



2015 California Correctional Health Care Services Performance Report

Progress to Date and Implications for the Future



Table of Contents

I.

Executive Summary

II.

Looking Back

A. The Model

B. The Plan

C. The Results

1. Performance Overall and by Domain

a) Access and Scheduling

b) Population Health Management

c) Care Management

d) Medication Management

e) Availability of Health Information

f) Appeals Processing and Other Metrics

III.

Lessons Learned to Date

IV.

Recommendations for 2016



EXECUTIVE SUMMARY

The 2015 California Correctional Health Care Services (CCHCS) Performance Report looks at progress toward performance objectives in the 2013-2015 Performance Improvement Plan, evaluating trends over the past two years (and earlier, if information is available) and the overall maturation of the quality management system. For the period of 2013-2015, California Correctional Health Care Services targeted 34 aggregate performance objectives, which were tracked monthly in the California Correctional Health Care Services Dashboard. A review of performance trends from 2013 – 2015 indicates:

- 1. We're at goal or close to goal in most measures.** Statewide performance exceeds goal or is close to goal in 33 of the 34 performance measures tracked in the Dashboard.
- 2. We are performing better than we have before – and better than some community health care organizations in specific measures.** Twelve performance objectives use Health Effectiveness Data and Information Set (HEDIS) methodology to allow for comparison with other health care organizations nationwide. CCHCS surpasses the 75th percentile of national health plans in 10 of the 12 population health measures. The rate of 30-Day Readmissions for Community Hospitalizations in the California prison system is half that of the commercial and Medi-Cal health plans report. The better that CCHCS performs in providing population health and care management services to patients with chronic conditions and those requiring certain preventive services such as cancer screening the more benefits are realized not only for the patients but also the public because better proactive care for prisoners avoids unnecessary reactive costs associated with preventable complications including hospitalizations.
- 3. We seem to be getting better at making improvements.** Recently-introduced Dashboard metrics show more accelerated improvements in performance after less than a year. In just eleven months, end-stage liver disease performance increased from 63% to 87%; adherence to diagnostic monitoring guidelines went from 81% to 91%. Performance on the new polypharmacy measure improved 52%, from 19% to 71% in six months.
- 4. There is still a lot of variation in performance for many measures.** Performance across institutions and over time at a single institution varies significantly, suggesting that we haven't achieved stability statewide in performance.

A number of factors likely contributed to the success the institutions have achieved to date, such as redesign of the administrative structure to include interdisciplinary executives at institution and regional levels, an increase in strategic alignment around tools like the Dashboard, initiatives to implement the Complete Care Model and specific Performance Improvement Plan priorities, new clinical tools to manage patient populations and panels, and spread of best practices. Cultural changes have played a part in our achievements to date – CCHCS has increasingly adopted the practices of high-performing organizations.

To continue to build upon its success so far, it's recommended that CCHCS continue with its three-phase implementation of the quality management system – enhance the measurement system to encompass more elements of the Complete Care Model; ensure resources needed to support the model and high-risk program areas are available; and make sustainability strategies a routine part of program implementation.



Year in Review: 2015

At least every two years, CCHCS enters into a strategic planning process to develop a statewide roadmap for quality improvement activities, managed by the Headquarters Quality Management Committee. The resulting Performance Improvement Plan lists improvement priorities that will be the focus of the entire organization and includes specific performance objectives.

This report looks at progress toward performance objectives in the 2013-2015 Performance Improvement Plan, evaluating trends over the past two years and the evolution of our organization overall as it pertains to quality management. This report also provides recommendations to be considered during the improvement planning process for 2016-2018, given our lessons learned to date.

To provide context for the findings to come, let's first look at the quality management system at CCHCS and the improvement targets articulated in the 2013-2015 Performance Improvement Plan.

The Model

The improvement model adopted by CCHCS, described in statewide policy and numerous Triannual Reports, hinges on the core components of any quality management program:

- An organizational attitude of learning, including an emphasis on fixing systems and processes rather than blaming individuals, data-driven decision making and evidence-based care, and investment in staff development as a major quality improvement strategy.
- A governance structure to support organizational communication, coordination, control, and change.
- A performance evaluation system to routinely survey critical health care areas for potential quality problems and assess progress toward improvement goals.
- Strategic planning processes at statewide, regional, and institution levels to identify and prioritize quality problems and set improvement goals.
- Staff at all levels of the organization with the skills to perform process improvement work, including engaged leaders, quality champions, subject matter experts at the point of service delivery, and regional and local Quality Management Support Unit staff.
- Application of recognized improvement techniques to analyze quality problems and develop and test solutions, usually in the context of multi-disciplinary teams.
- Change management processes to implement new or modified health care processes, including preparation for change, clearly-articulated, role-specific expectations, tools (decision support), training, and technical assistance.
- Sustainability strategies to ensure that once high performance levels have been attained, they can be maintained into the future, even as existing staff move on to new positions.

These are the bones of the quality management system.



But no quality management system exists in a vacuum; it supports a core business, whether that be health care services delivery, manufacturing, military operations, or nuclear power. At CCHCS, the quality management system supports the implementation and continuous improvement of the Complete Care Model, our services delivery model. Based on the Patient-Centered Health Home and endorsed by the Joint Commission, National Committee for Quality Assurance, Agency for Healthcare Research and Quality, and other national authorities, the Complete Care Models delivery system includes, but is not limited to, the following elements:

- Each patient is assigned to a Care Team.
- Care is team-based care and targets the whole patient, across disciplinary lines, and patients are educated so that they can be active participants in their course of treatment. The membership of the Primary Care Team expands per the needs of the individual patient.
- That Primary Care Teams directly provide most clinical services to the patient panel assigned to them, and coordinate services not directly provided by the care team, such as specialty services and treatment at higher levels of care.
- Patient risk is stratified, and population management and care management services are provided to both assure evidence-based care and match the intensity of health care services to the needs and risk of individual patients.

The first and foremost improvement strategy for our organization, during the period of 2013-2015 and today, is the full implementation of the Complete Care Model.

To implement a quality management system, CCHCS has adopted a three-phase approach, which is summarized as follows: 1) Get the Complete Care Model and Quality Management infrastructure in place; 2) Use traditional quality improvement techniques to refine health care processes; and 3) Hardwire the Phase II best practices for application statewide and take other steps to guarantee sustainability over time.

QM Implementation Phase I: Strategic Alignment and Full Implementation of the Complete Care Model

- This phase emphasizes putting core delivery system infrastructure in place at every institution, including a system for patient risk stratification, consistent and prepared care teams, regular forums for panel management, and processes and structures for safe handoffs as patients move between settings.
- Phase I also articulates the vision for quality management, introduces the new program standards, and aligns the entire organization around a set of improvement priorities, which are described in the statewide Performance Improvement Plan, arranged by Complete Care Model domain, and measured monthly in the Health Care Services Dashboard. Institution activity in this phase includes reviewing the Dashboard regularly during improvement committee meetings, identifying problem areas specific to the institution, creating local improvement plans, and forming project teams to analyze quality problems and develop and test solutions.



QM Implementation Phase II: Using Recognized Improvement Techniques to Refine Critical Health Care Processes

- With the core CCM infrastructure in place, the second phase of QM Program implementation focuses on improving existing processes and creating best practices that can be shared statewide. Phase II educates staff at all reporting levels on basic improvement techniques and provides them with access to subject matter experts and decision support to regularly apply improvement techniques in day-to-day work. This phase also focuses on refining the local governance structure and systems for providing effective oversight to improvement projects.

QM Implementation Phase III: Sustainability and Standardization

- In the final phase of QM Program implementation, CCHCS codifies institution best practices identified in Phase II in statewide policies and procedures and produces change packages to assist institutions in implementing and sustaining the standardized processes.

Most improvement initiatives implemented over the past few years incorporated Phase I activities, but could span all of these phases, which are not so much sequential as overlapping.

The Plan

The 2013-2015 Performance Improvement Plan called for CCHCS staff to focus on 34 improvement objectives, touching on most traditional quality domains for health care, including timeliness and quality of care, efficiency, and utilization (meant to enhance the value of services). The 34 performance objectives were divided among the eight Complete Care Model domains shown below.

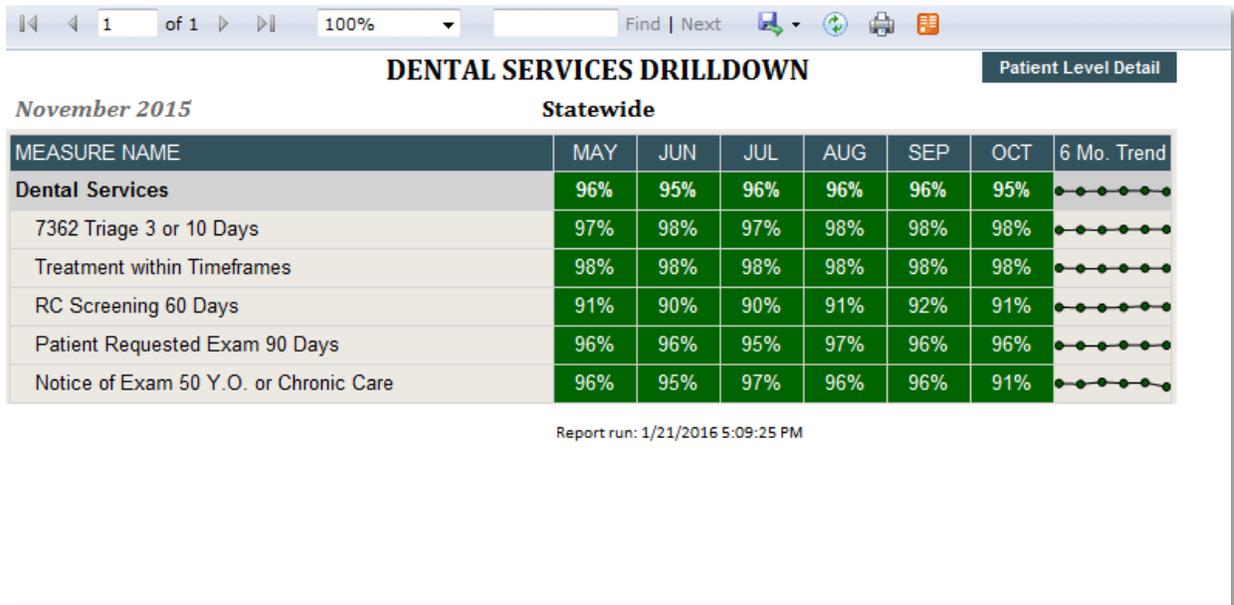
Scheduling and Access to Care	Population Health Management	Medication Management	Appeal Processing
Continuity of Clinicians and Services	Care Management	Availability of Health Information	Resource Management

[Click here to view the 2013-2015 Performance Improvement Plan.](#)

As is required by statewide policy, performance measures from the 2013-2015 Performance Improvement Plan are displayed in the CCHCS Dashboard (“the Dashboard”), CCHCS’ organization-wide report allowing institution, regional and headquarters staff to review progress toward performance objectives monthly and track performance trends over time. All 2013-2015 performance objectives were color-coded in the Dashboard to reflect relationships to goal: green for at or above goal, yellow for near goal, and red for significantly below goal. Most of the 34 performance objectives were fed by a number of subordinate measures, which were also benchmarked and reported in the Dashboard. For example, the aggregate measure for Dental access is actually a composite of five sub-measures. Please see Figure 1.



Figure 1. Sample of a Health Care Services Dashboard Measure – Aggregate Measure with Sub-Measure Detail



The data reported here is drawn directly from the Dashboard. It is important to note some methodology details when considering the performance results in this report:

- We weren't able to provide complete data for most measures in 2013 and 2015, with the exception of our Population Health Management data, which dates back to 2011. The Dashboard was young in 2013, and CCHCS was still developing archiving systems and consistent methodologies for some measures, which led to partial data sets for that year. For most measures, the earliest data collected is from July 2013 onward. Data is incomplete for 2015 because CCHCS began implementing an Electronic Health Record System (EHRS) at pilot institutions toward the end of the year, and the new data had not yet been integrated. Rather than exclude the pilot institutions from the statewide score, CCHCS chose to use 2015 data only through September which is displayed on the October 2015 Dashboard (the most recent full set of data available).
- Where feasible, CCHCS uses performance measurement methodologies based on healthcare industry standards (e.g., Joint Commission, Agency for Healthcare Quality and Research, National Quality Forum, National Committee for Quality Assurance). In some cases, standard measurement definitions must be adjusted to accommodate data limitations, policy requirements, or characteristics unique to the correctional healthcare setting.

Detailed information about the methodology for all measures featured in this report can be found in the Dashboard Glossary, at this link: [Dashboard Glossary](#)

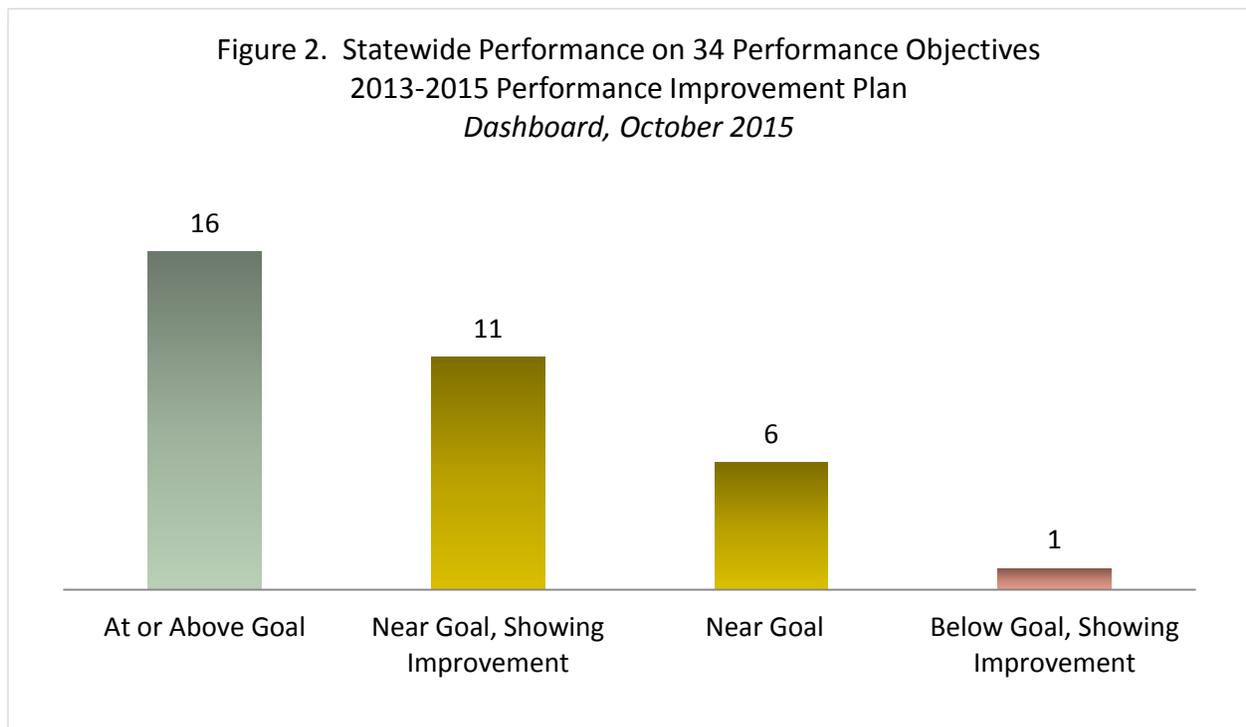


Performance Results – The Bottom Line

1. We're at goal or close to goal in most measures.

As of October 2015, CCHCS had either achieved the statewide performance goal or was within or near goal in 33 of the 34 measures from the 2013-2015 Performance Improvement Plan, or 97% of measures. CCHCS was only significantly below goal in one measure, the 30-day readmission rate for Mental Health Crisis Beds (MHCB) and Department of State Hospital (DSH) beds, discussed in detail in Findings per Category. Please see Figure 2.

A per-measure accounting of progress as of October 2015 is provided in Attachment 1.



2. We are performing better than we have before – and better than many community health care organizations in specific measures.

Not only is CCHCS performing well in comparison with its own prior performance, CCHCS performs well when compared to other health care organizations. In comparison with health plans nationwide, CCHCS performance now exceeds the 75th percentile in ten of twelve measures from the HEDIS), a tool used by 90% of America's health plans to measure performance. Please see Figure 3.



2015 California Correctional Health Care Services Performance Report

Progress to Date and Implications for the Future

Figure 3. CCHCS Performance Compared to National Medicaid Health Plans - HEDIS¹.

HEDIS MEASURES ON DASHBOARD	HCS September 2015 Dashboard	HEDIS 75th Percentile	HEDIS 25th Percentile
Persistent Asthma ICS Treatment	81%	87%	81%
Comprehensive Diabetes Care - HbA1c Control (<8%)	79%	56%	42%
Comprehensive Diabetes Care - LDL-C Control (LDL-C<100 mg/dL)	77%	41%	29%
Comprehensive Diabetes Care - Blood Pressure Control (<140/90)	82%	64%	48%
Comprehensive Diabetes Care - Medical Attention for Nephropathy	86%	83%	73%
Colorectal Cancer Screening	74%	69%	56%
Breast Cancer Screening	88%	65%	51%
30 Day All-Cause Readmissions	6.2%	---	---

HEDIS MEASURES NOT ON DASHBOARD	HCS Year Ending September 2015	HEDIS 75th Percentile	HEDIS 25th Percentile
Comprehensive Diabetes Care - HbA1c Testing	98%	87%	79%
Comprehensive Diabetes Care - Poor HbA1c Control (>9.0%)	10%	34%	51%
Flu Shots for Adults (50-64)	39%	54%	44%
Cervical Cancer Screening	80%	73%	62%
Mental Health Follow-up Visits in 7 Days	89%	58%	33%

And CCHCS has achieved a 30-day readmission rate at roughly half of what commercial and Medi-Cal health plans report. Please see Figure 4. As mentioned in the executive summary, there is a business case for providing good care because some costly interventions such as potentially avoidable hospitalizations can be prevented with better outpatient care.

Figure 4. CCHCS Performance Compared with Other Health Plans, Rate of 30-Day Readmissions to Community Hospitals (Not Case Mix Adjusted)

CCHCS 2015	Medi-CAL HMO 2013	Commercial HMO (Age 18-64) 2014	Medicare HMO 2014
7.2%	14.2%	12.0%	17.5%

¹ Numbers should align with statewide performance on the September 2015 Dashboard except for cancer screening and vaccination measures. For the purpose of this analysis, CCHCS adopted the HEDIS methodology to allow for comparison with other health care organizations; HEDIS reports the percentage of patients who were offered and accepted cancer screenings or flu shots, while CCHCS usually reports the percentage of patients offered screening or vaccination – whether or not they accepted. Institutions get credit for patients even if they refuse, result in higher performance than what you see here.



3. We appear to be getting faster at making improvements.

As CCHCS ramps up implementation of Complete Care Model infrastructure through initiatives such as the Focus Institutions Learning Collaborative and improves strategic alignment with the new regional administrative structure, the rate of improvement appears to be accelerating. CCHCS is achieving more in shorter time periods.

Recently-introduced Dashboard metrics show significant increases in performance after less than a year. In just eleven months, end-stage liver disease performance jumped from 63% to 87%; adherence to diagnostic monitoring guidelines went from 81% to 91%. From April 2015 to October 2015, performance on the new polypharmacy measure improved 52% - unheard of in many organizations – from 19% to 71%.

During a learning collaborative (Focus Institutions Learning Collaborative), a subset of ten institutions were able to improve performance in 25 of the 26 Dashboard performance measures monitored by implementing core Complete Care Model elements. In ten of the 26 measures, the ten institutions achieved gains of ten percent or more in a five-month period. This change in performance is especially remarkable given that most of the institutions had been selected for the learning collaborative because they represent the “bottom third” of CDCR institutions and had for years been considered the most challenging settings for implementing sustainable improvement.

4. There is still a lot of variation in performance for many measures.

There is still a lot of variation in performance across institutions and when looking at performance trends of a single institution, suggesting that we haven’t achieved stability statewide in performance. For the November 2015 Dashboard release, institution performance varied more than 25% between the lowest-scoring institution and highest-scoring institution in 14 aggregate measures. Though the largest variation was seen in measures with small denominators, such as Therapeutic Anticoagulation and End-Stage Liver Disease, it also appeared in other types of measures with large denominators, such as Availability of Community Hospital Records, where the lowest score was 50% and highest 100%.

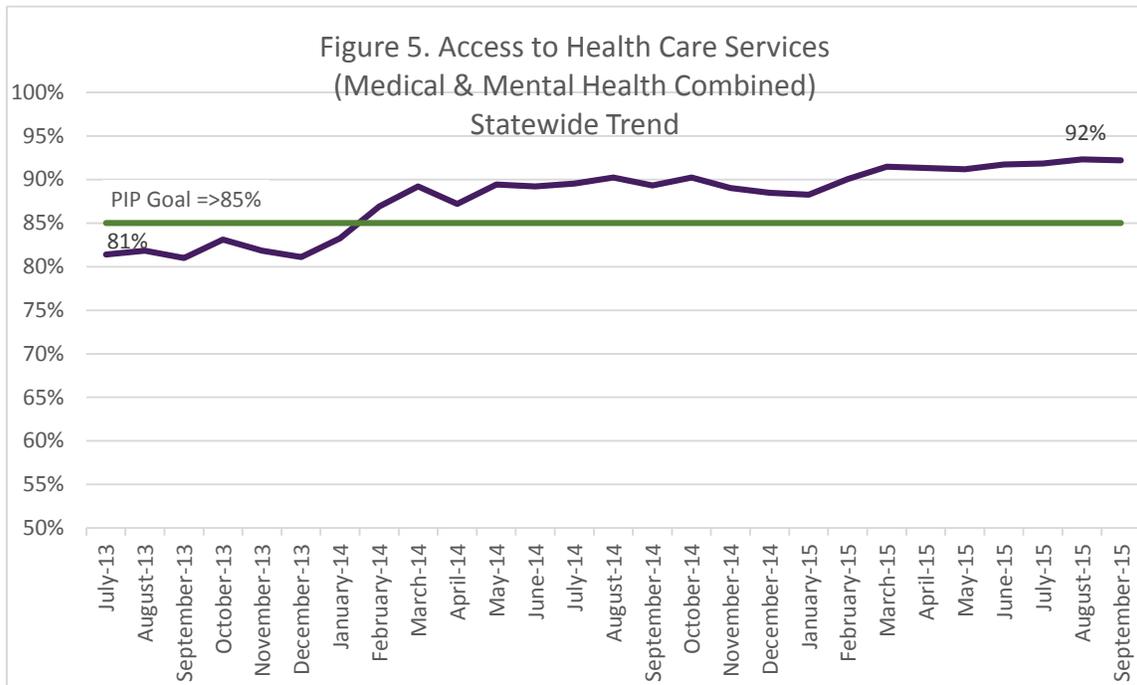
Within a twelve-month period, individual institution performance can resemble more of a roller coaster ride than a gradually rising line. At one institution struggling with medical access, for example, performance fell below 65% for two months of the past year, then climbed to 97% - before falling another ten percentage points the following month. For five months out of the year, performance for this measure changed at least ten percent from one month to the next. Another institution working on the availability of medical documentation started the twelve-month period at 63%, hit a pinnacle of 93% six months later, and fell back to 66% by the close of the year.



FINDINGS BY CATEGORY

Scheduling and Access to Care

Over the course of the past three years, CCHCS adherence to mandated medical, mental health, and dental service timeframes has improved steadily, rising 11 percentage points from 2013 to 2015. By February 2014, the statewide average reached the Performance Improvement Plan goal (85% of patients receiving timely access to care), and has remained above goal since. Please see Figure 5.



The rate of improvement over the past three years in access to care is more starkly obvious when we consider institution-level data. In 2013, just eleven institutions statewide had reached the statewide goal for access to care relative to medical, mental health, and dental services. By 2015, 34 of 35 institutions had reached goal.

Figure 6. Number and Percentage of Institutions at Goal, Access Timeframes

2013 Institutions at Goal	2014 Institutions at Goal	2015 Institutions at Goal
11 (33%)	29 (83%)	34 (97%)



Even among access areas that have been historically difficult to improve, CCHCS has achieved remarkable results. Please see Figure 7.

Figure 7. *Statewide Performance on Select Mental Health, Medical, and Dental Access Sub-Measures*

Measure	2013	2014	2015
PCP Routine Referrals	70%	77%	82%
Chronic Care as Ordered	67%	76%	81%
Return from HLOC	69%	83%	89%
EOP Structured Treatment	74%	81%	84%
Notice of Dental Exam ² (50 Y.O. or Chronic Care)	-	83%	95%

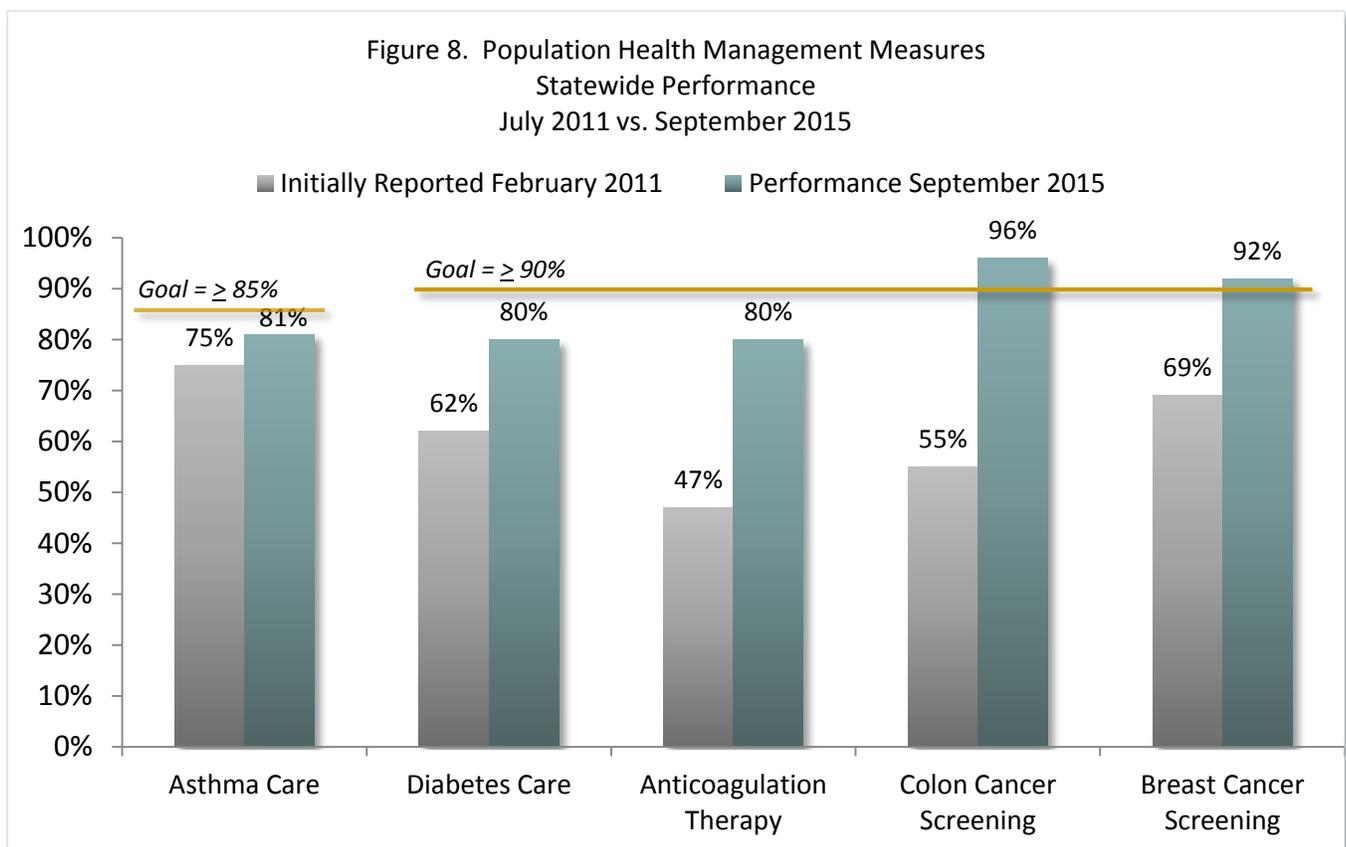
² The dental access data was excluded between July and December 2013 because there was significant data reliability problems associated with the switching to a new dental scheduling system during that time period.



FINDINGS BY CATEGORY

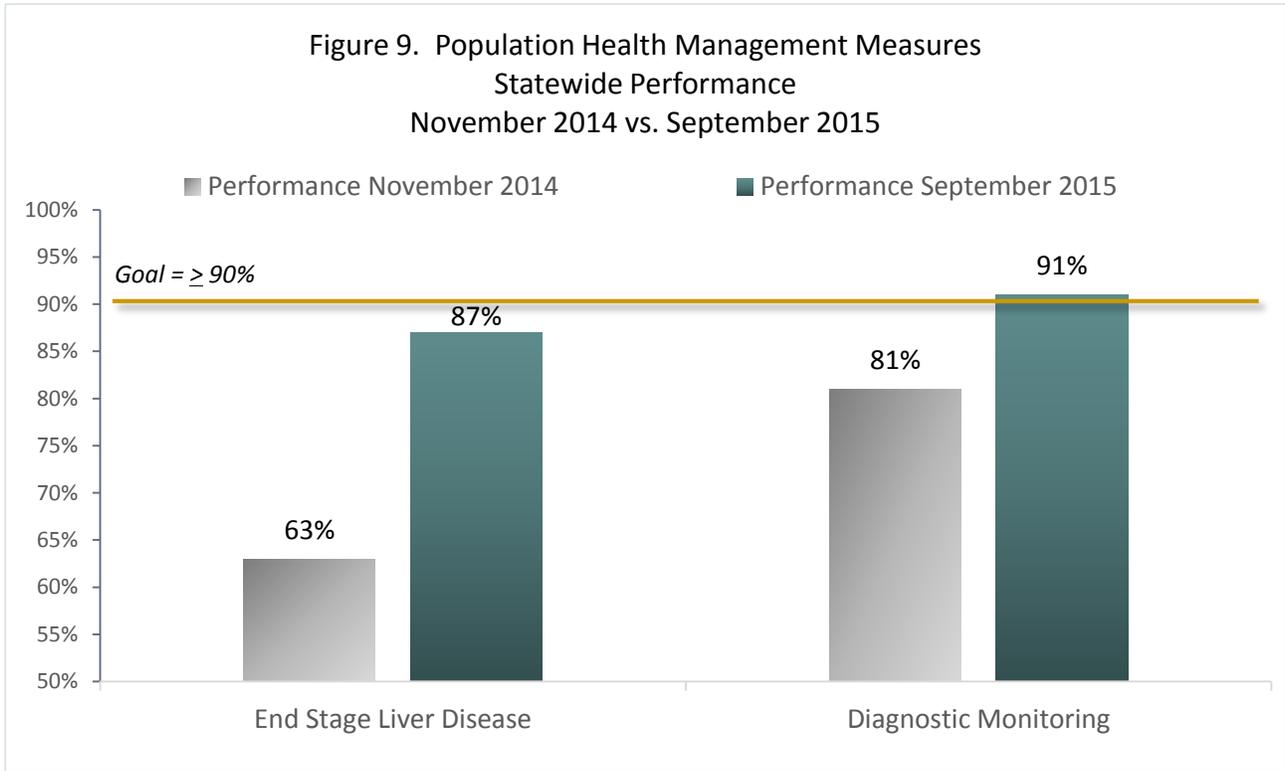
Population Health Management

Some of the most significant jumps upward in performance for the organization have occurred in the area of Population Health Management, which measures adherence to disease management guidelines as well as actual patient outcomes for high priority chronic illnesses. Where available, CCHCS applies the HEDIS methodology for these metrics. In the five measures tracked since 2011, CCHCS improved an average of 24 percentage points. The greatest change occurred in colon cancer screening, where CCHCS went from 55% of patients receiving timely interventions in 2011 to 96% in 2015. Please see Figure 8.

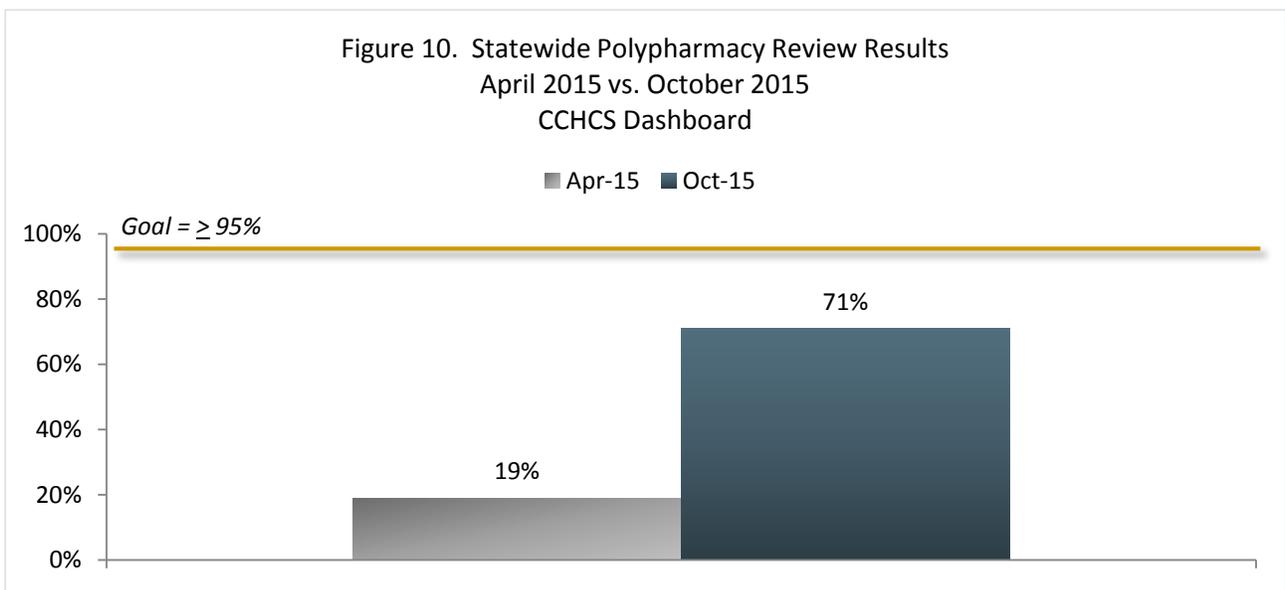




In two newer metrics, for which there is only one year of data available, CCHCS improved an average of 17 percentage points, with the greatest change in adherence to End-Stage Liver Disease guidelines, which increased 24 percentage points during this 11-month period. Please see Figure 9.



For one remarkable performance measure, not even slated for benchmarking until January 2016, CCHCS was able to improve performance 52 percentage points in a six-month period. Please see Figure 10.





FINDINGS BY CATEGORY

Care Management

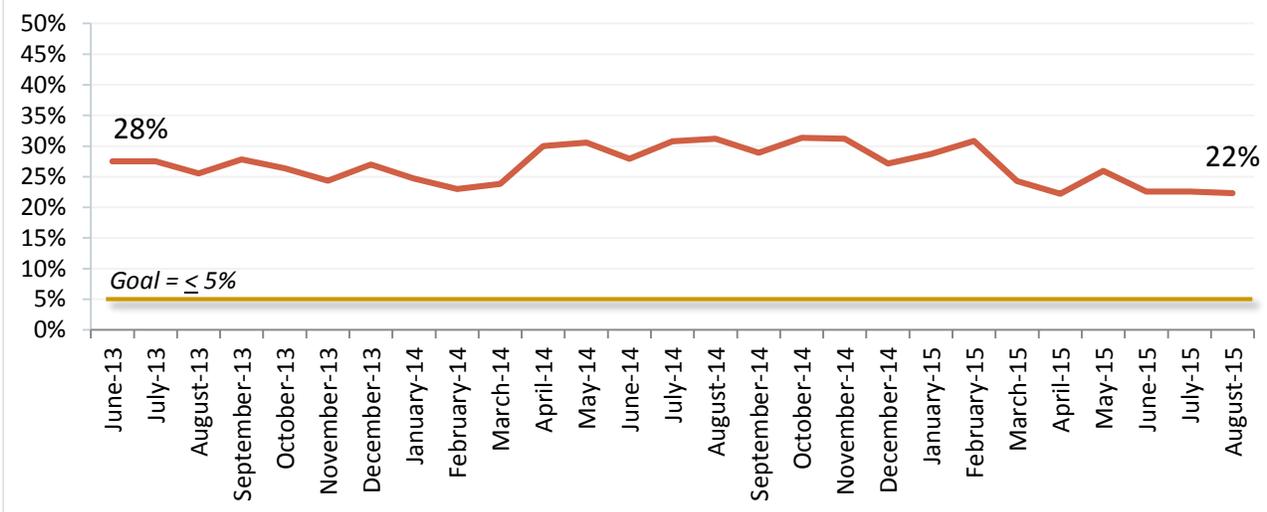
In Potentially Avoidable Hospitalizations and 30-Day Community Hospital Readmissions, we see variation in performance between 2013 and 2014, but the most recent statewide performance draws close to goal. Please see Figure 11.

Figure 11. *Statewide Performance on 30-Day Community Hospital Readmissions and Potentially Avoidable Hospitalizations, 2013-2015*

Measure	Statewide Goal	2013 <i>February 2013 – December 2013</i>	2014 <i>January 2014 – December 2014</i>	2015 <i>January 2015 – May 2015</i>
Potentially Avoidable Hospitalizations per 1,000 Patients	10	10.9	11.2	10.7
30-Day Readmissions Community Hospital	5%	7.5%	8.3%	6.8%

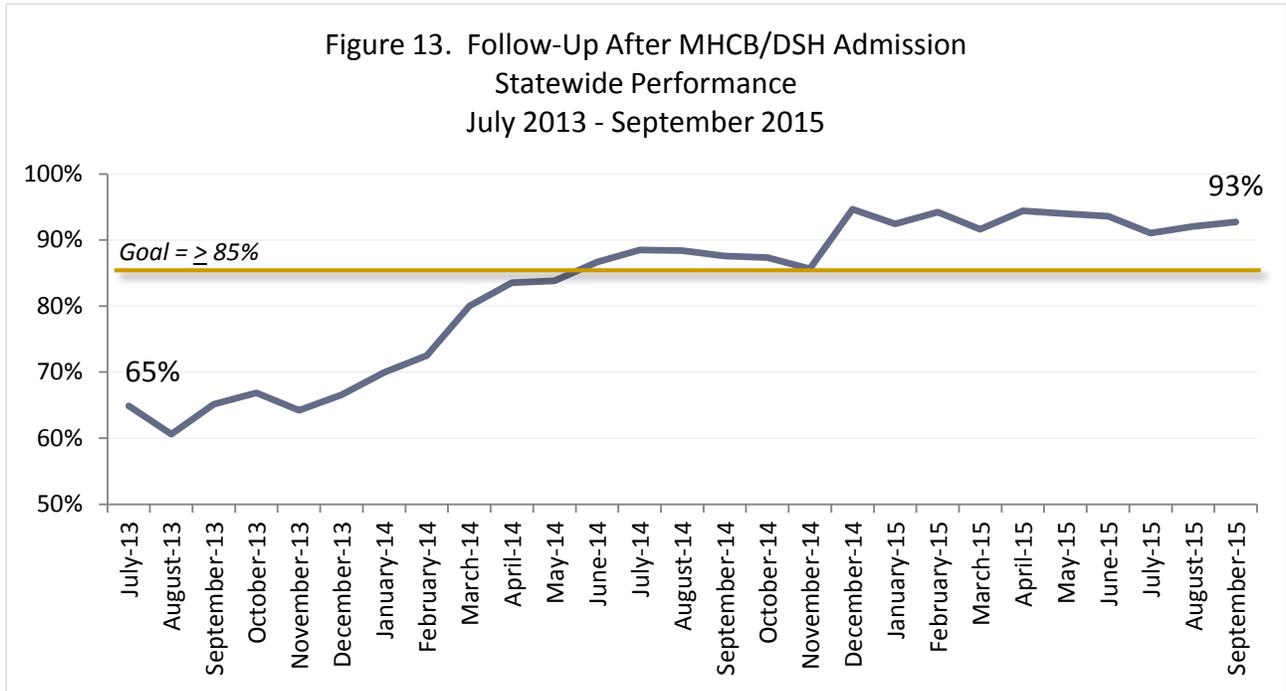
The same cannot be said for 30-Day Mental Health Crisis Bed (MHCB) and Department of State Hospital (DSH) Program Readmissions; statewide performance for this measure remains more than 17 percentage points above goal, though performance has improved since 2013. Please see Figure 12.

Figure 12. 30-Day MHCB/DSH Readmissions
Statewide Performance
June 2013 - August 2015





Of all 34 aggregate measures on the Dashboard, CCHCS has the farthest to go to reach goal in 30-Day MHC / DSH Readmissions, despite the fact that institutions have made major gains in improving the timeliness of required follow-up services. Please see Figure 13. CCHCS provided timely follow up for fewer than 7 in 10 patients in July 2013, but 9 of 10 patients received timely follow up post-discharge by September 2015. In 2013, just one institution had hit goal in this area; by 2015, 28 of 35 institutions were above the statewide goal.



If follow up services are being provided timely to patients returning from a MHC or DSH program, why aren't 30-day readmission rates decreasing? The answer may have something to do with the Enhanced Outpatient Program (EOP) census. Within the California prison system, EOP patients are the most acutely ill mental health patients cared for in an outpatient setting. Though these patients make up just seven percent (7%) of the total patient population, they account for the majority (83%) of 30-day readmissions, far exceeding the readmission rate for Correctional Clinical Case Management System (CCCMS) patients and General Population patients. Please see Figure 14.

Figure 14. 30-Day MHC/DSH Readmission Rates by Mental Health Level of Care, January – October 2015

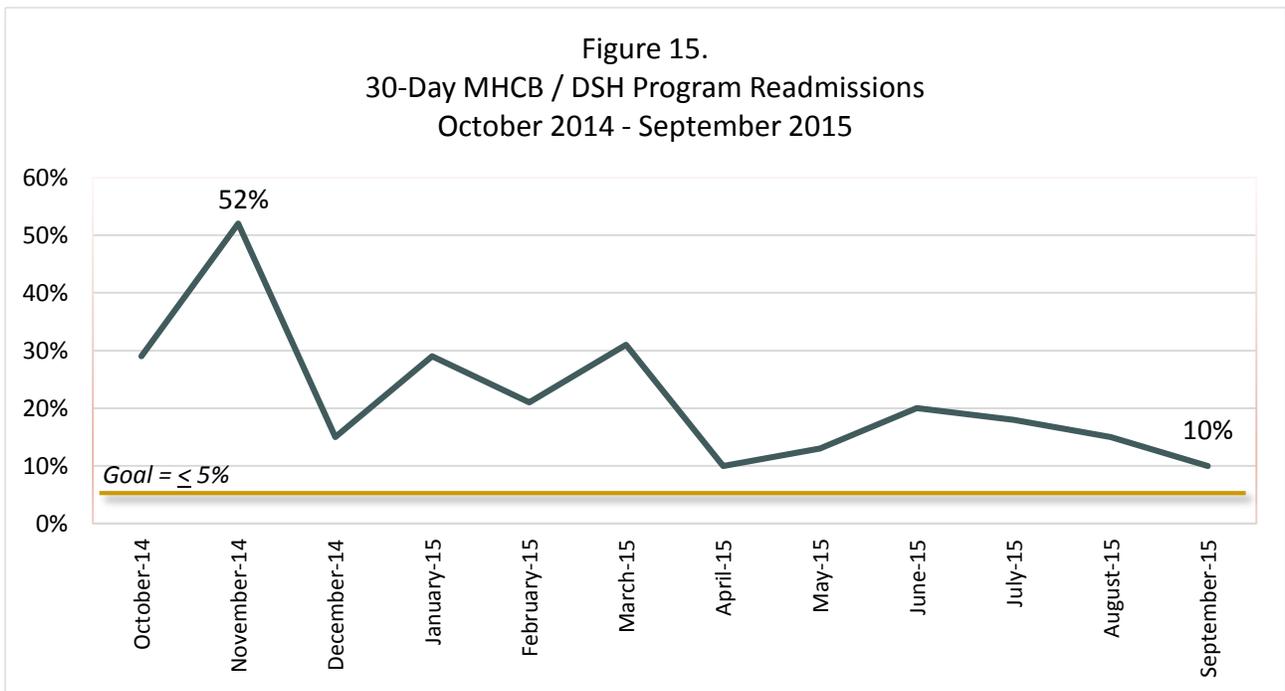
	EOP		CCCMS		GP	
	Count	%	Count	%	Count	%
Total Patients ³	7,710	7%	29,271	25%	81,548	69%
Total Readmissions	1750	83%	336	16%	10	<1%

³ Average monthly count between January 2015 and October 2015



The EOP population has risen steadily in the past 3 years, from about 5,900 patients statewide in July 2013 to more than 7,900 patients in October of 2015, a 34% increase. Since EOP patients are major drivers of MHCBS admissions, it makes sense, then, that readmissions would also rise – but CCHCS has been able to hold the readmission rate in check, and even reduce the readmission rate by 6 percentage points during this same time period despite the increase in the EOP population and increase in inmate movement in 2015, which is discussed further on page 23.

Individual institutions have had even better success, despite large EOP missions. One particular institution with a complex Mental Health mission, that houses more than seven hundred EOP patients has reduced their 30-day readmission rate 42 percentage points from November 2014 to September 2015, standing out as a possible best practice. It should be noted that the institution was one of the first institutions to implement the infrastructure for the Complete Care Model. Please see Figure 15.

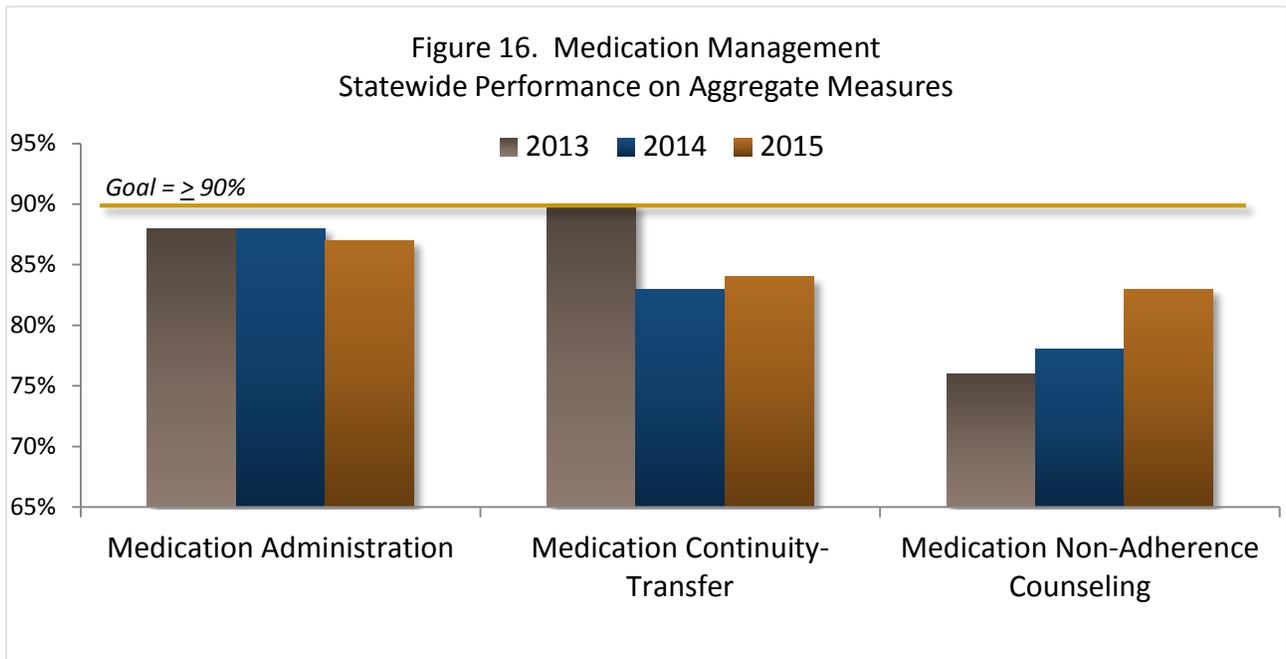




FINDINGS BY CATEGORY

Medication Management

Though statewide performance has fluctuated from year to year, CCHCS is within 10 percent of goal in all three aggregate medication management measures. (The lowest-performing measure of the three, Medication Non-Adherence Counseling, is also the measure on which institutions have made the most progress in the past three years. Not surprisingly, Medication Continuity has been a challenge given the sheer number of patient movements.) Please see Figure 16.



Use of non-formulary medications by mental health providers remains consistently at goal or very close to goal for all three comparison years; medical providers have steadily improved in non-formulary prescribing, from a high of 5.2% in 2013 to the current year level of 3.9%. Please see Figure 17.

Figure 17. Percentage of Non-Formulary Medications by Prescriber Type, 2013 - 2015

Measure	PIP Goal	2013	2014	2015
Medical Non-Formulary	≤ 3%	5.2%	4.8%	3.9%
Mental Health Non-Formulary	≤ 3%	3.0%	3.4%	3.2%



FINDINGS BY CATEGORY

Availability of Health Information

CCHCS improved an average of 26 percentage points in the four Health Information metrics from 2013 to 2015, with the greatest improvements in the two measures that will still be applicable post-EHRS implementation: Specialty Notes and Community Hospital Records. CCHCS performance jumped up 30 percentage points in each. Please see Figure 18.

Figure 18. *Statewide Scores on Availability of Health Information Measures, 2013 through 2015*

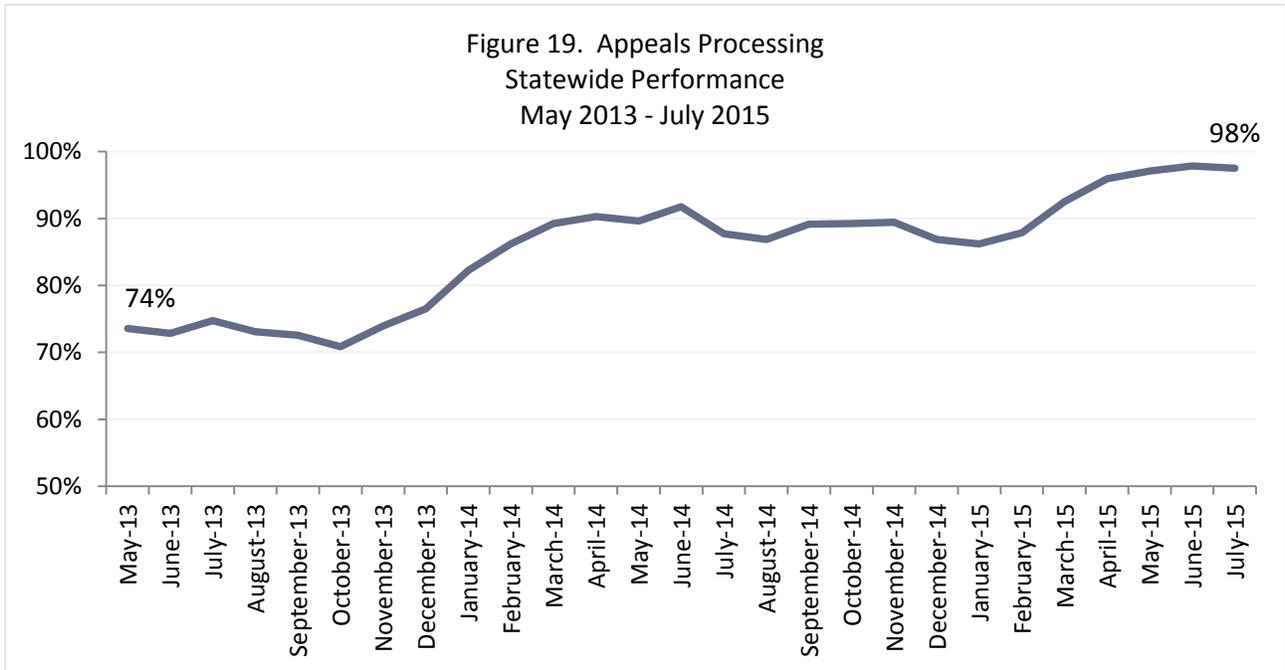
Measure	2013	2014	2015
Non-Dictated Documents	48% 0 (0%) Inst. ≥ 85%	55% 2 (6%) Inst. ≥ 85%	72% 9 (26%) Inst. ≥ 85%
Dictated Documents	43% (June 2013) 3 (12%) Inst. ≥ 85%	33% 0 (0%) Inst. ≥ 85%	62% 2 (6%) Inst. ≥ 85%
Specialty Notes	56% 1 (3%) Inst. ≥ 85%	65% 3 (9%) Inst. ≥ 85%	86% 22 (63%) Inst. ≥ 85%
Community Hospital Records	50% 2 (6%) Inst. ≥ 85%	62% 2 (6%) Inst. ≥ 85%	80% 17 (49%) Inst. ≥ 85%



FINDINGS BY CATEGORY

Appeals Processing

Appeals Processing presents another area of substantial improvement: statewide, institutions increased adherence to processing timeframes by more than 20 percentage points from 2013 to 2015. Please see Figure 19. Now at 98%, institutions are consistently exceeding performance targets.





LESSONS LEARNED TO DATE

WHAT WORKS AND WHAT DOESN'T?

It is clear that CCHCS has made impressive progress toward improvement goals in the past three years. Why did that happen? What are we doing differently as an organization to achieve this kind of success?

It goes without saying that this kind of progress would not have been possible without constant dedication and hard work of staff at all levels of the organization. This section of the report explores other factors that likely also contributed to our progress to date.



A MAP

1. Health Care Services leaders established a unified vision for the organizational improvement activities, defining where we want to go as an organization. CCHCS adopted the Complete Care Model as its enterprise-wide service delivery approach and established a statewide Performance Improvement Plan – with major domains centered on the Complete Care Model – creating performance targets for the most important infrastructure, process, and outcome aspects of the model.



COMPASS

2. With a model and plan in place, CCHCS introduced specific tools to help staff reach improvement targets, which continuously inform them how they were doing along the way. These tools guide institutions toward strategies already proven effective at other institutions, as well as remind institutions constantly of current improvement goals and where they are relative to goal, including:

- A Dashboard with monthly performance feedback; regular reports to support management of patient populations and panels, such as Patient Registries and the Patient Summary; and reports to help diagnose the sources of quality problems, such as the Scheduling Diagnostic Report and several other reports from program areas.
- Special projects, such as the Scheduling Process Improvement Initiative and Focus Institutions Learning Collaborative, to implement key elements of the Complete Care Model.
- Multiple individual improvement initiatives targeting Dashboard metrics, such as the Medication Administration Process Improvement Program (MAPIP), *Armstrong* effective communication training and audits, Utilization Academy and the Mental Health Quality Management Committee's initiative to improve 5- to 8-day follow up for patients returning from a higher level of care.
- A structured model for improving performance on each Population Health Management measure, which included issuing a Care Guide, continuing medical education, a patient registry with flags for missing or overdue services and abnormal clinical findings in accordance with the Care Guide, and monthly performance monitoring.
- Identification and spread of best practices.



HORSE POWER



3. CCHCS re-tooled its organizational structure and communication strategies to direct the collective energy of the organization toward the Performance Improvement Plan goals, speeding the rate of improvement. CCHCS put a multi-disciplinary regional administrative structure in place, headed by Regional Healthcare Executives, and established Chief Executive Officer positions at the local level, among other changes. Leaders and quality champions at all levels of the organization brought day-to-day focus to the Performance Improvement Plan and Complete Care Model. More than ever before, CCHCS staff across program areas spoke the same language and shared the same targets relative to improvement.

THE MOVE TOWARD HIGH-RELIABILITY



There have been dramatic changes in organizational culture that should be noted as well. Figure 20 defines the characteristics of a high-performing system – what it is, and what it isn't. Over the past three years, CCHCS has steadily migrated toward more and more of the traits of a high-reliability organization.

Figure 20. *Traits of a High-Reliability Organization*

WHAT IT ISN'T	WHAT IT IS
<ul style="list-style-type: none"> • Decisions based upon anecdotal “evidence” • Changes occur in reaction to failures, often identified by others • Priorities and planning in organizational silos • Groups work within single chains of command; inefficient redundant work • Add resources to solve problems without addressing root causes • Ad hoc and work-around processes • Success relies on individual heroism; failures assigned to staff (chain of blame) • Low-impact interventions 	<ul style="list-style-type: none"> • Decisions evidenced-based • Proactive system surveillance to identify improvement opportunities (even if not broken) • Unified approach from leadership and management • Effective multi-disciplinary teams working collaboratively across programs and divisions • Assess situations to understand root causes • Well-defined processes • Emphasis on process improvement and high reliability • Highly effective interventions



RECOMMENDATIONS FOR 2016

✓ Continue to focus on Phase I and II improvement activities.

Phase I - Strategic Alignment and Full Implementation of the Complete Care Model

The Population Management Care Coordination Committee (PMCC) has drafted a statewide Complete Care Model Policy and five subordinate procedures to refine the care model first implemented in 2009. After testing the new procedures at the ten Focus Institutions, regional teams have begun a statewide roll out of the Complete Care Model procedures, to be completed by the close of 2016.

At the same time that the Complete Care Model is slated for statewide implementation, CCHCS will also implement an EHRS. Though extremely promising as a tool to improve quality of care and patient safety, EHRS is simply that – a tool. It needs to be designed and incorporated into delivery system operations in a way that supports the work of care teams and aligns with the key elements of the Complete Care Model. To optimize the use of EHRS in the context of the Complete Care Model, CCHCS leaders have established a steering committee to coordinate the work of the EHRS and Complete Care improvement projects.

In January 2016, CCHCS completed the process to update the 2013-2015 Performance Improvement Plan for the next three years of improvement activity, incorporating feedback from more than 300 staff statewide. To build upon the success to date, CCHCS leadership teams at all levels of the organization – statewide, region, and institution – need to continue to emphasize the improvement priorities in the Performance Improvement Plan when developing and implementing improvement initiatives and evaluating performance.

Phase II - Use Recognized Improvement Techniques to Refine Critical Health Care Processes

In 2016, CCHCS will launch a number of initiatives to develop improvement skills at all levels of the organization, including a three-year project to embed Lean Six Sigma expertise at every institution, in each region, and at headquarters and establishing a cohort of institution staff with advanced training in root cause analysis (RCA) to serve as a facilitators and consultants to institutions conducting RCAs.

Regional QM staff and local Quality Management Support Unit (QMSU) staff will receive ongoing training and skills development throughout 2016, starting with Lean and health care analytics training in early 2016; regional QM staff will provide hands-on support to institutions as they convene improvement teams to implement the CCM in 2016. The best practices yielded through Lean Six Sigma projects, RCAs, and other improvement work will be packaged by the new QM units at regional level, submitted to the centralized Best Practice Library, a CCHCS Intranet site.



✓ Enhance our measurement system.

During the Focus Institution Learning Collaborative, CCHCS learned that not all key aspects of the Complete Care Model were being captured in the monthly Dashboard, such as whether all care team members are meeting regularly for daily huddles. The new health care infrastructure and processes introduced this year with the Complete Care Model Policy and Procedures are essential to successful implementation of the Complete Care Model, and should be measured.

CCHCS doesn't currently track the rate of transfers within the health care system, though adverse events have been linked to poor handoffs in these situations and we have some evidence that the patients who move frequently have worse outcomes than patients who have remained at an institution, at least for certain measures. In 2015, there were more than **560,000** inmate-patient transfers between and within prisons, which involved **126,697** unique patients or an average of **47,426** transfers per month. Between the beginning and end of 2015, transfers between prisons increased nearly **40%**. CCHCS has only just begun to investigate the reasons behind movement (though the majority of transfers appear to be non-healthcare related) and how movement impacts patient outcomes, continuity of care, and efficiency of services/waste. For example, a special analysis on 30-day MHCBS/DSH readmission rates during a three-month period in 2014 found that the readmission rate for patients who transferred between institutions was three times the rate for patients that remained at one institution between admissions (66% for transferred patients vs. 21% for patients that did not transfer).

Other important program areas require additional metrics, including effective communication and *Armstrong* compliance, infection control, and resources, such as equipment and supplies. In short, we're measuring a lot of important things, but not all of the important things, and the new Performance Improvement Plan for 2016-2018 presents an opportunity to measure new, high priority program areas, including those identified recently as high risk to the organization (EHRS implementation and staffing) through State Leadership Accountability Act reporting.

In addition, there were a handful of measures included in the 2013-2015 Performance Improvement Plan that have not yet been enacted. On the Dashboard, these metrics, which include High Risk Patient Care Plans, Health Care Staff Training, and Quality Management/Patient Safety Program audits, are grayed out. Because they continue to be considered high priority measures, they will carry over into the 2016-2018 Performance Improvement Plan and future versions of the Dashboard.



✓ Focus on sustainability (Phase III improvement activities).

CCHCS has come a long way in improving the quality of patient care in the last three years. Does that mean the organization can stop monitoring some of these areas? Probably not. Ongoing monitoring and other sustainability strategies, such as documenting procedures, providing ongoing staff development to existing staff and orienting new staff, and creating decision support that makes it easy for staff to follow best practices all need to be embedded into operations to make improvements last over the long haul.

In areas of where CCHCS has achieved high performance, the key is to now reduce variation and stabilize performance over time.

Implementation of an EHR presents an opportunity for CCHCS to standardize key health care processes statewide, an important step toward reducing performance variation. After completing an EHR roll out at three pilot institutions in October 2015, CCHCS staff now are taking time to review current business processes and work closely with pilot institutions to standardize work flows. Initial focus will be in three areas that pose a particularly high risk to patients – scheduling, medication administration, and transfers.

With the issuance of the Complete Care Model Policy and Procedures, CCHCS has already begun to articulate expectations for program and process sustainability, prompting a cultural shift toward institutionalizing improvements. Each procedure requires institutions to take steps to sustain core model elements, such as incorporating the Complete Care Model into new employee orientation and training and competency testing for existing employees; codifying processes in desk procedures, process flow maps, and other decision support; identifying “owners” accountable for different aspects of Complete Care Model implementation and embedding responsibilities into duty statements; incorporating ongoing monitoring into day-to-day work of supervisors and quality committees; and other activities.

These same kinds of steps should be a routine part of improvement initiatives. To support the shift toward sustainability, there will need to be continuous updating of New Employee Orientation and other onboarding processes, block training programs, competency testing, and supervisory training for health care staff, as well as staff development in areas such as decision support and procedure development.

As we move forward and build on progress to date, it's important to recognize what we have done so far. CCHCS staff at all levels of the organization, but particularly those working at institution level, are to be congratulated for their success across a broad range of program areas, which would be considered remarkable in any business setting. We hope this success is seen in ways less tangible than numbers in a report – in pride staff take in day-to-day work and their role in the organization, in interactions with patients, and in how people view this organization. Congratulations, CCHCS!



Statewide Improvement per Domain

MEASURE	AT OR ABOVE GOAL	NEAR GOAL, SHOWING IMPROVEMENT	NEAR GOAL, NO CHANGE	BELOW GOAL, SHOWING IMPROVEMENT
1. Access – Medical Services	X			
2. Access – Mental Health Services	X			
3. Access – Dental Services	X			
4. Cancelled Due to Custody		X		
5. Seen as Scheduled	X			
6. Effective Communication Provided	X			
7. Asthma Care			X	
8. Therapeutic Anticoagulation		X		
9. Diabetes Care		X		
10. End Stage Liver Disease		X		
11. Colon Cancer Screening	X			
12. Breast Cancer Screening	X			
13. Diagnostic Monitoring	X			
14. Specialty Services Utilization	X			
15. Primary Care Provider Continuity	X			
16. Mental Health Primary Clinician Continuity			X	
17. Psychiatrist Continuity			X	



Statewide Improvement per Domain

MEASURE	AT OR ABOVE GOAL	NEAR GOAL, SHOWING IMPROVEMENT	NEAR GOAL, NO CHANGE	BELOW GOAL, SHOWING IMPROVEMENT
18. Appropriate Placement High Risk Patients			X	
19. Follow-Up After MHCB/DSH Admission	X			
20. 30-Day Community Hospital Readmission		X		
21. 30-Day MHCB or DSH Readmission				X
22. Potentially Avoidable Hospitalizations		X		
23. Medication Continuity – Transfer		X		
24. Medication Non-Adherence Counseling		X		
25. Medication Administration		X		
26. Non-Formulary by Psychiatrists			X	
27. Non-Formulary by Medical Providers			X	
28. Availability of Non-Dictated Documents		X		
29. Availability of Specialty Notes	X			
30. Availability of Community Hospital Records		X		
31. Scanning Accuracy	X			
32. Timely Appeals	X			
33. Claims Processed	X			
34. Specialty Teleservices	X			
Total 34 Measures	16	11	6	1