

# **ASTHO Breast Cancer Learning Community**

**Using Data to Address Disparities in Breast Cancer Mortality at the  
State Level**

**WISCONSIN**

**Data Report**

**Draft as of 6/1/2018**

**Wisconsin  
Well Woman  
Program**



## Using Data to Address Disparities in Breast Cancer Mortality at the State Level

### WISCONSIN WELL WOMAN PROGRAM

According to the June 2016 publication, *Breast Cancer Disparities between African American and White Women in Wisconsin*, starting in 2005, the breast cancer incidence rate among African American women increased and exceeded the White rate in 2009, 2012, and 2013. As the report projected, breast cancer incidence continued to rise among African American women and exceeded the rate for White women in 2014 and 2015. In 2015, the incidence rate was 146.2 among African American women while the rate was 128.5 among white women.

Southeastern Wisconsin, including Milwaukee County, is home to 90% of Wisconsin's African American population. Milwaukee County has the highest African American population (240,203) of any Wisconsin county, followed by Racine County. For Whites, Milwaukee County has the highest county-level population in the southeastern region of Wisconsin.

Historically, breast cancer has been more deadly in African American women than in White women. As the rising African American incidence rates converged with White rates in 2009 and 2012, the data indicate that breast cancer deaths also continued to increase among African American women.

The increased breast cancer incidence in African American women and racial disparity trends may be further examined through analysis of the high concentration of African Americans in Milwaukee County in southeastern Wisconsin. Because of this unique demographic distribution, it is important to look further at breast cancer to identify regional patterns for community level prevention and intervention strategies.

According to the most recent data from the Wisconsin Cancer Reporting System, during 1995 through 2015, the breast cancer incidence rate increased by 32%, from 110.7 to 146.2 per 100,000, for African American women, and was stable from 127.8 to 128, at 5 per 100,000, for White women. The mortality rate among African American women remained consistently above the mortality rate for White women. The mortality rate for White women decreased by 38%, from 29.5 in 1995 to 18.4 per 100,000 in 2015, while the rate for African American women decreased 18%, from 33.5 to 27.6.

African American women have continued to be diagnosed with breast cancer at a later stage than White women in Wisconsin during the most recent five-year period. During 2011-2015, 34% of African American women with breast cancer were diagnosed at a late (regional or distant) stage, while 26% of White women were diagnosed at a late stage. (See Table 5) The late stage distribution of breast cancer cases between African American and White women in the southeastern region was not significantly different than the statewide distribution.

Table 1. Breast Cancer Rates, African American and White, Milwaukee County and Wisconsin, 2011-2015

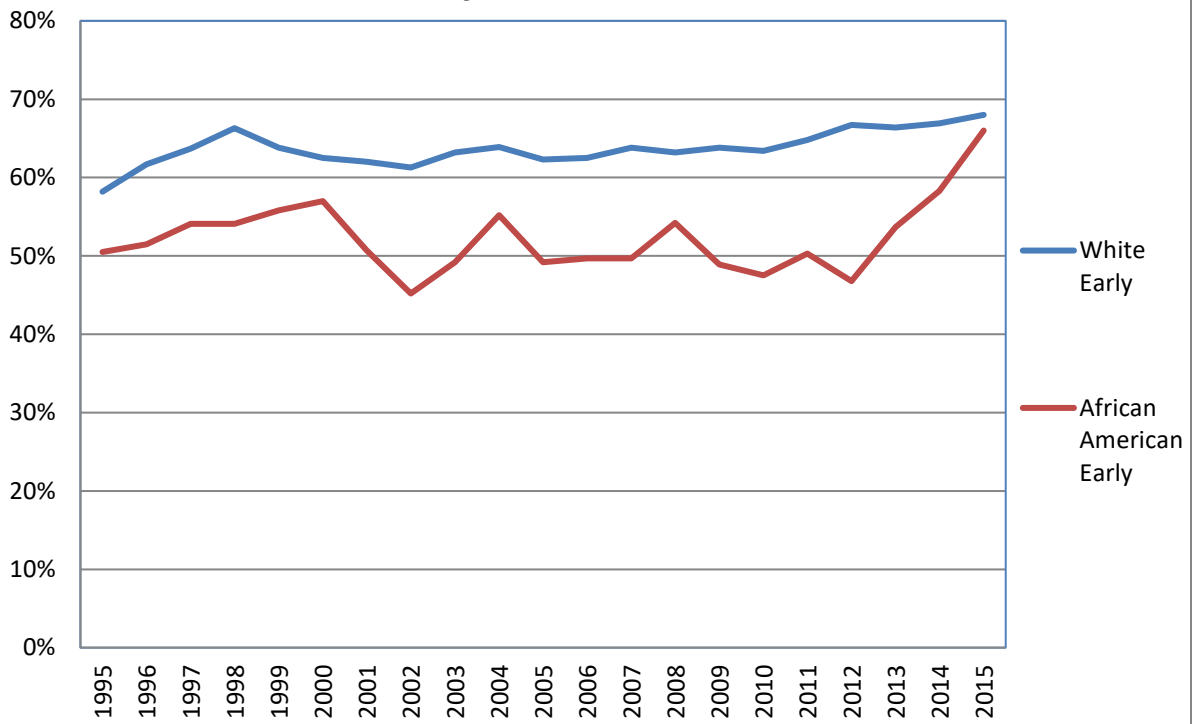
	<b>African American Incidence</b>				<b>White Incidence</b>			
<b>County</b>	<b>Rate</b>	<b>Count</b>	<b>Lower CI</b>	<b>Upper CI</b>	<b>Rate</b>	<b>Count</b>	<b>Lower CI</b>	<b>Upper CI</b>
Milwaukee County	137.8	817	128.2	147.9	136.2	2607	130.8	141.7
Wisconsin	136.1	1,061	127.8	144.9	129.5	21,026	127.7	131.3
	<b>African American Mortality</b>				<b>White Mortality</b>			
<b>County</b>	<b>Rate</b>	<b>Count</b>	<b>Lower CI</b>	<b>Upper CI</b>	<b>Rate</b>	<b>Count</b>	<b>Lower CI</b>	<b>Upper CI</b>
Milwaukee County	31.6	173	26.9	36.9	20.6	452	18.6	22.7
Wisconsin	31.1	220	26.9	35.6	19.6	3,504	18.9	20.3

Sources: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Department of Health Services, and National Center for Health Statistics.

Note: Rates are per 100,000 and age-adjusted to the 2000 US standard population.

Figure 1 shows that the disparity in the stage at which breast cancer is diagnosed between African American and White women in Wisconsin has decreased since 2012. Invasive breast cancer among African American women continued to be less frequently diagnosed at an early stage but with a distinct improvement in recent years. From 2012 to 2015, the early (local) stage at diagnosis steadily increased from 47% to 66% among African American women.

**Figure 1. Breast Cancer, Local Stage at Diagnosis, Wisconsin by Race, 1995-2015**



Note: Based on invasive breast cancer cases.

Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Department of Health Services

A recent study by Dr. Kirsten Beyer at the Medical College of Wisconsin identified some specific Milwaukee areas as “hot spots” – where women are nearly twice as likely to die from breast cancer as women living in surrounding neighborhoods. The Wisconsin Breast Cancer Task Force (WBCTF) has been conducting extensive outreach in these neighborhoods, which includes all or part of **zip codes: 53205, 53206, 53208, 53210, 53213, 53216, and 53233**. Many African American women reside in these seven zip code areas. The WBCTF is partnering with individuals and community groups in Milwaukee on a project called ***Sister Pact***. The ***Sister Pact*** project encourages African American women in Milwaukee to address their breast health by taking action in one of several ways: by scheduling a mammogram, visiting a resource directory to access local resources (including the Wisconsin Well Woman Program), and talking to friends and family to make a commitment – a ***Sister Pact*** - to take action.

Table 2. Breast Cancer Incidence and Mortality, White and African American, Wisconsin, 2011-2015

INCIDENCE

	All races	All races	All races	All races	White	White	White	White	Black	Black	Black	Black
	Rate	Lower CI	Upper CI	Count	Rate	Lower CI	Upper CI	Count	Rate	Lower CI	Upper CI	Count
2011-201	129.7	127.9	131.4	22,561	129.5	127.7	131.3	21,026	136.1	127.8	144.9	1,061
2011	130.2	126.3	134.2	4,431	130.6	126.5	134.7	4,161	128.6	110.4	148.9	191
2012	129.8	125.9	133.8	4,455	129.6	125.5	133.7	4,156	135.9	117.1	156.7	203
2013	131.7	127.8	135.7	4,563	131.3	127.2	135.4	4,245	138	119.4	158.4	214
2014	127.8	124	131.8	4,505	127.7	123.7	131.8	4,187	131.9	114.4	151.3	218
2015	129	125.1	132.9	4,607	128.5	124.5	132.6	4,277	146.2	127.4	166.9	235

Rates are for invasive breast cancer.

Rates are per 100,000 and age-adjusted to the 2000 US standard population. Confidence intervals are 95% for rates.

MORTALITY

	All races	All races	All races	All races	White	White	White	White	Black	Black	Black	Black
	Rate	Lower CI	Upper CI	Count	Rate	Lower CI	Upper CI	Count	Rate	Lower CI	Upper CI	Count
2011-201	20	19.3	20.7	3,764	19.6	18.9	20.3	3,504	31.1	26.9	35.6	220
2011	21.4	19.9	23	783	20.7	19.1	22.3	722	38	28.1	50.2	53
2012	20.5	19	22	763	20	18.5	21.6	712	29.3	20.6	40.1	40
2013	20.3	18.8	21.9	762	20	18.5	21.6	711	31.6	22.7	42.6	45
2014	19.2	17.8	20.7	739	19	17.5	20.5	692	29.2	20.7	39.7	42
2015	18.6	17.2	20.1	717	18.4	17	20	667	27.6	19.4	37.9	40

Rates are per 100,000 and age-adjusted to the 2000 US standard population. Confidence intervals are 95% for rates.

Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Department of Health Services.

Table 2 presents higher breast cancer incidence rates since 2012, and a consistently higher mortality rate for all years, among African American women during the recent five-year period. The recent five-year trend for incidence rates show a slight decline among white women (130.6 to 128.5) while there is a significant increase among African American women (128.6 to 146.2). The mortality trends are that of declining rates for both races, although the disparity remains.

Table 3. Age-Specific Breast Cancer, White and African American, Wisconsin, 2011-2015

	White Rate	White Lower CI	White Upper CI	White Count	Black Rate	Black Lower CI	Black Upper CI	Black Count
under 15 <sup>^</sup>		<sup>^</sup>	<sup>^</sup>	<sup>^</sup>	<sup>^</sup>	<sup>^</sup>	<sup>^</sup>	<sup>^</sup>
15-29	3.7	3	4.5	88	5.8	3.3	9.6	15
30-49	104.5	101	108.1	3,465	116	103	130.3	287
50-69	297.7	292	303.5	10,405	321.3	294.9	349.4	553
70 and over	455.4	444.7	466.3	7,068	436.4	378.6	500.6	205

Rate are per 100,000 and age-adjusted to the 2000 US standard population. Confidence intervals are 95% for rates.

<sup>^</sup> Statistic not displayed due to fewer than 6 cases.

Table 3 shows that African American women were diagnosed at younger ages, and have higher incidence rates for all ages except the oldest age group of 70 and over.

Table 4. Breast Cancer by Stage at Diagnosis, White and African American Women, Wisconsin, 2011-2015

		In Situ Count	In Situ Row %	Localized Count	Localized Row %	Regional Count	Regional Row %	Distant Count	Distant Row %	Unknown Count	Unknown Row %	Total Count	Total Row %
White	Total	5,126	20%	13,997	54%	5,678	22%	1,081	4%	270	1%	26,152	100%
White	2011	938	18%	2,696	53%	1,165	23%	215	4%	85	2%	5,099	100%
White	2012	1,019	20%	2,773	54%	1,130	22%	206	4%	47	1%	5,175	100%
White	2013	1,058	20%	2,817	53%	1,148	22%	235	4%	45	1%	5,303	100%
White	2014	1,071	20%	2,803	53%	1,118	21%	211	4%	55	1%	5,258	100%
White	2015	1,040	20%	2,908	55%	1,117	21%	214	4%	38	1%	5,317	100%
Black	Total	315	23%	588	43%	376	27%	87	6%	10	1%	1,376	100%
Black	2011	51	21%	96	40%	72	30%	22	9%	>	0%	242	100%
Black	2012	59	23%	95	36%	83	32%	23	9%	>	1%	262	100%
Black	2013	73	25%	115	40%	81	28%	15	5%	>	1%	287	100%
Black	2014	63	22%	127	45%	73	26%	17	6%	>	0%	281	100%
Black	2015	69	23%	155	51%	67	22%	10	3%		1%	304	100%

>= less than 6

Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Department of Health Services.

Table 4 shows the most recent five-year pattern for stage of breast cancer at diagnosis among White and African American women. This reflects the trend of improvement towards earlier detection, as shown by in situ detection for 23% of African American women compared to 20% of White women during 2011-2015. However, White women are still more frequently

diagnosed at the local stage, when treatment options are more effective, while African American women experience higher proportions of regional and distant stage diagnoses, with a worse prognosis for survival. Table 5 summarizes the stages by early and late designations.

Table 5. Breast Cancer by Early and Late Stage, White and African American, Wisconsin, 2011-2015

		Early Count	Early Row %	Late Count	Late Row %	Unstaged Count	Unstaged Row %	Total Count	Total Row %
White	Total	19,123	73%	6,759	26%	270	1%	26,152	100%
White	2011	3,634	71%	1,380	27%	85	2%	5,099	100%
White	2012	3,792	73%	1,336	26%	47	1%	5,175	100%
White	2013	3,875	73%	1,383	26%	45	1%	5,303	100%
White	2014	3,874	74%	1,329	25%	55	1%	5,258	100%
White	2015	3,948	74%	1,331	25%	38	1%	5,317	100%
Black	Total	903	66%	463	34%	10	1%	1,376	100%
Black	2011	147	61%	94	39%	>	0%	242	100%
Black	2012	154	59%	106	41%	>	1%	262	100%
Black	2013	188	66%	96	33%	>	1%	287	100%
Black	2014	190	68%	90	32%	>	0%	281	100%
Black	2015	224	74%	77	25%	>	1%	304	100%

Early = in situ and local  
 Late = regional and distant stages  
 >= less than 6  
 Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Department of Health Services.

## Wisconsin Activities Related to Eliminating Breast Cancer Disparities

The Wisconsin Department of Health Services participates in several national programs that support cancer screening, public education and outreach strategies, lifestyle intervention programs, and community-based cancer prevention activities.

**The Wisconsin Well Woman Program (WWWP)** provides breast and cervical cancer screening for low-income Wisconsin women with little or no health insurance coverage. The program pays for mammograms, Pap tests, and specified diagnostic procedures related to breast and cervical cancers. The WWWP is part of the CDC-funded National Breast and Cervical Cancer Early Detection Program (NBCCEDP).

**The Wisconsin Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) Program** provides cardiovascular screening to women who are participants in the CDC-funded National Breast and Cervical Cancer Early Detection Program known in Wisconsin as the Well Woman Program. WISEWOMAN focuses on reducing heart disease and stroke risk factors by improving diet, increasing physical activity, offering tobacco cessation

programs, and adopting other heart healthy behaviors. These behavior changes can help decrease health disparities in chronic diseases including breast cancer.

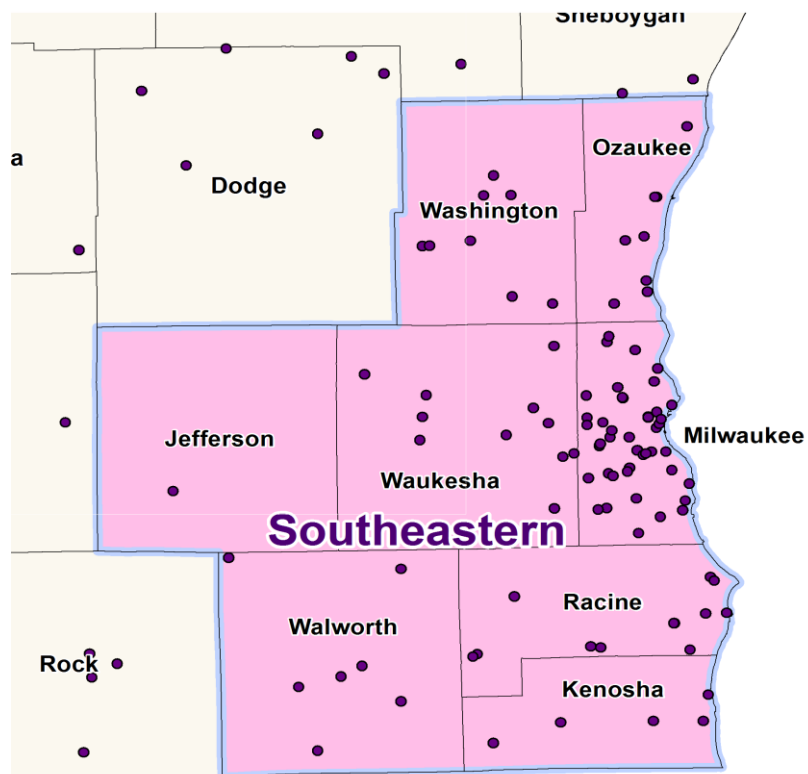
**The Wisconsin Cancer Reporting System (WCRS)** is a population-based registry that collects, manages, and analyzes Wisconsin cancer data. WCRS is part of the National Program of Cancer Registries.

### **Current and Proposed Activities for the Breast Cancer Learning Community**

1. The WWWP has been and will continue to partner with the WCRS to:
  - Identify areas in Milwaukee and other areas in southeastern Wisconsin to focus on breast cancer disparities between African American and White women;
  - Review data on incidence and stage of breast cancer diagnosis;
  - Estimate the potential for new WWWP breast cancer screening activities by utilizing Small Area Geography;
  - Develop maps and corresponding tables suggesting areas of highest potential for new breast cancer screening services;
  - Review data sources including census tract populations of women aged 35-64, with incomes below 250% of the Federal Poverty Level (2010 Census) and the American Community Survey; and
  - Provide resources for the WWWP Data Manager and Data Specialist to take GIS training in order for them to “map” various components for sharing with program stakeholders.
2. Based on data from WCRS, the WWWP will provide information on areas for enhanced education and outreach activities in southeastern Wisconsin to:
  - Aurora Health Care, Inc. (for education and patient navigation services);
  - City of Milwaukee Health Department (for patient navigation, education, screening and diagnostic services);
  - Sister Pact Project through the Wisconsin Comprehensive Cancer Control Program in partnership with the Wisconsin Breast Cancer Task Force (to continue the current awareness campaign in seven zip codes in Milwaukee where many African American women reside);
  - University of Wisconsin-Milwaukee College of Nursing (for targeted education and referral to the City of Milwaukee Health Department and other providers for screening and diagnostic services); and
  - Wisconsin Association of Free and Charitable Clinics (for providing small group & one-on-one education regarding the importance of breast cancer screening).
3. Review and analyze the American Cancer Society’s *Breast Cancer Facts and Figures* in order to address disparities and develop enhanced patient navigation strategies.



# Wisconsin Well Woman Provider Sites in Southeastern Wisconsin



**Provider organizations in Milwaukee, WI providing breast cancer  
screening, diagnostic and treatment services**

<b>Provider</b>	<b>Address</b>	<b>City</b>	<b>Zip Code</b>	<b>County</b>
Aurora Health Care, Inc.	1020 N 12th St.	Milwaukee	53233	Milwaukee
Aurora Health Care, Inc.	1218 W Kilbourn Ave.	Milwaukee	53233	Milwaukee
Aurora Health Care, Inc.	130 W Bruce St.	Milwaukee	53204	Milwaukee
Aurora Health Care, Inc.	1574 N Rivercenter Dr.	Milwaukee	53212	Milwaukee
Aurora Health Care, Inc.	1575 N Rivercenter Dr.	Milwaukee	53212	Milwaukee
Aurora Health Care, Inc.	163 N. Milwaukee Street	Milwaukee	53202	Milwaukee
Aurora Health Care, Inc.	2801 W Kinnickinnic River Pkwy	Milwaukee	53215	Milwaukee
Aurora Health Care, Inc.	2901 W Kinnickinnic River Pkwy	Milwaukee	53215	Milwaukee
Aurora Health Care, Inc.	3003 W. Good Hope Road	Milwaukee	53209	Milwaukee
Aurora Health Care, Inc.	3119 S. Clement Avenue	Milwaukee	53207	Milwaukee
Aurora Health Care, Inc.	3305 S. 20th Street	Milwaukee	53215	Milwaukee
Aurora Health Care, Inc.	4111 W Mitchell St	Milwaukee	53215	Milwaukee
Aurora Health Care, Inc.	5818 W Capitol Dr	Milwaukee	53216	Milwaukee
Aurora Health Care, Inc.	7300 W Dean Rd	Milwaukee	53223	Milwaukee
Aurora Health Care, Inc.	777 E Wisconsin Ave	Milwaukee	53202	Milwaukee
Aurora Health Care, Inc.	7878 N. 76th Street	Milwaukee	53223	Milwaukee
Aurora Health Care, Inc.	945 N. 12th Street	Milwaukee	53233	Milwaukee
Aurora Health Care, Inc.	900 W. Oklahoma Avenue	Milwaukee	53215	Milwaukee
Columbia St. Mary's	2323 N. Lake Drive	Milwaukee	53211	Milwaukee
Wheaton Franciscan Healthcare	3237 S 16th St	Milwaukee	53215	Milwaukee
Wheaton Franciscan Healthcare	5000 W Chambers St	Milwaukee	53210	Milwaukee
Wheaton Franciscan Healthcare	3070 N 51st St	Milwaukee	53210	Milwaukee

**Provider organizations in Milwaukee, WI providing breast cancer screening, diagnostic and treatment services. These providers are near the seven zip code areas where many African American women reside.**



The Wisconsin Breast Cancer Task Force (WBCTF) has been conducting extensive outreach in these neighborhoods, which includes all or part of zip codes:

- 53205
- 53206
- 53208
- 53210
- 53213
- 53216
- 53233

Many African American women reside in these seven zip code areas.

Very rough draft

References: Data Source: Wisconsin Cancer Reporting System, Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics.

Yi Ou, Mary Foote (with assistance from the Wisconsin Well Woman Program). Breast Cancer Disparities between African American and White Women in Wisconsin. Available at: <https://www.dhs.wisconsin.gov/publications/p01266.pdf>