnson County, MO	Rural
Komen Iowa	Adair County, IA	Older, Rural
	Buena Vista, IA	%API, %Hispanic/Latina, education, foreign, language, rural
	Clay County, IA	
	Dickinson, IA	Older
	Guthrie County, IA	Older, Rural
	Henry County, IA	Rural
	Ida County, IA	Older, Rural
	Montgomery County, IA	Older, Rural
	Osceola County, IA	Older, Rural
	Page County, IA	Older
	Wright County, IA	Older, Rural
Komen Kansas	McPherson County, KS	Older, Rural
	Freeborn County, MN	Older, Rural
	Martin County, MN	Older, Rural
Komen Memorial	Fulton County, IL	Older, rural
	Mason County, IL	Older, Rural
	Piatt County, IL	Rural
Komen Minnesota	Freeborn, MN	Older, Rural
	Martin County, MN	Older, Rural
Komen Missouri	Camden County, MO	Older, rural, medically underserved
Komen Nebraska	Custer County, NE	Older, Rural
	Dawson County, NE	%Hispanic/Latina, education, foreign, language, insurance
Komen Quad Cities	Clinton County, IA	
Komen South Dakota	Beadle County, SD	Education
	Lawrence County, SD	
Not Currently Served By a Komen Affiliate	Bond County, IL	Rural
	McDonald County, MO	%AIAN, %Hispanic/Latina, education, rural, insurance, medically underserved
	Pettis County, MO	Rural
	Polk County, MO	Poverty, Rural
	Ray County, MO	Rural
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Ashland County, WI	%AIAN, poverty, rural
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved

National Cancer Institute Designated Cancer Centers
http://www.cancer.gov/research/nci-role/cancer-centers

A National Cancer Institute (NCI) designated Cancer Center is an institution dedicated to researching the development of more effective approaches to the prevention, diagnosis, and treatment of cancer (National Cancer Institute, 2012). A NCI-designated Cancer Center conducts cancer research that is multidisciplinary and incorporates collaboration between institutions and university medical centers. This collaboration also provides training for scientists, physicians, and other professionals interested in specialized training or board certification in cancer-related disciplines. NCI-designated Cancer Centers also provide clinical programs that offer the most current forms of treatment for various types of cancers and typically incorporate access to clinical trials of experimental treatments.

There are 69 NCI-designated Cancer Centers in the United States with 10 centers located in Komen's North Central Region. Of those 10 NCI-designated Cancer Centers located in the North Central Region, one NCI designated Cancer Centers is located in Wyandotte County, KS, a "Highest Priority" community. The other nine NCI-designated Cancer Centers in the Komen North Central Region are located in communities that are not considered "Highest Priority".

In summary, individuals residing in four HP2020 "Highest Priority" communities in the North Central Region do not have access to any in-community breast cancer services (i.e., screening, diagnostic and treatment). Additionally, 21 of the HP2020 "Highest Priority" communities have access to in-community screening, but do not have in-community access to diagnostic and treatment services; 53 "Highest Priority" communities have in-community access to screening and diagnostic services; and 17 "Highest Priority" communities have access to screening, diagnostic and treatment services in the community. While services may be available within the community, the number of available facilities may be too few to service the population in need, facilities may not accept an individual's health insurance plan, individuals can become

"lost in the system" after an abnormal screening mammogram and/or the care received does not meet any quality-based standards. In the North Central Region, there are 78 HP2020 "Highest Priority" communities that do not have any of the listed quality-based accredited breast cancer services (Appendix I).

Qualitative Data Analysis

In order to gain a better understanding of the key barriers to breast cancer care in the local communities, Komen Headquarters Evaluation and Outcomes team analyzed qualitative data collected by Komen Affiliates. This analysis includes the review of qualitative data reports for all Affiliates within the North Central Region and the coding of central themes that were cited most frequently by survey, interview and focus group participants and published qualitative documents (Figure 2).

During 2014-2015, Affiliates conducted qualitative data collection in communities of interest (e.g., HP2020 "Highest Priority" communities and/or non-"Highest Priority" communities) within their service area to "hear" from local health care providers and/or community members the challenges local residents have in accessing breast cancer care; as well as potential solutions that may assist individuals in receiving physician recommended breast cancer screening, diagnostic and treatment services.

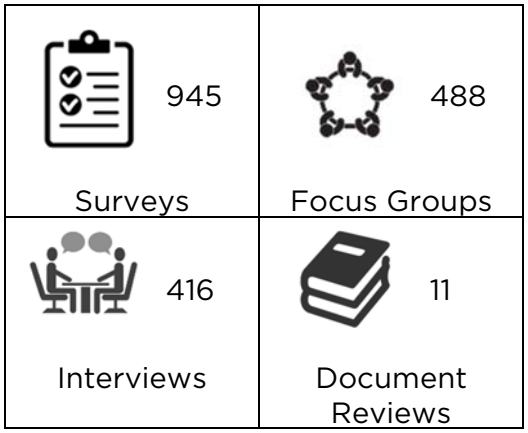


Figure 2. Komen North Central Region qualitative data collection methods and number of participants/documents

In the North Central Region, 15 Komen Affiliates[4] collected qualitative data from 56 communities of interest during the Community Profile process. Of the 56 communities of interest, 41 are designated as a HP2020 "Highest Priority" community. The common barriers to breast cancer care identified were cited by interview, focus groups and survey participants with varying demographics and socioeconomic factors and in published qualitative literature in each Affiliate's qualitative data report; but may not have been a barrier in each community of interest. Therefore, the qualitative data collected may not be representative of the specific HP2020 "Highest Priority" communities, but only the perspective of those that participated in the qualitative data collection process.

Community members who provided feedback during the qualitative data collection process along with the review of the documents frequently cited the following six

[4] While 15 Affiliates within the North Central Region completed the Community Profile process, only 14 remain due to mergers and/or dissolution

barriers that may prevent an individual from getting breast cancer services in the Komen North Central Region:

> *"There is an inherent level of uncertainty and sometimes shame in not knowing how to or not feeling able to overcome barriers to services. This creates an imbalance of power that not only negatively affects access to services, but also represses the degree to which these inequities are reported by the individuals affected." – Key Informant*

1. *Financial Barriers*
    - Lack of funds to receive adequate breast cancer care
    - Unemployment
    - Lack of pay due to time off work for appointments
2. *Availability of Services*
    - Lack of available facilities and/or providers that provide breast cancer screening, diagnostic and treatment services
    - Facilities and/or provider have limited hours and/or days opened
    - Lack of accredited breast cancer services
3. *Breast Cancer Education*
    - Lack of awareness and confusion regarding breast cancer screening guidelines
    - Lack of breast cancer education including personal risk of breast cancer
4. *Transportation*
    - Lack of available public transportation methods, ride-sharing or personal vehicle
    - Time, frequency and/or availability of public transportation or ride-sharing was not in alignment with appointments
    - Lack of resources (e.g., time off work, money to pay for gas/public transportation) to be able to travel the distance required to receive care
5. *Fear*
    - Anticipation of pain and discomfort during breast cancer screening, diagnostic and treatment procedures
    - Legal or immigration status concerns
    - Denial of being diagnosed with breast cancer
    - Worry about one's declining health if diagnosed with breast cancer
    - Stigma of being diagnosed with cancer

"..there is an issue of historical mistrust, particularly among ethnic communities of color, when it comes to accessing and navigating health systems. It's documented. There is documented literature that shows many African-American communities still have historical mistrust with the medical system. So when you couple that with screening, screening is a proactive activity that you have to do when in many instances there is no incentive. And so to be proactive with a system you don't trust is again I think unrealistic". –Focus Group Participant

6. Cultural/Language

- Lack of available providers that resemble the patient or can relate to the patients concerns
- Lack of culturally appropriate breast cancer programming and outreach

"...bilingual efforts cannot simply be putting something in Spanish. The goal must be deliberate to deliver services at the same standard for all populations and the health systems must align with other organizations to get services necessary to bridge cultural/language needs or at least be upfront that they are not filling this need." -Key Informant

Other barriers that were mentioned less frequently were lack of insurance, lack of social support, quality of care concerns and other health conditions that take precedence (e.g., diabetes, asthma and weight management). For a list of all qualitative data themes identified with corresponding definitions please see Appendix B.

CONCLUSIONS

The Komen North Central Region consists of nine states and 14 Affiliates[5]. Within the Komen North Central Region, two states (Illinois and Missouri) have late-stage diagnosis and death rates higher than the US as a whole. While the Komen North Central Region states may have better breast cancer outcomes than the US as a whole, communities within each state may face disparate outcomes.

Healthy People 2020 breast cancer targets were used as the benchmark for all communities in the Komen North Central Region. Communities that are predicted not to meet the benchmarks by 2020 are classified as "Highest Priority" since these communities are of greater need for breast cancer interventions than other areas within the region. Within the Komen North Central Region, there are 97 communities that are considered "Highest Priority". Even though the 97 "Highest Priority" communities are located in several states, there are demographic and socioeconomic

[5] While 15 Affiliates within the North Central Region completed the Community Profile process, only 14 remain due to mergers and/or dissolution

commonalities between the communities that suggest that they may share similar barriers to accessing care that could be addressed through the implementation of evidence-based and/or best practice interventions.

Within the 97 'Highest Priority" communities there are 297 screening facilities, 174 diagnostic and 86 treatment facilities. In seven of the 97 "Highest Priority" communities there are 16 American College of Radiology BICOE accredited sites. There are 86 facilities that provide screening, diagnostic and treatment services in the HP2020 "Highest Priority' communities; however, only six facilities located in three "Highest Priority" communities are recognized as meeting the American College of Surgeons NAPBC performance measures. When reviewing the accreditations for quality treatment in Komen's North Central Region, there are 30 American College of Surgeon CoC facilities located in 16 of the 97 "Highest Priority" communities. In addition, there is one NCI-designated Cancer Centers located in Wyandotte County, KS, a "Highest Priority community. The communities that do not have facilities that are accredited by the American College of Radiology, American College of Surgeons or the National Cancer Institute tend to be rural and classified as medically underserved by the US Department of Health and Human Services.

In the Komen North Central Region, 73 of the 97 "Highest Priority" communities have a substantially higher percentage of individuals residing in rural areas. Linked to the rurality of the "Highest Priority" communities is the lack of breast cancer services located within the communities, which was also voiced by the community members that participated in the qualitative data process. There are four communities in the North Central Region that do not have any breast cancer services. All four of the communities that do not have any breast cancer services are rural. This requires an individual to have resources to travel to other communities to receive care. As indicated by participants in the qualitative data process and document review, transportation is one of the top barriers identified that may prevent individuals from seeking care.

As identified by interviews, focus groups and surveys conducted by Komen Affiliates, residents in the North Central Region had various concerns about availability of services. For example participants from many different HP2020 "Highest Priority" including Johnson County, MO and Lincoln County, WI indicated a lack of services within these "Highest Priority" communities resulting in the need to travel to more populous communities to access breast cancer care. Financial barriers were the most frequently cited by participants as a barrier to receiving breast care. Concerns included lack of funds to receive adequate breast cancer care, unemployment and lack of pay due to time off work for appointments.

Collaboration among Komen Affiliates in the North Central Region that have a higher percentage of individuals residing in rural areas would allow sharing of best practices on what has worked and what has not worked in reaching rural populations and addressing the barriers they have in accessing care. These 73 rural "Highest Priority" communities are located in the following service areas: Komen Central Wisconsin, Komen Greater Kansas City, Komen Iowa, Komen Kansas, Komen Memorial, Komen Minnesota, Komen Missouri, Komen Nebraska and Komen Siouxland.

Additional factors that were common among "Highest Priority" communities in the North Central region included an older population and large population of medically-underserved areas. In the Komen North Central Region 32 of the 97 "Highest Priority" communities have a substantially higher percentage of individuals who are over the age of 65. Additionally 26 of the 97 "Highest Priority" communities were considered medically-underserved. According to the US Department of Health and Human Services, areas are designated as medically underserved when they have too few primary care providers to serve the area residents, a high percentage of residents with incomes below the poverty level and/or a high percentage of the population being over the age of 65.

Other barriers that were cited frequently by residents in focus groups, key informant interviews and surveys included lack of breast health education. This is a concern in populations that are considered older as two risk factors for breast cancer include being a woman and age. Participants cited lack of awareness and confusion regarding breast cancer screening guidelines and lack of breast cancer education including personal risk of breast cancer. Additionally it was cited that there are cultural and language barriers in these communities including lack of available providers that resemble the patient or can relate to the patients concern and lack of culturally appropriate breast cancer programming and outreach. Barriers to receiving breast care that were mentioned less frequently were lack of insurance, lack of social support, quality of care concerns and other health conditions that take precedence (e.g., diabetes, asthma and weight management).

To address these identified barriers in accessing breast cancer care, Komen North Central Region Affiliates have identified priorities within their local service area that share commonalities with all Affiliates in the region. These are the most common priorities that the Affiliates located in the North Central Region intend to focus on to reduce breast cancer late-stage diagnosis and deaths over the next five years:

- Support programs that reduce or eliminate barriers that have been identified as interfering with an individual being able to access breast cancer screening, diagnostic and treatment services. Client-oriented programs to reduce barriers include, but are not limited to free or low-cost breast cancer services,

transportation assistance, mobile mammography, extended clinic hours/locations and interpreter services.

- Provide and/or support breast cancer education programs in local communities that provide accurate, evidence-based information. These include events, education materials and programs that are culturally and linguistically appropriate.
- Develop community and organizational partnerships to address concerns raised by the community members regarding lack of patient navigation and transportation services available in the region.

In the North Central Region, Affiliates identified Black/African-American women, Hispanic/Latina women, Women over 65, minority women and women who are low-income or uninsured may have a greater challenge in overcoming barriers to care. The local Affiliates intend to focus efforts to reduce the breast cancer disparities that these individuals may be experiencing.

In conclusion, community members who participated in focus groups, interviews and surveys from the "Highest Priority" communities identified financial barriers, availability of services, lack of adequate breast cancer education, transportation, fear, and cultural/language barriers most frequently as barriers care. Some of these barriers directly align with the quantitative data which highlights a large proportion of individuals residing in rural and medically underserved and older population. In these rural areas there are lack of services and lack of quality accredited facilities and resources. This contributes to individuals traveling outside of their communities to receive care with 73 of the 97 "Highest Priority" communities having a large rural population. Other frequently cited barriers to breast cancer care cited by community members included lack of insurance, underinsured, lack of quality care and other health concerns that take precedence.

Komen Affiliates are a local breast cancer resource for "Highest Priority" communities within a service area. The Affiliate can assist with addressing the identified barriers to care, convening stakeholders to develop solutions to increase access of available breast cancer services, and provide "real-time" assistance to areas of greatest need through funding of local community grants. Collaboration across service areas and state borders provide an opportunity for the Komen North Central Region to share resources and best-practices, provide consistent messaging and address similar barriers to care, all in an effort to reduce the number of breast cancer deaths by 50.0 percent by 2026.

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APPENDICES

Appendix A. Health System Analysis Internet Search

The Evaluations and Outcomes team developed a tracking template for the Health Systems Analysis section to capture resources in target communities. The following sites were used to capture data.

Community Health Centers (CHC's) http://nachc.org/about-our-health-centers/find-a-health-center/
The team used the "Download Health Centers and Look-Alikes Report by State (PDF). Select the state you are working on and click "Generate Report". Behavioral, Dental, Teen, Children's, Shelters, Nursing homes, Jails, Schools and Administrative facilities were not be included in the information collected.

Title X http://www.hhs.gov/opa/title-x-family-planning/initiatives-and-resources/title-x-grantees-list/
The team used the facilities in the Title X list on the page. If the facility found matches the name and address information from CHC, the team retained the CHC. Behavioral, Dental, Teen and Children's facilities should not be included in the information collected. The records are all listed by states that are applicable.

Mammography Centers
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfMQSA/mqsa.cfm
This site provides a listing by zip code or state, of all mammography facilities certified by the FDA or Certifying State as meeting baseline quality standards for equipment, personnel and practices under the Mammography Quality Standards Act of 1992 (MQSA) and subsequent Mammography Quality Standards Reauthorization Act (MQSRA) amendments. To legally perform mammography, a facility must be FDA certified. This list of Food and Drug Administration (FDA) Certified Mammography Facilities is updated weekly according to the website. The team searched by state and list accordingly.

Hospitals- https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/v287-28n3
This site is a list of all hospitals that have been registered with Medicare. The team did not include psychiatric and children's hospitals. The team verified what services are offered across the Continuum of Care by visiting the hospital's website.

Appendix B. North Central Qualitative Data Themes

Availability of Services – Lack of health services in community, limited number of health professionals in community.

Awareness/Education – Lack of awareness of available services, lack of awareness of screening guidelines and confusion of screening guidelines.

Cultural/Language – Lack of interpreter services, education materials that are not translated, lack of physicians who resemble patient's culture, lack of programs that are culturally appropriate.

Fear –Pain and discomfort during screening, diagnosis and treatment, legal or immigration status concerns if treatment is obtained, denial of diagnosis, afraid of breast cancer stigma.

Financial Barriers- Lack of funds necessary to pay for the breast cancer services during the continuum of care.

Insurance Lack of insurance, lack of adequate insurance coverage (underinsured).

Lack of Awareness of Resources - Lack of awareness of available resources that may or may not be free or reduced cost including screening, diagnostic, treatment and support services as well as Komen Affiliate activities.

Lack of Childcare/Adult Care – Lack of assistance to watch or take care of children or other adult family members during appointment.

Lack of Social Support -Lack of counseling, family support, difficulty shopping, cooking and caring for family, lack of emotional support or psychological services.

Navigation – Lack of direction by health system, lack of appointment verification or scheduling, lack of connectivity through continuum of care.

Other Health Priorities – Health concerns that are immediate including weight management, asthma, diabetes etc.

Pride/Modesty – Lack of female physicians in community and unwillingness to be seen by male physician, unwillingness to accept cancer diagnosis, unwillingness to ask for help.

Quality of Care – Lack of accredited health services in community, patients distrust in the health system due to experiences, lack of provider education and expertise, lack of facility technology, poor provider-patient interaction.

Religious Perspectives – Fatalistic attitudes, belief that God will take care of it, delay of treatment due to religious beliefs.

Transportation – Lack of personal transportation available, inadequate public transportation, access to public transportation, distance to services, availability of ride-share opportunities, and public transportation limited hours.

Time –Amount of time it takes for screening, diagnosis and appointments, lack of time off work, school or away from family, work conflicts.

Appendix C. Population characteristics, Komen North Central Region Healthy People 2020 "Highest Priority" Communities

Population Group	Black/ African-American (females)	AIAN (females)	API (females)	Hispanic/ Latina (females)	Age 65 Plus (females)	Less than HS Education (females and males)	Income Below 100% Poverty (females and males)	Income Below 250% Poverty (Age: 40-64) (females and males)	Un-employed (females and males)	Foreign Born (females and males)	Linguis-tically Isolated (females and males)	In Rural Areas (females and males)	In Medically Under-served Areas (females and males)	No Health Insurance (Age: 40-64) (females and males)
US	14.1 %	1.4 %	5.8 %	16.2 %	14.8 %	14.6 %	14.3 %	33.3 %	8.7 %	12.8 %	4.7 %	19.3 %	23.3 %	16.6 %
Illinois	16.0 %	0.7 %	5.2 %	15.3 %	14.4 %	13.4 %	13.1 %	30.1 %	9.3 %	13.7 %	5.3 %	11.5 %	16.2 %	15.2 %
Bond County	4.1 %	0.5 %	0.5 %	1.7 %	17.8 %	11.6 %	10.5 %	33.3 %	9.4 %	1.9 %	0.0 %	60.7 %	6.3 %	11.8 %
Carroll County	1.0 %	0.3 %	0.5 %	3.1 %	23.5 %	10.9 %	13.1 %	32.9 %	8.5 %	2.1 %	0.8 %	81.9 %	100.0 %	13.8 %
Cass County	3.6 %	0.4 %	0.8 %	15.5 %	17.9 %	18.2 %	15.5 %	37.7 %	6.3 %	10.3 %	6.6 %	52.1 %	100.0 %	15.1 %
Fayette County	0.6 %	0.2 %	0.3 %	1.0 %	19.5 %	16.7 %	16.8 %	39.3 %	8.5 %	1.3 %	0.4 %	67.0 %	100.0 %	14.5 %
Fulton County	1.0 %	0.3 %	0.4 %	1.1 %	21.4 %	16.0 %	13.7 %	36.3 %	8.0 %	2.7 %	0.6 %	60.0 %	3.6 %	12.7 %
Grundy County	1.7 %	0.3 %	1.1 %	8.1 %	12.6 %	8.7 %	7.4 %	23.4 %	9.7 %	3.5 %	1.4 %	24.4 %	0.0 %	11.5 %
Hancock County	0.7 %	0.3 %	0.5 %	1.2 %	22.3 %	9.5 %	12.8 %	34.7 %	6.6 %	1.1 %	0.7 %	71.0 %	8.0 %	13.5 %
Kankakee County	16.4 %	0.5 %	1.2 %	8.4 %	15.2 %	14.2 %	15.0 %	35.0 %	10.7 %	4.4 %	1.8 %	24.5 %	20.9 %	13.8 %
Macon County	17.9 %	0.3 %	1.3 %	1.8 %	18.2 %	12.9 %	15.0 %	34.0 %	8.9 %	1.9 %	0.5 %	15.3 %	8.3 %	12.8 %
Mason County	0.7 %	0.4 %	0.5 %	0.9 %	21.5 %	16.2 %	15.5 %	37.2 %	8.1 %	1.3 %	0.5 %	77.5 %	15.7 %	13.3 %
Moultrie County	0.6 %	0.2 %	0.3 %	1.0 %	19.3 %	15.7 %	10.5 %	30.2 %	5.4 %	1.7 %	0.7 %	69.2 %	0.0 %	12.7 %
Piatt County	0.8 %	0.2 %	0.5 %	1.2 %	18.4 %	8.1 %	6.5 %	22.9 %	3.7 %	1.1 %	0.1 %	67.7 %	0.0 %	10.2 %
Iowa	3.4 %	0.5 %	2.0 %	4.8 %	16.9 %	9.7 %	11.9 %	27.6 %	5.5 %	4.2 %	1.6 %	36.0 %	10.9 %	9.4 %
Adair County	0.3 %	0.1 %	0.4 %	1.5 %	24.3 %	9.1 %	11.5 %	31.7 %	4.4 %	0.6 %	0.1 %	100.0%	13.4 %	10.6 %
Buena Vista County	2.7 %	0.6 %	6.3 %	22.2 %	17.3 %	21.3 %	11.3 %	33.6 %	3.6 %	16.7 %	9.6 %	43.9 %	0.0 %	14.0 %
Cherokee County	0.6 %	0.3 %	0.8 %	2.3 %	24.8 %	7.9 %	5.3 %	29.1 %	3.3 %	1.0 %	0.4 %	61.4 %	0.0 %	10.1 %
Clay County	0.7 %	0.3 %	0.6 %	2.4 %	20.8 %	7.6%	11.7%	28.7%	5.3%	2.0%	1.0%	34.3%	0.0%	10.4%
Clinton County	3.1 %	0.4 %	0.7 %	2.3 %	18.8 %	10.3 %	11.8 %	30.7 %	7.0 %	1.4 %	0.7 %	32.2 %	3.3 %	8.4 %
Decatur County	1.4 %	0.6 %	1.1 %	2.2 %	20.9 %	15.8 %	19.0 %	45.8 %	6.7 %	1.6 %	0.7 %	100.0%	100.0 %	12.7 %
Dickinson County	0.6 %	0.1 %	0.6 %	1.3 %	24.7 %	6.8 %	8.5 %	24.4 %	4.8 %	1.0 %	0.5 %	35.0 %	0.0 %	8.8 %
Guthrie County	0.4 %	0.3 %	0.6 %	1.8 %	22.6 %	8.7 %	8.1 %	28.8 %	5.6 %	1.2 %	0.4 %	100.0%	5.0 %	10.0 %
Henry County	1.9 %	0.2 %	2.9 %	3.6 %	18.8 %	9.4 %	16.8 %	34.3 %	6.6 %	4.0 %	2.6 %	57.1 %	7.1 %	11.7 %
Ida County	0.6 %	0.1 %	0.3 %	1.7 %	23.1 %	10.5 %	11.0 %	29.2 %	3.9 %	0.4 %	0.0 %	100.0%	0.0 %	10.1 %
Jackson County	0.7 %	0.2 %	0.8 %	1.2 %	21.0 %	12.5 %	9.4 %	32.6 %	4.7 %	0.6 %	0.2 %	53.3 %	0.0 %	11.3 %
Jones County	0.7 %	0.2 %	0.5 %	1.1 %	20.2 %	9.4 %	7.4 %	27.5 %	4.7 %	1.0 %	0.1 %	58.0 %	2.9 %	9.4 %
Keokuk County	0.6 %	0.2 %	0.4 %	0.9 %	22.2 %	11.0 %	11.2 %	36.7 %	5.1 %	0.7 %	0.1 %	100.0%	40.1 %	11.4 %
Lyon County	0.4 %	0.2 %	0.4 %	1.8 %	18.8 %	12.9 %	7.4 %	27.9 %	3.4 %	1.0 %	0.4 %	100.0%	7.7 %	11.5 %

Population Group	Black/ African-American (females)	AIAN (females)	API (females)	Hispanic/ Latina (females)	Age 65 Plus (females)	Less than HS Education (females and males)	Income Below 100% Poverty (females and males)	Income Below 250% Poverty (Age: 40-64) (females and males)	Un-employed (females and males)	Foreign Born (females and males)	Linguis-tically Isolated (females and males)	In Rural Areas (females and males)	In Medically Under-served Areas (females and males)	No Health Insurance (Age: 40-64) (females and males)
Madison County	0.7 %	0.3 %	0.5 %	1.3 %	16.4 %	6.1 %	8.9 %	24.6 %	5.4 %	0.8 %	0.4 %	67.8 %	0.0 %	8.8 %
Montgomery County	0.3 %	0.4 %	0.4 %	2.5 %	22.8 %	12.6 %	15.2 %	34.8 %	7.5 %	1.8 %	0.1 %	47.9 %	2.4 %	10.7 %
Osceola County	0.5 %	0.4 %	0.5 %	5.6 %	23.2 %	14.4 %	8.8 %	31.2 %	3.1 %	3.1 %	0.9 %	58.4 %	11.9 %	12.6 %
Page County	1.1 %	0.5 %	1.0 %	2.4 %	24.4 %	12.3 %	11.6 %	32.2 %	5.3 %	2.6 %	0.4 %	33.4 %	0.0 %	9.6 %
Warren County	0.8 %	0.3 %	0.8 %	2.0 %	15.2 %	4.9 %	7.0 %	19.2 %	4.1 %	1.4 %	0.1 %	42.0 %	0.0 %	7.3 %
Wright County	0.9 %	0.3 %	0.5 %	8.5 %	23.8 %	12.3 %	11.4 %	32.1 %	3.9 %	4.6 %	2.1 %	56.8 %	0.0 %	11.6 %
Kansas	6.8 %	1.4 %	2.9 %	10.3 %	15.0 %	10.5 %	12.6 %	29.6 %	6.4 %	6.5 %	2.5 %	25.8 %	12.5 %	13.2 %
Cherokee County	1.2 %	4.8 %	0.8 %	2.2 %	17.7 %	14.2 %	15.4 %	43.8 %	5.6 %	0.8 %	0.1 %	49.1 %	100.0 %	15.2 %
Douglas County	5.0 %	3.1 %	4.6 %	5.3 %	10.3 %	4.7 %	19.0 %	27.0 %	7.0 %	6.6 %	2.2 %	11.0 %	0.0 %	12.4 %
Ellis County	1.2 %	0.4 %	1.6 %	4.4 %	15.2 %	8.5 %	15.4 %	29.7 %	4.0 %	2.1 %	1.2 %	25.6 %	0.0 %	10.6 %
Franklin County	1.8 %	1.3 %	0.6 %	3.3 %	16.0 %	9.2 %	10.2 %	32.7 %	6.5 %	1.6 %	0.6 %	52.1 %	2.5 %	11.9 %
McPherson County	1.4 %	0.6 %	0.8 %	3.5 %	20.8 %	12.7 %	8.6 %	24.0 %	3.2 %	1.7 %	0.7 %	43.5 %	2.8 %	10.9 %
Montgomery County	6.3 %	4.6 %	0.9 %	5.1 %	20.0 %	12.9 %	15.3 %	39.3 %	10.3 %	2.8 %	1.1 %	43.4 %	10.4 %	15.5 %
Wyandotte County	27.8 %	1.7 %	3.0 %	24.9 %	12.2 %	21.4 %	21.9 %	44.7 %	12.7 %	14.2 %	7.2 %	6.1 %	8.7 %	20.7 %
Minnesota	5.8 %	1.5 %	4.6 %	4.6 %	14.6 %	8.4 %	11.0 %	24.4 %	6.9 %	7.1 %	2.3 %	26.7 %	14.9 %	8.6 %
Faribault County	0.4 %	0.6 %	0.4 %	5.4 %	24.9 %	10.1 %	11.8 %	32.5 %	5.4 %	1.6 %	0.6 %	77.6 %	0.0 %	10.6 %
Fillmore County	0.4 %	0.2 %	0.5 %	0.9 %	21.7 %	12.7 %	12.6 %	30.0 %	5.8 %	1.1 %	1.0 %	93.3 %	100.0 %	10.5 %
Freeborn County	1.0 %	0.3 %	1.1 %	8.1 %	22.8 %	12.7 %	11.2 %	32.0 %	5.0 %	3.2 %	1.3 %	42.8 %	0.0 %	9.6 %
Isanti County	1.0 %	0.6 %	1.2 %	1.7 %	14.4 %	8.4 %	8.2 %	26.3 %	8.9 %	1.3 %	0.1 %	62.3 %	0.0 %	8.6 %
Martin County	0.6 %	0.4 %	0.8 %	3.3 %	23 .5%	11.3 %	9.3 %	32.2 %	3.7 %	1.5 %	0.6 %	54.0 %	0.2 %	8.7 %
Pine County	0.9 %	3.2 %	0.5 %	1.5 %	18.9 %	13.2 %	15.0 %	37.1 %	9.5 %	1.7 %	0.8 %	89.3 %	100.0 %	11.9 %
Renville County	0.5 %	0.8 %	0.7 %	6.5 %	22.0 %	12.1 %	10.8 %	29.1 %	6.1 %	2.9 %	0.7 %	100.0%	11.9 %	9.3 %
Missouri	12.7 %	0.6 %	2.1 %	3.5 %	15.8 %	13.2 %	14.3 %	34.4 %	8.1 %	3.8 %	1.3 %	29.6 %	22.9 %	15.4 %
Audrain County	8.4 %	0.5 %	0.5 %	2.1 %	17.3 %	17.1 %	17.2 %	41.7 %	6.8 %	1.4 %	1.4 %	41.2 %	4.7 %	17.7 %
Barton County	1.0 %	1.6 %	0.6 %	1.9 %	19.2 %	14.6 %	18.5 %	44.5 %	7.0 %	1.9 %	0.8 %	64.0 %	8.0 %	19.6 %
Bates County	1.1 %	0.8 %	0.3 %	1.4 %	19.7 %	17.2 %	16.7 %	42.4 %	8.4 %	1.0 %	0.2 %	77.3 %	6.3 %	18.3 %
Camden County	0.7 %	0.7 %	0.7 %	2.2 %	22.7 %	10.2 %	13.1 %	37.2 %	7.0 %	1.9 %	0.7 %	74.2 %	32.6 %	17.4 %
Carter County	0.9 %	1.6 %	0.2 %	2.1 %	17.5 %	25.5 %	21.8 %	55.9 %	8.7 %	1.0 %	0.0 %	100.0%	100.0 %	23.0 %
Chariton County	2.4 %	0.4 %	0.2 %	0.4 %	24.1 %	16.0 %	14.6 %	37.7 %	4.6 %	0.6 %	0.0 %	100.0%	100.0 %	16.8 %
Clay County	6.0 %	0.7 %	2.8 %	5.7 %	12.8 %	8.1 %	7.8 %	23.4 %	5.9 %	4.7 %	1.4 %	9.8 %	0.0 %	11.9 %
Dallas County	0.7 %	1.1 %	0.5 %	1.6 %	18.4 %	22.7 %	20.5 %	51.0 %	12.3 %	0.6 %	1.5 %	81.9 %	100.0 %	20.5 %

Population Group	Black/ African-American (females)	AIAN (females)	API (females)	Hispanic/ Latina (females)	Age 65 Plus (females)	Less than HS Education (females and males)	Income Below 100% Poverty (females and males)	Income Below 250% Poverty (Age: 40-64) (females and males)	Un-employed (females and males)	Foreign Born (females and males)	Linguis-tically Isolated (females and males)	In Rural Areas (females and males)	In Medically Under-served Areas (females and males)	No Health Insurance (Age: 40-64) (females and males)
Dent County	0.7 %	1.1 %	0.4 %	1.0 %	20.9 %	23.5 %	18.8 %	48.1 %	9.9 %	1.3 %	0.2 %	68.6 %	0.0 %	18.7 %
Harrison County	0.9 %	0.4 %	0.5 %	1.5 %	23.4 %	16.7 %	15.1 %	48.7 %	8.9 %	0.9 %	0.3 %	70.4 %	100.0 %	18.8 %
Jackson County	26.2 %	0.8 %	2.2 %	7.9 %	14.3 %	12.7 %	16.5 %	34.2 %	9.2 %	5.8 %	2.3 %	3.8 %	7.0 %	17.8 %
Johnson County	5.1 %	0.7 %	2.3 %	3.4 %	11.6 %	8.9 %	16.4 %	33.2 %	8.0 %	2.7 %	0.7 %	50.4 %	7.3 %	14.4 %
Lewis County	3.9 %	0.4 %	0.4 %	1.5 %	18.0 %	14.6 %	17.4 %	40.3 %	7.5 %	1.2 %	0.4 %	100.0%	7.1 %	16.2 %
Linn County	1.3 %	0.2 %	0.3 %	1.7 %	21.6 %	10.9 %	14.7 %	43.7 %	7.3 %	1.4 %	0.2 %	66.5 %	46.5 %	15.7 %
Livingston County	4.4 %	0.4 %	0.4 %	1.3 %	19.1 %	13.3 %	18.5 %	39.6 %	4.0 %	0.4 %	0.1 %	36.6 %	0.0 %	15.4 %
McDonald County	1.3 %	3.7 %	2.2 %	11.0 %	14.1 %	23.5 %	17.5 %	49.2 %	8.9 %	6.7 %	2.6 %	100.0%	100.0 %	24.9 %
Mississippi County	20.4 %	0.2 %	0.3 %	1.5 %	19.0 %	33.4 %	25.8 %	53.3 %	13.4 %	1.3 %	0.0 %	32.7 %	100.0 %	18.3 %
Morgan County	1.1 %	0.8 %	0.5 %	1.7 %	23.4 %	19.1 %	18.4 %	50.6 %	12.3 %	1.3 %	2.0 %	100.0%	0.0 %	21.9 %
New Madrid County	17.1 %	0.4 %	0.6 %	1.1 %	18.1 %	25.4 %	21.5 %	49.5 %	7.1 %	1.0 %	0.4 %	56.9 %	100.0 %	15.9 %
Perry County	0.6 %	0.4 %	0.6 %	1.6 %	17.7 %	18.8 %	12.3 %	35.3 %	4.7 %	1.7 %	0.6 %	55.6 %	16.6 %	14.7 %
Pettis County	3.8 %	0.8 %	0.9 %	6.9 %	16.7 %	17.8 %	16.4 %	42.3 %	6.6 %	6.3 %	1.5 %	37.8 %	0.0 %	18.1 %
Pike County	4.3 %	0.2 %	0.3 %	1.7 %	18.9 %	21.3 %	14.9 %	39.2 %	8.6 %	1.5 %	0.9 %	54.4 %	0.0 %	16.0 %
Polk County	1.0 %	0.9 %	0.6 %	2.2 %	18.0 %	17.8 %	20.3 %	47.6 %	9.6 %	1.4 %	0.6 %	68.9 %	10.3 %	18.4 %
Pulaski County	12.7 %	1.2 %	4.8 %	8.6 %	9.3 %	10.0 %	14.1 %	38.7 %	11.3 %	5.1 %	1.6 %	44.0 %	100.0 %	16.7 %
Ray County	1.6 %	0.6 %	0.5 %	2.1 %	16.1 %	13.4 %	9.3 %	31.9 %	7.1 %	1.4 %	0.5 %	75.2 %	3.9 %	14.5 %
St. Louis County	25.1 %	0.3 %	3.8 %	2.4 %	17.0 %	8.5 %	9.7 %	24.0 %	7.8 %	6.5 %	1.9 %	1.1 %	2.9 %	11.9 %
St. Louis City	51.5 %	0.5 %	3.1 %	3.2 %	12.9 %	18.1 %	26.0 %	50.5 %	13.8 %	6.9 %	2.8 %	0.0 %	36.3 %	20.5 %
Wayne County	0.7 %	0.6 %	0.4 %	1.1 %	22.2 %	26.6 %	21.8 %	56.3 %	10.0 %	0.3 %	0.1 %	100.0%	100.0 %	19.8 %
Minnesota	5.8 %	1.5 %	4.6 %	4.6 %	14.6 %	8.4 %	11.0 %	24.4 %	6.9 %	7.1 %	2.3 %	26.7 %	14.9 %	8.6 %
Faribault County	0.4 %	0.6 %	0.4 %	5.4 %	24.9 %	10.1 %	11.8 %	32.5 %	5.4 %	1.6 %	0.6 %	77.6 %	0.0 %	10.6 %
Fillmore County	0.4 %	0.2 %	0.5 %	0.9 %	21.7 %	12.7 %	12.6 %	30.0 %	5.8 %	1.1 %	1.0 %	93.3 %	100.0 %	10.5 %
Freeborn County	1.0 %	0.3 %	1.1 %	8.1 %	22.8 %	12.7 %	11.2 %	32.0 %	5.0 %	3.2 %	1.3 %	42.8 %	0.0 %	9.6 %
Isanti County	1.0 %	0.6 %	1.2 %	1.7 %	14.4 %	8.4 %	8.2 %	26.3 %	8.9 %	1.3 %	0.1 %	62.3 %	0.0 %	8.6 %
Martin County	0.6 %	0.4 %	0.8 %	3.3 %	23 .5%	11.3 %	9.3 %	32.2 %	3.7 %	1.5 %	0.6 %	54.0 %	0.2 %	8.7 %
Pine County	0.9 %	3.2 %	0.5 %	1.5 %	18.9 %	13.2 %	15.0 %	37.1 %	9.5 %	1.7 %	0.8 %	89.3 %	100.0 %	11.9 %
Renville County	0.5 %	0.8 %	0.7 %	6.5 %	22.0 %	12.1 %	10.8 %	29.1 %	6.1 %	2.9 %	0.7 %	100.0%	11.9 %	9.3 %
Nebraska	5.2 %	1.4 %	2.2 %	8.9 %	15.3 %	9.7 %	12.0 %	28.2 %	5.4 %	6.0 %	2.4 %	26.9 %	18.9 %	12.2 %
Custer County	0.4 %	0.6 %	0.3 %	2.0 %	22.7 %	7.7 %	9.4 %	36.3 %	4.1 %	0.5 %	0.2 %	67.7 %	9.0 %	15.3 %
Dawson County	3.0 %	1.8 %	1.1 %	30.9 %	15.9 %	24.1 %	12.5 %	38.1 %	5.2 %	18.8 %	8.0 %	26.7 %	0.0 %	19.0 %

Population Group	Black/ African-American (females)	AIAN (females)	API (females)	Hispanic/ Latina (females)	Age 65 Plus (females)	Less than HS Education (females and males)	Income Below 100% Poverty (females and males)	Income Below 250% Poverty (Age: 40-64) (females and males)	Un-employed (females and males)	Foreign Born (females and males)	Linguis-tically Isolated (females and males)	In Rural Areas (females and males)	In Medically Under-served Areas (females and males)	No Health Insurance (Age: 40-64) (females and males)
Lincoln County	1.1 %	0.9 %	0.7 %	6.9 %	17.7 %	7.8 %	10.1 %	29.2 %	5.6 %	1.7 %	0.8 %	30.5 %	0.0 %	10.9 %
Saunders County	0.4 %	0.4 %	0.6 %	1.9 %	17.4 %	6.9 %	7.4 %	24.6 %	3.0 %	1.3 %	0.6 %	66.5 %	7.3 %	10.3 %
North Dakota	1.4 %	6.0 %	1.3 %	2.1 %	16.5 %	10.0 %	12.3 %	25.0 %	3.4 %	2.5 %	0.8 %	40.1 %	25.7 %	10.4 %
Rolette County	0.4 %	77.5 %	0.4 %	1.4 %	11.0 %	18.5 %	36.7 %	52.3 %	4.3 %	0.5 %	0.2 %	100.0%	100.0 %	19.5 %
Stark County	0.9 %	1.3 %	1.6 %	2.2 %	18.4 %	12.7 %	9.3 %	22.7 %	2.9 %	2.2 %	0.6 %	27.3 %	13.0 %	9.0 %
Stutsman County	0.8 %	1.2 %	0.8 %	1.6 %	20.2 %	14.2 %	11.1 %	27.2 %	2.2 %	1.3 %	0.6 %	27.6 %	0.8 %	9.3 %
Walsh County	0.5 %	2.1 %	0.4 %	8.1 %	23.3 %	17.6 %	10.3 %	28.1 %	3.1 %	2.0 %	1.0 %	62.1 %	15.4 %	11.5 %
Ward County	2.9 %	3.5 %	1.4 %	3.1 %	14.6 %	7.5 %	10.1 %	26.1 %	2.9 %	2.2 %	0.1 %	21.9 %	7.6 %	10.9 %
Williams County	0.8 %	5.1 %	0.6 %	2.8 %	16.5 %	11.3 %	8.4 %	17.9 %	1.4 %	2.0 %	0.1 %	32.5 %	0.0 %	8.2 %
South Dakota	1.5 %	9.6 %	1.2 %	2.7 %	16.2 %	10.2 %	13.8 %	30.0 %	4.8 %	2.4 %	1.0 %	43.3 %	31.0 %	13.0 %
Beadle County	1.6 %	1.6 %	4.2 %	7.1 %	19.4 %	16.3 %	12.8 %	31.5 %	3.6 %	5.8 %	2.4 %	27.4 %	0.0 %	13.5 %
Lake County	0.8 %	1.0 %	0.9 %	1.3 %	18.9 %	8.3 %	13.1 %	26.3 %	3.9 %	1.6 %	0.4 %	44.9 %	0.0 %	10.2 %
Lawrence County	0.7 %	3.0 %	0.9 %	2.6 %	18.4 %	7.3 %	14.1 %	30.0 %	4.5 %	1.4 %	0.1 %	36.9 %	0.0 %	12.8 %
Union County	0.7 %	0.8 %	1.3 %	2.1 %	15.8 %	8.1 %	4.9 %	18.6 %	3.5 %	2.5 %	0.0 %	61.4 %	100.0 %	7.2 %
Yankton County	0.9 %	2.4 %	0.7 %	2.2 %	19.6 %	11.0 %	10.4 %	30.8 %	3.5 %	2.2 %	0.6 %	34.8 %	0.0 %	12.6 %
Wisconsin	7.1 %	1.2 %	2.6 %	5.8 %	15.5 %	10.2 %	12.0 %	27.4 %	7.1 %	4.6 %	1.6 %	29.8 %	13.9 %	9.4 %
Ashland County	0.8 %	12.7 %	0.6 %	2.1 %	17.5 %	9.2 %	19.1 %	42.2 %	9.6 %	1.3 %	0.4 %	54.9 %	0.0 %	13.5 %
Chippewa County	0.6 %	0.5 %	1.5 %	1.1 %	16.6 %	10.8 %	10.7 %	30.5 %	7.6 %	1.3 %	0.2 %	46.1 %	36.9 %	8.9 %
Lincoln County	0.4 %	0.4 %	0.6 %	1.1 %	20.7 %	11.9 %	10.6 %	29.9 %	6.1 %	1.1 %	0.1 %	54.0 %	0.0 %	9.3 %
Oconto County	0.4 %	1.6 %	0.5 %	1.4 %	17.3 %	12.0 %	11.6 %	30.6 %	7.1 %	1.0 %	0.4 %	81.3 %	65.4 %	11.0 %
Pierce County	0.7 %	0.4 %	1.3 %	1.5 %	11.5 %	6.6 %	10.5 %	20.8 %	5.6 %	1.5 %	0.1 %	53.6 %	0.0 %	7.6 %
Shawano County	0.6 %	8.7 %	0.5 %	2.1 %	20.4 %	11.9 %	11.3 %	33.3 %	8.0 %	1.2 %	0.7 %	74.4 %	23.9 %	12.5 %
Vilas County	0.4 %	11.3 %	0.5 %	1.4 %	27.5 %	8.6 %	12.9 %	37.2 %	9.2 %	2.1 %	0.2 %	100.0%	100.0 %	14.8 %
Washington County	1.2 %	0.4 %	1.4 %	2.5 %	15.5 %	7.7 %	5.3 %	17.8 %	5.8 %	2.7 %	0.4 %	30.8 %	0.0 %	6.3 %

*The data in red represent at least a 3.0 (if <10.0%) or 5.0% (if ≥ 10.0%) percentage point difference than the state average.

Source of race, ethnicity and age data: Source: US Census Bureau – Population Estimates for 2011

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.

Appendix D. HP2020 "Highest Priority" communities in the North Central Region with a substantially higher percentage of individuals living in rural areas

Affiliate	Community	Key Population Characteristics
Komen Central Wisconsin	Lincoln County, WI	Older, rural
	Shawano County, WI	%AIAN, rural, medically underserved
Komen Greater Kansas City	Bates County, MO	Rural
	Johnson County, MO	Rural
Komen Iowa	Adair County, IA	Older, rural
	Buena Vista County, IA	%API, %Hispanic/Latina, education, foreign, language, rural
	Cherokee County, IA	Older, rural
	Decatur County, IA	Education, poverty, rural, medically underserved
	Guthrie County, IA	Older, rural
	Henry County, IA	Rural
	Ida County, IA	Older, rural
	Jackson County, IA	Rural
	Jones County, IA	Rural
	Keokuk County, IA	Older, rural, medically underserved
	Madison County, IA	Rural
	Montgomery County, IA	Older, rural
	Osceola County, IA	Older, rural
	Warren County, IA	Rural
	Wright County, IA	Older, rural
Komen Kansas	Cherokee County, KS	%AIAN, rural, medically underserved
	Franklin County	Rural
	McPherson County, KS	Older, rural
	Montgomery County, KS	%AIAN, older, employment, rural
Komen Memorial	Cass County, IL	Rural, medically underserved
	Fayette County, IL	Rural, medically underserved
	Fulton County, IL	Older, rural
	Grundy County, IL	Rural
	Hancock County, Il	Older, rural
	Mason County, Il	Older, rural
	Moultrie County, IL	Rural
	Piatt County, IL	Rural
Komen Minnesota	Faribault County, MN	Older, rural
	Fillmore County, MN	Older, rural, medically underserved
	Freeborn County, MN	Older, rural
	Isanti County, MN	Rural
	Martin County, MN	Older, rural
	Pine County, MN	Rural, medically underserved
	Renville County, MN	Older, rural
Komen Missouri	Audrain County, MO	Rural

Affiliate	Community	Key Population Characteristics
	Camden County, MO	Older, rural, medically underserved
	Chariton County, MO	Older, rural, medically underserved
	Morgan County, MO	Older, education, employment, rural, insurance
	Perry County, MO	Education, rural
Komen Nebraska	Custer County, NE	Older, rural
	Saunders County, NE	Rural
Komen Siouxland	Lyon County, IA	Rural
	Union County, SD	Rural, medically underserved
Not Currently Served By A Komen Affiliate	Bond County, IL	Rural
	Carroll County, IL	Older, rural, medically underserved
	Kankakee County, IL	Rural
	Barton County, MO	Rural
	Carter County, MO	Education, poverty, rural, insurance, medically underserved
	Dallas County, MO	Education, poverty, employment, rural, insurance, medically underserved
	Dent County, MO	Older, education, rural
	Harrison County, MO	Older, rural, medically underserved
	Lewis County, MO	Rural
	Linn County, MO	Older, rural, medically underserved
	Livingston County, MO	Rural
	McDonald County, MO	%AIAN, %Hispanic/Latina, education, rural, insurance, medically underserved
	New Madrid County, MO	Education, poverty, rural, medically underserved
	Pettis County, MO	Rural
	Pierce County, WI	Rural
	Pike County, MO	Education, rural
	Polk County, MO	Poverty, rural
	Pulaski County, MO	%Hispanic/Latina, employment, rural, medically underserved
	Ray County, MO	Rural
	Wayne County, MO	Older, education, poverty, rural, medically underserved
	Rolette County, ND	%AIAN, education, poverty, rural, insurance, medically underserved
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Ashland County, WI	%AIAN, poverty, rural
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved
	Vilas County, WI	%AIAN, older, rural, insurance, medically underserved

Appendix E. HP2020 "Highest Priority" communities in the North Central Region with a substantially higher percentage of older individuals

Affiliate	Community	Key Population Characteristics
Komen Central Wisconsin	Lincoln County, WI	Older, rural
Komen Iowa	Adair County, IA	Older, rural
	Cherokee County, IA	Older, rural
	Dickinson County, IA	Older
	Guthrie County, IA	Older, rural
	Ida County, IA	Older, rural
	Keokuk County, IA	Older, rural, medically underserved
	Montgomery County, IA	Older, rural
	Osceola County, IA	Older, rural
	Page County, IA	Older
	Wright County, IA	Older, rural
Komen Kansas	McPherson County, KS	Older, rural
	Montgomery County, KS	%AIAN, older, employment, rural
Komen Memorial	Fulton County, IL	Older, rural
	Hancock County, IL	Older, rural
	Mason County, IL	Older, rural
Komen Minnesota	Faribault County, MN	Older, rural
	Fillmore County, MN	Older, rural, medically underserved
	Freeborn County, MN	Older, rural
	Martin County, MN	Older, rural
	Renville County, MN	Older, rural
Komen Missouri	Camden County, MO	Older, rural, medically underserved
	Chariton County, MO	Older, rural, medically underserved
	Morgan County, MO	Older, education, employment, rural, insurance
Komen Nebraska	Custer County, NE	Older, rural
Not Currently Served By A Komen Affiliate	Carroll County, IL	Older, rural, medically underserved
	Dent County, MO	Older, education, rural
	Harrison County, MO	Older, rural, medically underserved
	Linn County, MO	Older, rural, medically underserved
	Wayne County, MO	Older, education, poverty, rural, medically underserved
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Vilas County, WI	%AIAN, older, rural, insurance, medically underserved

Appendix F. HP2020 "Highest Priority" communities in the North Central Region with a substantially higher percentage of individuals living in medically underserved areas

Affiliate	Community	Key Population Characteristics
Komen Central Wisconsin	Shawano County, WI	%AIAN, rural, medically underserved
Komen Iowa	Decatur County, IA	Education, poverty, rural, medically underserved
	Keokuk County, IA	Older, rural, medically underserved
Komen Kansas	Cherokee County, KS	%AIAN, rural, medically underserved
Komen Memorial	Cass County, IL	Rural, medically underserved
	Fayette County, IL	Rural, medically underserved
Komen Minnesota	Fillmore County, MN	Older, rural, medically underserved
	Pine County, MN	Rural, medically underserved
Komen Missouri	Camden County, MO	Older, rural, medically underserved
	St. Louis City, MO	%Black/African-American, poverty, employment, insurance, medically underserved
	Chariton County, MO	Older, rural, medically underserved
Komen Siouxland	Union County, SD	Rural, medically underserved
Not Currently Served By A Komen Affiliate	Carroll County, IL	Older, rural, medically underserved
	Carter County, MO	Education, poverty, rural, insurance, medically underserved
	Dallas County, MO	Education, poverty, employment, rural, insurance, medically underserved
	Harrison County, MO	Older, rural, medically underserved
	Linn County, MO	Older, rural, medically underserved
	McDonald County, MO	%AIAN, %Hispanic/Latina, education, rural, insurance, medically underserved
	Mississippi County, MO	%Black/African-American, education, poverty, employment, medically underserved
	New Madrid County, MO	Education, poverty, rural, medically underserved
	Pulaski County, MO	%Hispanic/Latina, employment, rural, medically underserved
	Wayne County, MO	Older, education, poverty, rural, medically underserved
	Rolette County, ND	%AIAN, education, poverty, rural, insurance, medically underserved
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved
	Vilas County, WI	%AIAN, older, rural, insurance, medically underserved

Appendix G. Breast cancer services available within HP2020 "Highest Priority" communities and the state, Komen North Central Region*



	"Highest Priority"	State	"Highest Priority"	State	"Highest Priority"	State
Illinois	33	748	17	359	9	136
Iowa	31	257	21	147	14	87
Kansas	28	271	13	125	5	47
Minnesota	8	340	6	218	2	76
Missouri	112	397	65	176	36	83
Nebraska	11	162	6	97	3	48
North Dakota	24	102	17	64	6	23
South Dakota	17	142	9	54	4	14
Wisconsin	33	331	20	238	7	88

* Data represents information gathered through an internet search in 2014. Therefore not all services in a community may be represented.

Appendix H. HP2020 "Highest Priority" communities in the North Central Region without ACR BICOE accredited facilities

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Wisconsin	Lincoln County, WI	Older, Rural
Komen Greater Kansas City	Bates County, MO	Rural
	Clay County, MO	
	Douglas County, KS	
	Johnson County, MO	Rural
	Wyandotte County, KS	%Black/African-American, %Hispanic/Latina, education, poverty, employment, foreign, language, insurance
Komen Iowa	Adair County, IA	Older, Rural
	Buena Vista, IA	%API, %Hispanic/Latina, education, foreign, language, rural
	Cherokee County, IA	Older, rural
	Clay County, IA	
	Decatur County, IA	Education, poverty, rural, medically underserved
	Dickinson County, IA	Older
	Guthrie County, IA	Older, Rural
	Henry County, IA	Rural
	Ida County, IA	Older, Rural
	Jackson County, IA	Rural
	Jones County, IA	Rural
	Madison County, IA	Rural
	Montgomery County, IA	Older, Rural
	Osceola County, IA	Older, Rural
	Page County, IA	Older
	Wright County, IA	Older, Rural
Komen Kansas	Cherokee County, KS	%AIAN, Rural, Medically Underserved
	McPherson County, KS	Older, Rural
	Montgomery County, KS	%AIAN, Older, Employment, Rural
Komen Memorial	Fulton County, IL	Older, rural
	Grundy County, IL	Rural
	Macon County, IL	
	Mason County, IL	Older, Rural
	Moultrie County, IL	Rural
	Piatt County, IL	Rural
Komen Minnesota	Fairbault, MN	Older, Rural
	Freeborn County, MN	Older, Rural
	Isanti County, MN	Rural
	Martin County, MN	Older, Rural
	Pine County, MN	Rural, Medically Underserved

Komen Affiliate	Community	Key demographic/socioeconomic factors
	Renville County, MN	Older, Rural
Komen Missouri	Audrain County, MO	Rural
	Camden County, MO	Older, rural, medically underserved
Komen Nebraska	Custer County, NE	Older, Rural
	Dawson County, NE	%Hispanic/Latina, education, foreign, language, insurance
	Lincoln County, NE	
	Saunders County, NE	Rural
Komen Quad Cities	Clinton County, IA	
Komen South Dakota	Beadle County, SD	Education
	Lawrence County, SD	
	Yankton County, SD	
Not Currently Served By a Komen Affiliate	Bond County, IL	Rural
	Barton County, MO	Rural
	Dent County, MO	Older, education, rural
	Harrison County, MO	Older, rural, medically underserved
	Pettis County, MO	Rural
	Polk County, MO	Poverty, rural
	Pulaski County, MO	%Hispanic/Latina, employment, rural, medically underserved
	Ray County, MO	Rural
	Rolette County, ND	%Hispanic/Latina, older, education, rural
	Stark County, ND	
	Stutsman County, ND	
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Ward County, ND	
	Williams County, ND	
	Ashland County, WI	%AIAN, poverty, rural
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved
	Pierce County, WI	Rural

Appendix I. HP2020 "Highest Priority" communities in the North Central Region without ACR BICOE, ACS CoC, ACS NAPBC or NCI accredited screening, diagnostic and treatment services

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Wisconsin	Lincoln County, WI	Older, rural
	Shawano County, WI	%AIAN, rural, medically underserved
Komen Greater Kansas City	Douglas County, KS	
	Bates County, MO	Rural
	Johnson County, MO	Rural
Komen Iowa	Adair County, IA	Older, rural
	Buena Vista County, IA	%API, %Hispanic/Latina, education, foreign, language, rural
	Cherokee County, IA	Older, rural
	Clay County, IA	
	Decatur County, IA	Education, poverty, rural, medically underserved
	Dickinson County, IA	Older
	Guthrie County, IA	Older, rural
	Henry County, IA	Rural
	Ida County, IA	Older, rural
	Jackson County, IA	Rural
	Jones County, IA	Rural
	Keokuk County, IA	Older, rural, medically underserved
	Madison County, IA	Rural
	Montgomery County, IA	Older, rural
	Osceola County, IA	Older, rural
	Page County, IA	Older
	Warren County, IA	Rural
	Wright County, IA	Older, rural
Komen Kansas	Cherokee County, KS	%AIAN, rural, medically underserved
	Franklin County, KS	Rural
	McPherson County, KS	Older, rural
Komen Memorial	Cass County, IL	Rural, medically underserved
	Fayette County, IL	Rural, medically underserved
	Fulton County, IL	Older, rural
	Hancock County, IL	Older, rural
	Mason County, IL	Older, rural
	Moultrie County, IL	Rural
	Piatt County, IL	Rural
Komen Minnesota	Faribault County, MN	Older, rural
	Fillmore County, MN	Older, rural, medically underserved
	Freeborn County, MN	Older, rural
	Isanti County, MN	Rural
	Martin County, MN	Older, rural
	Pine County, MN	Rural, medically underserved
	Renville County, MN	Older, rural

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Missouri	Camden County, MO	Older, rural, medically underserved
	Morgan County, MO	Older, education, employment, rural, insurance
	Perry County, MO	Education, rural
	Chariton County, MO	Older, rural, medically underserved
Komen Nebraska	Custer County, NE	Older, rural
	Dawson County, NE	%Hispanic/Latina, education, foreign, language, insurance
	Saunders County, NE	Rural
Komen Quad Cities	Clinton County, IA	
Komen Siouxland	Lyon County, IA	Rural
Komen South Dakota	Beadle County, SD	Education
	Lake County, SD	
	Lawrence County, SD	
Not Currently Served By A Komen Affiliate	Bond County, IL	Rural
	Carroll County, IL	Older, rural, medically underserved
	Barton County, MO	Rural
	Carter County, MO	Education, poverty, rural, insurance, medically underserved
	Dallas County, MO	Education, poverty, employment, rural, insurance, medically underserved
	Dent County, MO	Older, education, rural
	Harrison County, MO	Older, rural, medically underserved
	Lewis County, MO	Rural
	Linn County, MO	Older, rural, medically underserved
	Livingston County, MO	Rural
	Mississippi County, MO	%Black/African-American, education, poverty, employment, medically underserved
	New Madrid County, MO	Education, poverty, rural, medically underserved
	Pettis County, MO	Rural
	Pike County, MO	Education, rural
	Polk County, MO	Poverty, rural
	Pulaski County, MO	%Hispanic/Latina, employment, rural, medically underserved
	Ray County, MO	Rural
	Wayne County, MO	Older, education, poverty, rural, medically underserved
	Rolette County, ND	%AIAN, education, poverty, rural, insurance, medically underserved
	Stark County, ND	
	Walsh County, ND	%Hispanic/Latina, older, education, rural
	Williams County, ND	
	Ashland County, WI	%AIAN, poverty, rural
	Chippewa County, WI	Rural, medically underserved
	Oconto County, WI	Rural, medically underserved
	Vilas County, WI	%AIAN, older, rural, insurance, medically underserved