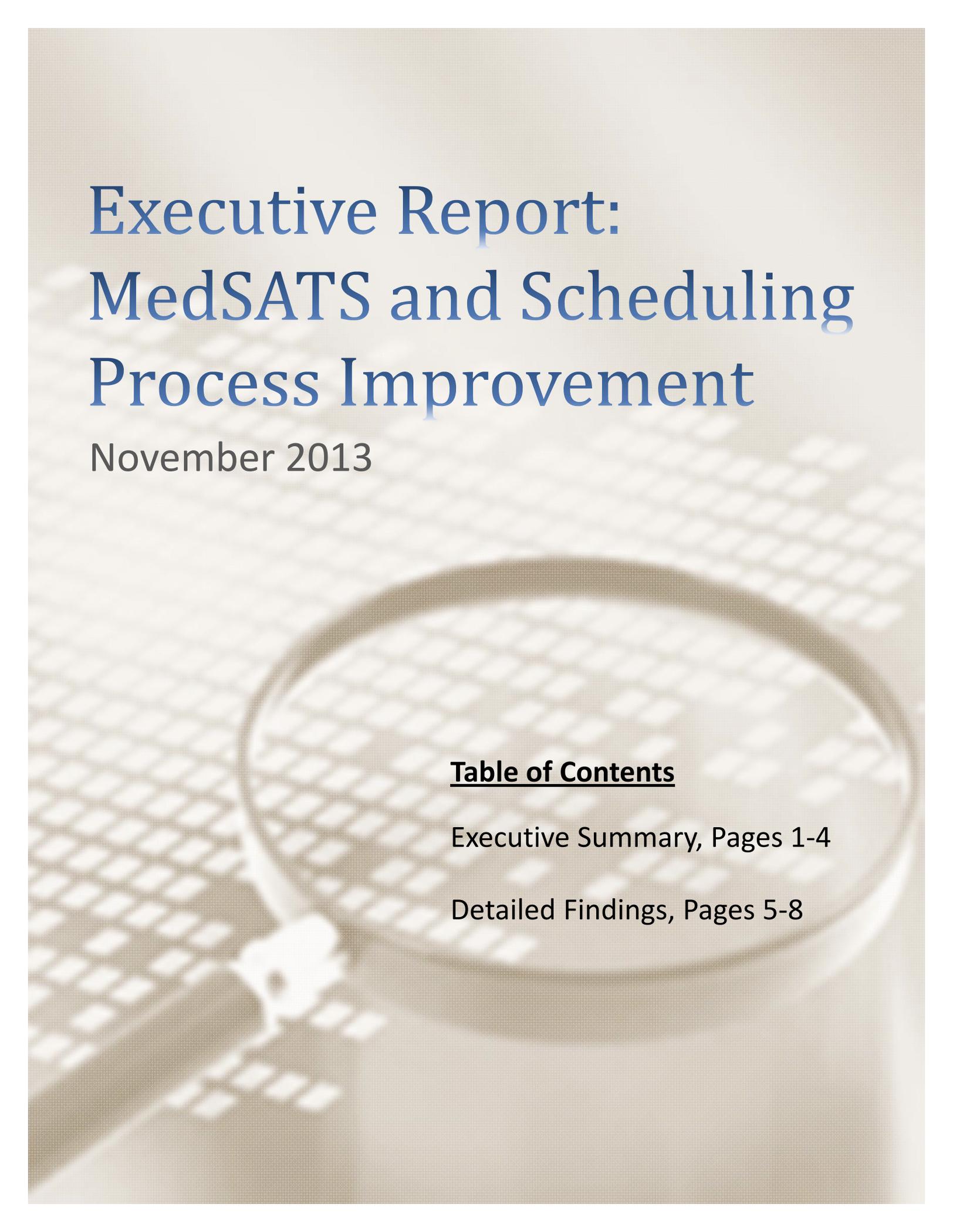


APPENDIX 9



Executive Report: MedSATS and Scheduling Process Improvement

November 2013

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Background

This briefing examines performance on medical scheduling and access to medical and nursing services based on a review of medical scheduling data between April and September 2013, available from the new Medical Scheduling and Tracking System (MedSATS). Starting in February 2013, California Correctional Health Care Services (CCHCS) began rolling out MedSATS to improve the scheduling process, increase timely access to medical and nursing services, and establish a single centralized and standardized scheduling system for all institutions.

Three categories of measurable objectives related to scheduling are addressed in this briefing, most of which are referenced in the Statewide Performance Improvement Plan (PIP):

Accuracy	By June 30, 2014, results from MedSATS performance reports for at least the seven access to care indicators will vary less than 10% from results found in the patient health records.
Access	By December 31, 2013, 85% or more of patients who require care will receive timely access to clinicians, and laboratory, and radiology services.
Efficiency	By December 31, 2013, <ul style="list-style-type: none">○ 85% or more of health care appointments occur as originally planned;○ 1% or less of health care appointments are cancelled due to controllable reasons; and○ 50% or more of variability in patient demand for clinical services is explained by case mix

When potentially avoidable scheduling failures occur at inexplicably high rates, it may be a signal that:

- Patient demand is not well-managed,
- Patients are at risk of missing planned care,
- Provider hand-offs are not occurring,
- Compliance evaluation is unreliable, or
- Care teams are engaging in unnecessary work to repeatedly prepare and readjust resources because of failed visits.

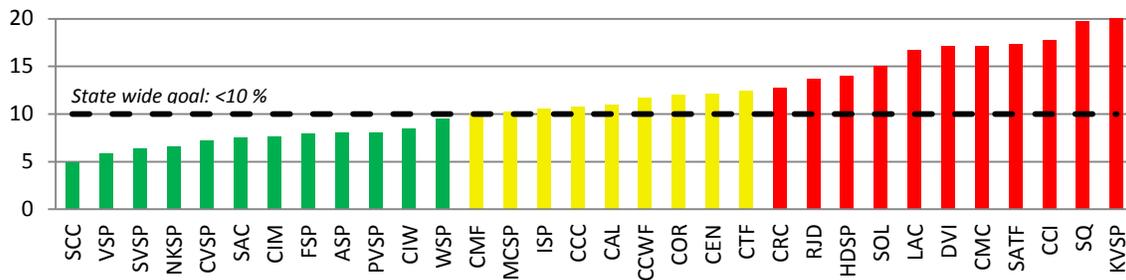
Accurate MedSATS data are essential to understanding and addressing root causes of scheduling failures.



Summary of Findings

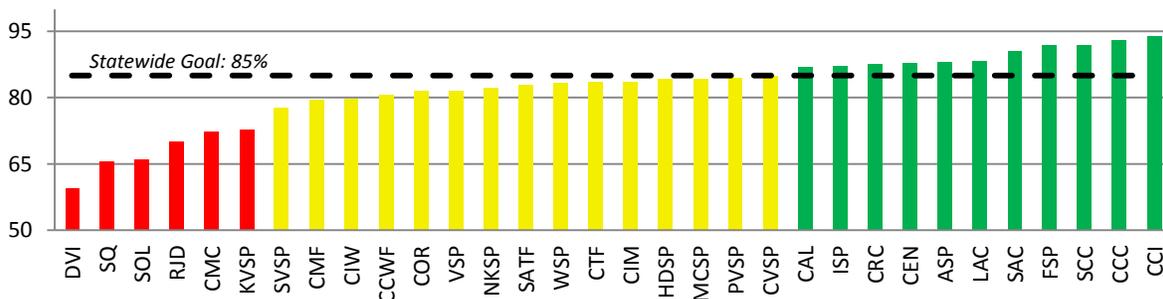
- Accuracy:** Average discrepancy between MedSATS reports and information in actual patient health records ranges from 5-21%. Statewide average variation across measures and institutions is 12%.

Average Absolute Percentage Discrepancy between MedSATS Reports and Audited Chart Results



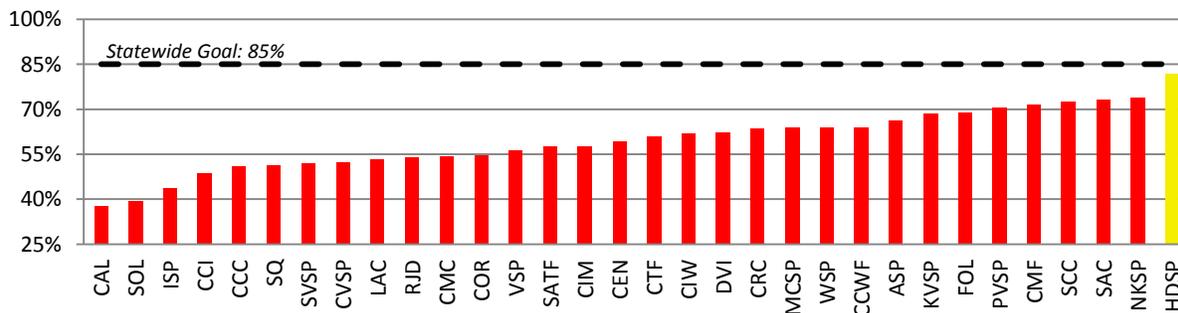
- Access:** Aggregating data for all seven access measures, 11 institutions demonstrate at least 85% average compliance with visit timeframes. Average statewide compliance across institutions and measures is 82% and ranges from 59-94%.

Average Percentage of Appointments Completed Timely: Seven Access Measures



- Efficiency:** Statewide, patients are seen as planned in 59% of all possible encounters, and institution rates vary from 38-82%. Five percent (5%) of patients are unseen and permanently canceled for controllable reasons.

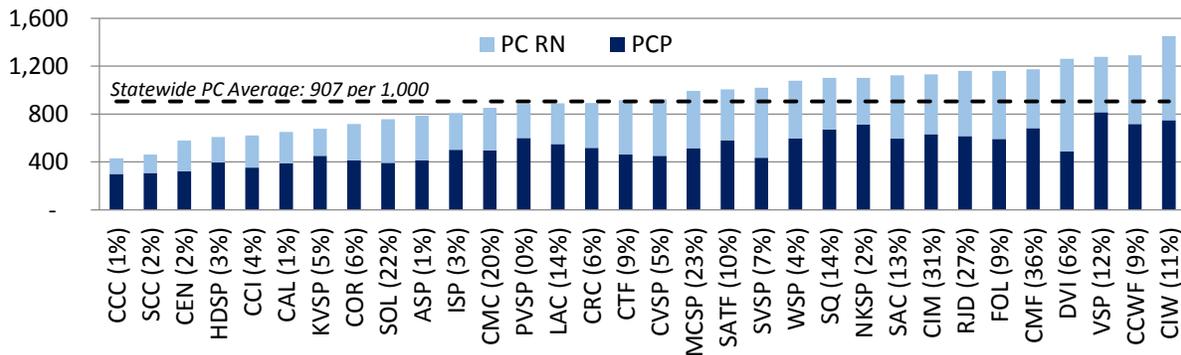
Percentage of Potential Encounters in September 2013 That Were Seen as Planned vs. Unplanned, Unscheduled, Unsuccessful, Unseen or Unclosed





- **Demand Management:** Rates of primary care visits (PCP and PC RN) vary from 400-1,400 per 1,000 inmates statewide. Case mix does not explain variability in visit rates among institutions.

September 2013 Rate of Primary Care Visits per 1,000 (Institution Proportion of High Risk Patients in Parentheses)



Required Actions and Recommendations

There are a number of steps institutions leaders should take to improve MedSATS data reliability, access to care, and scheduling efficiency, and there are new tools available to support scheduling improvements. To the extent that institutions use these tools to analyze and redesign scheduling processes, institutions will be better prepared for implementation of the Electronic Health Record System (EHRS), which will require similar analysis and redesign for all or most core health care processes.

- **New MedSATS Features and Functions.** Make sure your staff has received training on the most recent MedSATS features, which include performance reports that will help you identify gaps that need to be addressed in your scheduling processes.
- **Scheduling Process Improvement Resources.** At the link below, you will find a new webpage on the Quality Management Portal that hosts tools and training materials to support scheduling improvements, including, but not limited to:
 - MedSATS validation findings by measure, per institution.
 - Sample local operating procedures for five major scheduling processes.
 - Roles and responsibilities for key staff involved in MedSATS implementation and scheduling.
 - Sample schedules and appointment time templates.
 - Guide to MedSATS performance reports.
 - New performance reports for the measures in this report, which can be filtered to the care team level.
 - Validation worksheets that allow institutions to self-assess MedSATS reliability in the seven access measure areas.



Some of the above tools will be available immediately; some will not be accessible until December 1, 2014. Access available tools at the following link: [Scheduling Process Improvement](#).

- **“Plug and Play” Scheduling Improvement Initiative.** In the [Scheduling Improvement Project Template](#), you will find a template for a Performance Improvement Work Plan (PIWP) initiative dedicated to scheduling improvements. It includes detailed action steps to guide institution staff as they analyze quality problems and/or redesign scheduling processes in areas described in this report, including:
 - MedSATS data reliability
 - Access to care
 - Scheduling efficiencies
 - Appointment demand

The improvement initiative template also prompts institutions to consider scheduling efficiencies from the CCHCS Primary Care Model standards, such as open access appointment slots and co-consultation between nurses and primary care providers to resolve complaints in a single visit when possible. As institution staff work through the improvement initiative action steps, staff will be guided in the application of tools from the [Scheduling Process Improvement webpage](#).

Instructions for reaching this page are also provided in [“How to Reach the SPI Webpage”](#).

- **Leverage Your Existing Quality Management Infrastructure.** Use common structures within the institution Quality Management Program to make and sustain progress in scheduling improvements.
 - Incorporate the [Scheduling Improvement Initiative Template](#) into your institution’s PIWP, which references fundamental quality management principles, including, but not limited to:
 - Using a multi-disciplinary improvement team to analyze problems and develop solutions.
 - Using data to study the source of quality problems from multiple perspectives.
 - Testing changes in a pilot clinic prior to finalization and spread to other parts of the institution.
 - Identifying staff or program areas that are particularly challenged by new procedures or efficiencies, and offering additional support/focused technical assistance until issues are resolved.
 - Identifying and adopting best practices institution-wide.
 - Review the status of PIWP action steps, as well as QM performance reports and MedSATS management reports during Quality Management Committee meetings each month to assess progress over time and modify PIWP actions steps as appropriate.

Detailed Findings | MedSATS and Scheduling Process Improvement

Accuracy of MedSATS Reports

- At most institutions, discrepancies between MedSATS reports and the eUHR audit were less than 10% for RN FTF Triage, PCP visits from Routine RN Referrals, and Routine Specialty Referrals. Discrepancies for the remaining visit types were 10% or more in at least half of all institutions.
- The variance between MedSATS-reported performance and the eUHR audit at CIM, NKSP and VSP was under 10% for 6 of 7 measures. Only one of SQ's measures has less than a 10% discrepancy, and 4 of its measures had variances of 20% or greater.

Percent Variance between MedSATS Compliance Result is compared to eUHR Audit Results

Discrepancy between MedSATS reports and eUHR audit results									
	% RN FTF Triage	% Urgent PCP Referral from RN FTF	% Routine PCP Referral from RN FTF	% Chronic Care Follow-Up	% High Priority Specialty Referral	% Routine Specialty Referral	% PCP Follow-Up After Hospitalization	% *Variance	
Statewide*	9	18	6	12	14	7	15	12	Statewide*
ASP	-14	-12	-5	-7	-17	-1	0	8	ASP
CAL	+15	0	+7	-14	-31	-5	+5	11	CAL
CCC	-1	-12	-6	-21	+1	-2	-33	11	CCC
CCI	+2	-56	+6	-10	-30	-11	-9	18	CCI
CCWF	+2	+8	+3	-18	-20	-11	-20	12	CCWF
CEN	+20	0	-5	-19	-20	-8	NA	12	CEN
CIM	-8	+7	-6	-12	-7	-6	-8	8	CIM
CIW	-1	+12	+4	+1	-22	-11	+8	8	CIW
CMC	+1	-50	-17	-17	+27	+2	-7	17	CMC
CMF	+1	+1	+3	+6	-5	-3	-51	10	CMF
COR	-6	-25	+2	0	+15	-3	-33	12	COR
CRC	+3	+45	+4	-29	-6	-1	+2	13	CRC
CTF	0	-13	-4	-16	-14	-14	-26	12	CTF
CVSP	0	+5	0	-19	-6	-5	-15	7	CVSP
DVI	+17	-9	-26	-13	-20	-18	-17	17	DVI
FSP	+19	+13	-2	-2	-17	-3	0	8	FSP
HDSP	+1	-1	+20	+9	0	-5	-62	14	HDSP
ISP	-2	-23	+3	-13	-12	-7	-14	11	ISP
KVSP	+9	+67	+17	-18	+14	-4	+17	21	KVSP
LAC	-3	-71	-1	-16	-12	-7	-8	17	LAC
MCSP	+19	-10	0	-18	+13	-7	-5	10	MCSP
NKSP	-35	-2	-1	-3	+3	-1	-1	7	NKSP
PVSP	+3	+14	+5	-12	-6	-8	-8	8	PVSP
RJD	-7	-17	-8	-11	-15	-4	-33	14	RJD
SAC	+2	-17	-3	-6	-8	-13	+5	8	SAC
SATF	+3	+60	0	-20	-20	+4	-15	17	SATF
SCC	-15	-8	+1	0	0	-11	0	5	SCC
SOL	-28	0	-6	-30	+25	-6	-10	15	SOL
SQ	-36	-23	+20	+5	-27	-14	-13	20	SQ
SVSP	+6	0	+2	-12	-12	-8	-4	6	SVSP
VSP	+7	+13	-2	+1	-7	-7	-4	6	VSP
WSP	+5	-9	-7	-11	+9	-2	-23	9	WSP

*Average of absolute discrepancy between MedSATS reports and eUHR audit results

Detailed Findings | MedSATS and Scheduling Process Improvement

Timely Access and Compliance with Required Timeframes

- Average timeframe compliance at 11 institutions is at or above 85%, with CCI showing the highest average rate at 94%. With a rate of 59%, DVI has the lowest average compliance with timeframes.
- At 91%, statewide RN FTF triage timeframe compliance is the best among all visit types. With less than 75% compliance, patients with PCP visits after RN FTF triage are least likely to be seen timely.

Percentage of Appointments Seen within Timeframes Based on Results of MedSATS Compliance Audit

	RN FTF Triage	Urgent PCP Referral from RN FTF	Routine PCP Referral from RN FTF	Chronic Care Follow-Up	High Priority Specialty Referral	Routine Specialty Referral	PCP Follow-Up After Hospitalization	Unweighted Compliance Average	
Statewide	92	72	74	76	87	97	77	82	Statewide
ASP	96	93	84	87	100	96	61	88	ASP
CAL	79	100	86	68	93	100	81	87	CAL
CCC	100	100	100	60	94	96	100	93	CCC
CCI	98	100	82	92	85	100	100	94	CCI
CCWF	92	83	54	80	91	96	67	81	CCWF
CEN	74	100	65	91	100	96	NA	88	CEN
CIM	94	60	84	88	100	100	60	84	CIM
CIW	98	71	80	48	83	100	77	80	CIW
CMC	96	67	72	52	64	92	63	72	CMC
CMF	96	79	74	63	84	88	73	80	CMF
COR	96	80	92	68	52	96	86	81	COR
CRC	96	55	91	100	83	96	93	88	CRC
CTF	98	77	81	68	84	100	76	83	CTF
CVSP	100	71	62	96	93	100	71	85	CVSP
DVI	80	9	41	48	88	100	50	59	DVI
FSP	81	88	94	80	100	100	100	92	FSP
HDSP	98	70	66	78	86	92	100	84	HDSP
ISP	92	90	84	79	100	100	64	87	ISP
KVSP	90	33	46	96	79	96	69	73	KVSP
LAC	98	100	73	84	88	96	79	88	LAC
MCSP	78	90	86	92	84	93	67	84	MCSP
NKSP	76	68	85	75	91	100	81	82	NKSP
PVSP	92	56	83	88	82	100	91	84	PVSP
RJD	98	67	25	50	92	100	58	70	RJD
SAC	94	100	96	92	75	89	88	91	SAC
SATF	96	40	86	92	92	89	85	83	SATF
SCC	97	86	90	96	100	100	75	92	SCC
SOL	90	0	68	72	62	100	69	66	SOL
SQ	100	67	14	32	100	100	45	65	SQ
SVSP	92	33	69	64	93	100	93	78	SVSP
VSP	89	67	72	62	100	100	82	82	VSP
WSP	90	70	78	85	75	100	86	83	WSP

Detailed Findings | MedSATS and Scheduling Process Improvement

Scheduling Efficiency

- Statewide, patients are seen as planned in 59% of all possible encounters. At CAL and SOL, less than 40% of potential encounters occurred as planned vs. over 80% at HDSP.
- The largest detractor from scheduling efficiency is excessive rescheduling – nearly one quarter of potential visits are initially "Unsuccessful, Rescheduled".

Components of "Appointments Seen as Planned" Based on Preliminary September 2013 MedSATS Data

	Unplanned Walk-In	Unscheduled	Unsuccessful, Rescheduled	Unseen	Unclosed	Seen as Planned
Statewide	23,561 7.5%	19,855 4.2%	93,980 23.4%	16,776 4.6%	11,491 1.6%	166,930 59%
ASP	1.3%	3.5%	23.7%	4.9%	0.1%	66%
CAL	5.4%	2.0%	49.9%	4.0%	0.9%	38%
CCC	16.2%	10.3%	7.1%	2.8%	12.6%	51%
CCI	8.4%	1.2%	37.7%	4.0%	0.2%	49%
CCWF	2.7%	2.8%	19.9%	4.9%	5.8%	64%
CEN	1.5%	3.2%	19.8%	2.4%	14.0%	59%
CIM	9.1%	1.7%	26.8%	4.3%	0.3%	58%
CIW	10.5%	1.1%	20.7%	5.7%	0.2%	62%
CMC	4.4%	7.9%	27.5%	5.2%	0.6%	54%
CMF	4.8%	7.1%	8.0%	7.4%	1.2%	72%
COR	11.4%	2.9%	25.3%	5.4%	0.1%	55%
CRC	13.3%	2.5%	10.0%	9.0%	1.7%	64%
CTF	11.7%	9.7%	11.2%	3.0%	3.5%	61%
CVSP	6.0%	2.7%	33.1%	5.4%	0.3%	52%
DVI	9.4%	2.7%	19.4%	5.9%	0.2%	62%
FOL	4.3%	9.1%	15.1%	2.6%	0.1%	69%
HDSP	0.2%	2.7%	12.8%	1.7%	0.5%	82%
ISP	6.6%	2.2%	42.6%	4.6%	0.2%	44%
KVSP	7.4%	3.5%	16.7%	3.7%	0.2%	69%
LAC	5.3%	2.0%	31.8%	6.1%	1.5%	53%
MCSP	6.2%	5.0%	16.7%	6.7%	1.7%	64%
NKSP	10.1%	1.5%	11.6%	2.8%	0.0%	74%
PVSP	2.5%	0.7%	18.5%	6.9%	0.7%	71%
RJD	6.3%	2.6%	28.4%	6.3%	2.6%	54%
SAC	2.8%	6.3%	11.2%	6.4%	0.1%	73%
SATF	13.6%	2.6%	19.3%	6.4%	0.4%	58%
SCC	4.1%	11.2%	8.9%	2.9%	0.5%	72%
SOL	2.9%	1.8%	51.6%	2.7%	1.7%	39%
SQ	7.3%	8.6%	27.2%	4.1%	1.6%	51%
SVSP	13.1%	3.0%	23.3%	8.3%	0.2%	52%
VSP	8.3%	2.9%	28.5%	3.5%	0.6%	56%
WSP	14.1%	9.7%	8.7%	3.1%	0.5%	64%

"Appointments Seen as Planned" is comprised of six components, the sum of which is the denominator (i.e., potential encounters). The first component, "Seen as Planned", is the numerator. Components include:

- Seen As Planned:** Visits successfully seen as planned, excluding patients not seen as scheduled, walk-ins, unclosed appointments, and unscheduled/pending encounters
- Unplanned Walk-In:** Walk-in encounters seen during the prior month
- Unscheduled:** Services requested in the prior month but not yet booked as an appointment
- Unsuccessful, Rescheduled:** Appointments canceled and rescheduled
- Unseen:** Appointments canceled due to "controllable" reasons and not rescheduled (potentially avoidable cancellations include those related to custody, healthcare, specialists, clinic management, and errors)

Detailed Findings | MedSATS and Scheduling Process Improvement

6. **Unclosed:** Encounters scheduled to occur during the prior month but not yet closed out.

Demand Management

- Monthly PCP visit rates vary significantly between institutions: 300 per 1,000 at CCC vs. 816 per 1,000 at VSP. Combined statewide average PCP and PC RN visit rates suggest each inmate is seen in a primary care clinic on average nearly once a month.
- Case mix does not adequately explain variability in demand for medical care. VSP's rate of PCP visits (816) is over twice that of SOL (394), despite the fact that the proportion of clinically high risk patients at VSP (12%) is approximately half the proportion at SOL (22%).

September 2013 Monthly Visits per 1,000 Inmates (with Proportion of Population Clinically Classified as "High Risk")

	Lab	PC LVN	PC MA / CNA	PC RN	PCP	Radiology	R&R	Offsite Return	Specialty	TTA	% High Risk Pop	
State	232	170	11	393	514	43	74	36	176	35	10%	
ASP	218	1	0	372	413	43	110	29	178	39	1%	ASP
CAL	125	185	19	260	391	29	80	28	79	34	1%	CAL
CCC	141	176	1	130	300	22	44	15	35	18	1%	CCC
CCI	146	124	0	269	353	29	50	21	83	6	4%	CCI
CCWF	359	26	0	575	717	86	57	50	223	63	9%	CCWF
CEN	29	1025	0	258	322	28	49	18	154	0	2%	CEN
CIM	436	160	0	498	632	40	120	80	218	34	31%	CIM
CIW	215	178	11	701	749	41	59	79	225	230	11%	CIW
CMC	226	236	0	356	497	39	45	39	208	0	20%	CMC
CMF	669	76	22	490	683	57	20	118	1074	2	36%	CMF
COR	183	0	0	301	415	43	52	13	98	78	6%	COR
CRC	187	47	0	374	519	38	61	39	132	12	6%	CRC
CTF	156	25	0	455	462	31	33	24	157	16	9%	CTF
CVSP	96	148	0	472	452	35	62	29	154	22	5%	CVSP
DVI	230	144	0	772	490	61	155	33	123	88	6%	DVI
FOL	232	18	0	568	593	32	89	29	106	37	9%	FOL
HDSP	118	64	1	213	395	15	59	24	121	12	3%	HDSP
ISP	107	26	0	306	502	29	42	25	141	16	3%	ISP
KVSP	104	0	0	228	450	23	23	22	79	12	5%	KVSP
LAC	283	4	0	342	549	36	51	43	111	51	14%	LAC
MCSP	248	1	0	478	516	47	47	49	249	54	23%	MCSP
NKSP	520	1432	221	390	712	79	248	36	299	6	2%	NKSP
PVSP	160	0	0	283	601	46	0	16	222	39	0%	PVSP
RJD	291	163	0	545	615	47	51	65	183	59	27%	RJD
SAC	256	64	0	528	594	44	27	27	65	36	13%	SAC
SATF	187	0	0	425	580	36	64	10	110	55	10%	SATF
SCC	117	69	0	156	307	27	56	18	86	0	2%	SCC
SOL	266	1	24	363	394	67	58	53	392	45	22%	SOL
SQ	303	281	0	430	672	52	84	43	154	16	18%	SQ
SVSP	157	0	0	584	436	41	62	41	139	88	7%	SVSP
VSP	244	232	0	462	816	49	58	65	217	26	12%	VSP
WSP	415	264	0	480	597	75	219	37	203	40	4%	WSP