susan g. komen.

COMMUNITY PROFILE REPORT 2015

EAST CENTRAL REGION

TABLE OF CONTENTS

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 East Central Region. This region includes the states of Indiana, Kentucky, Michigan, Ohio and West Virginia.

As of August 2016, there were nine Komen Affiliates[1] and Komen Detroit Race for the Cure® located in the East Central Region:

- Komen Central Indiana
- Komen Columbus
- Komen Evansville Tri-State
- Komen Kentucky
- Komen Michigan
- Komen Northeast Ohio
- Komen Northwest Ohio
- Komen Southwest Ohio
- Komen West Virginia

[1] While 12 Affiliates within the East Central Region completed the 2015 Community Profile process, only nine 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 level 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 level Community Profiles in order to compile data and provide a broader perspective of the results found within the Komen East Central Region. The data provided in this report are meant to aid Komen Headquarters and the Affiliates within the East 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 five State and 12 Affiliate Community Profile Reports[2] from the Komen East Central Region and compiled the available data into this Komen East Central Regional Community Profile Report.

Quantitative Data

To determine which communities (e.g., counties, cities) in the East Central Region bear the greatest burden of breast cancer, data representing all communities from the State Community Profile Reports 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) Summary Stage definitions (Young et al., 2001). The breast cancer late-stage

[2] While 12 Affiliates within the East Central Region completed the 2015 Community Profile process, only nine remain due to mergers and/or dissolution

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 five State Community Profile Reports reflecting the East 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:

- Late-stage diagnosis and trends data: North American Association of Central Cancer Registries (NAACCR)-CINA Deluxe Analytic File, 2006-2010
- 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

- 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 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 East Central Region's "Highest Priority" communities. In addition, the number and type of accredited facilities in the East Central Region's "Highest Priority" community were also extracted and used in this report.

The following icons are 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 11 Komen Affiliates in the East 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 the Affiliates. 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. All 12 Affiliates[3] in Komen's East Central Region completed a MAP. 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

[3] While 12 Affiliates within the East Central Region completed the 2015 Community Profile process, only nine remain due to mergers and/or dissolution

the Affiliates expected to achieve within five years. Objectives are the activities that an Affiliate is going to do to reach the priorities.

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 were first classified into descriptive categories. The categories were then analyzed to identify commonalities. Commonalities identified from the East 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 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 late-stage diagnosis and death 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 11 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 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 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 East Central Region and enable Affiliates within the region to work together to address common goals, Komen Headquarters Evaluation and Outcomes compiled available quantitative, health systems and qualitative data within the East 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 East 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 East Central Region.

Table 1. Female breast cancer late-stage diagnosis and death rates and trends- Komen East 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%
Indiana	3,260,368	1,488	41.1	-0.6%	909	23.9	-1.9%
Kentucky	2,179,870	1,083	43.4	-2.6%	597	23.1	-1.8%
Michigan	5,067,869	2,371	41.0	-0.6%	1,468	24	-2.0%
Ohio	5,889,869	2,972	44.0	0.6%	1,820	24.8	-1.9%
West Virginia	935,126	455	38.9	0.8%	283	22.1	-1.6%

NA – data not available.
Late-stage diagnosis data are for years 2006-2010 except for Ohio which are 2005-2009.
Death data are for years 2006-2010.
Rates are cases/deaths per 100,000 women.
Age-adjusted rates are adjusted to the 2000 US standard population.
Source of death rate data: CDC – NCHS mortality data in SEER*Stat.
Source of death trend data: NCI/CDC State Cancer Profiles.
Source of late-stage diagnosis rate and trend data: NAACCR – CINA Deluxe Analytic File.

Comparison to Healthy People 2020 Targets

Healthy People 2020 (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 East Central Region may 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 East 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 East Central Region that have been designated "Highest Priority". Communities designated as "Highest Priority" mean 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 each HP2020 "Highest Priority" community's key population characteristics 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: 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 East 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%)	
Indiana	Boone County	Komen Central Indiana	40.3 (+10.5%)**	31.8 (-0.1%)	Rural
Indiana	Carroll County	Not Currently Served By A Komen Affiliate	37.9 (+32.9%)**	25.4 (-0.8%)	Rural
Indiana	DeKalb County	Not Currently Served By A Komen Affiliate	43.7 (+6.4%)	24.5 (-0.5%)	Rural
Indiana	Floyd County	Komen Kentucky	41.9 (+6.3%)	25.1 (-1.2%)	
Indiana	Fulton County	Not Currently Served By A Komen Affiliate	49.4 (-0.4%)	40.8 (+2.5%)	Rural
Indiana	Jasper County	Not Currently Served By A Komen Affiliate	43.9 (+18.5%)	34.5 (-1.1%)	Rural
Indiana	Jennings County	Not Currently Served By A Komen Affiliate	40.3 (+27.9%)**	SN	Employment, rural
Indiana	LaGrange County	Not Currently Served By A Komen Affiliate	23.1 (+26.5%)**	SN	Education, language, rural, insurance
Indiana	Lake County	Not Currently Served By A Komen Affiliate	46.8 (+2.0%)	28.2 (-1.9%)	%Black/African-American, %Hispanic/Latina, medically underserved
Indiana	Orange County	Not Currently Served By A Komen Affiliate	38.7 (+11.3%)**	SN	Education, rural
Indiana	Rush County	Komen Central Indiana	42.5 (+1.3%)	27.7 (NA)	Rural
Indiana	Spencer County	Komen Evansville Tri-State	30.2 (+24.7%)**	SN	Rural, medically underserved
Indiana	Vermillion County	Komen Central Indiana	38.0 (+18.3%)**	SN	Rural
Indiana	Vigo County	Komen Central Indiana	40.3 (+12.9%)**	25.1 (-1.5%)	
Indiana	Warrick County	Komen Evansville Tri-State	32.4 (+16.9%)**	24.8 (-1.1%)	
Indiana	Washington County	Not Currently Served By A Komen Affiliate	39.2 (+9.3%)**	20.5 (NA)	Education, rural, medically underserved
Kentucky	Adair County	Komen Kentucky	41.9 (+2.1%)	SN	Education, employment, rural, insurance
Kentucky	Barren County	Komen Kentucky	43.2 (+0.9%)	23.2 (-0.5%)	Rural
Kentucky	Boyle County	Komen Kentucky	48.9 (+8.4%)	25.4 (-1.6%)	
Kentucky	Caldwell County	Komen Kentucky	36.9 (+33.7%)**	SN	Rural, medically underserved
Kentucky	Casey County	Komen Kentucky	64.9 (+1.7%)	SN	Education, poverty, rural, insurance, medically underserved

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Kentucky	Clark County	Komen Kentucky	35.2 (+7.0%)**	26.5 (-0.8%)	
Kentucky	Clay County	Komen Kentucky	43.2 (+9.2%)	37.2 (NA)	Education, poverty, employment, rural, medically underserved
Kentucky	Fleming County	Komen Kentucky	56.8 (-0.1%)	SN	Education, rural
Kentucky	Floyd County	Komen Kentucky	37.3 (+1.6%)**	29.5 (-0.2%)	Education, poverty, rural
Kentucky	Garrard County	Komen Kentucky	50.5 (+8.2%)	SN	Employment, rural, medically underserved
Kentucky	Grant County	Komen Southwest Ohio	56.7 (+0.3%)	SN	Rural
Kentucky	Harrison County	Komen Kentucky	30.2 (+32.1%)**	SN	Rural
Kentucky	Henry County	Komen Kentucky	40.6 (+10.8%)**	SN	Rural
Kentucky	Johnson County	Komen Kentucky	45.6 (+31.3%)	26.8 (+3.9%)	Education, rural
Kentucky	Lawrence County	Komen Kentucky	39.8 (+8.0%)**	SN	Education, poverty, rural, medically underserved
Kentucky	Leslie County	Komen Kentucky	50.9 (+8.5%)	SN	Education, poverty, rural, medically underserved
Kentucky	Magoffin County	Komen Kentucky	53.8 (+29.6%)	SN	Education, poverty, rural, insurance, medically underserved
Kentucky	McLean County	Komen Evansville Tri-State	59.8 (+7.5%)	SN	Rural, medically underserved
Kentucky	Oldham County	Komen Kentucky	41.3 (+3.3%)	26.6 (+0.3%)	
Kentucky	Perry County	Komen Kentucky	40.4 (+39.4%)**	SN	Education, poverty, rural
Kentucky	Rowan County	Komen Kentucky	51.7 (+9.0%)	27.7 (NA)	Poverty, rural
Kentucky	Scott County	Komen Kentucky	53.7 (+4.4%)	26.7 (-1.2%)	Medically underserved
Kentucky	Simpson County	Komen Kentucky	38.3 (+1.3%)**	SN	
Kentucky	Spencer County	Komen Kentucky	51.8 (+0.7%)	SN	Rural, medically underserved
Kentucky	Taylor County	Komen Kentucky	49.4 (+6.3%)	21.4 (NA)	Education, rural
Kentucky	Wayne County	Komen Kentucky	50.6 (-1.3%)	34.1 (+0.2%)	Education, poverty, employment, rural, medically underserved
Michigan	Arenac County	Not Currently Served By A Komen Affiliate	36.8 (+3.4%)**	SN	Older, education, rural, medically underserved
Michigan	Benzie County	Not Currently Served By A Komen Affiliate	42.9 (+10.7%)	SN	Older, rural
Michigan	Cheboygan County	Not Currently Served By A Komen Affiliate	32.7 (+14.4%)**	30.2 (-1.3%)	Older, employment, rural, insurance, medically underserved

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Michigan	Emmet County	Not Currently Served By A Komen Affiliate	30.8 (+18.1%)**	SN	%AIAN, rural
Michigan	Grand Traverse County	Not Currently Served By A Komen Affiliate	47.0 (+3.8%)	22.1 (+24.8%)	Rural
Michigan	Gratiot County	Not Currently Served By A Komen Affiliate	51.0 (+3.0%)	30.8 (+0.1%)	Rural, medically underserved
Michigan	Leelanau County	Not Currently Served By A Komen Affiliate	19.1 (+20.4%)**	SN	%AIAN, older, rural
Michigan	Mackinac County	Not Currently Served By A Komen Affiliate	59.3 (+29.6%)	SN	%AIAN, older, rural, insurance, medically underserved
Michigan	Menominee County	Not Currently Served By A Komen Affiliate	SN	28.4 (+1.7%)	Older, rural, medically underserved
Michigan	Missaukee County	Not Currently Served By A Komen Affiliate	41.4 (+10.3%)	SN	Rural, medically underserved
Michigan	Montmorency County	Not Currently Served By A Komen Affiliate	39.6 (+7.7%)**	SN	Older, education, employment, rural, medically underserved
Michigan	Ogemaw County	Not Currently Served By A Komen Affiliate	26.2 (+6.7%)**	SN	Older, education, rural
Michigan	Osceola County	Not Currently Served By A Komen Affiliate	44.8 (+44.6%)	23.8 (-0.9%)	Rural
Michigan	Otsego County	Not Currently Served By A Komen Affiliate	32.7 (+3.1%)**	27.8 (-1.8%)	Rural
Michigan	Wayne County	Komen Detroit Race for the Cure®	46.2 (-0.1%)	29.2 (-1.6%)	%Black/African-American, poverty, employment, medically underserved
Michigan	Wexford County	Not Currently Served By A Komen Affiliate	42.8 (+27.0%)	SN	Rural
Ohio	Adams County	Komen Southwest Ohio	39.3 (+5.9%)**	28.9 (+2.8%)	Education, poverty, employment, rural, medically underserved
Ohio	Ashtabula County	Komen Northeast Ohio	43.0 (-0.5%)	25.7 (-1.8%)	Rural
Ohio	Auglaize County	Komen Northwest Ohio	51.9 (+2.3%)	37.6 (+0.6%)	Rural
Ohio	Butler County	Komen Southwest Ohio	43.6 (+2.0%)	24.7 (-1.3%)	
Ohio	Clark County	Komen Columbus	49.7 (+3.3%)	27.1 (-1.2%)	
Ohio	Clinton County	Komen Southwest Ohio	42.8 (+4.6%)	28.2 (+0.4%)	Rural
Ohio	Erie County	Komen Northwest Ohio	53.9 (+6.1%)	30.8 (-1.4%)	
Ohio	Hamilton County	Komen Southwest Ohio	46.2 (+2.2%)	26.3 (-1.9%)	%Black/African-American
Ohio	Harrison County	Komen Northeast Ohio	37.8 (+16.3%)**	SN	Poverty, rural, medically underserved

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
Ohio	Henry County	Komen Northwest Ohio	35.6 (+5.5%)**	22.1 (NA)	Rural
Ohio	Hocking County	Komen Columbus	32.2 (5.4%)**	25.1 (+0.9%)	Rural, medically underserved
Ohio	Jefferson County	Komen Northeast Ohio	43.8 (+7.9%)	26.1 (-1.5%)	Rural
Ohio	Licking County	Komen Columbus	40.5 (+4.4%)**	27.9 (-1.2%)	Rural
Ohio	Lorain County	Komen Northeast Ohio	40.9 (+0.9%)**	27.5 (-2.1%)	%Hispanic/Latina
Ohio	Madison County	Komen Columbus	57.7 (+11.9%)	28.2 (-1.8%)	Rural
Ohio	Mahoning County	Komen Northeast Ohio	46.6 (+5.2%)	28.6 (-1.2%)	
Ohio	Meigs County	Komen Columbus	23.6 (+13.3%)**	SN	Poverty, employment, rural, medically underserved
Ohio	Monroe County	Komen Columbus	40.3 (+21.0%)**	SN	Rural, medically underserved
Ohio	Morgan County	Komen Columbus	40.1 (+16.0%)**	SN	Rural, medically underserved
Ohio	Muskingum County	Komen Columbus	46.9 (+6.6%)	27.2 (-1.6%)	Rural
Ohio	Perry County	Komen Columbus	49.0 (-1.4%)	28.1 (-1.8%)	Rural, medically underserved
Ohio	Putnam County	Komen Northwest Ohio	39.6 (+14.8%)**	19.2 (NA)	Rural, medically underserved
Ohio	Shelby County	Komen Northwest Ohio	45.2 (+22.1%)	20.8 (NA)	Rural
Ohio	Van Wert County	Komen Northwest Ohio	43.3 (+14.6%)	24.3 (-0.5%)	Rural
Ohio	Washington County	Komen Columbus	44.5 (+14.9%)	24.7 (-1.5%)	Rural
West Virginia	Barbour County	Komen West Virginia	37.6 (+58.0%)**	SN	Rural, medically underserved
West Virginia	Berkeley County	Komen West Virginia	39.8 (+12.0)**	26.7 (-1.2%)	
West Virginia	Clay County	Komen West Virginia	59.0 (-0.1%)	SN	Education, poverty, rural, medically underserved
West Virginia	Hampshire County	Komen West Virginia	47.9 (+7.1%)	29.0 (NA)	Rural, insurance, medically underserved
West Virginia	Lewis County	Komen West Virginia	50.5 (+11.8%)	33.7 (+1.3%)	Rural, medically underserved
West Virginia	Marshall County	Komen West Virginia	45.9 (+11.2%)	23.0 (-0.4%)	
West Virginia	Mason County	Komen West Virginia	33.8 (+18.3%)**	32.8 (-0.9%)	Rural, medically underserved

State	Community	Affiliate	Late-Stage Diagnosis Rate per 100,000 (trend)	Death Rate per 100,000 (trend)	Key Population Characteristics
West Virginia	Mingo County	Komen West Virginia	36.5 (+41.5%)**	SN	Education, poverty, employment, rural, medically underserved
West Virginia	Monroe County	Komen West Virginia	33.8 (+25.3%)**	SN	Rural, medically underserved
West Virginia	Randolph County	Komen West Virginia	42.5 (+1.3%)	22.4 (+1.1%)	Rural
West Virginia	Summers County	Komen West Virginia	38.0 (+49.7%)**	SN	Education, rural, medically underserved

*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 except for Ohio which are 2005-2009.
Death data are for years 2006-2010.
Rates are cases/deaths per 100,000 women.
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 East Central Region, there are 95 communities that are not projected to meet HP2020 breast cancer targets and are, thus, considered "Highest Priority". There are 24 "Highest Priority" communities in the East Central Region that are not within a local Komen Affiliate service area.

When viewing the region as a whole, 76 of the 95 communities have a substantially higher percentage of individuals residing in rural areas (Appendix D). In addition, 38 of 95 communities have a substantially larger percentage of individuals living in medically underserved areas (Appendix E). 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. These factors have been linked to barriers associated with accessing quality and timely care. Collaboration among Komen Affiliates in the East 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.

Of the 38 communities considered medically underserved, 34 of the communities are also rural:

Komen Evansville Tri-State
- Spencer County, IN
- McLean County, KY

Komen Kentucky
- Caldwell County, KY
- Casey County, KY
- Clay County, KY
- Garrard County, KY
- Lawrence County, KY
- Leslie County, KY
- Magoffin County, KY
- Spencer County, KY
- Wayne County, KY
- Komen Columbus
- Hocking County, OH
- Meigs County, OH
- Monroe County, OH
- Morgan County, OH
- Perry County, OH

Komen Southwest Ohio
- Adams County, OH

Komen Northeast Ohio
- Harrison County, OH

Komen Northwest Ohio
- Putnam County, OH

Komen West Virginia
- Barbour County, WV
- Clay County, WV
- Hampshire County, WV
- Lewis County, WV
- Mason County, WV
- Mingo County, WV
- Monroe County, WV
- Summers County, WV

Not Currently Served by a Komen Affiliate

- Washington County, IN
- Arenac County, MI
- Cheboygan County, MI
- Gratiot County, MI
- Mackinac County, MI
- Menominee County, MI
- Missaukee County, MI
- Montmorency County, MI

Additional commonalities in the Komen East Central "Highest Priority" communities were high percentage of individuals with less than a high school education (21 communities), high percentage of individuals with incomes below poverty level (15 communities) and high percentage of residents that are unemployed (12 communities).

Within Komen's East Central Region, there are "Highest Priority" communities that are adjacent to each other. Individuals residing in areas where two or more "Highest 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.

Additional geographical complexities in accessing care occur when "Highest Priority" communities are located on a state border and the closest breast cancer care facility is across the state border. When individuals cross state borders, the individual's health insurance may not be accepted. For example, Medicaid coverage is a state health insurance and therefore coverage 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 East Central Region, there are 21 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).

- Vermillion County (IN) and Vigo County (IN) served by Komen Central Indiana
- Warrick County (IN) and Spencer County (IN) served by Komen Evansville Tri-State

- Floyd County (IN) served by Komen Kentucky; and Washington (IN) and Orange County (IN) which are not currently served by a Komen Affiliate.
- Adair County (KY), Boyle County (KY), Casey County (KY), Garrard County (KY) and Taylor County (KY) served by Komen Kentucky
- Clay County (KY), Leslie County (KY) and Perry County (KY) served by Komen Kentucky
- Fleming County (KY) and Rowan County (KY) by Komen Kentucky
- Grant County (KY), Scott County (KY) and Harrison County (KY)
- Oldham County (KY) and Henry County (KY) served by Komen Kentucky and Komen Southwest Ohio
- Mackinac County (MI), Emmett County (MI), Cheboygan County (MI), Otsego County (MI) and Montmorency County (MI) are not currently served by a Komen Affiliate
- Arenac County (MI) and Ogemaw County (MI) are not currently served by an Affiliate
- Leelanau County (MI), Benzie County (MI), Grand Traverse (MI), Missaukee County (MI), Osceola County (MI) and Wexford County (MI) which are not currently served by an Affiliate
- Erie County (OH) and Lorain County (OH) served by Komen Northeast Ohio and Komen Northwest Ohio
- Jefferson County (OH) and Harrison County (OH) served by Komen Northeast Ohio
- Butler County (OH) and Hamilton County (OH) served by Komen Southwest Ohio
- Clark County (OH) and Madison County (OH) served by Komen Columbus
- Auglaize County (OH), Henry County (OH), Putnam County (OH), Shelby County (OH) and Van Wert County (OH) served by Komen Northwest Ohio
- Barbour County (WV) and Randolph County (WV) served by Komen West Virginia
- Monroe County (WV) and Summers County (WV) served by Komen West Virginia
- Meigs County (OH) and Mason County (WV) served by Komen Columbus and Komen West Virginia
- Lawrence County (KY), Johnson County (KY), Magoffin County (KY), Floyd County (KY) and Mengo County (WV) served by Komen Kentucky and Komen West Virginia
- Hocking County (OH), Licking County (OH), Monroe County (OH), Morgan County (OH), Muskingum County (OH), Perry County (OH), Washington County (OH) and Marshall (WV) served by Komen Columbus and Komen West Virginia

Figure 1 shows each community within Komen's East Central Region prioritized according to their priority classification based on HP2020. Communities that are classified as "Highest Priority" are those that are predicted not meet the HP2020 benchmarks for late-stage diagnosis rates and/or death rates. 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.

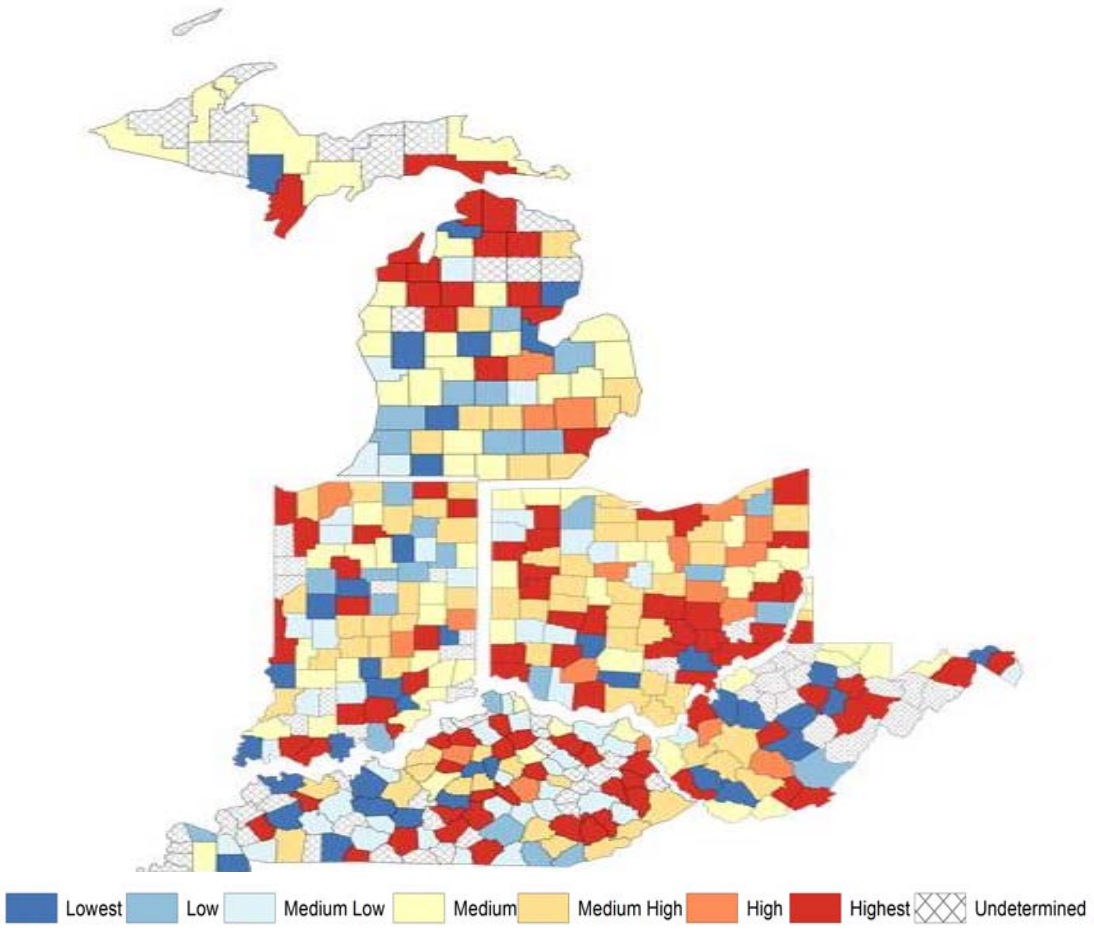


Figure 1. Komen East Central Region Healthy People 2020 priority classifications

Health Systems Analysis

An inventory of breast cancer programs and services in the Komen East 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 East Central Region, there are 2,207 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, 473 are located in a "Highest Priority" community.

In Komen's East Central Region, there are 1,096 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, 230 are located in a "Highest Priority" community.

In Komen's East Central Region, there are 398 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, 97 are located in a "Highest Priority" community.

A facility may be classified under more than one classification depending on the services provided. Appendix F provides the number of screening, diagnostic and treatment facilities for the East 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 may have to travel a greater distance within the community, or to another community, to receive additional care. A 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. This, in turn, may contribute to breast cancer being diagnosed at a later stage when treatment options are limited, and prognosis is poor, or may result in delays in treatment after diagnosis, which contribute to poorer outcomes.

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

Komen Evansville Tri-State

- Spencer County, IN

Komen Northwest Ohio

- Shelby County, OH

Not Currently Served by a Komen Affiliate

- LaGrange County, IN
- Leelanau County, MI

In the Komen East Central Region, 19 "Highest Priority" communities have in-community screening services, but do not have any facilities that provide diagnostic and treatment services (Table 4).

Table 4. East Central Region HP2020 "Highest Priority" communities that have only screening services in the community

Affiliate Service Area	Community
Komen Columbus	Monroe County, OH
	Morgan County, OH
	Perry County, OH
Komen Evansville Tri-State	McLean County, KY
Komen Kentucky	Adair County, KY
	Casey County, KY
	Garrard County, KY
	Henry County, KY
	Magoffin County, KY
	Spencer County, KY
	Wayne County, KY
Komen Southwest Ohio	Adams County, OH
Komen West Virginia	Clay County, WV
	Monroe County, WV
Not currently served by a Komen Affiliate	Arenac County, MI
	Carroll County, IN
	Missaukee County, MI
	Montmorency County, MI
	Washington County, IN

In the Komen East Central Region, 20 HP2020 "Highest Priority" communities have in-community screening and diagnostic services, but do not have any facilities that provide treatment services (Table 5).

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

Affiliate Service Area	Community
Komen Central Indiana	Boone County, IN
Komen Columbus	Madison County, OH
	Meigs County, OH
Komen Kentucky	Caldwell County, KY
	Clark County, KY
	Clay County, KY
	Johnson County, KY
	Lawrence County, KY
	Leslie County, KY
Komen Northwest Ohio	Auglaize County, OH
	Henry County, OH
	Putnam County, OH
Komen Southwest Ohio	Grant County, KY
Komen West Virginia	Hampshire County, WV
	Lewis County, WV
Not currently served by a Komen Affiliate	DeKalb County, IN
	Jennings County, IN
	Benzie County, MI
	Cheboygan County, MI
	Menominee County, MI

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 East 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).

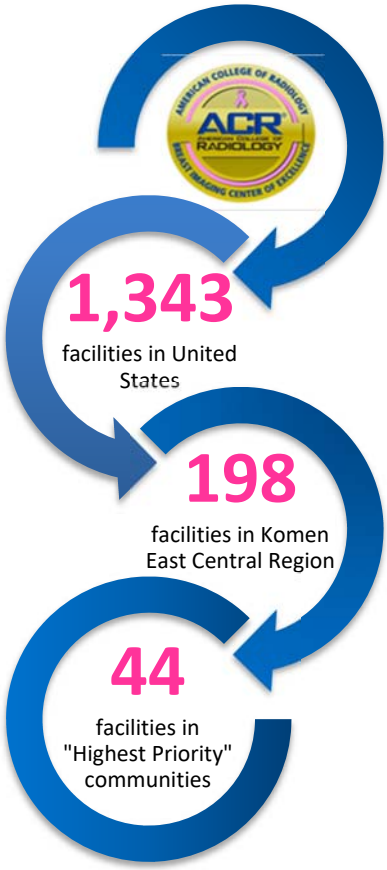
American College of Radiology Breast Imaging Centers of Excellence (BICOE)
http://www.acr.org/Quality-Safety/Accreditation/BICOE

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 8,275 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 East Central Region, there are 1,094 facilities that provide breast cancer



screening and diagnostic services; of those facilities, 198 (18.1%) are accredited as an ACR BICOE facility.

Within the East Central Region's HP2020 "Highest Priority" communities, there are 230 facilities that provide breast cancer screening and diagnostic services; of those facilities, 44 (19.1%) are accredited as an ACR BICOE facility (Table 6). Individuals residing in certain "Highest Priority" communities may be more likely to have access to breast cancer screening and diagnostic services that meet quality breast imaging performance measures. However, in the East Central Region, there are 186 facilities located in 48 HP2020 "Highest Priority" communities that are not ACR BICOE accredited and the services provided to individuals seeking care may not meet quality breast imaging performance measure (Table 7).

Table 6. HP2020 "Highest Priority" communities in the East 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 Central Indiana	Boone County, IN	2	2	Rural
Komen Kentucky	Floyd County, IN	3	1	
	Clark County, KY	2	1	
	Scott County, KY	2	1	Medically underserved
Komen Detroit RFTC	Wayne County, MI	41	17	%Black/African-American, poverty, employment, medically underserved
Komen Southwest Ohio	Butler County, OH	10	1	
	Clinton County, OH	1	1	Rural
	Hamilton County, OH	22	6	%Black/African-American
Komen Northwest Ohio	Erie County, OH	3	1	
Komen Northeast Ohio	Jefferson County, OH	2	1	Rural
	Lorain County, OH	11	1	%Hispanic/Latina
	Mahoning County, OH	18	1	
Komen Columbus	Licking County, OH	2	1	Rural
	Muskingham County, OH	4	1	Rural
	Washington County, OH	4	1	Rural
Not Currently Served By A Komen Affiliate	Lake County, IN	17	5	%Black/African-American, %Hispanic/Latina, medically underserved
	Grand Traverse County, MI	2	1	Rural
	Osceola County, MI	1	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.

Table 7. HP2020 "Highest Priority" communities in the East Central Region without ACR BICOE accredited facilities

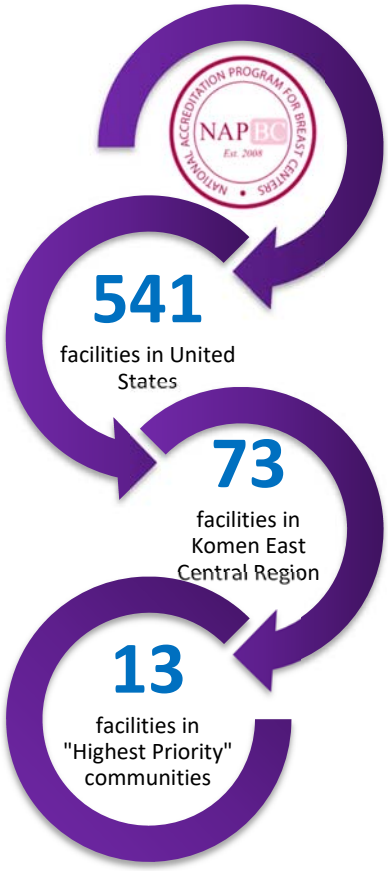
Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Indiana	Rush County, IN	Rural
	Vermillion County, IN	Rural
	Vigo County, IN	
Komen Evansville Tri-State	Warrick County, IN	
Komen Kentucky	Barren County, KY	Rural
	Boyle County, KY	
	Caldwell County, KY	Rural, medically underserved
	Clay County, KY	Education, poverty, employment, rural, medically underserved
	Fleming County, KY	Education, rural
	Floyd County, KY	Education, poverty, rural
	Harrison County, KY	Rural
	Johnson County, KY	Education, rural
	Lawrence County, KY	Education, poverty, rural, medically underserved
	Oldham County, KY	
	Perry County, KY	Education, poverty, rural
	Rowan County, KY	Poverty, rural
	Simpson County, KY	
Komen Southwest Ohio	Adams County, OH	
	Grant County, KY	Rural
Komen Northeast Ohio	Auglaize County, OH	Rural
	Harrison County, OH	Poverty, rural, medically underserved
Komen Columbus	Hocking County, OH	Rural, medically underserved
	Clark County, OH	
	Madison County, OH	Rural
	Meigs County, OH	Poverty, employment, rural, medically underserved
Komen Northwest Ohio	Henry County, OH	Rural
	Putnam County, OH	Rural, medically underserved
Komen West Virginia	Barbour County, WV	Rural, medically underserved
	Berkeley County, WV	
	Hampshire County, WV	Rural, insurance, medically underserved
	Lewis County, WV	Rural, medically underserved
	Marshall County, WV	
	Mason County, WV	Rural, medically underserved
	Mingo County, WV	Education, poverty, employment, rural, medically underserved
	Randolph County, WV	Rural
	Summers County, WV	Education, rural, medically underserved
	DeKalb County, IN	Rural

Komen Affiliate	Community	Key demographic/socioeconomic factors
Not Currently Served By A Komen Affiliate	Fulton County, IN	Rural
	Jasper County, IN	Rural
	Jennings County, IN	Employment, rural
	Orange County, IN	Education, rural
	Benzie County, MI	Older, rural
	Cheboygan County, MI	Older, employment, rural, insurance, medically underserved
	Emmet County, MI	%AIAN, rural
	Gratiot County, MI	Rural, medically underserved
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Menominee County, MI	Older, rural, medically underserved
	Otsego County, MI	Rural

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 2,917 facilities that provide breast cancer screening, diagnostic and treatment services; of those facilities, 541 (18.6%) are accredited as an ACS NAPBC facility.

In Komen's East Central Region, there are 398 facilities that provide breast cancer screening, diagnostic and treatment services; of those facilities, 73 (18.4%) are accredited as an ACS NAPBC facility.

Within the East Central Region's "Highest Priority" communities there are 97 facilities that provide the full continuum of breast cancer care services (e.g., screening, diagnostic and treatment); of those facilities, 13 (13.4%) 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 East Central Region, there are 84 facilities located in 38 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 East 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 Kentucky	Floyd County, IN	1	1	
	Perry County, KY	1	1	Education, poverty, rural
Komen Detroit RFTC	Wayne County, MI	20	2	%Black/African-American, poverty, employment, medically underserved
Komen Southwest Ohio	Hamilton County, OH	9	1	%Black/African-American
Komen Northeast Ohio	Mahoning County, OH	3	1	
Komen Columbus	Muskingham County, OH	3	1	Rural
	Washington County, OH	2	1	Rural
Not Currently Served By A Komen Affiliate	Lake County, IN	9	5	%Black/African-American, %Hispanic/Latina, medically underserved

* 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 East Central Region without an ACS NAPBC accredited facility

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Indiana	Rush County, IN	Rural
	Vermillion County, IN	Rural
	Vigo County, IN	
Komen Evansville Tri-State	Warrick County, IN	
Komen Kentucky	Barren County, KY	Rural
	Boyle County, KY	
	Fleming County, KY	Education, rural
	Floyd County, KY	Education, poverty, rural
	Harrison County, KY	Rural
	Oldham County, KY	
	Rowan County, KY	Poverty, rural
	Scott County, KY	Medically Underserved
	Simpson County, KY	
Komen Southwest Ohio	Butler County, OH	
	Clinton County, OH	Rural
Komen Northeast Ohio	Ashtabula County, OH	Rural
	Harrison County, OH	Poverty, rural, medically underserved
	Jefferson County, OH	Rural
	Lorain County, OH	%Hispanic/Latina
Komen Columbus	Hocking County, OH	Rural, medically underserved
	Clark County, OH	
	Licking County, OH	Rural
Komen Northwest Ohio	Erie County, OH	
	Van Wert, OH	Rural
Komen West Virginia	Barbour County, WV	Rural, medically underserved
	Berkeley County, WV	
	Randolph County, WV	Rural
Not Currently Served by a Komen Affiliate	Fulton County, IN	Rural
	Jasper County, IN	Rural
	Orange County, IN	Education, rural
	Emmet County, MI	%AIAN, rural
	Gratiot County, MI	Rural, medically underserved
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Menominee County, MI	Older, rural, medically underserved
	Ogemaw County, MI	Older, education, Rural
	Osceola County, MI	Rural
	Otsego County, MI	Rural
	Wexford County, MI	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 East Central Region, there are 398 facilities that provide breast cancer treatment services; of those facilities, 207(52.0%) are accredited as an ACS CoC facility.

Within the East Central Region's HP2020 "Highest Priority" communities, there are 97 facilities that provide breast cancer treatment services; of those facilities, 41

(42.3%) 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 East Central Region, there are 55 facilities located in 24 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 East 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 Central Indiana	Vermillion County, IN	1	1	Rural
	Vigo County, IN	3	2	
Komen Kentucky	Floyd County, IN	1	1	
	Perry County, KY	1	1	Education, poverty, rural
	Rowan County, KY	1	1	Poverty, rural
	Taylor County, KY	1	1	Education, Rural
Komen Detroit RFTC	Wayne County, MI	20	6	%Black/African-American, poverty, employment, medically underserved
Komen Southwest Ohio	Butler County, OH	4	3	
	Clinton County, OH	1	1	Rural
	Hamilton County, OH	9	7	%Black/African-American
Komen Northeast Ohio	Mahoning County, OH	3	1	
	Jefferson County, OH	1	1	Rural
	Lorain County, OH	1	1	%Hispanic/Latina
Komen Northwest Ohio	Erie County, OH	1	1	
Komen Columbus	Clark County, OH	2	1	
	Licking County, OH	1	1	Rural
	Muskingham County, OH	3	1	Rural
	Washington County, OH	2	1	Rural
Komen West Virginia	Berkeley County, WV	1	1	
	Randolph County, WV	1	1	Rural
Not Currently Served By A Komen Affiliate	Lake County, IN	9	5	%Black/African-American, %Hispanic/Latina, medically underserved
	Emmet County, MI	1	1	%AIAN, Rural
	Grand Traverse County, MI	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 East Central Region without an ACS CoC accredited facilities

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Indiana	Rush County, IN	Rural
Komen Evansville Tri-State	Warrick County, IN	
Komen Kentucky	Barren County, KY	Rural
	Boyle County, KY	
	Fleming County, KY	Education, rural
	Harrison County, KY	Rural
	Oldham County, KY	
	Rowan County, KY	Poverty, rural
	Scott County, KY	Medically Underserved
	Simpson County, KY	
Komen Northeast Ohio	Ashtabula County, OH	Rural
	Harrison County, OH	Poverty, rural, medically underserved
Komen Columbus	Hocking County, OH	Rural, medically underserved
Komen Northwest Ohio	Van Wert, OH	Rural
Komen West Virginia	Barbour County, WV	Rural, medically underserved
Not Currently Served by a Komen Affiliate	Fulton County, IN	Rural
	Jasper County, IN	Rural
	Orange County, IN	Education, rural
	Gratiot County, MI	Rural, medically underserved
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Ogemaw County, MI	Older, education, Rural
	Osceola County, MI	Rural
	Ostego County, MI	Rural
	Wexford County, MI	Rural

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 eight centers located in Komen's East Central Region. Of those eight NCI-designated Cancer Centers located in the East Central Region, there is one center located in Wayne County, MI, a "Highest Priority" community. The other seven NCI-designated Cancer Centers in the Komen East Central Region are located in communities that are not considered "Highest Priority".

In summary, individuals residing in four HP2020 "Highest Priority" communities in the East Central Region do not have access to any in-community breast cancer services (i.e., screening, diagnostic and treatment). Additionally, 19 of the HP2020 "Highest Priority" communities have access to in-community screening, but do not have in-community access to diagnostic and treatment services; 20 "Highest Priority" communities have in-community access to screening and diagnostic services; and 52 "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 East Central Region, there are 66 HP2020 "Highest Priority" communities that do not have any of the listed quality-based accredited breast cancer services (Appendix G).

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 East 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.

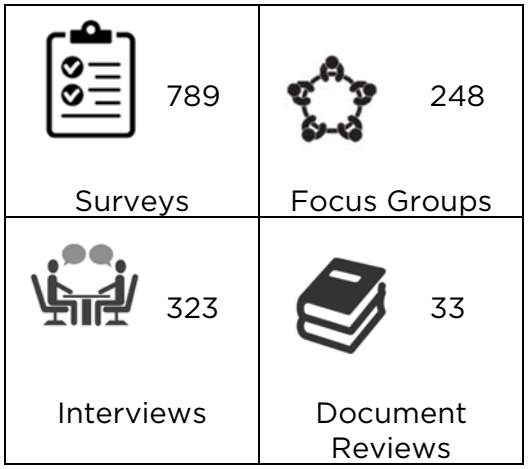


Figure 2. Komen East Central Region qualitative data collection methods and number of participants/documents

In the East Central Region, 12 Komen Affiliates[4] collected qualitative data from 42 communities of interest during the Community Profile process. Of the 42 communities of interest, 37 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.

According to the qualitative data analysis, the five most commonly cited barriers that may prevent an individual from getting breast cancer services in the Komen East Central Region are:

1. *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

> *"Women don't know who to believe when it comes to changing health care conceptions, which leads to a lot of confusion as to what women should do."*
> - *Key informant*

[4] While 12 Affiliates within the East Central Region completed the 2015 Community Profile process, only nine remain due to mergers and/or dissolution

2. *Breast Cancer Education*
    - Lack of awareness and confusion regarding breast cancer screening guidelines
    - Lack of breast cancer education including personal risk of breast cancer
    - Lack of culturally appropriate breast cancer education

3. *Financial Barriers*
    - Lack of funds to receive adequate breast cancer care
    - Unemployment
    - Lack of pay due to time off work for appointments

> *"If it's either buying food for her kids or getting a mammogram, then she's going to buy the food." – Key informant*

4. *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

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

Other barriers that were mentioned less frequently included lack of adequate health insurance, concerns of quality of care and distrust of the healthcare system as well as other health conditions that take precedence. For a list of all qualitative data themes identified with corresponding definitions please see Appendix B.

CONCLUSIONS

The Komen East Central Region consists of five states, nine Affiliates and a Detroit Race for the Cure. Within the Komen East Central Region, one state (Ohio) has late-stage diagnosis and death rates higher than the US as a whole. While the Komen East 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 East 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 East Central Region, there are 95 communities that are considered "Highest Priority" and 71 are located within a Komen Affiliate service area. Even though the 95 "Highest Priority" communities are located in several states, there are demographic and socioeconomic 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 95 HP2020 "Highest Priority" communities there are 473 screening facilities, 230 diagnostic and 97 treatment facilities. Of those, 44 are accredited as a BICOE, 13 are accredited as ACS NAPBC, 41 are accredited as COC and one is accredited as a NCI designated Cancer Center. There are 97 facilities that provide screening, diagnostic and treatment services in the HP2020 "Highest Priority' communities; however, only 13 facilities in "Highest Priority" communities are recognized as meeting the American College of Surgeons National Accreditation Program for Breast Centers (NAPBC) performance measures. When reviewing the accreditations for quality treatment in Komen's East Central Region, there are 41 American College of Surgeon Commission on Cancer (CoC) facilities located in "Highest Priority" communities. In addition, there is one facility designated as a National Cancer Institute (NCI) designated Cancer Center. The communities that do not have facilities that are accredited by the American College of Radiology, American College of Surgeons, and the National Cancer Institute tend to be rural and classified as medically underserved by the US Department of Health and Human Services.

Through review of focus groups, interviews and surveys conducted by Komen Affiliates, residents in the East Central Region had various concerns about lack of transportation. Including inadequate public transportation, lengthy travel times were and 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. Financial

barriers were also frequently cited by residents. Competing priorities for finances that included essential items such as, groceries take precedence over breast cancer diagnosis and treatment. For additional financial barriers, in order to attend appointments, residents needed to take time off work, for some this was done without pay. Other barriers that were mentioned less frequently included lack of adequate health insurance, concerns of quality of care and distrust of the healthcare system as well as other health conditions that take precedence.

Collaboration among Komen Affiliates in the East 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 76 rural "Highest Priority" communities are located in the following service areas: Komen Central Indiana, Komen Columbus, Komen Evansville Tri-State, Komen Kentucky, Komen Northeast Ohio, Komen Northwest Ohio, Komen Southwest Ohio and Komen West Virginia In Komen's East Central Region, 38 of the 95 "Highest Priority" communities have a substantially larger percentage of individuals living in medically underserved areas which may result in delays in obtaining screening, diagnostic and treatment services. Medically underserved areas may be areas where there are too few primary care providers to provide adequate care for the community's population, have a high percentage of individuals with incomes below poverty level and/or an older population (65 years and older). These 38 medically-underserved "Highest Priority" communities are located in the following service areas: Komen Columbus, Komen Detroit Race for the Cure, Komen Evansville Tri-State, Komen Kentucky, Komen Northeast Ohio, Komen Northwest Ohio and Komen West Virginia. Because the rural and medically-underserved areas were prevalent results for these populations from Qualitative data were similar to the overall Regional information.

From interviews, surveys, focus groups and document review conducted in the "Highest Priority" rural and medically underserved communities, individuals that reside in or provide services to residents of these communities indicated transportation, financial barriers and lack of adequate breast cancer education as barriers to breast cancer care. Educational barriers included lack of awareness and confusion regarding breast cancer screening guidelines, lack of breast cancer education including personal risk of breast cancer and lack of culturally appropriate breast cancer education. Residents mentioned that there was a lot of misinformation within the communities regarding the changes in health care and breast cancer risks and regulations.

Fear was another barrier to care frequently cited by residents. This barrier included the anticipation of pain and discomfort during breast cancer screening, diagnostic and treatment procedures. Other residents cited legal or immigration status concerns

in order to seek treatment. Additional concerns included, denial of being diagnosed with breast cancer, worry about one's declining health if diagnosed with breast cancer and stigma of being diagnosed with cancer

To address these identified barriers in accessing quality breast cancer care, Komen East Central Region Affiliates have identified priorities within their local service area that share commonalities with all Affiliates in the region. There are five common priorities that Komen East Central Region Affiliates 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.

- Support patient navigation programs. Patient navigation is a process by which a trained individual- patient navigator- guides patients through and around barriers in the complex breast cancer care system. The primary focus of a patient navigator is on the individual patient, with responsibilities centered on coordinating and improving access to timely diagnostic and treatment services tailored to individual needs. Patient navigators offer interventions that may vary from patient to patient along the continuum of care and include a combination of informational, emotional, and practical support (i.e., breast cancer education, counseling, care coordination, health system navigation, and access to transportation, language services and financial resources).

- Develop community and organizational partnerships to address concerns raised by community members regarding lack of breast cancer education, lack of available services and language and cultural barriers. The creation of partnerships/coalitions with residents, local representatives, and organizations in target community to address breast cancer needs.

- Support or promote marketing and outreach efforts for breast cancer and health awareness via social media, events, newspaper, billboards and print images to address concerns of lack of awareness of available resources and breast cancer messaging.

In the East Central Region, Affiliates identified that Black/African-American women, Hispanic/Latina women, rural populations and minority populations 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 HP2020 "Highest Priority" communities identified transportation barriers, lack of appropriate breast cancer education, financial barriers, availability of services, and fear as barriers to receiving care. Not all of the "Highest Priority" regions had the available services needed including four communities that had no screening, diagnostic or treatment services. This requires an individual to navigate between health care systems and have resources to travel to other communities to receive care. Although there are breast cancer services available, in the other communities, there is a lack of quality accreditations. In the East Central Region, there are 66 of the 95 HP2020 "Highest Priority" communities do not have any quality-based accredited breast cancer services.

Although Komen Affiliates are not located in all "Highest Priority" communities, Komen Affiliates can be a local breast cancer resource for communities. The local Komen Affiliates can assist with addressing the identified barriers to care, convene 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 East 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.

REFERENCES

Adler, N. and Rehkopf, D. 2008. US disparities in health: descriptions, causes, and mechanisms. *Annu Rev Public Health,* 29, 235-52.

American Cancer Society. 2015a. Breast cancer facts and figures, 2015-2016. Atlanta, GA: American Cancer Society .

American Cancer Society. 2015b. Cancer facts and figures for Hispanics/Latinos, 2015-2017. Atlanta, GA: American Cancer Society.

American Cancer Society. 2015c. Cancer prevention & early detection facts & figures, 2015-2016. Atlanta, GA: American Cancer Society.

American Cancer Society. 2016. Cancer facts and figures, 2016. Atlanta, GA: American Cancer Society.

American College of Radiology. n.d. Mammography accreditation. Accessed on 07/11/2014 from http://www.acraccreditation.org/~/media/ACRAccreditation/Documents/Mammography/Requirements.pdf?la=en

American College of Surgeons. 2014a. Commission on Cancer. Accessed on 7/11/2014 at https://www.facs.org/quality-programs/cancer/coc.

American College of Surgeons. 2014b. National accreditation program from breast centers. Accessed on 07/11/2014 from http://napbc-breast.org/.

Braveman, E.A. 2010. Health disparities and health equity. *Am J Public Health,* 101(Suppl 1), S149-S155.

Danforth, D.N., Jr. 2013. Disparities in breast cancer outcomes between Caucasian and African-American women: A model for describing the relationship of biological and nonbiological factors. *Breast Cancer Research,* 15, 208.

Hewitt, M. and Simone, J.V. (eds). 1999. Ensuring quality cancer care. Washington, DC: Institute of Medicine and Commission on Life Sciences.

Howlader, N., Noone, A.M., Krapcho, M., et al. (eds). 2016. SEER cancer statistics Review, 1975-2013: Fast stats. Bethesda, MD: National Cancer Institute. Accessed from http://seer.cancer.gov/csr/1975_2013/.

Lurie, N. and Dubowitz, T. 2007. Health disparities and access to health. *JAMA,* 297(10), 1118-1121.

National Cancer Institute. NCI-Designated cancer center*s,* 2012. Accessed on 07/11/2014 from http://www.cancer.gov/researchandfunding/extramural/cancercenters/about.

Robert Wood Johnson Foundation. Overcoming Obstacles to Health. Commission to Build a Healthier America, 2008. Available from http://www.rwjf.org/content/dam/farm/reports/reports/2008/rwjf22441.

US Preventive Services Task Force. 2016. Final update summary: Breast cancer screening. Accessed from http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening.

White, A., Richardson, L.C., Li, C., Ekwueme, D.U., and Kaur, J.S. 2014. Breast cancer mortality among American Indian and Alaska Native women, 1990-2009. *Am J Public Health*. 104 (Suppl 3), S432-8.

Young, J.L. Jr., Roffers, S.D., Ries, L.A.G., Fritz, A.G., and Hurlbut, A.A. (eds). 2001. SEER summary staging manual - 2000: Codes and coding instructions, Pub. No. 01-4969, Bethesda, MD: National Cancer Institute. Accessed from http://seer.cancer.gov/tools/ssm/.

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. East 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 East 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 %
Indiana	10.2 %	0.4 %	1.9 %	5.8 %	14.8 %	13.4 %	14.1 %	32.9 %	9.0 %	4.5 %	1.8 %	27.6 %	14.7 %	15.6 %
Boone County	1.4 %	0.2 %	2.1 %	2.3 %	12.8 %	6.7 %	7.9 %	18.1 %	4.6 %	3.1 %	0.3 %	34.4 %	0.0 %	9.3 %
Carroll County	0.8 %	0.4 %	0.2 %	3.4 %	17.6 %	11.0 %	10.4 %	30.2 %	8.1 %	2.1 %	1.6 %	81.4 %	0.0 %	15.0 %
DeKalb County	0.7 %	0.3 %	0.7 %	2.2 %	15.1 %	12.0 %	10.6 %	33.4 %	10.3 %	1.4 %	0.5 %	42.3 %	0.0 %	16.1 %
Floyd County	6.1 %	0.3 %	1.2 %	2.4 %	14.7 %	12.3 %	11.4 %	28.0 %	7.7 %	2.3 %	0.5 %	20.3 %	0.0 %	12.5 %
Fulton County	1.1 %	0.8 %	0.7 %	4.1 %	18.9 %	14.2 %	12.7 %	39.0 %	8.2 %	2.6 %	0.4 %	64.9 %	0.0 %	17.2 %
Jasper County	0.9 %	0.3 %	0.6 %	5.3 %	15.7 %	12.5 %	7.7 %	27.7 %	7.9 %	2.1 %	0.6 %	68.0 %	0.0 %	14.2 %
Jennings County	1.1 %	0.1 %	0.4 %	2.2 %	14.3 %	15.9 %	12.2 %	42.3 %	14.3 %	1.1 %	0.1 %	60.2 %	5.4 %	17.1 %
LaGrange County	0.7 %	0.2 %	0.5 %	3.5 %	13.1 %	39.5 %	15.5 %	42.1 %	8.9 %	1.8 %	6.7 %	91.6 %	0.0 %	22.6 %
Lake County	28.0 %	0.6 %	1.6 %	16.4 %	15.0 %	13.5 %	16.6 %	34.6 %	10.3 %	6.7 %	2.7 %	4.0 %	27.3 %	17.6 %
Orange County	1.3 %	0.4 %	0.4 %	1.0 %	17.5 %	20.3 %	18.1 %	46.0 %	11.7 %	0.8 %	0.2 %	83.5 %	0.0 %	17.3 %
Rush County	1.2 %	0.3 %	0.4 %	1.1 %	17.8 %	14.7 %	14.2 %	36.3 %	9.4 %	0.3 %	0.5 %	61.2 %	0.0 %	15.8 %
Spencer County	1.0 %	0.3 %	0.5 %	2.3 %	16.7 %	14.3 %	12.3 %	30.9 %	6.6 %	1.8 %	1.2 %	100.0	100.0 %	13.0 %
Vermillion County	0.7 %	0.4 %	0.3 %	1.1 %	19.5 %	12.2 %	13.6 %	36.6 %	8.0 %	0.4 %	0.0 %	60.4 %	0.0 %	14.6 %
Vigo County	6.4 %	0.4 %	2.0 %	1.7 %	16.3 %	14.3 %	18.5 %	40.0 %	8.3 %	3.1 %	0.6 %	23.8 %	0.0 %	15.9 %
Warrick County	1.8 %	0.2 %	1.8 %	1.6 %	15.3 %	8.4 %	7.3 %	20.9 %	6.1 %	2.8 %	0.4 %	29.3 %	0.0 %	11.1 %
Washington County	0.6 %	0.3 %	0.4 %	1.1 %	14.8 %	21.3 %	14.8 %	43.5 %	9.8 %	0.6 %	0.2 %	76.8 %	28.1 %	17.1 %
Kentucky	8.5 %	0.3 %	1.4 %	2.8 %	15.2 %	18.3 %	18.1 %	39.3 %	8.9 %	3.1 %	1.1 %	41.6 %	37.7 %	15.8 %
Adair County	2.7 %	0.2 %	0.4 %	1.5 %	16.8 %	28.8 %	19.9 %	54.7 %	12.7 %	0.8 %	0.2 %	75.5 %	0.0 %	21.7 %
Barren County	4.4 %	0.3 %	0.7 %	2.1 %	17.6 %	22.2 %	19.4 %	44.7 %	7.3 %	1.7 %	0.3 %	63.3 %	38.2 %	16.9 %
Boyle County	7.4 %	0.2 %	1.0 %	2.6 %	18.6 %	15.1 %	17.4 %	38.3 %	8.4 %	2.9 %	0.6 %	34.8 %	0.0 %	14.9 %

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)
Caldwell County	6.1 %	0.1 %	0.3 %	0.9 %	20.0 %	17.0 %	23.2 %	43.3 %	10.4 %	0.5 %	0.3 %	54.6 %	100.0 %	17.1 %
Casey County	1.0 %	0.3 %	0.3 %	2.2 %	17.9 %	34.6 %	27.3 %	59.2 %	6.9 %	0.8 %	1.2 %	100.0%	100.0 %	22.2 %
Clark County	5.4 %	0.2 %	0.5 %	2.1 %	16.2 %	18.9 %	16.6 %	35.8 %	8.7 %	1.5 %	0.7 %	27.5 %	0.0 %	14.9 %
Clay County	1.6 %	0.1 %	0.2 %	0.7 %	15.1 %	40.3 %	36.5 %	66.2 %	26.1 %	0.9 %	0.0 %	78.6 %	100.0 %	16.6 %
Fleming County	1.8 %	0.1 %	0.4 %	0.7 %	16.4 %	24.2 %	18.8 %	48.6 %	9.2 %	0.6 %	0.9 %	80.5 %	0.0 %	20.0 %
Floyd County	1.0 %	0.1 %	0.2 %	0.6 %	15.3 %	31.2 %	27.3 %	55.7 %	9.5 %	0.4 %	0.2 %	83.9 %	0.0 %	17.1 %
Garrard County	2.2 %	0.2 %	0.4 %	2.1 %	16.7 %	20.5 %	20.9 %	43.7 %	12.6 %	1.2 %	0.3 %	77.9 %	100.0 %	18.9 %
Grant County	0.8 %	0.2 %	0.6 %	2.3 %	12.3 %	18.4 %	16.5 %	42.6 %	9.9 %	1.3 %	0.5 %	65.0 %	0.0 %	16.7 %
Harrison County	2.4 %	0.2 %	0.4 %	1.3 %	17.1 %	19.8 %	19.9 %	41.0 %	9.7 %	1.3 %	0.5 %	65.9 %	15.0 %	16.4 %
Henry County	3.2 %	0.3 %	0.4 %	2.6 %	16.0 %	20.2 %	19.7 %	38.4 %	8.8 %	1.4 %	0.6 %	100.0	0.0 %	16.5 %
Johnson County	0.4 %	0.1 %	0.5 %	0.5 %	15.6 %	30.1 %	21.5 %	50.4 %	8.2 %	0.5 %	0.0 %	73.0 %	38.7 %	16.5 %
Lawrence County	0.5 %	0.2 %	0.2 %	0.5 %	15.6 %	29.0 %	25.8 %	51.0 %	10.8 %	0.5 %	1.0 %	77.1 %	56.2 %	16.8 %
Leslie County	0.3 %	0.1 %	0.1 %	0.3 %	16.0 %	41.3 %	23.2 %	51.8 %	7.0 %	0.3 %	0.0 %	100.0%	100.0 %	15.3 %
Magoffin County	0.3 %	0.3 %	0.1 %	0.8 %	14.2 %	35.3 %	30.1 %	55.1 %	10.8 %	0.0 %	0.0 %	100.0%	100.0 %	21.4 %
McLean County	1.0 %	0.3 %	0.1 %	1.0 %	19.0 %	21.5 %	16.6 %	39.7 %	7.1 %	0.6 %	0.0 %	100.0%	100.0 %	16.3 %
Oldham County	3.2 %	0.2 %	1.8 %	3.1 %	10.5 %	9.2 %	7.3 %	15.3 %	6.1 %	4.0 %	0.8 %	20.3 %	0.0 %	9.8 %
Perry County	1.7 %	0.1 %	0.6 %	0.6 %	14.7 %	30.1 %	26.4 %	50.0 %	8.6 %	0.5 %	0.0 %	74.1 %	7.1 %	15.3 %
Rowan County	2.0 %	0.1 %	1.0 %	1.3 %	13.8 %	23.3 %	29.0 %	47.1 %	6.3 %	1.3 %	0.5 %	68.8 %	0.0 %	16.6 %
Scott County	5.6 %	0.4 %	1.1 %	3.7 %	10.6 %	13.2 %	13.4 %	28.0 %	8.6 %	2.5 %	0.5 %	32.5 %	100.0 %	12.0 %
Simpson County	10.2 %	0.2 %	0.7 %	1.5 %	16.9 %	17.4 %	15.1 %	42.6 %	8.7 %	1.3 %	0.0 %	45.2 %	0.0 %	15.7 %
Spencer County	2.0 %	0.3 %	0.6 %	1.5 %	11.2 %	13.8 %	6.1 %	25.9 %	9.5 %	1.1 %	0.0 %	100.0%	100.0 %	13.1 %
Taylor County	5.0 %	0.2 %	0.7 %	1.8 %	18.0 %	25.0 %	21.4 %	48.0 %	10.2 %	1.7 %	1.0 %	52.2 %	22.8 %	17.2 %
Wayne County	1.6 %	0.3 %	0.5 %	2.6 %	17.9 %	31.4 %	27.6 %	59.6 %	14.9 %	1.1 %	0.9 %	67.7 %	100.0 %	20.0 %

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)
Michigan	15.5 %	0.9 %	2.8 %	4.4 %	15.6 %	11.6 %	15.7 %	34.1 %	12.3 %	6.0 %	1.7 %	25.4 %	17.6 %	13.4 %
Arenac County	0.6 %	1.6 %	0.4 %	1.4 %	21.5 %	18.9 %	17.9 %	46.4 %	13.2 %	0.9 %	0.3 %	100.0%	100.0 %	15.5 %
Benzie County	0.9 %	1.8 %	0.5 %	1.9 %	22.4 %	9.8 %	11.7 %	37.1 %	11.2 %	1.5 %	0.1 %	100.0%	0.0 %	16.0 %
Cheboygan County	1.0 %	3.6 %	0.5 %	0.9 %	22.7 %	11.5 %	17.3 %	43.7 %	18.1 %	0.9 %	0.1 %	82.7 %	100.0 %	19.0 %
Emmet County	1.0 %	4.1 %	0.7 %	1.4 %	18.4 %	7.3 %	10.6 %	32.7 %	9.8 %	2.0 %	0.3 %	74.9 %	0.9 %	14.9 %
Grand Traverse County	0.9 %	1.5 %	1.0 %	2.2 %	17.2 %	7.1 %	10.9 %	31.3 %	8.8 %	1.8 %	0.3 %	48.0 %	0.0 %	13.6 %
Gratiot County	0.9 %	0.6 %	0.6 %	5.3 %	18.0 %	12.6 %	17.4 %	41.4 %	11.3 %	1.5 %	0.6 %	60.2 %	100.0 %	14.2 %
Leelanau County	0.9 %	4.3 %	0.7 %	3.8 %	25.1 %	6.2 %	10.6 %	27.4 %	8.4 %	2.6 %	0.4 %	91.3 %	0.0 %	15.5 %
Mackinac County	1.6 %	19.3 %	0.5 %	1.4 %	23.7 %	11.3 %	14.1 %	41.7 %	14.4 %	2.1 %	0.5 %	77.2 %	100.0 %	20.8 %
Menominee County	0.6 %	3.1 %	0.5 %	1.5 %	21.1 %	10.6 %	14.2 %	39.4 %	11.5 %	1.1 %	0.4 %	64.3 %	100.0 %	15.0 %
Missaukee County	0.8 %	0.9 %	0.5 %	2.0 %	18.4 %	13.5 %	15.9 %	44.4 %	13.3 %	1.5 %	0.4 %	100.0%	100.0 %	15.7 %
Montmorency County	0.6 %	0.5 %	0.3 %	1.0 %	29.2 %	16.9 %	18.6 %	48.7 %	17.7 %	1.5 %	0.4 %	100.0%	100.0 %	17.9 %
Ogemaw County	0.6 %	1.0 %	0.5 %	1.5 %	23.3 %	17.1 %	19.0 %	49.4 %	14.6 %	1.0 %	0.3 %	100.0%	0.0 %	16.3 %
Oscoda County	0.7 %	0.6 %	0.3 %	1.2 %	23.4 %	13.5 %	19.2 %	44.5 %	11.8 %	0.9 %	0.4 %	100.0%	5.2 %	14.2 %
Otsego County	0.7 %	0.8 %	0.6 %	1.5 %	18.6 %	10.0 %	12.5 %	37.6 %	12.4 %	2.2 %	0.0 %	65.7 %	0.0 %	14.9 %
Wayne County	42.6 %	0.7 %	2.9 %	5.1 %	14.6 %	16.5 %	22.7 %	43.7 %	17.4 %	7.7 %	2.4 %	0.7 %	34.2 %	17.0 %
Wexford County	0.9 %	0.9 %	0.8 %	1.8 %	17.6 %	12.3 %	16.7 %	42.3 %	13.7 %	1.5 %	0.4 %	64.3 %	0.0 %	14.2 %
Ohio	13.4 %	0.3 %	2.0 %	3.0 %	16.0 %	12.2 %	14.8 %	33.1 %	9.3 %	3.9 %	1.3 %	22.1 %	14.8 %	14.0 %
Adams County	0.7 %	0.6 %	0.2 %	0.8 %	16.0 %	23.1 %	22.8 %	53.6 %	14.5 %	0.3 %	0.6 %	89.0 %	100.0 %	18.3 %
Ashtabula County	3.3 %	0.3 %	0.6 %	3.2 %	17.7 %	15.1 %	17.2 %	40.5 %	10.7 %	1.3 %	0.8 %	46.4 %	0.0 %	15.8 %
Auglaize County	0.8 %	0.2 %	0.5 %	1.2 %	17.7 %	9.7 %	7.2 %	28.8 %	7.1 %	0.9 %	0.3 %	39.1 %	0.0 %	12.2 %
Butler County	8.4 %	0.3 %	2.9 %	3.8 %	13.1 %	12.4 %	12.8 %	27.9 %	8.6 %	5.1 %	1.6 %	9.3 %	5.2 %	12.7 %
Clark County	9.9 %	0.4 %	0.9 %	2.5 %	18.2 %	14.6 %	16.9 %	36.4 %	10.1 %	2.2 %	0.7 %	23.6 %	6.2 %	13.6 %

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)
Clinton County	2.9 %	0.3 %	0.7 %	1.3 %	15.1 %	12.8 %	14.8 %	35.5 %	11.6 %	1.1 %	0.3 %	54.6 %	3.9 %	13.8 %
Erie County	10.0 %	0.4 %	0.8 %	3.3 %	18.8 %	10.8 %	12.6 %	32.2 %	8.8 %	1.6 %	0.4 %	26.5 %	0.0 %	13.2 %
Hamilton County	27.8 %	0.3 %	2.3 %	2.4 %	15.2 %	12.1 %	15.9 %	31.5 %	8.6 %	4.8 %	1.6 %	2.2 %	9.8 %	14.1 %
Harrison County	2.9 %	0.1 %	0.2 %	0.5 %	19.4 %	15.0 %	20.1 %	43.8 %	7.1 %	0.3 %	0.3 %	84.1 %	100.0 %	16.0 %
Henry County	0.9 %	0.5 %	0.6 %	6.1 %	17.7 %	10.6 %	11.7 %	30.9 %	9.9 %	1.6 %	1.0 %	69.1 %	0.0 %	13.5 %
Jefferson County	6.3 %	0.2 %	0.6 %	1.2 %	20.3 %	12.7 %	16.9 %	40.8 %	8.8 %	1.0 %	0.5 %	39.0 %	11.3 %	15.2 %
Licking County	4.0 %	0.4 %	1.1 %	1.5 %	14.9 %	11.0 %	11.6 %	29.7 %	7.7 %	1.7 %	0.3 %	35.5 %	0.0 %	13.7 %
Lorain County	9.4 %	0.5 %	1.3 %	8.3 %	16.4 %	11.3 %	13.6 %	29.8 %	10.0 %	2.8 %	1.5 %	11.7 %	16.5 %	13.6 %
Madison County	2.5 %	0.3 %	0.8 %	1.4 %	15.5 %	15.3 %	10.5 %	31.7 %	6.0 %	1.7 %	0.8 %	48.5 %	0.0 %	12.8 %
Mahoning County	17.2%	0.3%	0.9%	4.2%	20.5%	12.1 %	17.1 %	38.1 %	11.1 %	3.2 %	1.1 %	15.2 %	17.0 %	15.1 %
Meigs County	1.3%	0.3%	0.3%	0.6%	17.8%	16.8 %	21.3 %	46.9 %	13.9 %	0.2 %	0.1 %	81.3 %	100.0 %	17.2 %
Monroe County	0.7 %	0.3 %	0.3 %	0.6 %	20.8 %	14.1 %	18.1 %	41.0 %	6.1 %	0.4 %	0.2 %	97.7 %	100.0 %	15.2 %
Morgan County	4.3 %	1.0 %	0.3 %	0.6 %	19.0 %	17.1 %	19.5 %	46.8 %	8.5 %	0.3 %	0.1 %	81.5 %	100.0 %	17.9 %
Muskingum County	4.7 %	0.4 %	0.5 %	0.8 %	17.5 %	13.5 %	16.9 %	41.5 %	11.2 %	0.9 %	0.3 %	47.0 %	0.0 %	14.4 %
Perry County	0.8 %	0.3 %	0.2 %	0.7 %	14.6 %	16.4 %	17.7 %	41.6 %	11.2 %	0.4 %	0.2 %	75.2 %	56.9 %	15.7 %
Putnam County	0.7 %	0.3 %	0.4 %	5.4 %	16.3 %	9.0 %	6.3 %	26.2 %	5.2 %	1.2 %	0.7 %	84.7 %	100.0 %	12.3 %
Shelby County	2.6 %	0.2 %	1.1 %	1.3 %	14.9 %	13.3 %	12.0 %	32.9 %	7.5 %	2.0 %	0.7 %	51.1 %	0.0 %	12.6 %
Van Wert County	1.3 %	0.2 %	0.4 %	2.6 %	18.6 %	9.4 %	9.1 %	32.8 %	9.7 %	1.1 %	0.4 %	50.7 %	0.0 %	13.4 %
Washington County	1.4 %	0.2 %	0.8 %	0.8 %	19.5 %	11.8%	15.1%	37.6%	8.8%	1.1%	0.1%	56.5%	2.8%	15.1%
West Virginia	3.6%	0.2%	0.8%	1.2%	17.9%	17.4%	17.5%	41.7%	7.5%	1.3%	0.3%	51.3%	50.7%	17.9%
Barbour County	1.2%	0.5%	0.3%	0.7%	18.0%	20.8%	18.2%	49.9%	8.3%	0.3%	0.0%	83.7%	100.0%	20.7%
Berkeley County	7.4%	0.3%	1.3%	3.5%	12.5%	15.1%	11.9%	33.1%	10.1%	3.4%	0.5%	31.6%	0.0%	17.7%
Clay County	0.4%	0.2%	0.1%	0.4%	16.9%	30.2%	27.8%	54.2%	7.6%	0.0%	0.0%	100.0%	100.0%	19,8%

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)
Hampshire County	1.3%	0.2%	0.3%	1.2%	17.8%	22.4%	18.2%	46.0%	7.1%	0.7%	0.1%	100.0%	100.0%	23.8%
Lewis County	0.7%	0.2%	0.4%	0.8%	19.9%	18.5%	20.9%	45.5%	5.4%	0.8%	0.0%	59.0%	100.0%	18.5%
Marshall County	0.7%	0.2%	0.4%	0.9%	19.4%	13.4%	16.9%	40.4%	9.9%	0.6%	0.4%	49.0%	14.3%	16.0%
Mason County	1.2%	0.1%	0.4%	0.4%	18.7%	20.5%	17.8%	48.9%	8.6%	0.5%	0.4%	65.0%	100.0%	15.9%
Mingo County	2.4%	0.0%	0.3%	0.5%	14.8%	29.9%	23.4%	53.1%	11.5%	0.3%	0.2%	89.7%	100.0%	17.9%
Monroe County	1.3%	0.3%	0.3%	0.8%	21.2%	21.7%	13.9%	44.5%	8.2%	0.4%	0.3%	88.5%	100.0%	22.5%
Randolph County	0.7%	0.2%	0.5%	0.6%	20.3%	17.9%	18.4%	46.3%	8.2%	0.8%	0.6%	62.4%	27.9%	19.1%
Summers County	7.9%	0.3%	0.4%	1.9%	19.9%	22.5%	18.2%	53.7%	5.8%	0.5%	0.0%	80.0%	0.0%	20.7%

*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, 2011.
Source of health insurance data: US Census Bureau – Small Area Health Insurance Estimates (SAHIE), 2011.
Source of rural population data: US Census Bureau – Census 2010.
Source of medically underserved data: Health Resources and Services Administration (HRSA), 2013.
Source of other data: US Census Bureau – American Community Survey (ACS), 2007-2011.

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

Affiliate	Community	Key Population Characteristics
Komen Central Indiana	Boone County, IN	Rural
	Rush County, IN	Rural
	Vermillion County, IN	Rural
Komen Columbus	Hocking County, OH	Rural, medically underserved
	Licking County, OH	Rural
	Madison County, OH	Rural
	Meigs County, OH	Poverty, employment, rural, medically underserved
	Monroe County, OH	Rural, medically underserved
	Morgan County, OH	Rural, medically underserved
	Muskingum County	Rural
	Perry County, OH	Rural, medically underserved
	Washington County, OH	Rural
Komen Evansville Tri-State	Spencer County, IN	Rural, medically underserved
	McLean County, KY	Rural, medically underserved
Komen Kentucky	Adair County, KY	Education, employment, rural, insurance
	Barren County, KY	Rural
	Caldwell County, KY	Rural, medically underserved
	Casey County, KY	Education, poverty, rural, insurance, medically underserved
	Clay County, KY	Education, poverty, employment, rural, medically underserved
	Fleming County, KY	Education, rural
	Floyd County, KY	Education, poverty, rural
	Garrard County, KY	Employment, rural, medically underserved
	Harrison County, KY	Rural
	Henry County, KY	Rural
	Johnson County, KY	Education, rural
	Lawrence County, KY	Education, poverty, rural, medically underserved
	Leslie County, KY	Education, poverty, rural, medically underserved
	Magoffin County, KY	Education, poverty, rural, insurance, medically underserved
	Perry County, KY	Education, poverty, rural
	Rowan County, KY	Poverty, rural
	Spencer County, KY	Rural, medically underserved
	Taylor County, KY	Education, rural
	Wayne County, KY	Education, poverty, employment, rural, medically underserved
Komen Northeast Ohio	Ashtabula County, OH	Rural
	Harrison County, OH	Poverty, rural, medically underserved
	Jefferson County, OH	Rural

Affiliate	Community	Key Population Characteristics
	Auglaize County, OH	Rural
	Henry County, OH	Rural
	Putnam County, OH	Rural, medically underserved
	Shelby County, OH	Rural
	Van Wert County, OH	Rural
Komen Southwest Ohio	Grant County, KY	Rural
	Adams County, OH	Education, poverty, employment, rural, medically underserved
	Clinton County, OH	Rural
Komen West Virginia	Barbour County, WV	Rural, medically underserved
	Clay County, WV	Education, poverty, rural, medically underserved
	Hampshire County, WV	Rural, insurance, medically underserved
	Lewis County, WV	Rural, medically underserved
	Mason County, WV	Rural, medically underserved
	Mingo County, WV	Education, poverty, employment, rural, medically underserved
	Monroe County, WV	Rural, medically underserved
	Randolph County, WV	Rural
	Summers County, WV	Education, rural, medically underserved
Not Currently Served By A Komen Affiliate	Carroll County, IN	Rural
	DeKalb County, IN	Rural
	Fulton County, IN	Rural
	Jasper County, IN	Rural
	Jennings County, IN	Employment, rural
	LaGrange County, IN	Education, language, rural, insurance
	Orange County, IN	Education, rural
	Washington County, IN	Education, rural, medically underserved
	Arenac County, MI	Older, education, rural, medically underserved
	Benzie County, MI	Older, rural
	Cheboygan County, MI	Older, employment, rural, insurance, medically underserved
	Emmet County, MI	%AIAN, rural
	Grand Traverse County, MI	Rural
	Gratiot County, MI	Rural, medically underserved
	Leelanau County, MI	%AIAN, older, rural
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Menominee County, MI	Older, rural, medically underserved
	Missaukee County, MI	Rural, medically underserved
	Montmorency County, MI	Older, education, employment, rural, medically underserved
	Ogemaw County, MI	Older, education, rural
	Osceola County, MI	Rural
	Otsego County, MI	Rural
	Wexford County, MI	Rural

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

Affiliate	Community	Key Population Characteristics
Komen Columbus	Hocking County, OH	Rural, medically underserved
	Meigs County, OH	Poverty, employment, rural, medically underserved
	Monroe County, OH	Rural, medically underserved
	Morgan County, OH	Rural, medically underserved
	Perry County, OH	Rural, medically underserved
Komen Detroit Race for the Cure®	Wayne County, MI	%Black/African-American, poverty, employment, medically underserved
Komen Evansville Tri-State	Spencer County, IN	Rural, medically underserved
	McLean County, KY	Rural, medically underserved
Komen Kentucky	Caldwell County, KY	Rural, medically underserved
	Casey County, KY	Education, poverty, rural, insurance, medically underserved
	Clay County, KY	Education, poverty, employment, rural, medically underserved
	Garrard County, KY	Employment, rural, medically underserved
	Lawrence County, KY	Education, poverty, rural, medically underserved
	Leslie County, KY	Education, poverty, rural, medically underserved
	Magoffin County, KY	Education, poverty, rural, insurance, medically underserved
	Scott County, KY	Medically underserved
	Spencer County, KY	Rural, medically underserved
	Wayne County, KY	Education, poverty, employment, rural, medically underserved
Komen Northeast Ohio	Harrison County, OH	Poverty, rural, medically underserved
Komen Northwest Ohio	Putnam County, OH	Rural, medically underserved
Komen Southwest Ohio	Adams County, OH	Education, poverty, employment, rural, medically underserved
Komen West Virginia	Barbour County, WV	Rural, medically underserved
	Clay County, WV	Education, poverty, rural, medically underserved
	Hampshire County, WV	Rural, insurance, medically underserved
	Lewis County, WV	Rural, medically underserved
	Mason County, WV	Rural, medically underserved
	Mingo County, WV	Education, poverty, employment, rural, medically underserved
	Monroe County, WV	Rural, medically underserved
	Summers County, WV	Education, rural, medically underserved
Not Currently Served By A Komen Affiliate	Lake County, IN	%Black/African-American, %Hispanic/Latina, medically underserved
	Washington County, IN	Education, rural, medically underserved
	Arenac County, MI	Older, education, rural, medically underserved
	Cheboygan County, MI	Older, employment, rural, insurance, medically underserved
	Gratiot County, MI	Rural, medically underserved
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Menominee County, MI	Older, rural, medically underserved
	Missaukee County, MI	Rural, medically underserved
	Montmorency County, MI	Older, education, employment, rural, medically underserved

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



	"Highest Priority"	State	"Highest Priority"	State	"Highest Priority"	State
Indiana	60	327	39	198	19	86
Kentucky	78	402	29	154	12	53
Michigan	110	541	56	302	29	108
Ohio	180	650	96	369	34	132
West Virginia	45	287	10	73	3	19

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

Appendix G. HP2020 "Highest Priority" communities in the East Central Region without ACS COC, BICOE, NAPBC or NCI accredited screening, diagnostic and treatment services

Komen Affiliate	Community	Key demographic/socioeconomic factors
Komen Central Indiana	Rush County, IN	Rural
Komen Columbus	Hocking County, OH	Rural, medically underserved
	Madison County, OH	Rural
	Meigs County, OH	Poverty, employment, rural, medically underserved
	Monroe County, OH	Rural, medically underserved
	Morgan County, OH	Rural, medically underserved
	Perry County, OH	Rural, medically underserved
Komen Evansville Tri-State	Spencer County, IN	Rural, medically underserved
	Warrick County, IN	
	McLean County, KY	Rural, medically underserved
Komen Kentucky	Adair County, KY	Education, employment, rural, insurance
	Barren County, KY	Rural
	Boyle County, KY	
	Caldwell County, KY	Rural, medically underserved
	Casey County, KY	Education, poverty, rural, insurance, medically underserved
	Clay County, KY	Education, poverty, employment, rural, medically underserved
	Fleming County, KY	Education, rural
	Garrard County, KY	Employment, rural, medically underserved
	Harrison County, KY	Rural
	Henry County, KY	Rural
	Johnson County, KY	Education, rural
	Lawrence County, KY	Education, poverty, rural, medically underserved
	Leslie County, KY	Education, poverty, rural, medically underserved
	Magoffin County, KY	Education, poverty, rural, insurance, medically underserved
	Oldham County, KY	
	Simpson County, KY	
	Spencer County, KY	Rural, medically underserved
	Wayne County, KY	Education, poverty, employment, rural, medically underserved
Komen Northeast Ohio	Ashtabula County, OH	Rural
	Harrison County, OH	Poverty, rural, medically underserved
Komen Northwest Ohio	Auglaize County, OH	Rural
	Henry County, OH	Rural
	Putnam County, OH	Rural, medically underserved
	Shelby County, OH	Rural

Komen Affiliate	Community	Key demographic/socioeconomic factors
	Van Wert County, OH	Rural
Komen Southwest Ohio	Grant County, KY	Rural
	Adams County, OH	Education, poverty, employment, rural, medically underserved
Komen West Virginia	Barbour County, WV	Rural, medically underserved
	Clay County, WV	Education, poverty, rural, medically underserved
	Hampshire County, WV	Rural, insurance, medically underserved
	Lewis County, WV	Rural, medically underserved
	Marshall County, WV	
	Mason County, WV	Rural, medically underserved
	Mingo County, WV	Education, poverty, employment, rural, medically underserved
	Monroe County, WV	Rural, medically underserved
	Summers County, WV	Education, rural, medically underserved
Not Currently Served by a Komen Affiliate	Carroll County, IN	Rural
	DeKalb County, IN	Rural
	Fulton County, IN	Rural
	Jasper County, IN	Rural
	Jennings County, IN	Employment, rural
	LaGrange County, IN	Education, language, rural, insurance
	Orange County, IN	Education, rural
	Washington County, IN	Education, rural, medically underserved
	Arenac County, MI	Older, education, rural, medically underserved
	Benzie County, MI	Older, rural
	Cheboygan County, MI	Older, employment, rural, insurance, medically underserved
	Gratiot County, MI	Rural, medically underserved
	Leelanau County, MI	%AIAN, older, rural
	Mackinac County, MI	%AIAN, older, rural, insurance, medically underserved
	Menominee County, MI	Older, rural, medically underserved
	Missaukee County, MI	Rural, medically underserved
	Montmorency County, MI	Older, education, employment, rural, medically underserved
	Ogemaw County, MI	Older, education, rural
	Otsego County, MI	Rural
	Wexford County, MI	Rural