

APPENDIX 6



Cancer Screening Report

An analysis of Colon Cancer Screening Rates from September 2009 to September 2010 and Breast Cancer Screening Rates from June 2009 to August 2010



Quality Management Section
501 J Street, Suite 310
Sacramento, CA 95814
Updated Report
Issued: November 2010

CANCER PREVENTION

*An analysis of Colon Cancer Screening Rates from September 2009 to September 2010 and
Breast Cancer Screening Rates from June 2009 – August 2010*

Updated Report Issued November 2010

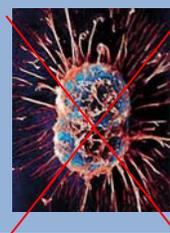


TABLE OF CONTENTS

Introduction	1
Data Sources and Methodology	2
Major Findings	3
Recommendations	3
Findings by Category.....	5
Population 50-75 Years Old	5
Colon Cancer Screening	6
Breast Cancer Screening	7
Appendix	8

CANCER PREVENTION

An analysis of Colon Cancer Screening Rates from September 2009 to September 2010 and Breast Cancer Screening Rates from June 2009 – August 2010

Updated Report Issued November 2010



INTRODUCTION

In 2007, cancer was the second leading cause of death in the United States. For inmates in the custody of the California Department of Corrections and Rehabilitation (CDCR), cancer has been the leading cause of death since the receivership has been reporting mortality data. In the “2009 Patterns and Trends in Inmate Mortality,” cancer screening was identified as an area for improvement by California Prison Health Care Services (CPHCS) – particularly screening for colon cancer and breast cancer, which are treatable if detection occurs early in the development of the disease.

Because early detection of colon cancer and breast cancer can have a significant positive impact on patient outcomes, the United States Preventive Services Task Force (USPSTF) has guidelines regarding cancer screening, which are being incorporated as updated policy in the Inmate Medical Services Policies and Procedures (IMSP&P) Volume 4, Chapter 7. Medical inspections conducted by the Office of the Inspector General report that most CDCR institutions have low adherence to preventive services policies, which include cancer screening. To promote improvements in cancer screening, CPHCS included two cancer screening performance objectives in the 2010 Quality Management Plan:

- By December 31, 2010, greater than 85 percent of eligible inmates ages 50-75 years will have a fecal occult blood test (FOBT) performed in the preceding 12 months or colonoscopy in the preceding 10 years.
- By December 31, 2010, greater than 85 percent of female inmates ages 50-75 years will have a mammogram performed in the preceding 24 months.

This updated report is the first in a series of semi-annual reports to monitor statewide and institution-specific progress toward meeting these cancer screening performance objectives, with the ultimate goal of improving patient care and patient outcomes. In addition, the cancer screening performance measures discussed in this report will be included in the Statewide Health Care Services Dashboard, posted on the Quality Management SharePoint site.

This report is based on “censored”, or incomplete, data and for that reason institutions were provided the opportunity to supply additional data for inclusion in this updated report. All institutions were provided the opportunity to provide additional colon cancer and breast cancer screening data by October 25, 2010. Nine institutions (CAL, CMC, CMF, HDSP, MCSP, NKSP, RJD, SAC, and SQ) provided additional colon cancer data; two institutions (CCWF and VSPW) provided additional breast cancer screening data. These additional submissions included refusal data, FOBT and colonoscopy data, and mammography data for mammographies performed prior to the timeframes used in the initial analysis.

DATA SOURCES AND METHODOLOGY

For this updated report, data sources included laboratory databases, fiscal data, and institution screening logs. Fecal Occult Blood Testing (FOBT) data was gathered from Quest Diagnostics and Foundation Laboratories, which provide FOBT testing services to institutions statewide. The most recent test date for both Quest and Foundation was September 30, 2010. Colonoscopy data was extracted from claims reports of colonoscopy screening services and institution tracking logs, and mammography data was obtained from institution tracking logs from the women's institutions.

The Distributed Data Processing System (DDPS), an inmate location system, provided population data. Patients between the ages of 50 and 75 at the time of this analysis were considered eligible for inclusion in the colon cancer performance metric; only patients between the ages of 50 and 75 located at the three women's institutions – CIW, CCWF, or VSPW – were eligible for the breast cancer metric.

A residency requirement of six months at the current institution was applied to ensure that institutions had enough time to order screening tests and appropriate screening referrals. In conjunction with this performance report, a list of patients who are between 50 and 75 years old will be posted to the Quality Management SharePoint site quarterly. Patients who have not yet received screening, whose screening is out-of-date, or who have a positive screening result and have not been provided follow-up evaluation, will be flagged. Because these patient lists are intended to support clinical management of all patients eligible for colon and/or breast cancer screening regardless of length of stay at a particular institution, patient lists include patients who have been at their current location for less than six months.

Please note that this report is subject to limitations, including:

- Available colonoscopy data via claims tracking only dates back to July 2008. However, patients with normal colonoscopies dating back to June 2000 would be considered compliant by revised USPSTF and CPHCS standards. For this updated report, nine institutions (CAL, CMC, CMF, HDSP, MCSP, NKSP, RJD, SAC, and SQ) submitted additional colonoscopy screening data, dating as far back as December 2002. Therefore, it is possible that some patients reported as not screened may have actually received appropriate screening.
- Breast cancer screening data only dates back to June 2009 for CCWF, July 2009 for CIW, and August 2009 for VSPW. However, patients with screening dating back to June 2008 would be considered compliant by CPHCS standards. For this updated report, two of the women's institutions (CCWF and VSPW) provided additional breast cancer screening data, considered evidence of compliance if the test was performed between June 2008 and September 30, 2010. Therefore, it is possible that a portion of the patients reported as not screened may have actually received appropriate breast cancer screening.
- This report does not include laboratory data from outside medical facilities, such as testing that occurs during inpatient hospitalizations and data from community laboratories that were not processed through Quest or Foundation.
- Six institutions (CMC, CMF, KVSP, NKSP, SVSP, and WSP) have available on-site FOBT. As a result, this report may under-report colon cancer screening at these institutions, and may not accurately reflect statewide compliance with colon cancer screening standards.

- Patient refusals could not be identified from headquarters data sources and therefore actual compliance with offering cancer screening may be higher than the reported rate. However, several institutions provided additional information on patient refusals, considered evidence of screening compliance if they were signed, documented refusals within the timeframe.

The aforementioned limitations mean that the colon cancer and breast cancer screening rates in this report are likely under-estimates of actual screening rates.

MAJOR FINDINGS

- Statewide, the proportion of men and women 50-75 years old was approximately **16** percent, or 26,240 of the 159,121 in the California correctional system. The institution with the largest proportion of patients 50-75 years old was CMF, with approximately 35 percent.
- Approximately **33** percent, or 6,495 of the 19,455 eligible male and female patients statewide, showed evidence of colon cancer screening (FOBT or colonoscopy) according to guidelines. Based on available data, the institutions closest to achieving the colon cancer screening performance objectives were SAC and MCSP with 70 and 65 percent compliance, respectively.
 - The statewide colon cancer screening rate did not change significantly from the original analysis (from 32 to 33 percent). However, some institutions had a substantial increase in screening rates after submitting additional data, including CAL (from 21 percent to 56 percent), CMF (4 percent to 32 percent), HDSP (22 percent to 36 percent), NKSP (3 percent to 21 percent), RJD (44 percent to 56 percent), and SQ (49 percent to 53 percent).
- Approximately **69** percent, or 733 of the 1063 eligible female patients, showed evidence of timely breast cancer screening. Based on available data, VSPW had the highest breast cancer screening performance, with 75 percent of the population receiving screening within the timeframe.
 - The statewide breast cancer screening rate increased by 10 percent from the original analysis, from 59 percent to 69 percent. VSPW experienced the most significant change from submitting additional data, from 59 percent to 75 percent.

RECOMMENDATIONS

Based on the findings in this report, there are opportunities for improving colon cancer and breast cancer screening rates for inmates incarcerated by CDCR. Patient lists will be distributed to the field to assist health care staff with identifying patients who are eligible for cancer screening. Institution staff can use these lists to schedule patients for screening and improve compliance with statewide goals. These lists will be updated quarterly, and the corresponding report will be updated semi-annually. Institutions can use these tools to track their achievement and identify areas for improvement. To improve cancer screening rates, health care staff are recommended to perform the following activities to improve compliance:

- Educate patients about the importance of cancer screening. Patients may be unaware of the clinical guidelines for cancer screening, and informing patients about the value of screening may improve compliance. In particular, patients who refuse screening should be educated about the consequences of declination to reduce the volume of patient refusals.
- Identify patients who should receive screening. Each institution will have access to a list of patients identified as eligible for colon cancer or breast cancer screening, updated quarterly. On each list, patients who have not received screening according to guidelines will be flagged. Primary care teams can use these lists to ensure necessary care is provided to individual patients and intervene as clinically indicated.
- Provide follow-up for patients with a positive test result. Each institution will have access to a list of patients eligible for cancer screening and their screening results. Patients who have had a positive test result but who have not received appropriate follow-up care will be flagged. Health care staff should ensure that such patients receive clinically indicated follow-up care and, if indicated, treatment.
- Update patient lists monthly. Health care staff should perform a monthly DDPS download for patients 50-75 years old, sort the lists by patient panels, and distribute them at the primary care team huddle to update the quarterly patient registry available on the Quality Management SharePoint site.
- Set up a system for periodic cancer screening. Each institution should establish cancer screening as a routine process through strategies like the ones below:
 - Maintain a log of all patients at the institution who are 50-75 years old and send monthly alerts to primary care teams for patients who have not yet received screening or who have reached the timeframe for re-screening.
 - Establish a certain day each month when primary care teams review the screening status of patients who are 50-75 years old during their daily huddle and refer patients for screening as necessary.
 - Assign staff to audit charts of patients who are 50-75 years old quarterly and place removable “chart alerts” in the records of patients who have not received screening.
- Use the distributed electronic institution patient lists. Each institution should consider use of the electronic version of the institution patient lists to record on-site screening performed, colonoscopies, and refusals (including date of testing/refusal and test results). These patient lists can then be submitted to CPHCS Quality Management Section for incorporation into the next cancer screening report.

CANCER PREVENTION

An analysis of Colon Cancer Screening Rates from September 2009 to September 2010 and

Breast Cancer Screening Rates from June 2009 – August 2010

Updated Report Issued November 2010

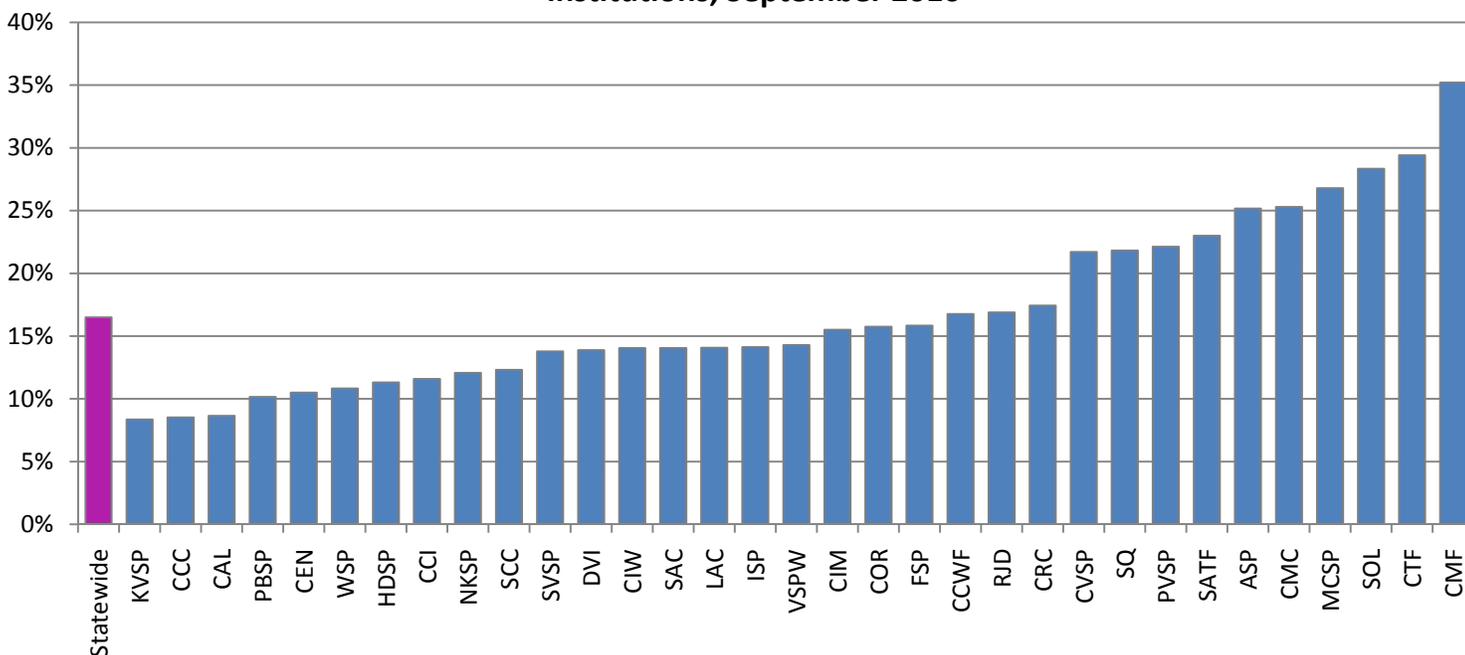


POPULATION 50-75 YEARS OLD

The approximate percentage of patients 50-75 years old in all California adult institutions as of September 2010 is shown in Figure 1 and Table 1 (Appendix).

- Sixteen percent, or 26,240 of the 159,121 inmates in the California correctional system statewide, were between 50 and 75 years old.
- Variability in the proportion of institution populations that was 50 to 75 years old was considerable; at four institutions, 10 percent or less of their population were 50 to 75 years old. At six institutions, greater than 25 percent of their population was 50 to 75 years old.
- The highest proportion of 50 to 75 year old patients occurred at CMF, where over 35 percent of the population was between 50 and 75 years old.

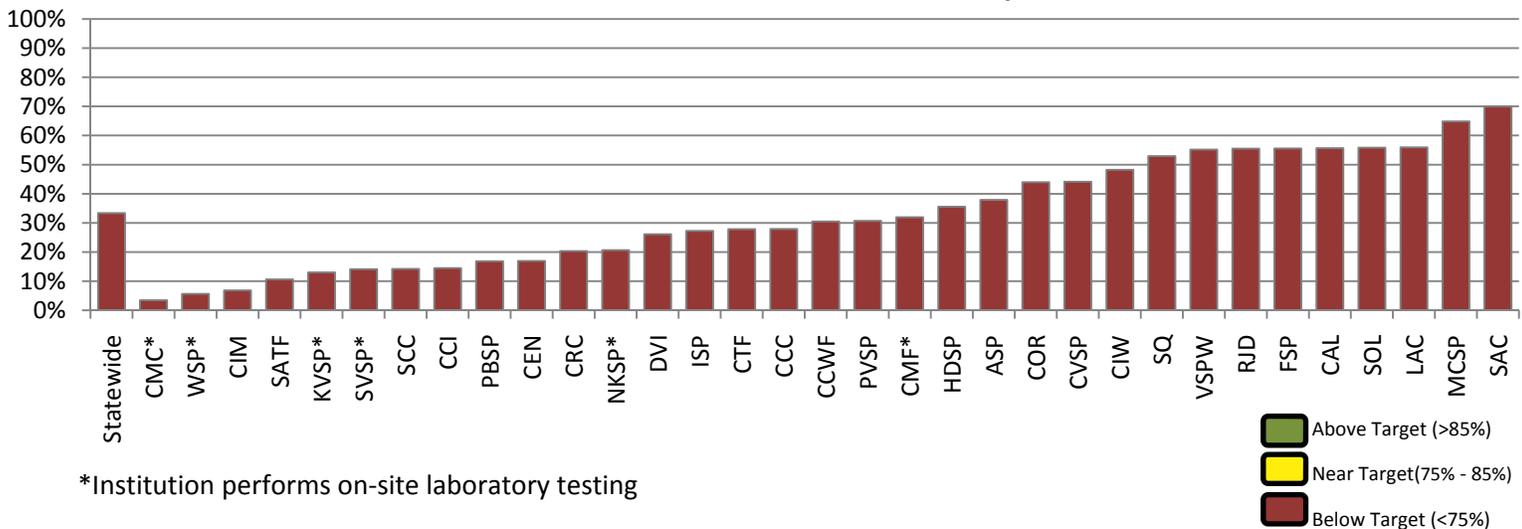
Figure 1. Percentage of population 50-75 years old at California adult institutions, September 2010



COLON CANCER SCREENING

- To be eligible for this measure, patients had to be between 50 and 75 years old as of September 2010 and continuously incarcerated at a given institution for at least 6 months on September 30, 2010. 19,455 of the 26,332 inmates between 50 and 75 years old (74 percent) fulfilled this residency requirement.
- In the first version of this report, urinalysis testing created false positive results for FOBT screening. This error has been corrected for this updated version of the report.
- Approximately **33** percent, or 6,495 of the 19,455 eligible patients, showed evidence of colon cancer screening (FOBT or colonoscopy) according to guidelines, as shown in Figure 2 and Table 2 (Appendix). The FOBT laboratory results were considered over a twelve-month period from September 2009 to September 2010, and colonoscopy results were considered over a two-year period from July 2008 to June 2010. However, it is important to reiterate that patients receiving a colonoscopy with normal findings any time between June 2000 and July 2008 would have been considered compliant, and patients were considered compliant if such data was provided by the institution.
- Nine institutions (CAL, CMC, CMF, HDSP, MCSP, NKSP, RJD, SAC, and SQ) provided additional colon cancer screening data which were included in this analysis, including FOBT, colonoscopy, and/or refusal information. Institution-provided colonoscopy data had the greatest impact in increasing colon cancer screening rates.
- The institutions with the highest percentage of colon cancer screening based on available data were SAC with **70** percent and MCSP with **65** percent. To evaluate institutions with the lowest percentages of colon cancer screening, certain factors must be considered, including availability of on-site testing and a reception center (RC) mission. However, RC screening rates were highly variable, and low compliance rates may not be fully explained by the RC mission.

Figure 2. Percentage of 50-75 years old patients who received colon cancer screening at California adult institutions, September 2010



BREAST CANCER SCREENING

- To be eligible for this measure, patients had to be between 50 and 75 years old as of September 2010 and continuously incarcerated at a women’s institution for at least six months on August 31, 2010.
- The proportion of female patients 50-75 years old was approximately 14 percent at CIW and VSPW and 17 percent at CCWF, as shown in Figure 3 and Table 1.
- Approximately **69** percent, or 733 of the 1063 eligible patients, showed evidence of appropriate breast cancer screening within required timeframes, as shown in Figure 4 and Table 3 (Appendix). Screenings were considered over a 14-month period from June 2009 to August 2010; CCWF data spans June 2009 to August 2010; CIW data spans July 2009 to July 2010; and VSPW data spans August 2009 to June 2010.
- Two institutions (CCWF and VSPW) provided additional breast cancer screening data which was included in this analysis, including screening and/or refusal information.
- The institution with the highest percentage of breast cancer screening based on available data was VSPW with **75** percent; CCWF had **67** percent of the population screened; and CIW had the lowest percentage compliance, with **64** percent.

Figure 3. Percentage of population 50-75 years old at California women's institutions, September 2010

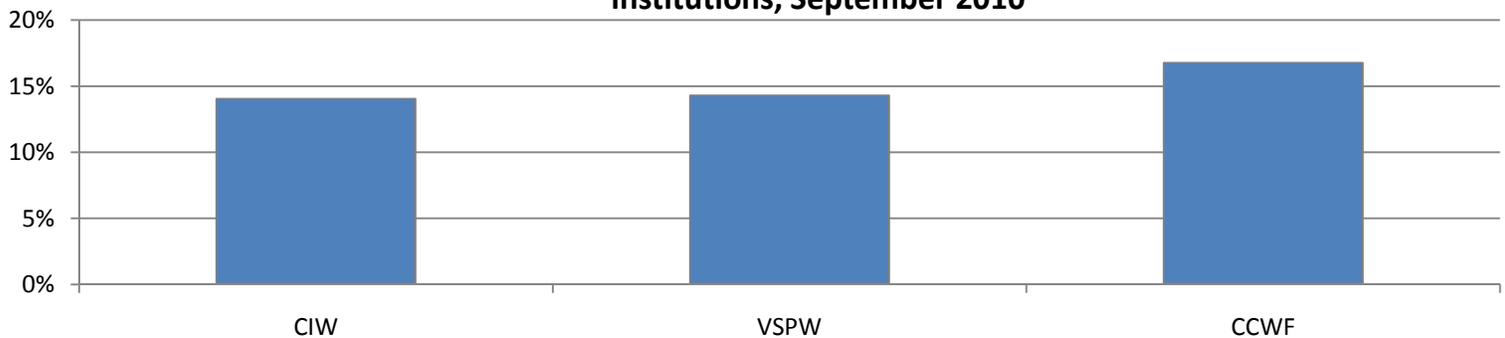
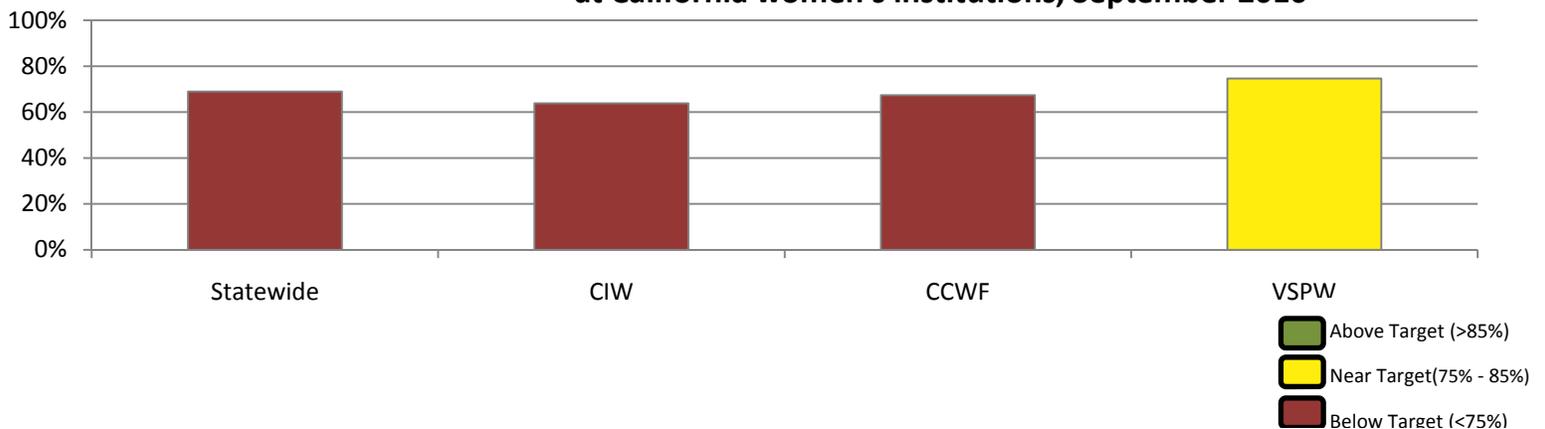


Figure 4. Percentage of 50-75 year old patients who received breast cancer screening at California women's institutions, September 2010



APPENDIX

Table 1: Number and percentage of patients 50-75 years old, California adult institutions, September 2010

Institution	Number of Patients 50-75 Years Old	Total Number of Patients	Percentage of Patients 50-75 Years Old
Statewide	26332	159109	17%
ASP	1633	6490	25%
CAL	359	4153	9%
CCC	479	5619	9%
CCI	689	5944	12%
CCWF	633	3777	17%
CEN	445	4237	11%
CIM	657	4238	16%
CIW	330	2350	14%
CMC	1689	6677	25%
CMF	916	2602	35%
COR	813	5163	16%
CRC	753	4320	17%
CTF	1921	6531	29%
CVSP	776	3576	22%
DVI	537	3869	14%
FSP	570	3600	16%
HDSP	488	4314	11%
ISP	552	3908	14%
KVSP	365	4370	8%
LAC	632	4492	14%
MCSP	1008	3763	27%
NKSP	645	5346	12%
PBSP	331	3261	10%
PVSP	1039	4695	22%
RJD	764	4525	17%
SAC	408	2905	14%
SATF	1519	6603	23%
SCC	652	5297	12%
SOL	1450	5117	28%
SQ	1109	5084	22%
SVSP	512	3716	14%
VSPW	482	3373	14%
WSP	632	5837	11%

Table 2: Number and percentage of eligible patients 50-75 years old who received appropriate colon cancer screening, California adult institutions, September 2010

Institution	Number of Eligible Patients Screened	Number of Eligible Patients	Percentage of Eligible Patients Compliant
Statewide	6495	19455	33%
ASP	477	1258	38%
CAL	176	316	56%
CCC	96	344	28%
CCI	63	434	15%
CCWF	137	449	31%
CEN	65	384	17%
CIM	26	380	7%
CIW	124	257	48%
CMC*	50	1444	3%
CMF*	254	794	32%
COR	296	673	44%
CRC	110	541	20%
CTF	440	1578	28%
CVSP	254	575	44%
DVI	58	222	26%
FSP	279	502	56%
HDSP	126	354	36%
ISP	131	480	27%
KVSP*	34	261	13%
LAC	146	261	56%
MCSP	605	933	65%
NKSP*	31	150	21%
PBSP	52	309	17%
PVSP	278	905	31%
RJD	297	535	56%
SAC	252	360	70%
SATF	123	1161	11%
SCC	73	513	14%
SOL	717	1284	56%
SQ	465	878	53%
SVSP*	52	368	14%
VSPW	197	357	55%
WSP*	11	195	6%

*Institution performs on-site laboratory testing

Table 3: Number and percentage of eligible patients 50-75 years old who received appropriate breast cancer screening, California women's institutions, September 2010

Institution	Number of Eligible Patients Screened	Number of Eligible Patients	Percentage of Eligible Patients Compliant
Statewide	733	1063	69%
CCWF	299	444	67%
CIW	164	257	64%
VSPW	270	362	75%

Table 4: California adult institutions FOBT laboratory testing sites, September 2010

Institution	Quest	Foundation	On-site
ASP		•	
CAL		•	
CCC	•		
CCI		•	
CCWF		•	
CEN		•	
CIM	•		
CIW		•	
CMC			•
CMF			•
COR		•	
CRC		•	
CTF	•		
CVSP		•	
DVI	•		
FSP	•		
HDSP	•		
ISP		•	
KVSP			•
LAC		•	
MCSP	•		
NKSP			•
PBSP	•		
PVSP		•	
RJD		•	
SAC	•		
SATF		•	
SCC		•	
SOL	•		
SQ	•		
SVSP			•
VSPW	•		
WSP			•