APPENDIX 9

California Correctional Health Care Services

Cancer Screening Report

An Analysis of Colorectal Cancer Screening Rates from April 2010 through March 2011

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Updated Report
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INTRODUCTION

In November of 2010, California Correctional Health Care Services (CCHCS) released the first Cancer Screening Report to provide institution healthcare managers and primary care team members with timely, relevant, and actionable information to improve cancer screening practices. This report is the second in a series of reports to monitor statewide and institution-specific progress toward meeting cancer screening performance objectives.

Cancer screening is considered a priority for patient safety and quality improvement efforts for a number of reasons, including, but not limited to:

- Cancer is the second leading cause of death in the United States and has been the leading cause of death among inmates in the custody of the California Department of Corrections and Rehabilitation (CDCR) for the past several years.
- Colorectal cancer treatment is extremely effective in the disease's earliest stages and the five-year survival rate exceeds 90 percent (90%). Thus, national standards are to appropriately screen for colorectal cancer for persons age 50 through 75 years.
- In a 2009 analysis of patterns and trend in California inmate mortality, CCHCS identified cancer screening as an area for improvement.
- Medical inspections conducted by the Office of the Inspector General (OIG) report that most CDCR institutions have low adherence to preventive services policies, which include cancer screening.

The ultimate goal is to improve patient care and primary care services, and reduce potentially avoidable morbidity, mortality and costs. As part of ongoing efforts to determine performance improvement priorities, CCHCS established the following statewide colorectal cancer screening performance objective:

> By December 31, 2011, greater than 85 percent of eligible inmates ages 50 through 75 years will have a fecal occult blood test (FOBT) performed in the preceding 12 months, a sigmoidoscopy in the preceding 5 years, or a colonoscopy in the preceding 10 years.

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**.

It is important to mention that the Statewide Health Care Services Dashboard benchmark reflects our statewide performance as a percentile rankings as established by the National Committee for Quality Assurance's (NCQA) Health Effectiveness Data and Information Set (HEDIS) methodology, for comparison with outside healthcare organizations. The internal benchmark of greater than 85 percent aligns with the OIG's auditing process which measures the degree to which institutions adhere to policies, including chronic care and preventative services policies.

This report does not address change in breast cancer screening rates since the November 2010 report because the institution tracking logs for two institutions were not available in time for this report. Updated breast cancer screening rates will appear on the June 2011 Statewide Health Care Services.

DATA SOURCES AND METHODOLOGY

For this report, the colorectal cancer screening standard was met for patients ages 51 through 75 years housed in their current location for six or more months if screening was provided in one of the following three ways:

- Fecal occult blood testing (defined as the completion of three consecutive FOBT cards) within the preceding twelve months,
- Sigmoidoscopy within the previous five years, or
- Colonoscopy within the previous ten years.

There is one change in methodology for this report compared to the first report. In the original report, the population eligible for inclusion in the performance measure was inmates age 50 through 75. In this report, the eligible patient population is inmates age 51 through 75 in order to allow 50 year old patients a 12-month opportunity for screening. This change in the calculation brings the performance measure methodology into alignment with the National Committee for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) allowing for comparisons with other healthcare organizations.

For the Statewide Health Care Services Dashboard, colorectal cancer screening rates do not include refusal data. This allows closer comparison with other healthcare organizations using HEDIS, which does not consider patient refusal as satisfying colorectal cancer screening. However, inmate refusal data reported within the preceding twelve months are also included in this report to acknowledge healthcare staff efforts in offering colorectal cancer screening to more inmates that actually complete screening.

For a detailed explanation of the data sources, methodology, and limitations please see the Appendix.

MAJOR FINDINGS

- For March 2011, eighteen percent (18%) or 26,832 of 146,655 inmates were ages 50 through 75 years.
- Forty-six percent (46%) or 7,950 of 17,170 eligible male and female inmates age 51 through 75 years who met the six-month residency requirement, received colorectal cancer screening. This represents a thirteen percent (13%) increase in colorectal cancer screening from the reported thirty-three percent (33%) screened reported in the November 2010.
- Twenty-six (26) institutions demonstrated improvement in cancer screening rates. Most notably, CMC and CRC showed increases of fifty-one percent (51%) and forty percent (40%), respectively.
- FSP and CIW had the highest performance without including refusal data at seventy-three percent (73%) and seventy-two percent (72%), respectively.
- Of the 17 institutions with refusal data, the rate of refusals ranged from less than one percent (<1%) to forty-eight percent (48%).

RECOMMENDATIONS

Based on the findings in this report, there continue to be opportunities for improving colorectal cancer screening rates for inmates incarcerated within CDCR. To improve cancer screening rates, it is recommended that health care staff perform the following activities to improve compliance:

Use the distributed institution patient lists and identify patients who should receive screening. Each institution has access to a list of patients identified as eligible for colorectal cancer screening, which will be updated every three months (July, October, January, and April). The electronic version of the institution patient lists is recommended to be used 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 CCHCS Quality Management Section for incorporation into the quarterly registries and for analysis in the next cancer screening report. Healthcare staff members who may contribute to updating this list include primary care team members, utilization management staff, and specialty service scheduling.

Institutions can access their patient lists here: **Cancer Patient Lists**

Schedule follow-up for patients with a positive test result. Patient lists indicate inmates who have not received screening according to guidelines, as well as patients who have had a positive test result and not received appropriate follow-up care. Primary care teams and healthcare staff can use this patient list to ensure necessary care is provided to individual patients and intervene as clinically indicated.

Educate patients about the importance of cancer screening. Patients may be unaware of the benefits associated with early detection of premalignant polyps or early stage cancer afforded by routine screening. Informing patients about the value of screening may improve compliance in screening rates and reduce refusal rates. Patients who refuse screening in particular should be educated that screening is key to potential prevention or early detection of cancer leading to significant reductions in morbidity and mortality.

Set up a system for periodic cancer screening. Each institution should establish cancer screening as a routine process through strategies like the ones noted below:

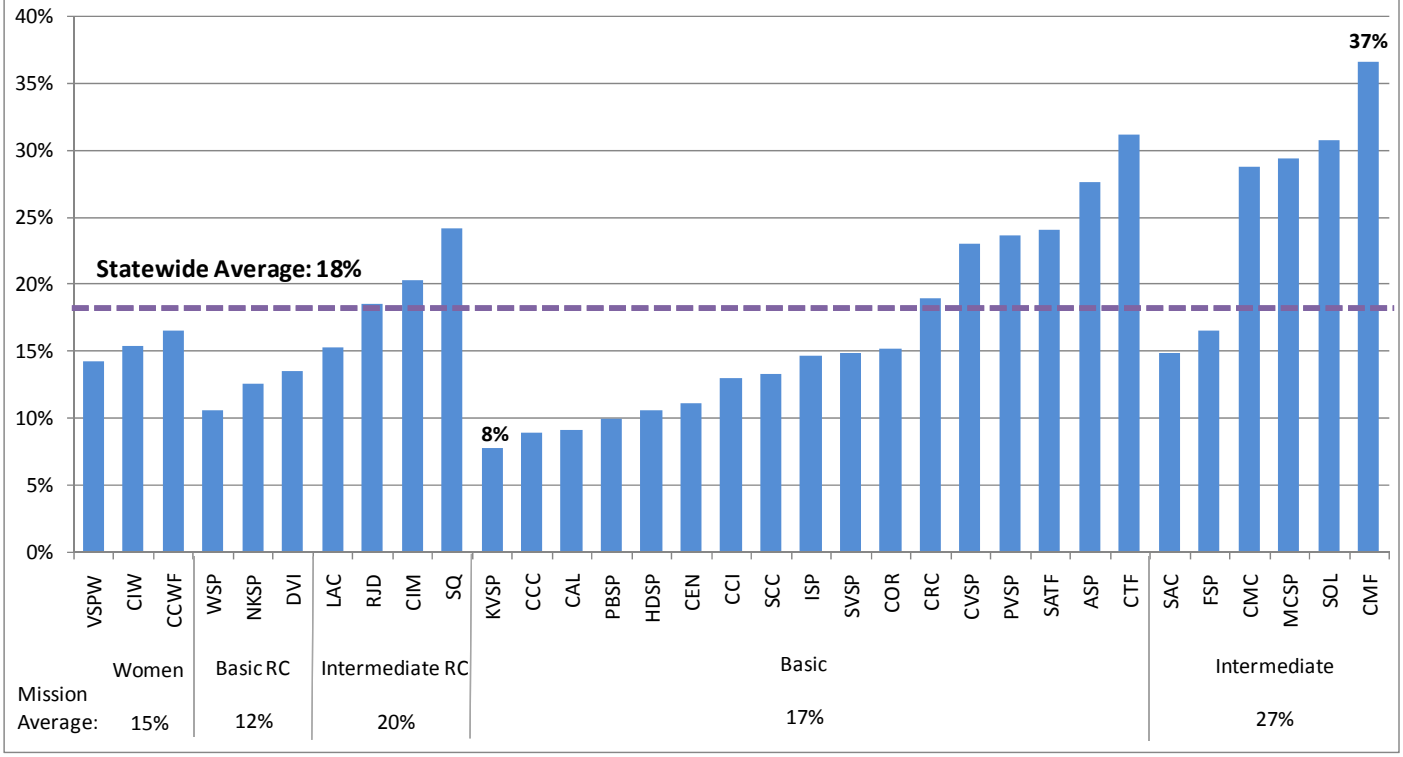
- Use the quarterly electronic patient lists for updating patients who are age 50 through 75 years and sending monthly alerts to primary care teams for patients who have not yet received screening or who have reached the timeframe for re-screening.
- Establish certain times each month when primary care teams review the screening status of patients who are age 50 through 75 years during their daily huddle and refer patients for screening as necessary.
- Assign staff to audit charts of patients who are age 50 through 75 years quarterly, and place removable "cancer screening alerts" in the records of patients who have not received screening.
- Establish routine scheduling process (ducating) for patients age 50 through 75 years for annual screening during their birth month.
- Consider implementing a colorectal cancer screening day, perhaps in conjunction with annual TB testing or influenza vaccinations.
- Consider using contracted lab services, currently Quest Diagnostic services for FOBT testing, to ensure data is available to track and report via central data sources.

POPULATION AGES 50 THROUGH 75

The percentage of patients ages 50 through 75 years in all California adult institutions as of March 2011 are shown below in **Figure 1** (see also Appendix, **Table 1**).

- Eighteen percent (18%) or 26,832 of the 146,655 inmates statewide were between ages 50 and 75 years in March 2011.
- The highest percentage of patients, ages 50 through 75 years is at CMF with thirty-seven percent (37%) and the lowest at KVSP with eight percent (8%).

Figure 1. Percentage of population ages 50-75 years, California adult institutions, March 2011

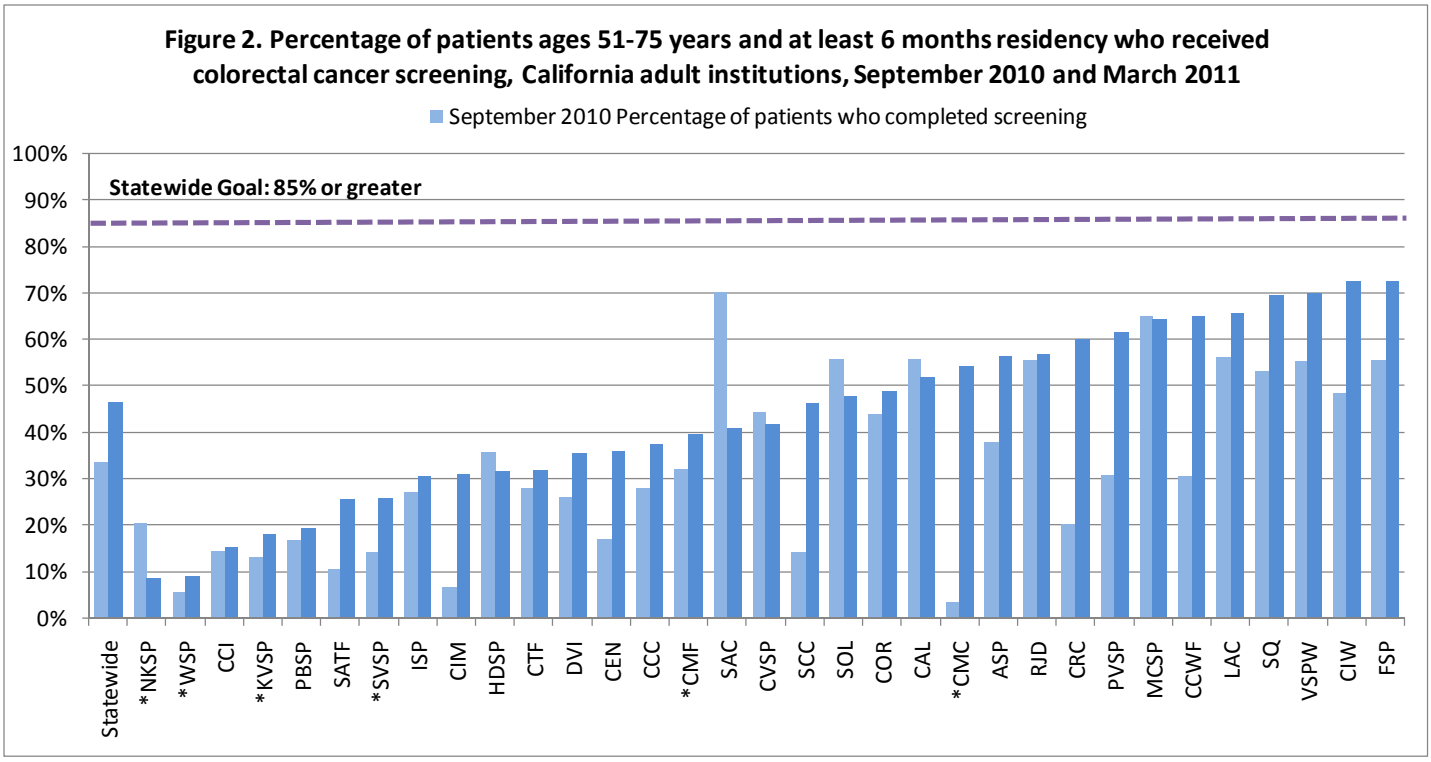


COLORECTAL CANCER SCREENING RATES

To be eligible for this measure, patients had to be from ages 51 through 75 years and continuously incarcerated at one institution for at least the previous six months. A residency requirement of six months at the current housing institution was applied to ensure that institutions had enough time to order screening tests and appropriate screening referrals. For March 2011, there were 17,170 of the 26,832 patients between ages 51 through 75 years (64 percent) who fulfilled age and residency requirements. The percentage of eligible patients who received colorectal cancer screening at a California adult institutions as of March 2011 is shown below in **Figure 2** (see also Appendix, **Table 2**).

- Approximately forty-six percent (46%), or 7,950 of the 17,170 eligible patients age 51 through 75 years showed completion of three FOBT cards performed within the previous twelve months, sigmoidoscopy within the previous five years and/or colonoscopy within the previous ten years. This represents an approximate **thirteen percent (13%) increase in cancer screening** from September 2010 to March 2011 as defined by HEDIS and reported on the Statewide Health Care Services Dashboard.
- FSP and CIW had the highest screening rates with seventy-three percent (73%) and seventy-two percent (72%), respectively.

Figure 2. Percentage of patients ages 51-75 years and at least 6 months residency who received colorectal cancer screening, California adult institutions, September 2010 and March 2011

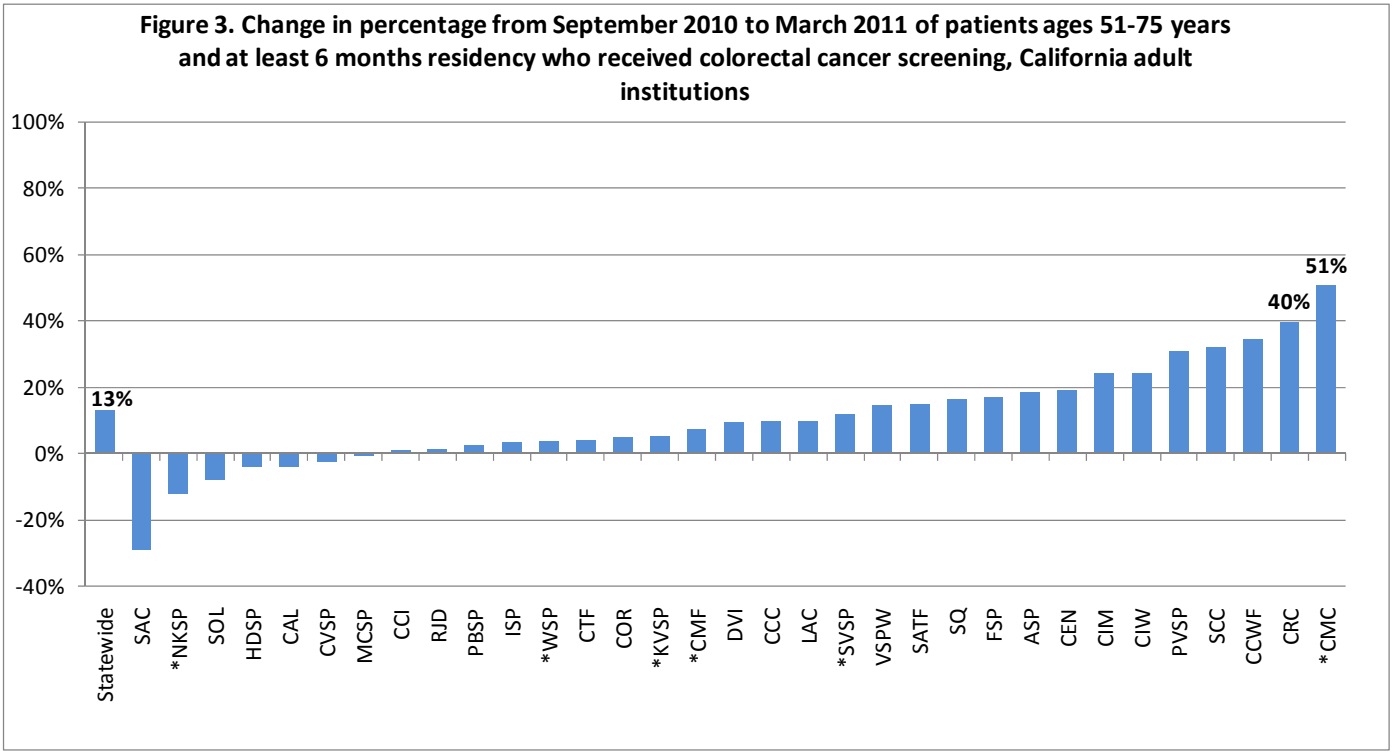


*Institution performs some on-site laboratory testing

PERCENT CHANGE IN COLORECTAL CANCER SCREENING RATES

Figure 3 (see also Appendix, **Table 2**) below shows the difference in percentage of patients from September 2010 to March 2011 ages 51 through 75 years with at least six-months residency in their respective institutions who received colorectal cancer screening.

- Institutions with the highest percentage increase of colorectal cancer screening based on available data were CMC and CIM achieving increases of fifty-one percent (51%) and forty percent (40%) respectively.

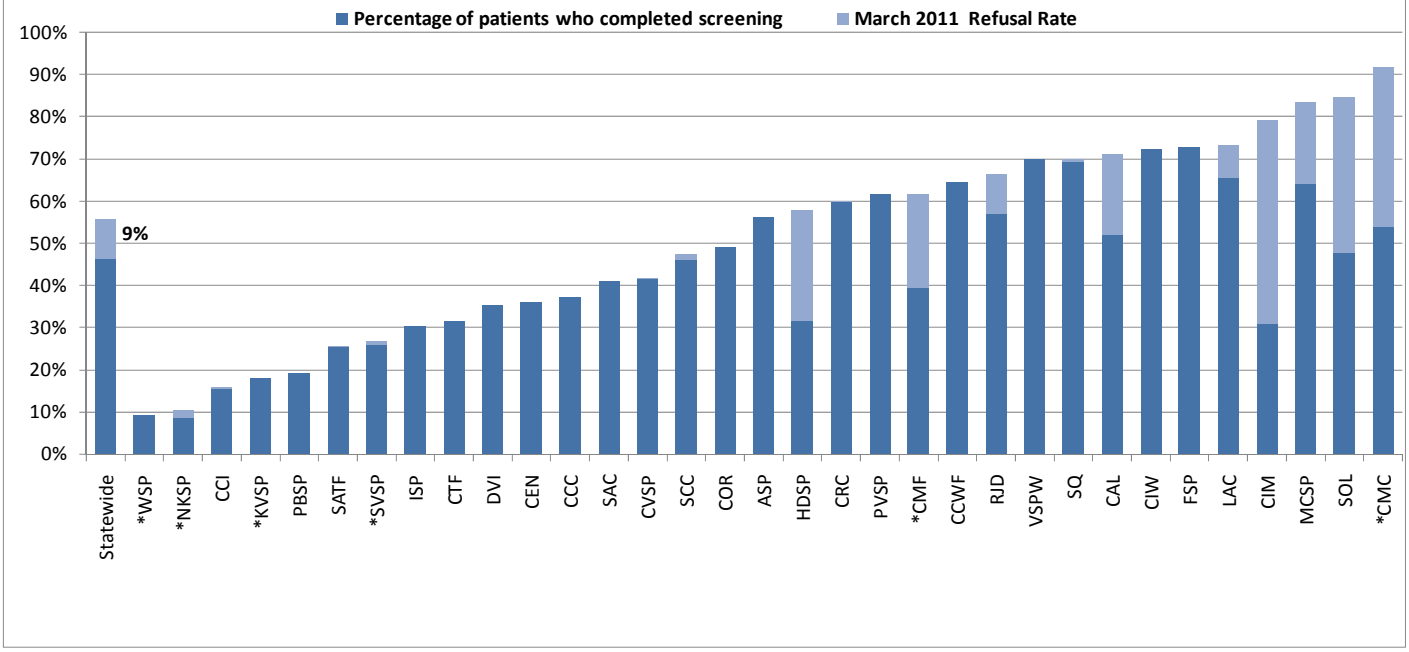


*Institution performs some on-site laboratory testing

For this report, we have added an additional analysis evaluating the percentage of refusal data in the preceding twelve months contributing to the overall performance of colorectal cancer screening shown below in **Figure 4** (see also Appendix, **Table 2**).

- When including submitted inmate refusal data, the percentage of screening offered increases approximately nine percent (9%) to fifty-five percent (55%) or an additional 1,619 of the 17,170 eligible patients ages 51 through 75 years.
- There were seventeen (17) institutions with available refusal data that were considered in this analysis if the refusal came within the preceding twelve months.

Figure 4. Percentage of patients ages 51-75 years and at least 6 months residency who received or refused colorectal cancer screening, California adult institutions, March 2011



*Institution performs some on-site laboratory testing

APPENDIX

Data Sources and Methodology Detailed

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, as well as from institutions performing on-site testing. Effective January 1st, 2011, Quest Diagnostics was contracted for laboratory testing statewide. For this report, FOBT result data used from Quest was April 1 through March 31, 2011; for Foundation, April 1 through December 31, 2010. Colonoscopy and sigmoidoscopy data was obtained from a third party administrator claims paid and institution self-reporting through March 31, 2011.

For this report, institutions met the colorectal cancer screening standard for patients, age 51 through 75 years if screening was provided in any of three ways:

- Fecal occult blood testing (defined as the completion of three consecutive FOBT cards) within the preceding twelve months,
- Sigmoidoscopy within the previous five years, or
- Colonoscopy within the previous ten years.

The population used for performance measure calculations in this report came from the Distributed Data Processing System (DDPS), an inmate location system. The population is defined as inmates age 51 through 75 years, which is consistent with the Healthcare Effectiveness Data and Information Set (HEDIS) provided by the National Committee for Quality Assurance (NCQA). For the performance measure calculations, a residency requirement of six months at the current housing institution was applied to ensure that institutions had enough time to order screening tests and appropriate screening referrals.

As a part of the effort to screen inmates for colorectal cancer, an updated list of all patients who are ages 50 through 75 years will be posted to the Quality Management SharePoint site. These lists will be updated quarterly, and are intended to facilitate clinical decision making. Of all patients eligible for colorectal cancer screening, regardless of length of stay at a particular institution, 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 are flagged.

Limitations

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

- Incomplete data.
    - Third party administrator claims data tracking began in July 2008. Colonoscopies and sigmoidoscopies performed dating back to April 2000 are not captured here, and may satisfy individual patient's colorectal cancer screening by revised U.S. Preventative Services Task Force (USPSTF) and CCHCS standards. Individual institutions have submitted colonoscopy or sigmoidoscopy screening data, dating as far back as December 2002. It is possible

previously untracked or non-reporting institutions have some patients reported as not screened who may have actually received appropriate screening or follow-up evaluation.

- Laboratory data from institutions conducting on-site testing of FOBT specimens were not readily available for inclusion into this report. Information provided to the Quality Management Section was incorporated into the report, but it is possible this information is incomplete.
- This report does not include laboratory data from outside medical facilities, such as testing that occurred during inpatient hospitalizations and data from community laboratories that were not processed through Quest or Foundation.
- This report does not capture data from outside medical facilities when the patient was not incarcerated, which is particularly important for a ten-year opportunity for screening coupled with average sentences of approximately eighteen-months.

- Patient refusal data for colorectal cancer screening could not be identified from central data sources. Seventeen (17) institutions: CAL, CCI, CIM, CMC, CMF, CRC, CVSP, HDSP, LAC, MCSP, NKSP, RJD, SATF, SCC, SOL, SQ, and SVSP submitted refusal data for colorectal screening. While not included in the performance measure, inmate refusal data reported within the preceding twelve months are included in this report to acknowledge healthcare staff efforts in offering colorectal cancer screening at higher rates than those reflected by the performance measure on the Statewide Health Care Services Dashboard.

The aforementioned limitations suggest that the colorectal cancer screening rates in this report are likely underestimates of actual screening rates.

Table 1: Number and percentage of patients, ages 50 through 75 years, California adult institutions, March 2011

Institution	Number of Patients Ages 50-75 years	Total Number of Patients	March 2011 Percent Ages 50-75 years
Statewide	26,832	146,655	18%
ASP	1,588	5,747	28%
CAL	383	4,195	9%
CCC	486	5,488	9%
CCI	720	5,564	13%
CCWF	617	3,721	17%
CEN	469	4,231	11%
CIM	1,190	5,873	20%
CIW	319	2,068	15%
CMC	1,782	6,189	29%
CMF	1,013	2,765	37%
COR	756	4,976	15%
CRC	779	4,103	19%
CTF	2,021	6,472	31%
CVSP	726	3,153	23%
DVI	512	3,794	13%
FSP	618	3,729	17%
HDSP	435	4,110	11%
ISP	570	3,884	15%
KVSP	362	4,641	8%
LAC	666	4,357	15%
MCSP	1,031	3,502	29%
NKSP	645	5,151	13%
PBSP	317	3,183	10%
PVSP	1,095	4,627	24%
RJD	809	4,357	19%
SAC	415	2,798	15%
SATF	1,456	6,051	24%
SCC	710	5,358	13%
SOL	1,531	4,979	31%
SQ	1,194	4,935	24%
SVSP	557	3,741	15%
VSPW	460	3,239	14%
WSP	600	5,674	11%

Table 2: Number and percentage of inmates, ages 51 through 75 years and six or more months residency who received appropriate colorectal cancer screening, California adult institutions, March 2011

Institution	March 2011 Number of Patients Screened	March 2011 Number of Patients Ages 51-75 years and at least 6 months residency	March 2011 Percentage of patients who completed screening	September 2010 Percentage of patients who completed screening	Difference in percentage	March 2011 Number of Refusals	March 2011 Refusal Rate
Statewide	7,950	17,170	46%	33%	13%	1,619	9%
ASP	658	1,166	56%	38%	19%	---	---
CAL	134	258	52%	56%	-4%	50	19%
CCC	102	273	37%	28%	9%	---	---
CCI	58	376	15%	15%	1%	1	0%
CCWF	235	363	65%	31%	34%	---	---
CEN	117	326	36%	17%	19%	---	---
CIM	114	368	31%	7%	24%	178	48%
CIW	137	189	72%	48%	24%	---	---
*CMC	671	1,242	54%	3%	51%	468	38%
*CMF	302	765	39%	32%	7%	171	22%
COR	242	495	49%	44%	5%	---	---
CRC	281	469	60%	20%	40%	1	0%
CTF	490	1,544	32%	28%	4%	---	---
CVSP	212	508	42%	44%	-2%	1	0%
DVI	66	186	35%	26%	9%	---	---
FSP	330	454	73%	56%	17%	---	---
HDSP	87	275	32%	36%	-4%	72	26%
ISP	114	375	30%	27%	3%	---	---
*KVSP	43	237	18%	13%	5%	---	---
LAC	219	334	66%	56%	10%	26	8%
MCSP	536	834	64%	65%	-1%	161	19%
*NKSP	11	127	9%	21%	-12%	2	2%
PBSP	46	238	19%	17%	2%	---	---
PVSP	501	814	62%	31%	31%	---	---
RJD	242	425	57%	56%	1%	40	9%
SAC	126	307	41%	70%	-29%	---	---
SATF	255	999	26%	11%	15%	2	0%
SCC	206	447	46%	14%	32%	6	1%
SOL	560	1,172	48%	56%	-8%	433	37%
SQ	557	802	69%	53%	16%	3	0%
*SVSP	99	383	26%	14%	12%	4	1%
VSPW	185	265	70%	55%	15%	---	---
*WSP	14	154	9%	6%	3%	---	---

* Institution performs some on-site laboratory testing
--- No refusal data available

Table 3: California adult institutions' Fecal occult blood testing laboratory testing sites, March 2011

Institution	Quest (4/1/2010-3/31/2011)	Foundation (4/1/2010 – 12/31/2010)	On-site (4/1/2010-3/31/2011)
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	●		●