

DHCS

EVERY WOMAN COUNTS
REPORT TO THE CALIFORNIA LEGISLATURE:
BREAST AND CERVICAL CANCER SCREENING
AND DIAGNOSTIC SERVICES,
FISCAL YEAR 2011-2012



FEBRUARY 2014

Additional and related information is available from the Department of Health Care Services, Benefits Division, Every Woman Counts at:
<http://dhcs.ca.gov/EveryWomanCounts>

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Women seeking breast cancer and cervical cancer screening services in her area should call the toll-free number 1-800-511-2300 or visit our Online Provider Locator:
<http://dhcs.ca.gov/EveryWomanCounts>

CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES
Benefits Division

EVERY WOMAN COUNTS
Breast and Cervical Cancer Screening and Diagnostic Services,
Fiscal Year 2011-2012
February 2014

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PURPOSE AND LEGISLATIVE REQUIREMENT

The Breast Cancer Control Program (BCCP) is currently implemented as part of the Every Woman Counts (EWC) program administered by the California Department of Health Care Services (DHCS). EWC was previously housed in the Cancer Detection Section (CDS) of the California Department of Public Health (CDPH) until June 30, 2012. Effective July 1, 2012, EWC transitioned to DHCS per Assembly Bill (AB) 1467, (Committee on Budget, Chapter 23, Statutes of 2012). Section 30461.6 (f) of the Revenue and Taxation Code requires the oversight department to submit an annual report to the Legislature on specified activities of EWC. The portion of the statute pertaining to the report states:

(f)... The State Department of Public Health [now Department of Health Care Services per AB 1467] shall submit an annual report to the Legislature and any other appropriate entity. The report shall describe the activities and effectiveness of the program and shall include, but not be limited to, the following types of information regarding those served by the program:

- (1) The number.*
- (2) The ethnic, geographic, and age breakdown.*
- (3) The stages of presentation.*
- (4) The diagnostic and treatment status.*

In addition to breast cancer screening and diagnostic services, EWC provides cervical cancer screening and diagnostic services using a combination of state and federal funds. This report includes outcomes for both breast cancer and cervical cancer screening and diagnostic services provided by EWC during fiscal year (FY) 2011-2012.

BACKGROUND

AB 478 (Friedman, Chapter 660, Statutes of 1993) and AB 2055 (Friedman, Chapter 661, Statutes of 1993) created the California Breast Cancer Act (BCA). BCA was signed into law on October 1, 1993, by Governor Pete Wilson and went into effect January 1, 1994. BCA authorized the Breast Cancer Fund derived from a dedicated two-cent tax on tobacco products. Half of the revenues are deposited into the Breast Cancer Control Account to implement a state-funded breast cancer screening program, called the Breast Cancer Early Detection Program (BCEDP).

BCEDP was created in coordination with the Breast and Cervical Cancer Control Program (BCCCCP), a federal Centers for Disease Control and Prevention (CDC) funded multi-component public health program in existence since 1991. BCCCCP is now known as the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) and funds cancer screening, public education, outreach, quality assurance, and program evaluation activities. BCEDP and NBCCEDP were unified in October 2002, to form one comprehensive program, Cancer Detection Programs: Every Woman Counts. To meet the increasing demand for services, EWC began receiving additional funding from

Proposition 99 unallocated Tobacco Tax and Health Promotion Act (Prop 99) in FY 1999-2000 and state general funds in FY 2010-2011.

REPORTING PERIOD

This report to the Legislature includes EWC services provided by combined state and federal funds for reporting period FY 2011-2012. Finalized data for FY 2011-2012, includes the number and demographics of women served, breast and cervical cancer screening and diagnostic services and for calendar year (CY) 2010, confirmed diagnoses of breast and cervical cancer and stage at diagnosis.

DATA SOURCES USED IN THIS REPORT

The sources of the FY 2011-2012 data used for this report are listed below, reported as of October 2013:

- ***DHCS, Detecting Early Cancer Data Management System (DETEC):*** EWC's data management system for recipient enrollment and clinical services outcomes.
- ***DHCS, Medi-Cal Fiscal Intermediary Xerox Corporation (claims database):*** Adjudicated claims are used to identify EWC clinical services paid during FY2011-2012. These records were subsequently linked to adjudicated claims to substantiate and identify all services in the clinical path.
- ***CDPH, California Cancer Registry (CCR):*** EWC links recipient records bi-annually to CCR, the state's cancer surveillance system, to validate cancer diagnoses, recipient demographics, determine stage of diagnosis, source of treatment and follow up. EWC clinical services recipient records were linked to 2010 case data from CCR, the most recent year for which data is complete (due to time needed to accurately collect and process case information within CCR).
- ***DHCS, Breast and Cervical Cancer Treatment Program (BCCTP):*** The BCCTP provides cancer treatment and services for eligible low-income California residents. BCCTP data was used to validate the number of EWC recipients diagnosed with breast and cervical cancers, which were referred for treatment in Medi-Cal through BCCTP. EWC conducts bi-annual record linkage with BCCTP.

EWC: OVERVIEW OF BREAST AND CERVICAL CANCER SCREENING AND DIAGNOSTIC AND PUBLIC HEALTH SERVICES

EWC facilitates access to breast and cervical cancer screening and diagnostic services for uninsured and underinsured women in California. EWC is the largest breast cancer detection program in the nation. In order to access EWC cancer screening, diagnostics, and case management, women must meet program eligibility criteria. These criteria include being uninsured or underinsured (defined as financially unable to meet co-payments or deductibles, or insurance does not provide coverage of breast and cervical cancer screening and/or diagnostic services) and having a household income at or below 200 percent of the federal poverty level. EWC provides breast cancer screening and diagnostic services to eligible California women ages 40 and over and cervical cancer screening and diagnostic services to eligible California women, ages 25 and over.

CCR estimated that in 2010, 23,520 women were diagnosed and 4,225 died from invasive breast cancer in California.¹ Cervical cancer was diagnosed in 1,432 California women with 474 deaths in that same year.² Timely, age-appropriate screening could have prevented many of these deaths by detecting cancer early when it is most treatable.

Early detection of breast cancer and cervical cancer increases the chance of survival. If breast cancer is found early as a localized tumor (e.g., the tumor has broken through the basement membrane, but still confined to the breast), the five-year relative survival rate is 100 percent, whereas, if it is regional (e.g., the tumor has spread to lymph nodes or adjacent tissues), the survival rate could decline to 85 percent during the five-year period. Similarly, if cervical cancer is found localized, the five-year survival rate is about 93 percent while regional is approximately a 61 percent survival rate.³ The number of years of survival after cancer diagnosis may vary widely among different sub-populations and individuals.

Clinical breast exams, mammograms, Papanicolaou (Pap) tests alone or with Human Papillomavirus (HPV) co-testing are highly effective cancer screening tools, but are underused by women, who are uninsured and underinsured, geographically and culturally isolated, medically underserved, racial, ethnic, and cultural minorities. The goal of EWC is to improve access to and utilization of screening services for these women.

¹ California Department of Public Health, California Cancer Registry. Annual Statistical Tables by Site, Breast Cancer, http://www.ccrca.org/pdf/AnnualReport/1988-2011_BREAST.pdf Accessed January 21, 2015.

² California Department of Public Health, California Cancer Registry. Annual Statistical Tables by Site, Cervical Uteri Cancer, http://www.ccrca.org/pdf/AnnualReport/1988-2011_CERVIX.pdf Accessed January 21, 2015.

³ American Cancer Society, California Department of Public Health, California Cancer Registry. California Cancer Facts and Figures 2012. Oakland, CA: American Cancer Society, California Division, September 2011. Page 7. http://www.ccrca.org/pdf/Reports/ACS_2012.pdf Accessed on January 2, 2014.

PUBLIC EDUCATION AND TARGETED OUTREACH

EWC outreach and recruitment efforts focus on accessing underserved populations and directing them to screening and diagnostic services. Health education, tailored to specific racial/ethnic populations, is used to promote screening services. In FY 2011-2012, 6,595 women attended an EWC health education session. Of these, 4,487 women were ages 50 and over.

EWC supports a statewide toll-free referral line (1-800-511-2300) to increase access to EWC services and the toll-free line is promoted through EWC tailored health education sessions. Multilingual counselors answer calls during regular business hours five days a week. The call center staff provides callers with the names and contact information of up to three local EWC primary care providers. In FY 2011-2012, the toll-free referral line received 21,383 calls; of these, 65 percent were from those seeking screening services.

CASE MANAGEMENT

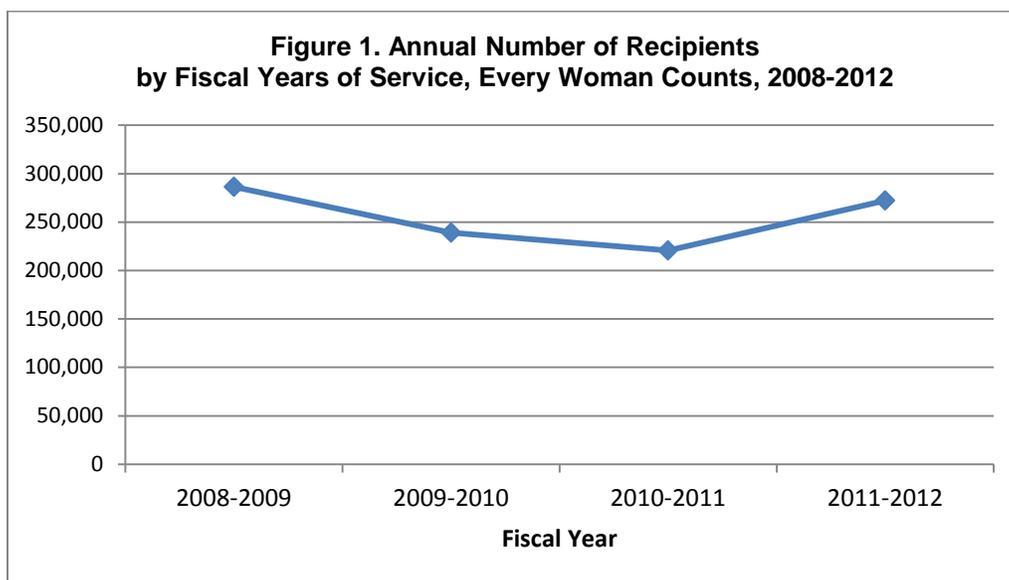
Case management is an integral part of EWC. Program recipients found to have abnormal screening test results are provided with case management services to ensure they receive timely diagnosis and appropriate treatment. The role of case management is to establish, broker, and sustain essential support services for EWC-enrolled women to identify and overcome barriers to increased adherence to diagnostic and treatment services; and ensure clients receive support while accessing needed services.

**EWC BREAST AND CERVICAL CANCER SCREENING AND DIAGNOSTIC SERVICES,
FY 2011-2012**

WOMEN SERVED BY EWC

EWC provided breast and/or cervical cancer screening and diagnostic services to nearly 267,168 uninsured and underinsured women in FY 2011-2012. Of the women served approximately 232,365 received EWC breast cancer screening and diagnostic services, and approximately 161,504 received EWC cervical cancer screening and diagnostic services (categories of service are not mutually exclusive). Forty-one percent of the women served for breast clinical services and 44 percent of the women served for cervical clinical services were new to EWC.

EWC has seen a steady increase in enrollment since the reopening of enrollment to all women on December 1, 2010, (Figure 1). For cost savings, in January 2010, a program policy closed all new enrollments and at the same time enforced service limits for women ages 50 and older already enrolled in EWC.



In FY 2011-2012, EWC clinical services were delivered by approximately 900 primary care providers and an unknown number of referral providers throughout the state. Table 1, shows the distribution of women served in FY 2011-2012 by age group, race/ethnicity and county of residence. The majority of women served were 50-59 years old, comprising 44 percent of breast and 41 percent of cervical cancer screening and diagnostic services. Seventy percent were Hispanic. Approximately, 36 percent for breast and 27 percent for cervical cancer screening and diagnostic services received those services in Los Angeles County.

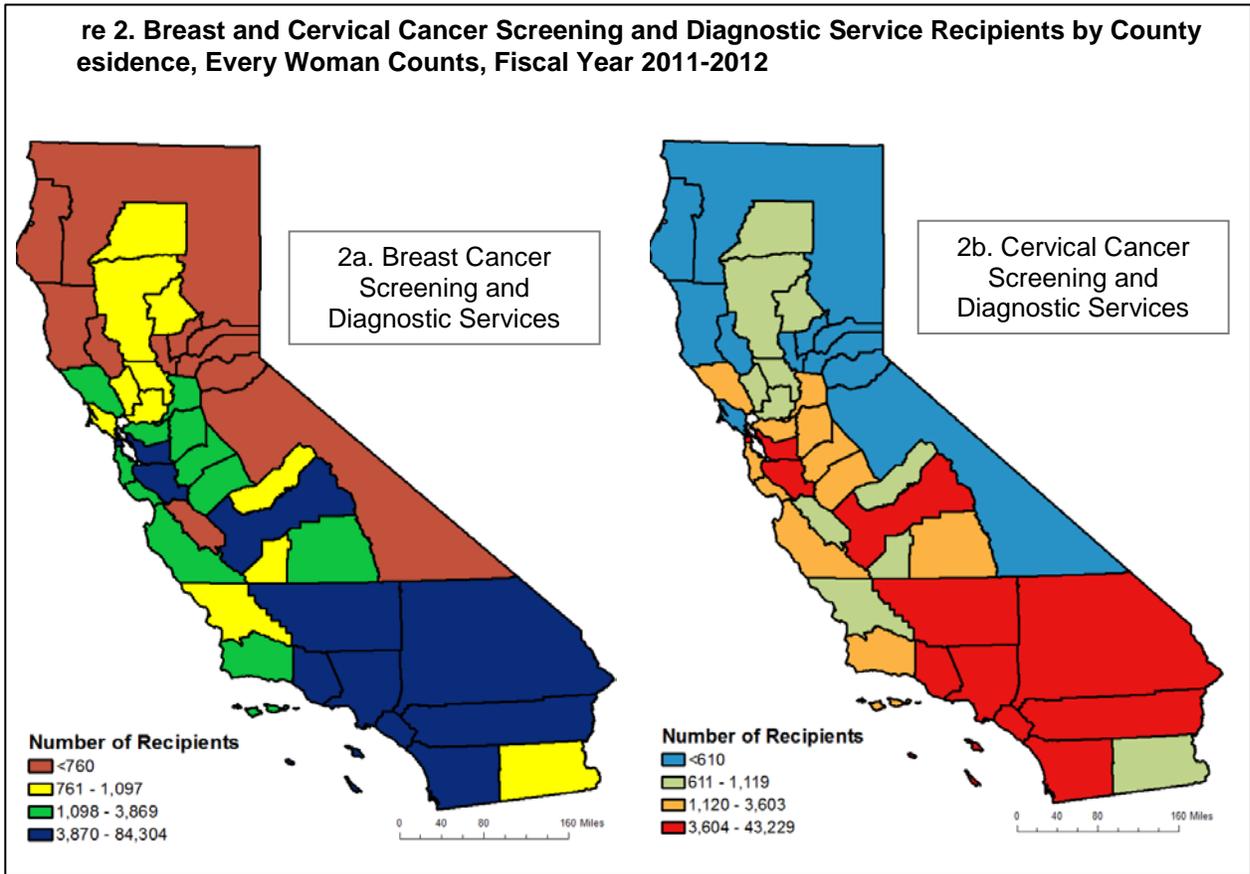
The geographic distribution of the number of women served by breast cancer and cervical cancer screening and diagnostics services from Table 1, for FY 2011-2012, are displayed in Figures 2a and 2b, respectively.

Every Woman Counts
Report to the Legislature: Breast Cancer and Cervical Cancer Screening and Diagnostic Services
Fiscal Year 2011-2012

Table 1. Breast and Cervical Cancer Screening and Diagnostic Services by Recipient Demographics and County of Residence, Every Woman Counts, Fiscal Year 2011-2012

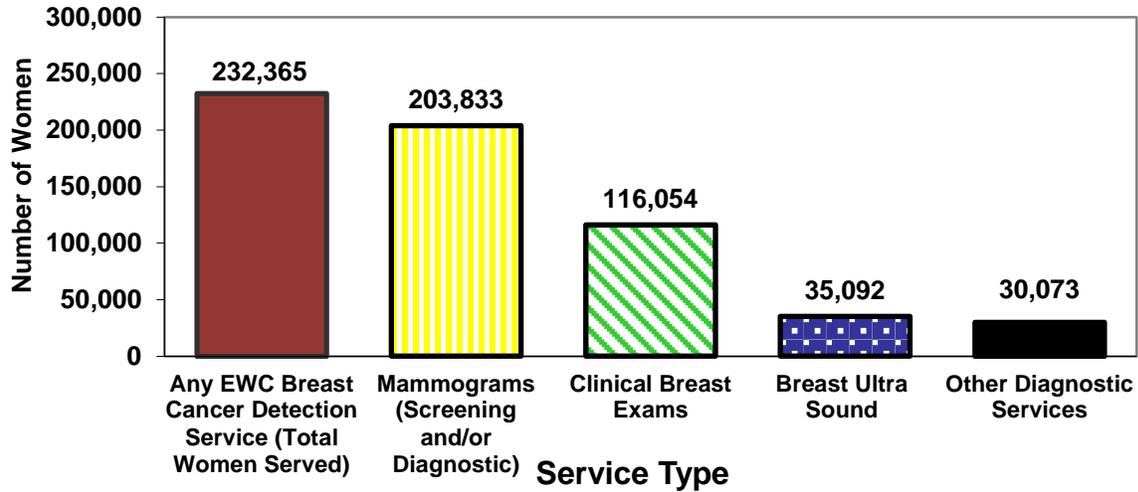
	Breast Cancer (n=232,365)		Cervical Cancer (n=161,504)	
	Number	Percent	Number	Percent
Age Group (years)				
25-39	n/a	n/a	16,344	10%
40-49	85,699	37%	52,512	33%
50-59	101,339	44%	66,354	41%
60 and over	44,582	19%	26,294	16%
Unknown	745	<1%	0	0%
Race/Ethnicity	Number	Percent	Number	Percent
White, Non-Hispanic	23,728	10%	16,684	10%
African American	7,508	3%	4,332	3%
Hispanic	162,738	70%	112,646	70%
Asian-Pacific Islander	30,387	13%	22,284	14%
American Indian and Other	2,355	2%	1,615	1%
Unknown	5,649	2%	3,943	2%
County	Number	Percent	Number	Percent
Alameda	8,504	4%	4,110	3%
Alpine/Amador	125	<1%	147	1%
Butte	890	<1%	721	<1%
Calaveras	115	<1%	115	<1%
Colusa	301	<1%	274	<1%
Contra Costa	2,388	1%	1,273	1%
Del Norte	144	<1%	142	<1%
El Dorado	359	<1%	229	<1%
Fresno	5,791	2%	5,825	4%
Glenn	322	<1%	204	<1%
Humboldt	563	<1%	504	<1%
Imperial	1,066	<1%	919	1%
Inyo	72	<1%	110	<1%
Kern	4,183	2%	4,138	3%
Kings	915	<1%	989	1%
Lake	243	<1%	229	<1%
Lassen	66	<1%	33	<1%
Los Angeles	84,304	36%	43,229	27%
Madera	938	<1%	1,019	1%
Marin	778	<1%	610	<1%
Mariposa	37	<1%	35	<1%
Mendocino	236	<1%	262	<1%
Merced	1,974	1%	1,931	1%
Modoc	48	<1%	33	<1%
Mono	34	<1%	49	<1%
Monterey	2,794	1%	2,571	2%
Napa	904	<1%	830	1%
Nevada	347	<1%	281	<1%
Orange	22,384	10%	18,262	11%
Placer	441	<1%	286	<1%
Plumas	67	<1%	64	<1%
Riverside	10,144	4%	6,069	4%
Sacramento	2,327	1%	1,564	1%
San Benito	556	<1%	616	<1%
San Bernardino	10,309	4%	7,865	5%
San Diego	21,695	9%	19,322	12%
San Francisco	5,215	2%	3,657	2%
San Joaquin	3,810	2%	3,603	2%
San Luis Obispo	1,058	<1%	1,119	1%
San Mateo	3,518	2%	1,550	1%
Santa Barbara	2,779	1%	3,296	2%
Santa Clara	6,374	3%	4,091	3%
Santa Cruz	2,295	1%	1,487	1%
Shasta	840	<1%	761	<1%
Sierra/Yuba	363	<1%	337	<1%
Siskiyou	289	<1%	244	<1%
Solano	1,097	<1%	993	1%
Sonoma	2,666	1%	2,210	1%
Stanislaus	3,532	2%	3,172	2%
Sutter	760	<1%	516	<1%
Tehama	264	<1%	223	<1%
Trinity	42	<1%	34	<1%
Tulare	3,869	2%	3,303	2%
Tuolumne	62	<1%	55	<1%
Ventura	5,485	2%	4,891	3%
Yolo	961	<1%	622	<1%
Unknown	722	<1%	480	<1%

Note: Counties where number of women screened was less than 12 were combined with similar sized counties to safeguard program recipient privacy.



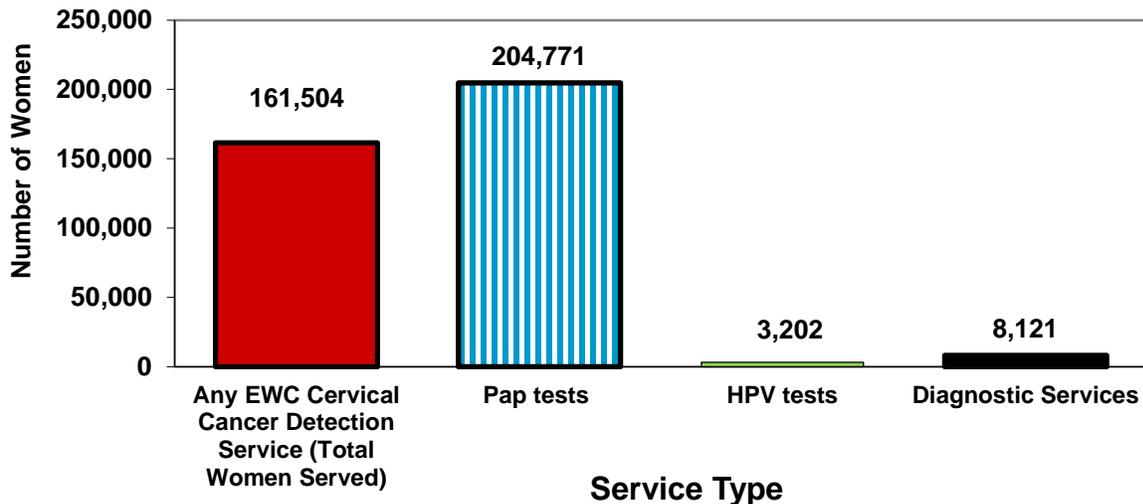
The numbers of screening and diagnostic tests provided through EWC are shown in Figures 3a and 3b. EWC provided breast cancer screening and diagnostic services to 232,365 uninsured and underinsured women. Approximately 116,054 women received clinical breast exams; 203,833 women received screening and/or diagnostic mammograms; 35,092 received an ultrasound; and 30,073 received other diagnostic services such as breast biopsy (e.g., fine needle aspiration, needle core/vacuum assisted biopsy, or excisional biopsy). For women receiving cervical cancer screening services, approximately 204,771 women received Pap tests; 3,202 received HPV tests and 8,121 received related diagnostic services including, but not limited to colposcopy with or without cervical biopsy(s), endocervical curettage and endometrial sampling. Services listed are not mutually exclusive.

Figure 3a. Number of Women by Breast Cancer Screening and Diagnostic Services, Every Woman Counts, Fiscal Year 2011-2012



Notes: 1) EWC clinical testing for FY 2011-2012, reported as of October 2013; 2) "Other Diagnostic Services" includes fine needle aspiration and other diagnostic procedures; 3) services listed are not mutually exclusive.

Figure 3b. Number of Woman by Cervical Cancer Screening and Diagnostic Services, Every Woman Counts, Fiscal Year 2011-2012



Notes: 1) EWC clinical testing for FY 2011-2012, reported as of October 2013; 2) "Diagnostic Services" includes colposcopy with or without cervical biopsy(s), endocervical curettage, endometrial sampling and other diagnostic procedures; 3) services listed are not mutually exclusive.

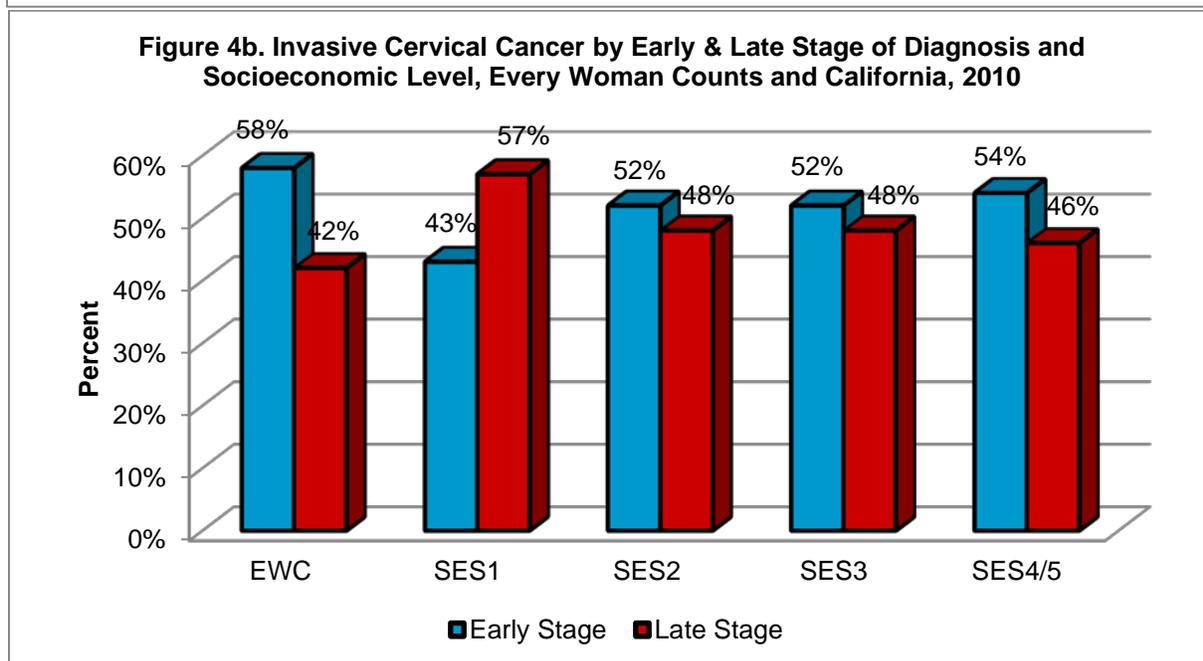
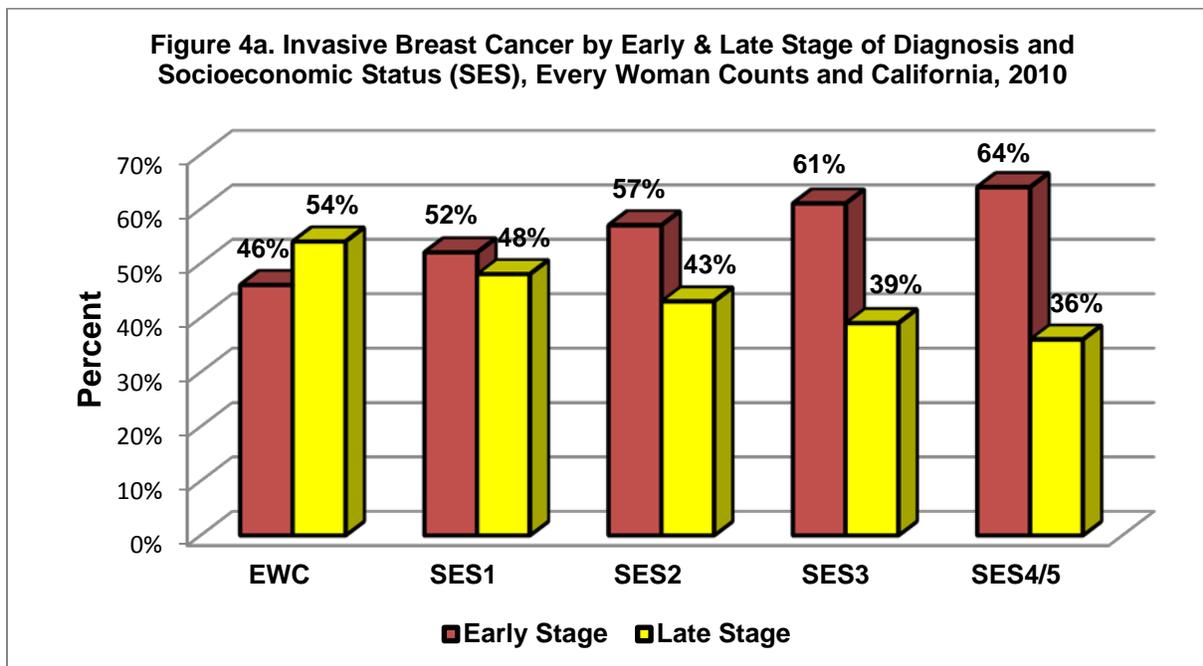
CANCER DETECTION

EWC clinical services diagnosed 657 women with breast cancer and 64 women with invasive cervical cancer in 2010. EWC diagnosed cases were validated through a record linkage with CCR. Data from CCR was used not just to validate cancer diagnoses, but recipient demographics, determine stage of diagnosis, source of treatment, and follow up.

The majority of EWC diagnosed breast and cervical cancers were among women 50-59 years old (54 percent and 45 percent, respectively) and Hispanic (55 percent and 64 percent, respectively). EWC breast cancer screening services diagnosed 104 women with *in situ* breast cancer and 553 with invasive (not shown). Forty-six percent of EWC diagnosed breast cancers and 58 percent of invasive cervical cancers were diagnosed at early stage, when timely and appropriate treatment leads to increased chance of survival (Table 2).

Table 2. Every Woman Counts Diagnosed Breast and Cervical Cancer Cases by Program Recipients Demographics, 2010		
Breast Cancers		
Age Group (years)	Number (n=648)	Percent
40-49	123	19%
50-59	352	54%
60 and over	173	27%
Race/Ethnicity	Number (n=629)	Percent
White, Non-Hispanic	115	18%
African American	29	5%
Hispanic	344	55%
Asian-Pacific Islander	128	20%
American Indian and Other	13	2%
Stage of Diagnosis	Number (n=637)	Percent
Early	295	46%
Late	342	54%
Cervical Cancer		
Age Group (years)	Number (n=64)	Percent
Less than 50	20	31%
50-59	29	45%
60 and over	15	24%
Race/Ethnicity	Number (n=64)	Percent
Hispanic	41	64%
All Others	23	36%
Stage of Diagnosis	Number (n=59)	Percent
Early	34	58%
Late	25	42%
Notes: 1) If program recipient's age and/or race/ethnicity were unknown or tumors were unstaged, cases were omitted from their respective section in the table. 2) Summary stage of diagnosis from Surveillance, Epidemiology and End Results Program (SEER) were collapsed into early versus late stage. Early stage includes <i>in situ</i> and localized stage; late stage includes regional and distant stage.		

Figures 4a and 4b show the distribution of invasive breast and cervical cancers diagnosed in 2010, by socioeconomic status⁴ (SES) from the lowest (SES1) to the highest (SES5) and by stage at diagnosis for EWC recipients and all California women.⁵



⁴ Socioeconomic status (SES) was measured for 20,919 census block groups (2000 U.S. Census) categorized into quintiles, ranging from 1, the lowest to 5, the highest, using principal component analysis, which calculated standardized component scores. Variables used were: education, median income, median house value, median rent, proportion below 200 percent federal poverty level, proportion blue-collar workers, proportion in workforce. Yost, K., et al, Socioeconomic status and breast cancer incidence in California for different race/ethnic groups. *Cancer Causes and Control* 12, no. 8 (2001): 703-711.

⁵ Source: California Cancer Registry, California Department of Public Health's Chronic Disease Surveillance and Research Branch, summary stage of diagnosis by socioeconomic status data were obtained by request. November 2012.

Compared to all California women diagnosed with invasive breast cancer at the lowest SES, which appears to be comparable to EWC's service population, fewer EWC recipients were diagnosed with breast cancer at early stage (52 versus 46 percent, respectively); while diagnoses at late stage were higher (48 versus 54 percent, respectively). The reverse pattern was seen for women diagnosed with invasive cervical cancers. More EWC women were diagnosed with cervical cancer at early stage than California women at the lowest SES (58 percent versus 43 percent, respectively).

TREATMENT FOR EWC DIAGNOSED BREAST AND CERVICAL CANCER

Since January 2002, with the passage of Public Law 106-354⁶, women diagnosed with breast or cervical cancer through EWC have gained access to treatment through DHCS' state and federal funded, BCCTP. BCCTP is a state and federal Title XIX funded program that provides no-cost breast and cervical cancer treatment to eligible uninsured and underinsured Californians. BCCTP enrollees may receive full-scope Medi-Cal during their enrollment period for cancer treatment services. Of the 657 women diagnosed with breast cancer in 2010 through EWC, 62 percent were referred to BCCTP for treatment, 34 percent received treatment through other health coverage as reported to the CCR, and 4 percent were lost to follow up. For the 64 EWC recipients diagnosed with cervical cancer, 60 percent were referred to BCCTP for treatment, 33 percent received treatment through other health coverage as reported to the CCR, while 7 percent were lost to follow up.

CONCLUSION

EWC provided potentially life-saving breast and cervical cancer screening and diagnostic services to approximately 267,168 women in FY 2011-2012, who would otherwise not have access to care. In 2010, EWC services lead to the diagnosis of 657 women with breast cancer, 553 invasive, accounting for 2.4 percent of all invasive breast cancers diagnosed in California.⁷ Of those EWC recipients diagnosed with breast cancer, 46 percent were diagnosed at early stage while 54 percent were diagnosed at late stage. Given that early stage breast cancer diagnosis increases the likelihood of survival and that EWC serves women from populations less likely to be diagnosed early, this program is serving a critical need for low-income women of California. The majority of EWC recipients (about 62 percent) diagnosed with breast cancer were referred to BCCTP for treatment.

EWC services lead to the diagnosis of invasive cervical cancer for 64 women, accounting for 4.5 percent of invasive cervical cancers diagnosed in California in 2010.⁸ Over half of these invasive cervical cancers (58 percent) are found at early stage of

⁶ 106th Congress, Oct 24, 2000, 114 STAT. 1381

⁷ California Department of Public Health, California Cancer Registry. Annual Statistical Tables by Site, Breast Cancer, http://www.ccrca.org/pdf/AnnualReport/1988-2011_BREAST.pdf Accessed January 21, 2015.

⁸ California Department of Public Health, California Cancer Registry. Annual Statistical Tables by Site, Cervical Uteri Cancer, http://www.ccrca.org/pdf/AnnualReport/1988-2011_CERVIX.pdf Accessed January 21, 2015.

diagnosis. EWC provides a critical need of low income women of California, who otherwise would not have access to an early stage cervical cancer diagnosis. The majority of EWC women (about 60 percent) diagnosed with cervical cancer were referred to the BCCTP for treatment.

ABOUT THE DATA

The information provided in the tables and figures regarding breast and cervical cancer screening and diagnostic services for this FY 2011-2012 report is based on adjudicated claims from the Medi-Cal fiscal intermediary, the Xerox Corporation; reported as of October 2013. Women served using both state and federal funds are represented in this report. Program recipient date of birth and race/ethnicity at first clinical service, is self-reported. Those data are missing for women who choose not to identify their age, year of birth, or race/ethnicity. The county of residence as presented in Table 1 was derived from the zip code of a woman's address at the time of first service during the reporting period.

The number of women served is a count of unique (or distinct) women from DETEC and EWC's adjudicated claims data. The identity of a unique woman is preserved through probabilistic matching. In the probabilistic matching process used in EWC, 62 different permutations and combinations of primary demographic data such as name, mother's maiden name, phone number, date of birth, address, etc. are used.

CCR data for CY 2010 was used to validate breast cancer and cervical cancer diagnoses and recipient demographics, and to determine stage of diagnosis, source of treatment, and follow up among women who received a EWC clinical service on the same day or up to one year prior to the diagnosis date recorded in CCR. Healthcare providers are mandated to report all cancers diagnosed among California residents to CCR. Due to the time needed to accurately collect and process cancer case information, the most recent complete data available from the CCR to link with EWC data was for CY 2010. In tables and figures specific to cancer diagnoses, the age at diagnosis was obtained from the medical record reported by CCR, while racial/ethnic group identification remained as identified by EWC clinical claims data and in DETEC.

DHCS data for BCCTP was used to validate the number of EWC recipients diagnosed with breast and cervical cancers, which were referred for treatment through BCCTP. These analyses were conducted by the Data Management, Evaluation, and Research Unit of the Cancer Detection and Treatment Branch, Benefits Division, DHCS.

All tables and figures in this report were designed and evaluated based on DHCS Public Aggregate Reporting Guidelines, issued April 2014.