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UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

MARCIANO PLATA, et al.,

Plaintiffs,

v.

EDMUND G. BROWN, JR., et al.,

Defendants.

Case No. C01-1351 TEH

NOTICE OF FILING OF RECEIVER'S SPECIAL REPORT: IMPROVEMENTS IN THE QUALITY OF CALIFORNIA'S PRISON MEDICAL CARE SYSTEM

NOTICE OF FILING OF RECEIVER'S SPECIAL REPORT: IMPROVEMENTS IN THE QUALITY OF CALIFORNIA'S PRISON MEDICAL CARE SYSTEM

PLEASE TAKE NOTICE that the Receiver in *Plata v. Schwarzenegger*, Case No. C01-1351 TEH, has filed herewith his Special Report: Improvements in the Quality of California's Prison Medical Care System.

Dated: March 10, 2015

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Special Report:
Improvements in
the Quality of California's Prison
Medical Care System

By

J. Clark Kelso

Receiver

March 10, 2015

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Section I. Executive Summary

The quality of health care in California's prisons has substantially improved from the inception of the Receivership in 2006 to the present. At the system-wide level, there remain a number of improvement efforts initiated by the Receiver that must be completed. At the institution level, there is still wide variability in performance and, at some institutions, only partial implementation of system-level changes. While there have been improvements at all institutions, some institutions are much further ahead than others.

In 2005, the United States District Court in *Plata v. Schwarzenegger* described in detail substantial deficiencies in the system of prison medical care, deficiencies that cut across the entire spectrum of care. *2005 Opinion re Appointment of Receiver*, 2005 Westlaw 2932253 (N.D. Cal. Oct. 3, 2005). At that time, the prison mental health system had been under federal court scrutiny in the *Coleman* case for 14 years, and the State was still far from compliance. *See Coleman v. Schwarzenegger*, 922 F.Supp.2d 882, 897-98 (E.D. Cal. 2009). The dental health system was similarly deficient, resulting in the settlement of the *Perez* case, and for many of the same type of systemic reasons as found in *Plata* (i.e., an absence of qualified providers and clinicians, inadequate and deficient facilities, and inadequate and poorly implemented policies). *See Perez v. Schwarzenegger*, No. 3:05-cv-05241-JSW (N.D. Cal., August 21, 2006) (amended stipulation and order).

The Receiver's *Turnaround Plan of Action* (http://www.cphcs.ca.gov/receiver_tpa.aspx), approved by the Court on June 16, 2008, set the stage for improvements in the quality of prison medical health care, with ancillary improvements in mental health and dental care. Under the leadership of Diana Toche, D.D.S., who now serves as the Undersecretary for Healthcare Services, improvements in dental care – including improved access to dental care, increases in staffing, and facility improvements – were sufficient to end the *Perez* case in 2012. *Coleman* and *Plata* remain to be resolved.

Overcrowding of California's prisons was determined by a three-judge panel in 2009 to be a significant cause of the inability to provide a constitutional level of care in *Plata* and *Coleman*. *Brown v. Plata*, 131 S.Ct. 1910 (2011). After years of appeals and further litigation, the State agreed in early 2014 to reduce prison population to 137.5% of design capacity by February, 2016. Current institution population is slightly below 137.5% of design capacity, down from a high of approximately 200% of design capacity in 2006.

There is general agreement among the parties to the *Plata* litigation that the Receivership has made significant progress in improving the delivery of medical care in California's prisons. However, disagreements persist among the parties regarding the extent of the improvements and the appropriate timing of the next steps in the case.

Given the progress that has been made, the Receiver determined that it is now appropriate to summarize the achievements made to date and to report broadly on the quality of medical care in California's prisons. Such a report, combined with upcoming institutional assessments by the Office of the Inspector General, will help us (1) identify any remaining systemic deficiencies in our medical care system that need to be remedied; (2) set a new baseline for assessing quality on an ongoing basis; and (3) provide important guidance to the parties, the Court and the Legislature regarding future progress in the *Plata* litigation.

Although there remains significant variability in the quality of care at the institution level, at a system-wide level, there have been significant improvements in the *structure* of the prison medical system, the implementation of *processes* to guide the delivery of medical services, and the health *outcomes* actually achieved:

Structure

With respect to the structural elements of the system, we now have in place competent, experienced leadership and staff at headquarters, in four regional offices, and in all of the institutions. These leaders and front-line staff are supported by competent, hard-working administrative support units in budgeting, human resources, labor, contracting, and policy and risk-management. There is a simple organizational structure and a direct line of authority from the top at headquarters to the individual Chief Executive Officers for Healthcare at the institutions. There is an Undersecretary for Healthcare Services who reports directly to Secretary Jeff Beard and is responsible for the mental health and dental programs (while the Receiver has responsibility for the medical program and for portions of the nursing, pharmaceutical and ancillary services programs that support mental health and dental).

Process

With respect to process implementation, areas of significant improvement, where we consistently meet or are within 5% of meeting statewide goals, include the following:

- Scheduling & Access to Care
  - Access to Medical Services
  - Appointments Cancelled Due to Custody
  - Effective Communication
- Population Health Management
  - Asthma Care
  - Therapeutic Anticoagulation
  - Colon Cancer Screening
  - Breast Cancer Screening
  - Utilization Specialty Services
- Care Management
  - Appropriate Placement of High Risk Patients
- Continuity of Clinicians & Services
  - Primary Care Providers

- Medication Management
  - Medication Continuity – Transfer
  - Medication Administration
  - Non-Formulary by Medical Providers
- Resource Management
  - Claims Processed
  - Specialty Teleservices

There have also been significant improvements in recruiting board-certified and appropriately credentialed and privileged providers. The providers' quality of work is evaluated through a number of different venues, including regular evaluations by chief physicians & surgeons at the institution, evaluations triggered by sentinel event reporting or by death reviews, ordinary peer review reporting, and assessments by the Court Experts and OIG.

Outcomes

With respect to outcomes, there has been a significant reduction in definitely preventable deaths and a similar reduction in possibly preventable deaths. In addition, our population health measures indicate that our outcomes, on a population basis, are better than outcomes achieved in Medi-Cal, Medicaid and national HMO populations for a number of important health measures.

Work to be Done

Notwithstanding this progress, there remain a number of significant gaps and failures that must still be addressed, including the following areas:

- **Availability and Usability of Health Information** – We are not meeting our goals for making health records information available on a timely basis. The existing electronic unit health record, which was built to help bring some small measure of order to what had been an utterly broken and chaotic records process, is no longer able to keep pace with ease of usability. Although a clear improvement over the paper-based processes it replaced, the electronic unit health record is now beginning to crumble under the sheer weight of digital documents, including non-dictated medical documents, CDCR inpatient documents, medical dictated documents and specialty dictated documents with little to no summarization of key clinical information. Even with the electronic unit health record, we still experience difficulty in properly documenting medication administration records.

- **Scheduling & Access to Care** – Although we no longer have significant interference in patients making health care appointments, we now have far too many appointments that are being rescheduled for a variety of reasons. The appointment churn is resulting in our providers' schedules becoming overloaded which then creates backlogs and delays in seeing patients. It appears many of these scheduled appointments may not be necessary and that we are scheduling the wrong patients for provider appointments.

- **Care Management** – Our rates of 30-day community hospital readmissions and potentially avoidable hospitalizations are too high. These high rates indicate likely shortcomings with chronic care, infection control, health information management and continuity of care, among other things.

- **Facilities** – Most facilities are still grossly insufficient for providing appropriate medical care to patients. Treatment rooms are too small, poorly configured, lack basic equipment and fixtures, are not appropriately sanitized, and are disorderly.

We also face the reality that the implementation of statewide improvements at the institution level has been uneven. A few leading institutions – "early adopters" – have substantially embraced the organizational changes required to improve and sustain a higher quality of care; a second group of institutions are following behind the leading institutions, learning from the best practices that have been successful at the early adopters; and, a third group of institutions still lag significantly behind. One of our greatest challenges will be reducing the variation that we currently see across the institutions. Standardizing facilities through HCFIP, adopting a standard electronic health record, standardizing scheduling processes and improving care management will each play a role in reducing variation. However, the most significant and difficult work will undoubtedly have to take place at the institution level where statewide plans for change and change management confront the reality and inertia of decades of sub-standard care.

Section II. Background

This report is written in the context of longstanding litigation between the parties where the Receivership is an integral part of a court-ordered remedy for a constitutionally deficient prison medical system. Given this legal context, it is appropriate to begin with the Receiver's understanding of the applicable legal principles against which the medical system should be assessed. To be clear, neither the parties nor the Court have approved the legal analysis which follows in this section. Notwithstanding, it seemed incumbent on the Receiver to express his own views on these legal matters so the parties and the Court, as well as other readers, will have an understanding of the legal context for this report and the standards that govern the provision of care.

A. The Legal Standard for Assessing Quality of Care

1. The Eighth Amendment's "Deliberate Indifference" Standard

A prison official violates the Eighth Amendment when he or she acts with "deliberate indifference" to the serious medical needs of an inmate. *Farmer v. Brennan*, 511 U.S. 825, 828 (1994). *See Estelle v. Gamble*, 429 U.S. 97 (1976). There are two components to this standard. First, the deliberate indifference must be with respect to the *serious medical needs* of one or more inmates. Second, liability attaches only if a prison official has been *deliberately indifferent* to those serious medical needs.

a. "Serious Medical Needs"

A "serious medical need" exists when the failure to treat an inmate's physical condition may result in further significant injury or the unnecessary and wanton infliction of pain. *Jett v. Penner*, 439 F.3d 1091, 1096 (9th Cir. 2006). "The existence of an injury that a reasonable doctor or patient would find important and worthy of comment or treatment; the presence of a medical condition that significantly affects an individual's daily activities; or the existence of chronic and substantial pain are examples of indications that a prisoner has a 'serious' need for medical treatment." *McGuckin v. Smith*, 974 F.2d 1050, 1059–60 (9th Cir.1992) overruled on other grounds by *WMX Techs., Inc. v. Miller*, 104 F.3d 1133 (9th Cir.1997).

b. "Deliberate Indifference"

"Deliberate indifference" is shown by an act or failure to act done with the purpose of denying an inmate medical care that would address an inmate's serious medical needs (*McGuckin*, 974 F.2d at 1096), or where the actor "knows of and disregards an excessive risk to inmate health and safety" (*Estelle*, 429 U.S. at 106). In other words, to show deliberate indifference, an inmate must show that the course of action chosen was "medically unacceptable under the circumstances" and that the prison official "chose this course in conscious disregard of an excessive risk to plaintiff's health." *Jackson v. McIntosh*, 90 F.3d 330, 332 (9th Cir.1996).

Liability under the constitutional deliberate indifference standard is limited when compared with civil liability in an ordinary tort action for medical malpractice. In particular, "an *inadvertent* failure to provide adequate medical care does not, by itself, state a deliberate indifference claim for § 1983 purposes. *McGuckin,* 974 F.2d at 1060 (internal quotation marks omitted); *see also Estelle v. Gamble,* 429 U.S. 97, 106, 97 S.Ct. 285, 50 L.Ed.2d 251 (1976) ('[A] complaint that a physician has been negligent in *diagnosing or treating* a medical condition does not state a valid claim of medical mistreatment under the Eighth Amendment. Medical malpractice does not become a constitutional violation merely because the victim is a prisoner.' (emphasis added))." *Wilhelm v. Rotman*, 680 F.3d 1113, 1122 (9th Cir. 2012). Because of this limitation, "a plaintiff's showing of nothing more than a difference of medical opinion as to the need to pursue one course of treatment over another [is] insufficient, as a matter of law, to establish deliberate indifference." *Id.*

2. Individual and Systemic Claims

There are two very different types of cases alleging deliberate indifference with respect to inmate medical care. The first type of case – an individual case – is typically brought by a single inmate alleging that the medical care given to that inmate violates the Eighth Amendment deliberate indifference standard. The second type of case – a systemic case – alleges that one or more elements of the system of inmate medical care is so deficient that it deprives a class of inmates (often defined as inmates with serious medical needs) of constitutionally adequate care. There are also significant differences between cases seeking damages for harm that has already occurred and cases involving prospective injunctive relief.

a. Individual Claims

In individual cases, the complaint will often allege specific decisions or actions to deny, delay or intentionally interfere with the delivery of medically necessary care. For example, a complaint might allege that a specific type of surgery or treatment is medically necessary for that inmate and that the prison has refused to authorize that surgery or treatment. Or, a complaint might allege that a prison has failed to make medically necessary drugs available to the plaintiff to treat a particular condition.

The application of the Eighth Amendment's standards to these types of individual complaints is relatively straightforward. For purposes of a complaint seeking damages, the plaintiff must establish both the medical necessity of the surgery or other treatment that was denied as well as a sufficiently culpable state of mind which entails more than mere negligence (at a minimum, the plaintiff must show that the prison officials had actual knowledge of an excessive risk to inmate health or safety and disregarded that risk). For purposes of a complaint seeking prospective injunctive relief, the plaintiff must show that the requested surgery or treatment is medically necessary and that failure to provide the surgery or treatment would create an excessive risk to the inmate's health. If those showings are made, the defendant's further refusal to provide the requested surgery or treatment would necessarily satisfy the heightened culpability required for deliberate indifference.

Other complaints by individual plaintiffs may involve allegations that medical care was delivered to the plaintiff, but that the care delivered was constitutionally deficient, perhaps because of one or more errors committed by the treating physician(s). These cases require the court to distinguish merely bad care from care that is so bad that it violates the Eighth Amendment. The distinction is important because, as noted above, mere negligence or medical malpractice, without more, generally does not violate the Eighth Amendment. *Snow v. McDaniel*, 681 F.3d 978, 987 (9th Cir. 2012) overruled, in part, on other grounds by *Peralta v. Dillard*, 2014 U.S. App. LEXIS 4226 (9th Cir. Mar. 6, 2014). In such cases, even if a prison doctor's performance falls below a community or national standard of care, that will ordinarily not be enough to constitute an Eighth Amendment violation. Put another way, isolated instances of medical malpractice do not, by themselves, violate the Eighth Amendment.

b. Systemic Claims

The analysis is fundamentally different and more complex when a case involves broad claims that an entire prison system of medical care violates the Eighth Amendment. The constitutional challenge in these cases is to the system of care itself, not to the care delivered to any particular plaintiff. Of course, there clearly is a relationship between the system of care and the care delivered to individual patients. In particular, if one or more elements of the system of care are absent or significantly deficient, it is highly likely that care is not appropriately being delivered to a significant number, or perhaps even all, patients, thereby creating a risk of serious harm to patients. For example, if the system of care is so grossly understaffed that it cannot see patients in a timely manner as required by their medical needs, then there would be a significant risk that the understaffing would result in serious risks of harm to inmates, significantly increasing the risk of morbidity and mortality. Well-functioning systems are what help ensure that adequate care is actually being delivered. For purposes of prospective injunctive relief, once prison officials are aware that understaffing is creating these risks, the constitutional violation has been established. As the Ninth Circuit recently noted in *Parsons v. Ryan*, 754 F. 3d 657, 2014 Westlaw 2523682 (June 5, 2014), "we have repeatedly recognized that prison officials are constitutionally prohibited from being deliberately indifferent to policies and practices that expose inmates to a substantial risk of serious harm." (*Id*., at *12).

Although there is a relationship between the system of care and the care actually delivered to individual patients, it is important to remember that the primary remedial focus in a case alleging systemic violations is on the critical elements of the health care system, not on individual-level care. Stated another way, the remedial goal is to improve the critical systems that support appropriate medical care delivery, and when those systems have been improved to a level of adequacy and are actually being implemented routinely and reliably, that should be sufficient to satisfy the Eighth Amendment's requirements in a case challenging the system of care.

3. Constitutionality in a Systemic Claims Case

The legal discussion above frames the practical question of how to go about determining whether California's prison medical system has reached the level of constitutional adequacy. The overarching factual issues in a systemic claims case are: (1) whether, as a matter of pattern or

regular practice, inadequacies in the medical system expose inmates to a serious risk of harm, and (2) to the extent it does, whether the state or responsible state officials are deliberately indifferent to any such system deficiencies. Once an Eighth Amendment violation has been found (i.e., once there have been findings under both (1) and (2)), the remedial focus shifts to the first element of the test since, at that point, any deficiencies that are allowed to persist will readily support a finding of deliberate indifference in fixing those deficiencies.

In determining whether there are deficiencies in the medical system or with respect to care at the individual provider-patient level, deficiencies that expose inmates to a serious risk of harm, we will be guided by the standard of care set by the medical community. The community standard of care refers to the level of skill, knowledge and care in diagnosis and treatment that a reasonably competent and skilled healthcare professional, with a similar background and in the same medical community, would have provided under similar circumstances. Due consideration will be given to the correctional setting, California Code of Regulations (CCR), Title 15, and the policies and procedures promulgated by the federal receiver pursuant to *Plata v. Brown*.

B. The District Court's October 3, 2005, Opinion re Appointment of Receiver

The District Court issued "Findings of Fact and Conclusions of Law Re Appointment of Receiver" on October 3, 2005. *2005 Opinion re Appointment of Receiver*, 2005 Westlaw 2932253 (N.D. Cal. Oct. 3, 2005). Based primarily upon essentially uncontested reports from the Court's medical experts, the opinion chronicled serious deficiencies in the system of medical care encompassing the following elements:

- Lack of Medical Leadership
- Lack of Qualified Medical Staff
    - Medical Administrators
    - Physicians
        - Death Reviews
        - Morbidity
    - Nurses
- Lack of Medical Supervision
- Failure to Engage in Meaningful Peer Review
- Defendants Lack the Capacity to Recruit Qualified Personnel for Key Medical Positions
- Intake Screening and Treatment
- Patients' Access to Medical Care
- Medical Records
- Medical Facilities
- Interference by Custodial Staff with Medical Care
- Medication Administration
- Chronic Care
- Specialty Services
- Medical Investigations
- Other Obstacles to Providing Adequate Medical Care

- Civil Service Obligations
- The Dills Act
- Procurement, Contracting and Budgeting Rules

C. The *Turnaround Plan of Action*

Within the first 90 days of his appointment in January 2008, Receiver J. Clark Kelso had produced a draft *Turnaround Plan of Action* to remedy the constitutional deficiencies. The Court approved the plan on June 16, 2008.

The *Turnaround Plan of Action* set forth 6 goals:

- Ensure Timely Access to Health Care Services
- Establish a Prison Medical Program Addressing the Full Continuum of Health Care Services
- Recruit, Train and Retain a Professional Quality Medical Workforce
- Implement a Quality Assurance and Continuous Improvement Program
- Establish Medical Support Infrastructure
- Provide for Necessary Clinical, Administrative and Housing Facilities

Progress on the *Turnaround Plan of Action* has been reported in tri-annual reports filed with the Court, the most recent of which was filed on January 31, 2015.

D. First Three Rounds of OIG Inspections

At the request of the Court and the first Receiver, and as authorized by California Penal Code Section 6126, in 2007 the Office of the Inspector General (OIG) developed a comprehensive inspection program in cooperation with key stakeholders to periodically review delivery of medical care at each state prison and measure compliance with health care policies and procedures. The first cycle of inspections began in November 2009, and the third cycle of inspections concluded in May 2013.

The average scores from these inspections steadily improved at each institution, year-over-year, as shown in Figure 1, which plots the scores for each institution in the three inspection cycles.

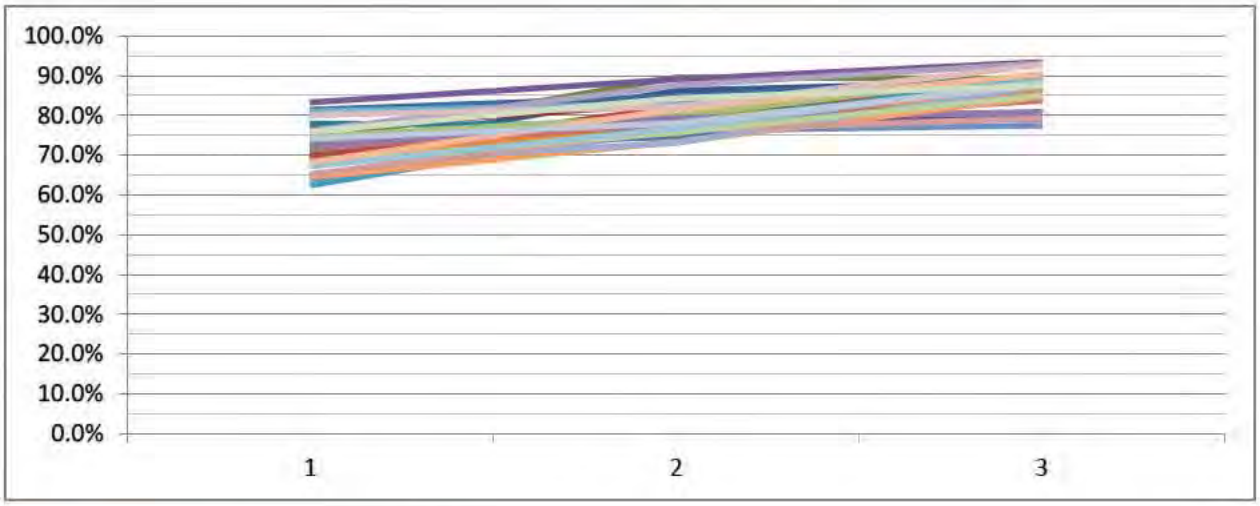

Figure 1. Institution OIG Scores Cycles 1, 2 & 3

The rate of improvement is also shown in Figure 2, which displays the individual scores in chronological order over all three cycles.

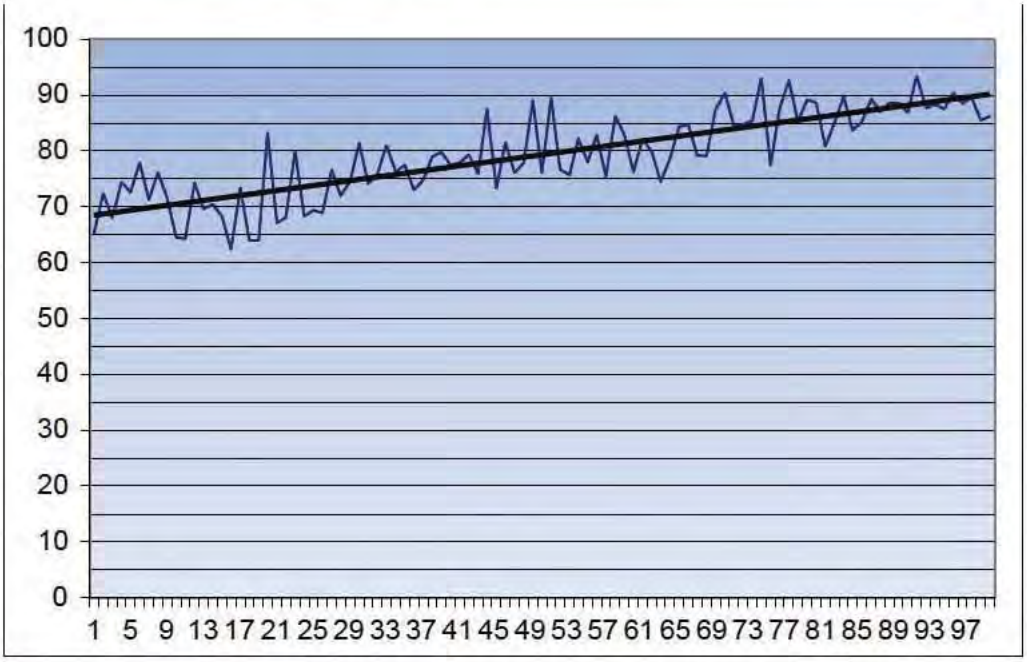

Figure 2. Institution OIG Scores Chronologically

The system-wide average scores for the three cycles were as follows:

- Cycle 1: 72.0%
- Cycle 2: 79.6%
- Cycle 3: 87.0%

For a detailed review of these inspections, see the OIG's "Comparative Summary and Analysis of the First, Second, and Third Medical Inspection Cycles of California's 33 Adult Institutions" (available on the OIG's website at www.oig.ca.gov).

Although overall scores steadily increased and by the third cycle showed high adherence with medical policies and procedures, the scoring methodology actually concealed certain critical weaknesses in our medical systems because low scores in some areas were counterbalanced by high scores in other areas. Moreover, certain medical processes were simply excluded from the scope of the audit instrument (e.g., quality of care in CTCs). These weaknesses ultimately prevented the parties from coming to agreement about the meaning of the scores for purposes of the litigation.

E. Court Expert Reports

In an effort to determine how well the OIG methodology and reports captured the quality of the medical care system, the Court ordered its three medical experts – Dr. Michael Puisis, Dr. Joe Goldenson, and Madie LaMarre FNP-BC – to conduct a number of institution assessments during 2013. The Court order stipulated that Court Experts would review institutions that had attained an OIG score of 85% or greater. The Court also directed that Court Experts could review institutions that have received overall OIG scores of between 75% and 85% in any round of the OIG inspections at the Receiver's and experts' discretion.

By January 2014, the experts had evaluated and published reports for ten institutions, finding that the medical care at four institutions was mostly acceptable and that the medical care at six institutions was unacceptable. The Court Experts also evaluated another institution in late 2014 for purposes of comparison with an OIG evaluation. That facility was also unacceptable.

The Court Experts identified a number of significant, common failures that reflected serious gaps in the medical care system. Some of these could, in retrospect, be seen in the OIG inspections by drilling down into individual items that had low scores. Other gaps discovered by the Court Experts were not revealed in the OIG reports. The gaps fell into the following broad categories:

- **Capital Improvements** – Nearly every institution was significantly deficient when it came to healthcare treatment and clinic space and space for the delivery of services and medications. Spaces were too small, poorly equipped and lacked order.

- **Cleanliness** – Nearly every institution had serious problems in maintaining the cleanliness and sanitation of healthcare areas.

- **Inter- and Intra-System Transfers** – Nearly every institution did a poor job of return from outside care (including scheduling follow-ups or other required actions and making sure medications are provided). Gaps in the management of transfers exposed patients to significant and serious risks of increased morbidity and mortality.

- **Medical Records** – Nearly every institution had serious gaps and delays in scanning and updating patient medical records, including medication administration records. These gaps result in significant and serious risks to patients.

- **Clinical Quality of Care** –In all unacceptable institutions, Court Experts found quality of care problems significant enough to place inmate-patients at risk of harm. The reasons for the quality of care issues were different at each institution; some were related to staff quality or performance and others were related to systemic issues. Notably, the OIG instrument failed to identify these issues.

- **Peer Review** – In 2008 the Court issued an order on physician competency outlining procedures to be followed with respect to peer review. This order has not been incorporated into CCHCS policy or procedure. At several institutions, Court Experts identified failure to perform effective peer review, in part due to lack of adequate procedure and in part due to an ineffective peer review process.

- **Disciplinary Process** – The CDCR through the Office of Internal Affairs conducts hearings on serious disciplinary matters of CCHCS employees. This resulted in lay custody staff conducting investigations of CCHCS employees on clinical matters. Court Experts recommended that CCHCS conduct its own disciplinary hearings and investigations.

- **Quality Management –** Court Experts found a variety of process problems at institutions. The quality management programs at the institutions were ineffective at identifying these systemic problems and developing effective strategies to address the problems.

- **Mortality Reviews –** At several institutions, Court Experts reviewed deaths and had findings in disagreement on several cases with the CCHCS mortality review committee, particularly with respect to preventability.

F. Fourth Round of OIG Assessments

During 2014, the Court Experts met frequently with OIG staff to improve upon and expand the OIG's audit instrument and processes. OIG sponsored several meetings with all of the parties and stakeholders to review the instrument and methodology, and invite further comments for improvement. Although the parties did not reach an agreement upon all details of the OIG instrument and methodology or upon how the OIG's reports and conclusions should be used by

the Court, a consensus developed that the OIG should begin its fourth round of inspections. Although the Court Experts have expressed continuing concern about a number of methodological issues, the Court Experts indicated that the OIG's evaluations were likely to adequate for at least those institutions where medical care was clearly acceptable and for those institutions where medical care was clearly unacceptable, but that the instrument may not be sufficiently discerning with respect to those institutions in the middle.

The OIG began its fourth round of inspections during the last week in January at Folsom State Prison. OIG has scheduled the following inspection visits to begin its fourth round:

- CTF (2/16/2015)
- CFC (3/9/2015)
- CCC (3/30/2015)
- NKSP (4/20/2015)
- CVSP (5/18/2015)
- KVSP (6/29/2015)
- CCI (7/13/2015)
- PBSP (8/3/2015)
- VSP (8/24/2015)
- CEN (9/7/2015)

G. Summary of Improvements to Prison Medical Care

Most of the data reflected in this report has been collected by our Performance Measurement System and is reported on a monthly basis on the Healthcare Services Dashboard (see http://www.cphcs.ca.gov/dashboard.aspx). The *Turnaround Plan of Action* called for the development of the Performance Measurement System to provide the feedback loops necessary to assess the effectiveness of different improvement strategies and to monitor overall health care system performance. The initial core set of performance indicators encompassed critical health care processes, such as medication management and scheduling, and covering key domains of quality recognized by organizations such as the Joint Commission, including timeliness, appropriateness, continuity, cost-effectiveness and quality of care.

In 2009, we contracted with the RAND Corporation to review the initial list of indicators and provide recommendations for additional performance measures in an effort to bring our measurement system into alignment with comprehensive measurements systems found in other health care organizations. RAND convened a panel of experts who recommended that we supplement existing measures with a subset of clinical quality and patient outcome measures relevant for our patient population, consistent with those used by free-world health plans. The experts further recommended using standardized, well-documented methodologies promulgated by standard-setting organizations such as the National Committee for Quality Assurance, the National Quality Forum, and the federal Agency for Healthcare Research and Quality. We adopted these recommendations, selecting a subset of patient outcome measures determined to

be impactful in improving patient outcomes and feasible to calculate using readily available, primarily electronic data sources.

Since then, more indicators have been added as new data sources and technologies became available, capturing more and more of the essential health care processes described in our primary care model. As our analytic capabilities matured, intrinsic patient and system characteristics were added that most impacted patient outcomes and process reliability in a correctional setting. The current Performance Measurement System contains more than 100 performance indicators and focuses on two major functions: (1) System Surveillance; and (2) Performance Improvement.

Drawing primarily upon data collected through our Performance Measurement System, the remainder of this report documents significant improvements in the *structure* of the prison medical system, the implementation of *processes* to guide the delivery of medical services, and the health *outcomes* actually achieved.

With respect to the *structural* elements of the system, we now have in place competent, experienced leadership and staff at headquarters, in four regional offices, and in all of the institutions. These leaders and front-line staff are supported by competent, hard-working administrative support units in budgeting, human resources, labor, contracting, and policy and risk-management. There is a simple organizational structure and a direct line of authority from the top at headquarters to the individual Chief Executive Officers for Healthcare at the institutions. There is an Undersecretary for Healthcare Services, responsible for mental health and dental care, who reports directly to Secretary Jeff Beard. Healthcare now receives significant executive attention throughout the organization.

With respect to *process* implementation, areas of significant improvement, where we consistently meet or are within 5% of meeting statewide goals, include the following:

- Scheduling & Access to Care
  - Access to Medical Services
  - Appointments Cancelled Due to Custody
  - Effective Communication
- Population Health Management
  - Asthma Care
  - Therapeutic Anticoagulation
  - Colon Cancer Screening
  - Breast Cancer Screening
  - Utilization Specialty Services
- Care Management
  - Appropriate Placement of High Risk Patients
- Continuity of Clinicians & Services
  - Primary Care Providers
- Medication Management
  - Medication Continuity – Transfer

  - Medication Administration
  - Non-Formulary by Medical Providers
- Resource Management
  - Claims Processed
  - Specialty Teleservices

There have also been significant improvements in recruiting board-certified and appropriately credentialed and privileged providers. The providers' quality of work is evaluated through a number of different venues, including regular evaluations by Chief Physicians & Surgeons at the institution, evaluations triggered by sentinel event reporting or by death reviews, ordinary peer review reporting, and assessments by the Court Experts and OIG.

With respect to *outcomes*, there has been a significant and apparently permanent reduction in definitely preventable deaths and similar reduction in possibly preventable deaths. In addition, our population health measures indicate that our outcomes, on a population basis, are better than outcomes achieved in Medi-Cal, Medicaid and national HMO populations for a number of important health measures.

H. Remaining Gaps

Notwithstanding this progress, there remain a number of significant gaps and system ineffectiveness that must be addressed, including the following areas:

- **Availability and Usability of Health Information** – We are not meeting our goals for making health records information available on a timely basis. The existing electronic unit health record, which was built to help bring some small measure of order to what had been an utterly broken and chaotic records process, is no longer able to keep pace with ease of usability. Although a clear improvement over the paper-based processes it replaced, the electronic unit health record is now beginning to crumble under the sheer weight of digital documents, including non-dictated medical documents, CDCR inpatient documents, medical dictated documents and specialty dictated documents with little to no summarization of key clinical information. Even with the electronic unit health record, we still experience difficulty in properly documenting medication administration records.

- **Scheduling & Access to Care** – Although we no longer have significant interference in patients making health care appointments, we now have far too many appointments that are being rescheduled for a variety of reasons. The appointment churn is resulting in our providers' schedules becoming overloaded which then creates backlogs and delays in seeing patients. It appears many of these scheduled appointments may not be necessary and that we are scheduling the wrong patients for provider appointments.

- **Care Management** – Our rates of 30-day community hospital readmissions and potentially avoidable hospitalizations are too high. These high rates indicate likely shortcomings with chronic care, infection control, health information management and continuity of care, among other things.

- **Facilities** – Most facilities are still grossly insufficient for providing appropriate medical care to patients. Treatment rooms are too small, poorly configured, lack basic equipment and fixtures, are not appropriately sanitized, and are disorderly.

Each of these problems is being actively addressed as follows:

- **Availability of Health Information** -- Cerner Corporation has been selected to provide a commercial "off-the-shelf" electronic health record system (EHRS) for our prison health care system. This system will provide us with demonstrable and sustained benefits to patient safety, medication administration, quality and efficiency of care, and staff efficiencies and satisfaction. The project is currently in the Design/Testing phase. Initial implementation is scheduled to begin in October 2015.

- **Scheduling & Access to Care** – The second phase of a statewide Scheduling Process Improvement initiative will conclude during 2015. The initiative is designed to provide institutions with better tools and a structured process to improve scheduling efficiency and effectiveness.

- **Care Management** – The Population Care Management Coordination Committee, established during the summer of 2014, is working to develop policies, manuals, guides and other tools to guide nursing staff in the proper management of our patients. These policies should improve our ability to manage primary care, preventive clinical services, outpatient specialty services, chronic care disease management, and continuity of care, among other things. Improved care should result in lower rates of avoidable hospitalizations and 30-day returns.

- **Facilities** – CDCR is responsible for completing facilities improvements in the HCFIP program (described below). The Receiver has contracted with Prison Industries Authority to provide sanitation services at all institutions.

We also face the reality that the implementation of statewide improvements at the institution level has been uneven. A few leading institutions – "early adopters" – have substantially embraced the organizational changes required to improve and sustain a higher quality of care; a second group of institutions are following behind the leading institutions, learning from the best practices that have been successful at the early adopters; and, a third group of institutions still lag significantly behind. One of our greatest challenges will be reducing the variation that we currently see across the institutions. Standardizing facilities through HCFIP, adopting a standard electronic health record, standardizing scheduling processes and improving care management will each play a role in reducing variation. However, the most significant and difficult work will undoubtedly have to take place at the institution level where statewide plans for change and change management confront the reality and inertia of decades of sub-standard care.

Section III. Assessment of the Prison Medical Care System

Within the health care field system-wide, there is no one best or agreed upon methodology for assessing the quality of care in large health care systems. Instead, there are multiple approaches used by different entities, often for different purposes depending upon whether the primary focus is accreditation, quality improvement, or government oversight and regulation.

Although there are a number of different approaches to assessing quality, all of the approaches trace back, in one way or another, to foundational work on quality assessment published by Dr. Avedis Donabedian in the early 1980s and 1990s. Donabedian recognized that all health care systems consisted of three organizational domains -- Structure, Processes and Outcomes – each of which could be assessed for quality.

- **Structure** includes all the factors that affect the context in which care is delivered. This includes the physical facility, equipment, and human resources, as well as organizational characteristics such as staff training and payment methods. These factors control how providers and patients in a healthcare system act and are measures of the average quality of care within a facility or system. Structure is often easy to observe and measure and it may be the upstream cause of problems identified in process.

- **Process** is the sum of all actions that make up healthcare. These commonly include diagnosis, treatment, preventive care, and patient education but may be expanded to include actions taken by the patients or their families. Processes can be further classified as technical processes, how care is delivered, or interpersonal processes, which all encompass the manner in which care is delivered. According to Donabedian, the measurement of process is nearly equivalent to the measurement of quality of care because process contains all acts of healthcare delivery. Information about process can be obtained from medical records, interviews with patients and practitioners, or direct observations of healthcare visits.

- **Outcomes** contain all the effects of healthcare on patients or populations, including changes to health status, behavior, or knowledge as well as patient satisfaction and health-related quality of life. Outcomes are sometimes seen as the most important indicators of quality because improving patient health status is the primary goal of healthcare. However, accurately measuring outcomes that can be attributed exclusively to healthcare is very difficult. Drawing connections between process and outcomes often requires large sample populations, adjustments by case mix, and long-term follow ups as outcomes may take considerable time to become observable.

The remainder of this report follows the analytic approach suggested by Dr. Donabedian. This report assesses quality of care metrics at the system-wide level. We know from the OIG's inspections, the reviews by the Court Experts, and our own internal data that there is very significant variability between institutions. Some institutions have a history of high compliance with policies and procedures and appear to be providing acceptable care; other institutions have a

history of poor compliance combined with other difficulties that interfere with the ability to provide acceptable care. It is partly because of this variability that institution-level assessments by the OIG are so important to get a more precise picture regarding quality of care. At the same time, in a class action challenging the entire system of medical care, it is appropriate to review improvements in the quality of care at the system-wide level, as well as at the institution level.

A. Structure

1. Organizational Structure and Leadership

A flawed organizational structure can undermine or even totally frustrate an organization's ability to meet its goals. Organizational structure formally identifies lines of leadership and accountability for organizational performance. Absent leadership and accountability, organizational goals are likely to drift and efforts to reach those goals will fail.

As of 2006, CDCR's organizational structure with respect to healthcare was seriously flawed. The following bullet points are taken from the court experts' *2006 Status Report* (pp. 8-9):

Ten years ago . . .

- Historically, the leadership of the Health Care Services Division (HCSD) has been not been [sic] adequately positioned within the CDCR organizational structure to provide a voice for the serious health care issues facing the agency. Health care is effectively treated as just another program that CDCR is required to provide to inmates. This underscores a lack of understanding of the enormity of the mission that faces CDCR and commitment to developing an adequate health care program.

- The Health Care Services Division organizational structure is complex and lacks clear lines of authority and accountability. There are insufficient numbers of qualified health care professionals to plan, develop, implement, and monitor the health care program. As a result, staff often does not perform the roles that they were hired to perform (e.g., Regional Medical Directors, QMAT nurses and physicians) and are involved only in crisis management activities.

- There has never been executive nursing leadership with meaningful authority, responsibility, or accountability for nursing services in the CDCR Health Care Services Division. This has resulted in a complete vacuum of professional direction and development for over 2,400 nurses in CDCR. It has contributed greatly to the lack of recruitment and retention, and to the unsuccessful implementation of the health care policies and procedures.

- There are not enough regional medical, nurse, and administrator positions (and ancillary support) to provide meaningful onsite presence, training, supervision, and monitoring to the institutions. There are 33 prisons with over 165,000 inmates divided into three

regions. The number, size, and geographical distribution of the facilities make it virtually impossible for three regional medical and nursing directors to provide adequate oversight. It is, therefore, not surprising that institutional staff reported during our site tours that they rarely see the regional medical directors and administrators. The HCSD regional nursing director positions remain unfilled.

- At headquarters and in the institutions, custody staff with no health care training or experience occupies health care management positions (on an acting or permanent basis). Examples of this include correctional Lieutenants being hired into Health Care services Administrator positions, Associate Wardens appointed as Health Care Managers, and correctional Captains appointed as Regional Medical Administrators. While many of these employees are dedicated and hard working, the majority do not have the qualifications and experience needed to effectively assess, plan, develop, implement, and monitor a health care program.

See *2005 Opinion re Appointment of Receiver*, 2005 Westlaw 2932253, *3-5 (Oct. 3, 2005) (hereinafter referred to as *2005 Opinion re Appointment of Receiver*).

All of these deficiencies have now been addressed at the State, Regional and Institutional levels.

a. State Structure and Leadership

The State has established an undersecretary position for healthcare leadership which reports directly to the CDCR Secretary. With CDCR's concurrence, the Receiver has established a healthcare executive team and organizational structure. That structure includes both a healthcare operations and services component and a policy and administrative management component. The structure is simple and has clear lines of authority and accountability for basic healthcare functions encompassing Nursing, Medical, Mental Health, Dental, Quality Management and Regional Executives. The Deputy Director for Nursing has authority and accountability for statewide nursing functions.

On the administrative side, the structure includes information technology, budget and resource management, business services, labor relations and staff development, and policy and risk management. It is clear to the Receiver that we never would have been able to implement or maintain the improvements called for by the *Turnaround Plan of Action* without control over and support from these administrative services units, all of which operate independently from CDCR's administrative services functions. After the termination of the Receivership, the issue will inevitably arise (and, in fact, has already been discussed) about the possible consolidation of these health care administrative services into CDCR's administrative organization. The Receiver is convinced that this consolidation would be a mistake and would substantially interfere with the ability to maintain the improvements that have been achieved. Business and administrative services that support health care are not at all comparable to business and administrative services that support CDCR's custody function. Consolidation would ultimately lead to poorer services

for health care as the specialized knowledge and expertise required to support health care becomes diluted and health care becomes subordinated

b. Regional Structure and Leadership

In January 2014, four geographically focused regional healthcare teams were established. Built along the organizational lines of, and incorporating the existing regional mental health and dental teams, each region is headed by a Regional Health Care Executive, drawn from experienced institutional chief executive officers, together with regional medical, nursing, mental health and dental executives.

These teams have a strong physical presence within their geographically grouped institutions, identify cross institutional issues, support and consult with the local institutional leadership, leverage statewide HQ support resources and foster bidirectional communication between institutions and Headquarters. Over the last 12 months the regional teams have incorporated themselves into the policy and operational processes of CCHCS/DHCS, developed strong headquarters relationships, and begun to foster rapid change and improvement at the institutional level.

Given the importance and focus on quality improvement and durable processes at the institutional level, the Governor's 2015-16 budget calls for expanding the regional analytic and quality teams to support these key missions at the regional level. It is expected that these teams will provide needed "span of influence" and continued focus to best support health care delivery in a sustainable manner at both the statewide and institutional levels.

c. Institution Structure and Leadership

The Court found institutional leadership and supervision to be lacking:

Ten years ago . . . .

> "The Court finds that the lack of supervision in the prisons is a major contributor to the crisis in CDCR medical delivery.
>
> "At the institutional level, there are very few managers and supervisors that are competent. Thus, it is difficult to carry out central office directives. Just five or six prisons have an adequate Chief Physician and Surgeon, and only one-third of the prisons have an adequate Health Care Manager. For example, the Experts report that San Quentin is 'a completely broken system bereft of local medical leadership.'
>
> "A large part of the problem is simply a lack of personnel and a chronic high vacancy rate. Many line-staff, including both physicians and nurses, work without any supervision whatsoever.

> "This lack of leadership and supervision has resulted in a failure to correct the myriad problems within the CDCR medical clinics. Such unaddressed problems have made the provision of adequate medical care impossible and clearly have resulted in patient deaths.
>
> "A further result of this non-supervision is that doctors responsible for patient death and morbidity receive little if any discipline from supervising physicians. Beyond the obvious problem of condoning malpractice and allowing incompetent doctors to remain on staff, the leadership vacuum and lack of discipline also fosters a culture of non-accountability and non-professionalism whereby 'the acceptance of degrading and humiliating conditions [becomes] routine and permissible.' No organization can function for long when such a culture festers within it, and it has become increasingly clear to the Court that this is a major factor in the current crisis." *2005 Opinion re Appointment of Receiver*, at *9-10 (citations omitted throughout).

The Receiver addressed the problem of institutional leadership and supervision by completing initiatives in four domains: First, as described below (see Section II(B)(4) & (5)), we replaced incompetent providers and nurses with competent personnel. Second, we filled supervisorial positions. Within nursing, for example, 93% of SRN III's are filled, and 97% of SRN II's are filled. Third, we established a functioning peer review system for providers (see Section II(B)(5)) and discipline system for nurses (see Section II(B)(4)). Fourth, the Receiver established a "health CEO" position and filled those positions by recruiting from outside State service for health care managers with significant experience leading large healthcare systems. Before, there was no line of accountability from line-staff upwards; today, there are clear lines of accountability, and systems of review and discipline are functioning.

2. Facilities

CDCR's facilities were not originally designed and constructed to provide adequate health care services, and the facilities have generally been poorly maintained. The court experts' *2006 Status Report* described the problems as follows (p. 10):\

Ten years ago . . .

- **Clinic Space –** At virtually every facility we visited there was inadequate space for clinical, administrative, and ancillary support functions. Moreover, the existing space is often in disrepair and unsanitary. In most facilities, the clinic and office furniture was old and falling apart.

- **Medical Housing / Bedspace –** There is [sic] insufficient numbers and types of medical housing and beds to match the health care needs of the patient population. The CDCR has four General Acute Care Hospitals (GACH) occupied by patients who are not acutely ill, but require long-term skilled nursing care. A significant proportion of Correctional Treatment Centers (CTC) and Outpatient Housing Unit (OHU) beds are occupied by mental health patients. Most of the remaining beds are occupied by long term care

> patients. Therefore, if beds are full, medical patients who do not require hospitalization are sent to an outside hospital simply for lack of a bed. In some cases, patients who should be monitored in a CTC bed are sent back to their housing unit, subsequently deteriorate, and must be urgently sent to an outside hospital. The CDCR does not have a medical bed space management system that ensures the appropriate and best use of medical beds.

These findings echoed the District Court's *2005 opinion Re Appointment of Receiver*, where the Court described the deficiencies in facilities as follows:

Ten years ago . . .

> "The physical conditions in many CDCR clinics are completely inadequate for the provision of medical care. Many clinics do not meet basic sanitation standards. Exam tables and counter tops, where prisoners with infections such as Methicillin-Resistant Staph Aureus (MRSA) and other communicable diseases are treated, are not routinely disinfected or sanitized. Many medical facilities require fundamental repairs, installation of adequate lighting and such basic sanitary facilities as sinks for hand-washing. In fact, lack of adequate hygiene has forced the closure of some operating rooms. . . .
>
> "The Court observed first-hand at San Quentin that even the most simple and basic elements of a minimally adequate medical system were obviously lacking. For example, the main medical examining room lacked any means of sanitation – there was no sink and no alcohol gel – where roughly one hundred men per day undergo medical screening, and the Court observed that the dentist neither washed his hands nor changed his gloves after treating patients into whose mouths he had placed his hands." *2005 Opinion re Appointment of Receiver*, at *15 (citations omitted throughout).

As of this writing, major improvements have been completed at San Quentin and Avenal State Prison, a new healthcare facility in Stockton for the neediest medical and mental health patients is in the process of activation, and clinic and treatment room improvements for all other prisons are now beginning to be constructed. In addition, a recently authorized sanitation program run by Prison Industry Authority and using inmate labor is making substantial progress in establishing and maintaining sanitary conditions.

a. Construction at San Quentin

Construction at San Quentin was completed by the end of 2009. The construction program included a medical warehouse, east and west rotunda clinics, personnel offices, the triage and treatment area, a clinic heat project, and replacement parking spaces. The most significant construction was the Central Health Services Building which is the primary home for medical, mental health and dental treatment at San Quentin.

The Central Health Services Building (CHSB), commonly referred to as Building 22, at San Quentin State Prison (SQ) is a five-story, 116,885 gross square foot medical building for medical, dental and mental health care services. Construction of this building, which is inside the secure perimeter, began in November 2007 and was completed in November 2009. The project was completed at a final cost of $128.3 million, which was $17.8 million under the original budget amount of $146.1 million authorized by Senate Bill 99. The building includes outpatient clinical services, specialty clinical services, radiology, dialysis, inpatient (licensed Correctional Treatment Center) and outpatient housing care, emergency trauma care, a pharmacy, housing of medical records, receiving and release, dental operatories, and the library. There are a total of 38 medical exam rooms in the CHSB. The fourth floor Nursing Unit was originally constructed with 50 inpatient beds, consisting of 17 Mental Health Crisis Beds and 33 medical beds. Pursuant to an agreement with CDCR needed to comply with a *Coleman* court order relative to the condemned population, this configuration has recently been redistributed to now include 40 Mental Health beds and 10 medical beds.

b. Construction at Avenal State Prison

Construction at Avenal State Prison concluded in early 2010. The construction projects included three yard clinics to provide medical and mental health treatment space, an administrative-segregation clinic, and a healthcare administration building to provide support for healthcare access and administration.

c. Construction at California Health Care Facility

The California Health Care Facility (CHCF), in Stockton, California, is a 1.5 million square foot complex built to provide intermediate-level medical and mental health care for patients in the California Department of Corrections and Rehabilitation (CDCR) prison system. It was designed and constructed to consolidate facilities and services for long-term medical and acute and intermediate mental health patients for more efficient and cost-effective delivery of services.

The CHCF was constructed in two phases. The first phase is a 1.264 million square foot facility on the site of the former Karl Holton Youth Facility. The construction of this facility was through the design-build delivery method and the first inmate-patient was received in July 2013. The facility is comprised of 54 buildings; 23 of those are for housing patients with medical and/or mental health treatment needs and one houses inmate workers. Of the total patient capacity of 1,818 beds, 1,010 are for medical patients, 612 are for mental health patients, and 196 are for a permanent inmate work crew.

Due to the acuity level of the patients, the majority of treatment services, programs, and support are based in the housing units and support clusters. Most of these patients are bedridden or have limitations on their ability to walk to any out-of-housing treatment programs. Many of the high custody, acute, and crisis level mental health patients will receive services in the housing unit due to behavior and safety concerns.

For the lower acuity patients, extensive diagnostic and treatment programs, education, and/or support programs are centralized to achieve a more efficient and cost effective model of providing services. A 144,000 square foot shared services building is at the center of the facility and contains elements typical of a central health services building including a laboratory, pharmacy, exam and treatment rooms, diagnostic imaging, dental clinic, dialysis clinic, triage and treatment clinic, and therapy rooms. The CHCF was completed in August 2013 and cost $840 million.

The second phase of the CHCF was the construction of the 1,133-bed DeWitt Nelson Correctional Annex (DNCA), which is adjacent to the first phase of the CHCF. Upon full occupancy, this facility will house 425 patients with Enhanced Outpatient Program (EOP) level of mental health needs, 528 Specialized Outpatient Program (SOP) inmate-patients that require frequent medical appointments and treatment services at the medical facilities within CHCF, and 180 Permanent Work Crew (PWC) inmates that have work assignments within the total facility.

The DNCA totals approximately 283,000 square feet and involved the design and construction of new buildings for the EOP patients and extensively remodeled buildings for the SOP patients and PWC. The facility cost $173 million and the PWC occupancy began in April 2014. Patient occupancy of SOPs began in May 2014.

Following the initial activation of the CHCF in July 2013, numerous problems were identified, which in February 2014 ultimately led to the Receiver temporarily halting additional intake until the problems could be rectified. The most persistent and fundamental failure was the inability to provide basic medical and personal hygiene supplies to the housing units. In addition, problems with management of the kitchen, health records, inadequate nursing clinical and custody staff, and failures to provide appropriate accommodations for *Armstrong* class lawsuit members were identified.

To remedy these significant issues, many prompt and aggressive steps were taken. California Correctional Health Care Services (CCHCS) installed a new permanent healthcare leadership team including the Chief Executive Officer, Chief Support Executive, Chief Medical Executive, Chief Nurse Executive, and Chief of Mental Health. CDCR also assigned a new Warden at CHCF. Together, this team completed a thorough evaluation of the deficiencies and completed a "reboot" of processes and policies where needed. In addition, significant increases in nursing, clinical, and custody positions have been authorized. In July, CHCF reopened to medical intake on a measured and controlled basis.

The planned clinical staffing for CHCF – particularly housing-level nursing staffing – was intended to take advantage of modern principles of "lean management," a management design approach that attempts to eliminate non-value producing elements of a manufacturing or service process. Unfortunately, the lean management approach left CHCF significantly understaffed to deal with its patient load. The Receiver personally endorsed the lean management design approach as well as the original proposed staffing for CHCF. That endorsement was a mistake.

Lean management principles -- at least the way we implemented them – do not appear to work in a healthcare, skilled-nursing facility context.

Last year, the Receiver commissioned a comprehensive analysis of the staffing issue by CPS HR Consulting. Their report confirmed that the facility was severely short-staffed at the housing unit level. Based on this report and our own reassessment internally, we worked with the Department of Finance to prepare a request for additional staffing which was made part of the Governor's budget and is now before the Legislature for consideration.

d. The Health Care Facility Improvement Program

It is the goal of the Health Care Facility Improvement Program (HCFIP) to provide facilities improvements in all other CDCR institutions that will support timely, competent, and effective health care delivery with appropriate health care diagnostics and treatment, medication distribution, and access to care for individuals incarcerated within CDCR.

Facilities assessments have been performed at each of the CDCR's adult institutions to determine the infrastructure deficiencies that exist within the prison system requiring correction. The existing conditions and capabilities of the health care facilities were evaluated for conformance to the health care components established by California Correctional Health Care Services.

The existing health care facilities constructed between the years of 1852 and the 1990s are deficient in that they do not meet current health care standards, public health requirements, and current building codes. In addition, the facilities serve a population that is greater in number and much older than when they were originally built, which has increased CDCR's need for health care space.

An initial scope of a facility improvement program developed by the Receiver proposed uniform medical care improvements at all existing prisons at a cost of approximately $2 billion. The implementation of the Medical Classification System (MCS), identifying inmates requiring more intensive or frequent medical care, along with the designation of those prisons near metropolitan areas that possess local specialty and hospitalization services, allows the clustering of these inmates at designated prisons. This has resulted in a reduction in the scope of improvements proposed in HCFIP that allows for implementation of this program within the funding resources provided through Assembly Bill 900 (Chapter 7, Statutes of 2007).

Implementation of the HCFIP will provide appropriate and adequate health care diagnostic and treatment facilities to the entire CDCR inmate population housed in existing adult institutions, including health care processing and intake screening facilities (medical, mental health and dental) at the Reception Center (RC) institutions. Currently, 7 institutions are at the preliminary plan phase, 5 institutions at the working drawing phase, 9 institutions are at the state fire marshal approval phase, and 11 institutions have started or are ready for construction. The HCFIP program is scheduled for completion during 2017.

e. Sanitation Program

Health care delivery and work locations such as pharmacies, laboratories, examination rooms, standby emergency rooms, and nursing stations must be properly maintained, disinfected, and sanitized. The ability to provide health care clinic space that is clean, sanitized, and well maintained is not and has never been a core competency of CDCR. Even before the Receivership, medical experts consistently found prison health care clinic space failed to meet even the minimum standards required for a health care environment. Wardens have long been instructed to ensure the health care clinics, infirmaries, and other inpatient areas are maintained in a clean and orderly fashion. While there may have been some individual attempts at isolated locations, the problem appears to have been virtually intractable.

More recently, unacceptable standards of health care cleanliness and sanitation were a consistent theme in the eight inspections and reports by the Court's three medical experts during their institution visits in 2013. The cleanliness and sanitation deficiencies found at many institutions are so serious the experts determined these issues must be permanently addressed as a prerequisite to the transition of medical care back to the State.

The sanitation model previously employed at the institutions used inmate porters supervised by custody staff. It is clear that this model has been unsuccessful. In order for the institutions to have the necessary tools to ensure the medical areas are clean, sanitary and disinfected—an essential for a health care environment—much higher standards must be met. These standards include those promulgated under California Code of Regulations, Title 22, standards outlined by the Association for the Health Care Environment, OSHA Safety Requirements, and other standards outlined by the Environmental Protection Agency, the Department of Toxic Substance Control, and the Center for Disease Control.

The Receiver decided to enter into a contract with the California Prison Industry to provide sanitation services to health care areas. The contract entered into between California Correctional Health Care Services and the California Prison Industry provides sufficient resources to provide cleaning for all of the licensed health care areas statewide and complies with the cleanliness and sanitation standards required under Title 22 standards. So far, the implementation of this contract has been a clear success. Health care areas that formerly were not cleaned properly for years have been thoroughly cleaned and are being routinely maintained. The program will have rolled out to all but 8 institutions by June 2015, and will finish its initial roll-out during 2015-2016.

3. Equipment

In addition to having deficient facilities, CDCR did not properly equip its facilities to perform routine medical services. The Court described the situation in its *2005 Opinion re Appointment of Receiver* as follows:

Ten years ago . . .

> "In addition, many of the facilities lack the necessary medical equipment to conduct routine examinations and to respond to emergencies. Clinics lack examination tables and physicians often have to examine patients who must sit in chairs or stand in cages.

> "The Court observed first-hand at San Quentin that even the most simple and basic elements of a minimally adequate medical system were obviously lacking. For example, the main medical examining room lacked any means of sanitation – there was no sink and no alcohol gel – where roughly one hundred men per day undergo medical screening, and the Court observed that the dentist neither washed his hands nor changed his gloves after treating patients into whose mouths he had placed his hands." *2005 Opinion re Appointment of Receiver*, at *15.

The deficiencies in medical equipment and fixtures were addressed in the *Turnaround Plan* as follows: First, Objective 2.3 was devoted to improving the emergency response system, improvements which included conducting an inventory of, assessing and standardizing equipment to support emergency medical responses. As noted in the *Turnaround Plan*, "emergency medical equipment . . . is not uniformly available at CDCR institutions" (Action 2.3.3, p. 10).

As documented in the *11th Tri-Annual Report*, the deficiencies in emergency medical equipment were cured in early 2009 when we completed the six following elements of Action 2.3.3 of the *Turnaround Plan*:

- Element I – Identify critical emergency medical equipment;
- Element II – Inventory and deploy emergency medical treatment bags;
- Element III – Survey other EMR equipment needs;
- Element IV – Develop procurement methods;
- Element V – Procure and deploy EMR equipment; and,
- Element VI – Develop program sustainability.

With respect to Element VI, we developed an EMR Standard Equipment Catalogue which was provided to our procurement staff, institution CEOs and directors of nursing, and regional offices. At that time, a four-year standardization and expansion budget plan was developed.

The second deficiency – basic gaps in treatment room facilities and equipment – will be addressed in the facility improvements that are being implemented in the HCFIP program, as described above. Through that program, we will improve the level of standardization of clinic and treatment room equipment and supplies.

4. Budget and Fiscal

Implementing the changes necessary to bring medical care within CDCR up to constitutional standards has required a new and higher level of expenditures than was previously allocated to prison medical care. Even before the Receivership was established, from FY 1994-95 to FY 2005-06, total prison health care expenditures increased 252% from $368 million to $1.296 billion (with $620 million of that increase after FY 2000-01 when the *Plata* case commenced). Yet these expenditures did not materially improve the quality of care, as found by the Court in its *2005 Order re Appointment of Receiver*.

When the current Receiver was appointed in January 2008, he found a budget for prison health care that was headed towards $2.4 billion. As part of the *Turnaround Plan of Action*, the Receiver embarked upon a series of cost reduction strategies that cut $400 million annually from the medical care budget. Combined with other changes and reforms, beginning in FY 2010-11, the budget for prison medical care stabilized at around $1.6 billion. Expenditures for FY 2014-15 are expected to jump substantially because of costs associated with the Cocci testing program, additional PYs for CHCF and very high costs for new drugs to treat Hep C.

The Court concluded in its *2005 Order re Appointment of Receiver* that the State's lengthy budget process itself interfered with implementation of court-ordered changes:

Ten years ago . . .

> "The State budgetary process similarly hinders defendants from instituting medical reforms. There is a lengthy process for obtaining resources for personnel, equipment or facilities. It generally takes between 14 months to two years for a budget concept to result in an appropriation of funds. An even lengthier capital outlay process must be used when the CDCR seeks to build a new building or make significant changes to an existing structure." *2005 Order re Appointment of Receiver*, at *18 (citations omitted).

During the current Receiver's first three years, there were substantial discrepancies between what the Receiver knew he would be spending and what was reflected in official State budget documents. The Receiver and his staff have worked diligently with the Department of Finance, the Legislative Analyst's Office and the budget committees in the Legislature to reach a new baseline budget for prison medical care that incorporates all ongoing operational expenses, removes those discrepancies and bases funding for direct medical care on inmate medical acuity. Only by reaching this agreement on a new baseline budget can the Court have some degree of confidence that the improvements we have achieved will continue to be funded.

The Receiver has not asked the State permanently to modify its ordinary budget processes for the prison medical care program. Those processes reflect a policy of careful analysis and deliberation within the Executive Branch and democratic controls as the budget works through the Legislature. The Receiver believes that with a new baseline established for prison medical care, normal budget processes can adequately handle the year-to-year changes that are likely to occur in prison medical care spending.

5. Acquisitions and Medical Contracting

The Court noted in its *2005 Order re Appointment of Receiver* that the State's lengthy procurement process was one of the bureaucratic obstacles to reforming CDCR's medical care system. The Court explained as follows:

Ten years ago . . .

> "In general, the California Department of General Services must approve all State contracts, including contracts for personal services and contracts for information technology goods and services. Deputy Secretary for Information Technology for CDCR, Jeff Baldo, testified that the entire contracting process, from the initial stage of determining the need for goods or services for information technology to awarding a contract, can take up to two years." *2005 Order re Appointment of Receiver*, at *18 (citations omitted).

There is no question that the State's procurement processes are lengthy. The Receiver served as Acting Director of the Department of General Services during the Davis Administration and subsequently served as the State's Chief Information Officer, a role which frequently involved planning and monitoring complex information technology procurements. Because of his experience, the Receiver was able to recruit from the Department of General Services and other departments some of the best procurement personnel in the State. Even with this talent, it has been necessary and advantageous on certain large procurements, particularly large information technology procurements, to employ special contracting authority provided by the Court based on waivers of State procurement law (it should be noted that these waivers will not be available to CDCR after the Receivership has concluded). This authority facilitated quicker contracting than is usually possible using the State's processes.

The Receiver discovered an acquisitions function that was chaotic and dysfunctional. There was no strategic approach at all to contracting. For example, there were literally hundreds of contracts with individual hospitals and outside providers to provide services. The terms of these contracts were not standardized, and in many cases, contracts with providers had expired and had not been renewed. With many hospitals, there was no contract at all, and bills were simply paid as invoiced (at unreasonably high rates, in some cases).

In addition to professionalizing the acquisitions staff, the Receiver moved decisively towards a more strategic approach to contracting. Instead of hundreds of unmanageable contracts with individual hospitals and provider groups, the Receiver ordered staff to conduct a strategic procurement to acquire a statewide network of providers. The number of separate registry contracts has been reduced for similar reasons. Contracting for basic medical supplies has been improved by establishing a formulary. These and other contracting changes have significantly improved our ability to contract for goods and services.

As part of the transition of prison medical care back to State control, we will be seeking a few changes to State procurement law with respect to prison health care. The changes would allow for the extension of specified existing contracts for up to two years without a new bid process, incorporate negotiation as part of the procurement process to ensure the State is receiving best value or most cost-efficient services (instead of only lowest bid), and allow for payment of invoices for health care services even in the absence of a written contract.

The Receiver believes that the combination of better staff along with a more strategic approach to contracting will be a durable solution to the contracting problems identified in the Court's *2005 Opinion*.

6. Human Resources

The success or failure of a health care services organization ultimately depends upon its ability to recruit and maintain a quality workforce. The *2005 Opinion re Appointment of Receiver* explained serious deficiencies in CDCR's human resources systems:

10 years ago . . .

> "The CDCR also suffers from a significant vacancy rate in critical positions within the medical care line-staff. . . . The vacancy problem also plagues the Department in all other areas of health care staffing. Vacancy rates at some institutions are as high as 80% for Registered Nurses (RNs) and 70% for Medical Technical Assistants (MTAs).
>
> "The CDCR has made some efforts to recruit and retain qualified supervisors, doctors, nurses and MTAs. However, these efforts have paled in the face of the enormity of need. The CDCR's efforts also have been stymied to large degree by the state bureaucracy, as discussed below.
>
> "The reality facing the CDCR is that its efforts to recruit qualified medical staff into the current system have been ill-fated from the start. For example, compensation levels for CDCR medical staff are simply too low. According to a CDCR commissioned study, compensation for CDCR staff registered nurses is 20-40% lower than for RNs in the private sector, and up to 57% lower for some supervising nurses. Yet the State has failed to pay heed to the study and the nurse staffing crisis continues unabated.
>
> "The difficulty in recruiting qualified medical staff is compounded by the poor working conditions offered. In one instance, the triage nurse at San Quentin had to walk through the men's shower room, while it was in use, in order to get to her 'clinic' in which she had no sink, exam table or medical equipment. Many competent professionals simply will not work, at least not for long, under such conditions.
>
> "In addition, the long and bureaucratic hiring process at CDCR increases the difficulty of retaining competent doctors and nurses. The testimony at the hearing makes it clear that the State bureaucracy is simply incapable of recognizing and acting upon the crisis in which the CDCR finds itself." *2005 Order re Appointment of Receiver*, at *11-12 (citations omitted throughout).

The Receivership addressed most of the difficulties in hiring by establishing a well-staffed, highly proficient human resources division at headquarters to lead and assist in keeping vacancy rates at appropriate levels (compensation levels for providers and nurses were increased to

market levels which made a huge difference in our ability to recruit). In effect, the Receivership took over the critical bureaucratic steps in administering an effective HR process, and we have been successful in maintaining staffing in all but a few difficult-to-recruit areas of the State. Even in these areas, however, we have taken steps to ensure adequate staffing (such as by using telemedicine services or registry contracts to fill in the gaps). In order to insure we have a robust recruitment and retention process that will be sustainable in the future, the Receiver is seeking a modest increase in HR staffing, which will be considered by the Legislature in upcoming budget negotiations.

The Human Resources division is responsible for the following functions:

- **Payroll Transactions and Benefits** – administers the employee pay and benefit program for all CCHCS and Division of Health Care Services (DHCS) headquarters and regional employees, ensuring employees are paid appropriately and timely.

- **Position Control** – prepares, processes and maintains the changes to established positions (establish, redirect, reclassify, and abolish positions).

- **Classification and Pay**- ensures CCHCS/DHCS positions are allocated appropriately for the duties assigned to the position, this includes reviewing and approving duty statements, working with control agencies for approval of special allocations, California Department of Human Resources (CalHR) Board Items, and reviewing hiring packages and appointments to ensure they are legal.

- **Equal Employment Opportunity (EEO)** – responds to complaints from employees regarding discrimination, sexual harassment, and retaliation issues; works with management to ensure all staff are aware of and adhere to the State's and CCHCS's EEO policies and procedures.

- **Disability Management Unit** – responsible for Return-To-Work and Reasonable Accommodation functions, which include managing employees on extended sick leave and/or who have disabilities which impact their ability to perform essential functions.

- **Examination Services Section (ESS)** – is responsible for the creation, administration, and maintenance of a legally-defensible examination program in support of the state of California's Civil Service Selection Process. ESS develops and administers over 150 job-related examination processes for the Department's clinical and administrative classifications, in addition to providing job analytic documentation in support of professional best practices.

- **Headquarters Certification Unit** – provides assistance to Northern Region institutions and headquarters programs for the Department's 200+ civil service classifications. It is responsible for processing all requests to fill vacant positions for Northern Region institutions and headquarters and is a critical component in ensuring the legality of hires in accordance with State regulations.

- **Executive Recruitment** – responsible for examination, recruitment, selection, hiring, compensation, and on boarding services for all headquarters and institutional executive and Career Executive Assignment (CEA) positions.

- **Workforce Development Unit** – provides nationwide and statewide recruitment services for CCHCS/DHCS through the use of print and digital media and conference and job fair attendance. It is responsible for recruiting all Executive, Information Technology, Administrative, and Clinical classifications at headquarters, regional offices, and institutions. Additionally, the Unit provides support for the Department's Federal Loan Repayment Program, Education Program, and Visa Program.

- **Regional Personnel Offices** – Responsible for recruitment, certification process, selection and hiring for all health care positions in institutions. Prepares, processes and maintains the changes to established positions (establish, redirect, reclassify, and abolish positions). Provide consultative services to institution health care management on human resources issues.

- **Seniority Placement Unit** – Responsible for placement services and conducts layoff activities.

7. Information Technology

The Court noted in the *2005 Order re Appointment of Receiver,* that many of the problems identified by the Court could be traced back to a total absence of information systems within the CDCR. The lack of information systems created a management nightmare where basic information about any health care process was simply not available in a timely manner. In this environment, quality management and improvement was impossible, and providers lacked basic information about their patients.

10 years ago . . .

> "[C]entral office staff do not have the tools they need to handle the vast quantity of information necessary to manage a billion dollar, 164,000 inmate system. Data management, which is essential to managing a large health care system safely and efficiently, is practically non-existent. The CDCR's system for managing appointments and tracking follow-up does not work. These data management failures meant that central office staff cannot find and fix systemic failures or inefficiencies. As just one of innumerable examples, there are patients in the general population who need specialized housing, but the CDCR does not track them and headquarters staff is unaware of how

many specialized beds are needed." *2005 Order re Appointment of Receiver*, at *6 (citations omitted throughout).

Effective, efficient and secure information management lies at the core of any large healthcare organization. The Receivership built from scratch an Information Technology Services Division (ITSD) that has successfully deployed and currently maintains hundreds of millions of dollars of information technology systems that enable our clinical staff to provide better care and give us the data infrastructure to make quality management and improvement an organizational reality. ITSD has 280 staff and is comprised of four areas:

- **Operations/Infrastructure:**
  - Data Center, Network, Security Operations, Disaster Recovery, Regional IT Support, Telemedicine/Telepsych Support, Service Desk

- **Clinical Information Technology Systems:**
  - Application and Data Base Development and Maintenance

- **Information Technology Management and Analysis:**
  - Asset Management, Enterprise Architecture, Contracts/Procurement, HR Services, Project Oversight and Governance, Project Integration

- **Office of Information Security**
  - Policy, Audits, Incident Response

Collectively, each area provides the technologies, tools and high quality services that support the healthcare mission, including the following sets of systems:

- **Network**

  CCHCS maintains a high-speed medical-grade network at all 35 institutions and 6 headquarter sites. This includes managing backup power and satellite back-up data connections as well as Wi-Fi access enabling mobility for clinicians and medical devices.

- **Service Desk**

  The CCHCS Service Desk (Call Center and Desktop Support) supports approximately 13,000 users. The call center receives 4,000 calls per month. The average time calls are in queue is 17 seconds with the average time per phone call at 3 minutes and 33 seconds. 10,000 incident and service request tickets are processed per month with 60% of the tickets being submitted through the customer self service portal.

- **Electronic Health Record System (EHRS)**

  CCHCS has undertaken a new Electronic Health Record Project. EHRS is a commercial off-the-shelf software solution which provides electronic processing

for integrated health service components such as order management and patient access management, pharmacy with medication management, and laboratory information systems.

- **Clinical Information Technology Systems**
  - Internal Custom Systems – In-house development using Microsoft products such as:
    - Dental Scheduling and Tracking System (DSTS)
    - Mental Health Tracking System (MHTS)
    - Medical Classification Chrono (MCC)
    - Quality Management Databases including CDR Lab Results (QM Registeries), Clark Report, First Data Bank Load, Internal Inmate Locator.
    - Cocci Tracking System
    - Preliminary Outbreak Reporting System (PORS)
    - MedSATS
    - Web Census and Discharge Data Information System (WebCADDIS)
  - Internal COTS Systems – Licensed for use by vendors who share maintenance responsibility such as:
    - MS Dynamics Customer Relationship Management (CRM);
    - MS SharePoint;
    - EMC Documentum;
    - EMC Captiva;
    - Adobe® LiveCycle®;
    - Medicor MiPACS Storage Server;
    - Fujifilm Synapse® PACS/RIS;
    - Crescendo Medrite-XL;
    - McKesson InterQual®;
    - Cornerstone Automation System Inc. (CASI) Central Fill; and
    - Omnicell Medication Management Cabinets.
  - Externally Hosted Systems – Owned, managed, and operated by vendors such as:
    - CDCR Strategic Offender Management System (SOMS) Project Electronic Offender Management Information System (eOMIS™);
    - Maxor GuardianRx;
    - Quest Care360 Laboratory Information System (LIS);
    - Electronic Unit Health Record (eUHR);
    - Health Information Management (HIM) System; and
    - Advanced Technology Group (ATG), LLC Food Service Management System (FSMS)

We could never have accomplished the improvements anticipated by the *Turnaround Plan of Action* without the extraordinary efforts of our information technology services division.

B. Process

1. Access to Providers & Services

Inmate access to providers and other medical services was a serious problem that significantly contributed to the Court's conclusion that the medical system was constitutionally deficient. The Court explained the situation in its *2005 Opinion re Appointment of Receiver* as follows:

10 years ago . . .

> "As a matter of medical policy, the CDCR requires that within one business day of the submission of a prisoner request for medical care, an RN shall triage the request using an in-person interview and standardized protocols. Unfortunately, this policy lives more on paper than in reality. The CDCR has left several basic nursing policy requirements only partially implemented and at some prisons face-to-face triage is nonfunctional. As a result, patients do not receive timely access to care and suffer a serious risk of harm and even death as a result.
>
> "In addition, inmates do not have timely access to physicians. Appointments with physicians often do not take place within the time frame established by CDCR policy. A number of prisons experience 'serious backlogs in patients receiving medical care.'" *2005 Opinion re Appointment of Receiver*, at *13 (citations omitted throughout).

Access to care is a complex, multi-faceted function. Patients who need access to care must be properly identified (sometimes by the patient him or herself, sometimes by nurses who triage service requests, sometimes by CDCR physicians who must make decisions about tests and outside referrals, and sometimes by external physicians), appointments must be properly scheduled within timelines set either by policy or by physician orders, and patients must be escorted to those appointments as scheduled. There are multiple opportunities for system failure, and the system was plainly nonfunctional when the Receivership began.

The Healthcare Services Dashboard reports on six measures related to scheduling and access to care as follows: (a) access to medical services; (b) access to dental services; (c) access to mental health services; (d) appointments cancelled due to custody; (e) appointments seen as scheduled; and (f) effective communication provided.

The *Turnaround Plan of Action* addressed access to care as the primary focus of its first goal, which was to "Ensure Timely Access to Health Care Services." There were four objectives under the first goal: (1) Redesign and Standardize Screening and Assessment Processes at Reception/Receiving and Release; (2) Establish Staffing and Processes for Ensuring Health Care Access at Each Institution; (3) Establish Health Care Scheduling and Patient-Inmate Tracking System; and (4) Establish A Standardized Utilization Management System. *Turnaround Plan*, pp. 5-7. All objectives were completed by early 2014. *Twenty-sixth Triannual Report*, pp. 5-7 (June 2, 2014).

a. Access to Medical Services

Using data provided by our medical scheduling and tracking systems, we report on a monthly basis a composite measure of our performance on access to medical care and services. The composite includes nine medical access measure percentages: (1) face-to-face triage of health care services requests completed within 1 business day; (2) urgent referral to a physician seen within 1 calendar day; (3) routine referral to a physician seen within 14 calendar days; (4) chronic care evaluation within the timeframe specified at the last chronic care encounter; (5) high priority specialty referrals seen within 14 calendar days; (6) routine specialty referrals seen within 90 calendar days; (7) patients discharged from a community hospital or CDCR inpatient unit who were seen by a primary care provider within 5 calendar days; (8) laboratory appointments completed per provider's order; and (9) radiology appointments completed per provider's order. We set a performance target of 85% or more of patients who require care receive timely access to clinicians and diagnostic services.

As of November 2014, the Healthcare Services Dashboard reports 89% compliance with access to medical services. This percentage has been consistently above 85% since March 2014.

b. Access to Dental Services

We report on access to dental services by a composite measure that includes five dental access measure percentages: (1) dental treatments prompted by a Health Care Services Request that was completed within 3 days or 10 days (depending on urgency of symptoms), (2) dental treatments provided within timeframes based on the acuity of the diagnosed condition, (3) Reception Center dental screenings provided within 60 days of the patient's arrival at the institution, (4) patient-requeted comprehensive examinations provided within 90 days, and (5) patients eligible for a periodic comprehensive dental examination (over 50 or diagnosed with diabetes, HIV, seizure disorder or pregnancy) who were notified at least 60 days prior to their anniversary month. There is a performance target of 85% or more of patients who require care receive timely access to dental services.

As of November 2014, the Healthcare Services Dashboard reports 93% compliance with access to dental services. This percentage has been consistently above 85% since January 2014.

c. Access to Mental Health Services

We report on access to mental health services by a composite measure that includes three mental health access measure percentages: (1) Enhanced Outpatient Program patients offered 10 or more hours of structured treatment during the measurement month; (2) emergency, urgent, and routine mental health referrals completed within required timeframes; and (3) timely mental health contacts, including psychiatrist, primary clinician and interdisciplinary treatment team contacts. There is a performance target of 85% or more of patients who require care receive timely access to mental health services.

As of November 2014, the Healthcare Services Dashboard reports 89% compliance with access

to mental health services. This percentage has been consistently above 85% since June 2014.

d. Appointments Cancelled Due to Custody

In its *2005 Opinion re Appointment of Receiver*, the Court took special notice that access to medical care was often blocked by custody staff. The Court explained as follows:

10 years ago . . .

> "A major problem stemming from a lack of leadership and a prison culture that devalues the lives of its wards is that custody staff present a determined and persistent impediment to the delivery of even the most basic aspects of medical care. Too frequently medical care decisions are preempted by custodial staff who have been given improper managerial responsibility over medical decision-making.
>
> "Correctional officers often are not available to take prisoners to medical appointments or to enable the physicians to do examinations. In medical units that lack call buttons for prisoners to contact doctors, custody staff routinely fail to make rounds and check on patients.
>
> "All in all, there is a common lack of respect by custody staff for medical staff, and custody staff far too often actively interfere with the provision of medical care, often for reasons that appear to have little or nothing to do with legitimate custody concerns. This exacerbates the problem of physician retention, and the evidence reflects that a number of competent physicians have left CDCR specifically due to conflicts with custodial staff." *2005 Opinion re Appointment of Receiver*, at *15 (citations omitted throughout).

The Receivership addressed this problem on several fronts, most significantly by establishing properly staffed and trained Health Care Access Units that are accountable for facilitating inmate access to health care. It is now exceedingly rare that we receive any reports that individual custody officers are interfering with access to health care.

As for the health care access system, we report on the prevalence of interference with scheduled appointments due to custody factors by a composite measure that includes the percentage of all health care appointments cancelled due to custody factors such as lockdown or modified program, lack of officers or transportation, fog recall, or lack of holding space. The performance target is that less than 1% of health care appointments are cancelled due to custody reasons.

As of November 2014, the Healthcare Services Dashboard reports that 2.8% of health care appointments were cancelled due to custody. This measure has been between 1.6% and 3.3% during 2014.

e. Appointments Seen as Scheduled

Another important measure of access to care – and particularly the efficiency of the access to care system – is whether scheduled appointments are actually seen as scheduled. We report monthly on the percentage of dental, medical, and mental health appointments seen as scheduled (i.e., without being rescheduled). This figure excludes appointments not seen as scheduled due to patient refusal or similar patient-controlled factors; scheduling error; patient transfer; lay-in; out to court/medical; pending or "to be scheduled" appointments; walk-ins; and appointments scheduled to be seen during the reporting period but not yet closed. The performance target is 85% or more of health care appointments occur as scheduled.

As of November 2014, the Healthcare Services Dashboard reports that 85% of appointments are seen as scheduled. This percentage has never been below 82% during 2014, and has been 85% or higher since August 2014.

f. Effective Communication Provided

Finally, an important aspect of access to care is the ability of the patient to communicate with his or her clinician. In prison, patients may require assistance in facilitating effective communication. We report monthly on whether effective communication has been provided by a composite measure that includes the percentage of dental, medical, and mental health appointments during the reporting month where the patient required reasonable accommodations to achieve effective communication, and effective communication was provided. This includes patients who require reasonable accommodations due to developmental disability; hearing, vision, and/or speech impairment; and low educational level (score of 4 or lower on the Test of Adult Basic Education). The performance target for this measure is 90% or more of appointments where the patient required reasonable accommodations to achieve effective communication, and effective communication was provided.

As of November 2014, the Healthcare Services Dashboard reports that 95% of appointments requiring accommodations were actually provided effective communication. This measure started the year at only 63%, but because of program changes made during the Spring, the measure rapidly rose to above 90% beginning in June, and has remained above 90% since then.

2. Continuity of Providers

An important element of a good medical system of care is maintenance of continuity in primary care providers. A patient who never sees the same physician twice and is handed off from doctor to doctor is likely to be a risk for missed diagnoses and episodic, fragmented care. Accordingly, we have been working for several years to establish a primary care provider system that expands continuity of providers.

a. Continuity of Medical Providers

We report monthly on the percentage of primary care encounters each medium or high risk

patient had over the past 6 months that occurred with the two providers who saw the patient the most often. This measure is based on a rolling six months of data. The performance target is that high and medium risk patients will have 85% or more of their encounters with the same one or two providers within the past six months.

As of November 2014, the Healthcare Services Dashboard reported 86% compliance for continuity of primary care providers. This measure has been above 85% for all of 2014.

b. Continuity of Mental Health Primary Clinician

We report monthly on the percentage of each enhanced outpatient program patient's encounters that occurred with a single Mental Health Primary Clinician during the past 6 months. This measure is based on a rolling six months of data. The performance target is that enhanced outpatient program patients will have 85% or more of their encounters with one mental health primary clinician within the past six months.

As of November 2014, the Healthcare Services Dashboard reported 84% compliance for continuity of mental health primary clinicians. This measure has been above 78% for all of 2014 and above 80% since June 2014.

c. Continuity of Psychiatrists

We report monthly on the percentage of each enhanced outpatient program patient's encounters that occurred with a single psychiatrist during the past 6 months. This measure is based on a rolling six months of data. The performance target is that enhanced outpatient program patients will have 85% or more of their encounters with one primary psychiatrist within the past six months.

As of November 2014, the Healthcare Services Dashboard reported 84% compliance for continuity of psychiatrists. This measure has been above 78% for all of 2014 and above 80% since June of 2014.

3. Medication Management

Medication management is a critical component of any health care system and presents special challenges in a prison setting where patients are generally not able to acquire prescribed medications themselves and where there are well-founded concerns about hoarding of medications. The pharmacy and medication management systems were seriously deficient which the Court explained in its *2005 Opinion re Appointment of Receiver* as follows:

10 years ago . . .

> "The Court concurs with Dr. Puisis that management of the prison pharmacy operation is 'unbelievably poor.' There is no statewide coordination between pharmacies and there is no statewide pharmacist. At the individual institutions, the administration of medications is in various states of disarray.

> "The CDCR has failed to adequately implement the Inmate Medical Policies and Procedures that require each prison to develop local procedures for medication management.
>
> "There are serious, long-standing problems with dispensing medication, renewing prescriptions, and tracking expired prescriptions. Chronically ill patients are not able to refill their prescriptions in a timely manner.
>
> "The Court observed the pharmacy at San Quentin first-hand. As discussed in the Order to Show Cause, the pharmacy was in almost complete disarray. Additionally, there is no system to identify expiring prescriptions for critical medications and patients wait two to three weeks for refills, which places many inmates at unnecessarily increased risk.
>
> "To ensure continuity of treatment, the policies require that prescriptions continue to be filled when a prisoner transfers to another prison. In practice, however, the prisons do not consistently transfer prescriptions along with the inmates, resulting in large quantities of medication being thrown out rather than administered. On the other end, the receiving prisons routinely disregard prescriptions from sending prisons." *2005 Opinion re Appointment of Receiver*, at *16 (citations omitted throughout).

The *Turnaround Plan of Action* addressed problems with the pharmacy system in Objective 5.1, which sought to establish a comprehensive, safe and efficient pharmacy program. The elements of that objective included developing a functioning drug formulary to improve consistency in prescribing practices and reduce cost, improve pharmacy policies and practices at each institution and introduce a pharmacy information technology system, and establish a central-fill pharmacy to serve the institutions. These goals were completed by the end of 2011. *Nineteenth Tri-Annual Report*, p. 16 (Jan. 13, 2012).

The *Turnaround Plan of Action* did not address all aspects of medication management. The formulary, institution pharmacy practices, and a central-fill pharmacy are important components of a properly functioning medical management system. However, there remains the challenge of actually distributing prescribed medications to patients in a timely manner. In a prison, where many of the medications must be personally delivered so that a clinician can directly observe the patient taking the medication, accurate and timely distribution is a complex endeavor. At any one time, more than half of the inmate population has one or more prescriptions, and on any one day, tens of thousands of drugs must be delivered.

In retrospect, in part because the *Turnaround Plan of Action* did not directly address this distribution challenge, medication management has trailed other elements of the health care system in making sustainable improvements. The medication management scores during the first three rounds of OIG inspections were consistently lower than other elements of the medical system. To improve medication management, we are in the process of acquiring a commercially-available electronic medical record system that, if properly implemented, will facilitate improved

practices of medication distribution and record-keeping. When fully implemented, we anticipate a substantial jump in the performance of our medication management system.

Using data provided by the Medication Administration Process Improvement Program, we report monthly on five medication management measures: (a) Medication Continuity-Transfer; (b) Medication Non-Adherence Counseling; (c) Medication Administration; (d) Non-Formulary by Psychiatrists; and (e) Non-Formulary by Medical Providers. Institutions are also beginning to report medication errors using the Patient Safety Health Incident Reporting system.

a. Medication Continuity-Transfer

As noted above, maintaining continuity of medication orders as patients are transferred from one area of a prison to another has been a challenge. We report on a monthly basis medication continuity-transfer by calculating a composite of the following seven percentages from the Medication Administration Process Improvement Program audit tool related to patients who received their medications timely upon: (1) initial CDCR arrival at a Reception Center; (2) inter-institutional transfer; (3) intra-institutional transfer for medications that are nurse administered or directly observed therapy; (4) discharge from a mental health crisis bed; (5) transfer to an administrative segregation unit, security housing unit, or psychiatric services unit; (6) discharge from a community hospital, or Department of State Hospital-run facility; and (7) paroling or otherwise transferring to the community. The performance target is 90% or more of patients who arrived at a reception center or transfer across health care settings will continue to receive their medications in a timely manner.

As of November 2014, the Healthcare Services Dashboard reported 82% compliance for medication continuity-transfer. This measure has been in the low 80's for all of 2014.

b. Medication Non-Adherence Counseling

If one or more doses of medication are missed, a properly functioning medication management system will ensure that the missed doses are documented and that the patient is counseled on the missed doses and any consequences. We report on a monthly basis medication non-adherence counseling by calculating a composite score based on the average of the following four percentages from the Medication Administration Process Improvement Program audit tool related to timely referral, counseling, and documentation for patients who: (1) missed doses of medication prescribed by a mental health provider; (2) were subject to an involuntary medication order per Penal Code Section 2602; (3) missed doses of medication prescribed by a primary care provider; and (4) missed doses of insulin, Clozaril or HIV medication. The performance target is 90% or more of patients not compliant with medication orders will be appropriately referred to a clinician.

As of November 2014, the Healthcare Services Dashboard reported 81% compliance for medication non-adherence counseling. This measure has been in the mid- to high-70's for most of 2014, and moved above 80% beginning in October.

c. Medication Administration

The core activities in medication administration involve ensuring that patients receive their medications in a timely manner. We report on a monthly basis medication administration by calculating a composite score based on the average of the following five percentages from the Medication Administration Process Improvement Program audit tool related to patients receiving their medications timely who were: (1) taking psychiatrist prescribed, nurse administered, or directly observed therapy chronic care medication; (2) prescribed Keep On Person medication by a medical provider; (3) prescribed a new medication by a psychiatrist; (4) had a new medication prescribed by a medical provider; and (5) prescribed TB medication. The performance target is 90% or more of chronic care patients will receive all essential medications, including psychotropic medications, in a timely manner.

As of November 2014, the Healthcare Services Dashboard reported 89% compliance for medication administration. This measure was at 91% for January and February of 2014, and has been just below 90% for the remainder of 2014.

d. Non-Formulary by Psychiatrists

Maintenance and use of a drug formulary helps ensure both quality and efficiency in prescription practices. We report on a monthly basis non-formulary use by psychiatrists by calculating the percentage of medications prescribed by psychiatrists that are non-formulary. The performance target is 3% or less of medications prescribed by psychiatrists will be non-formulary.

As of November 2014, the Healthcare Services Dashboard reported non-formulary by psychiatrists at 3.3%. This measure has been below 4% for all of 2014, and below 3.5% for most of 2014.

e. Non-Formulary by Medical Providers

We report on a monthly basis non-formulary use by medical providers by calculating the percentage of medications prescribed by primary care providers that are non-formulary. The performance target is 3% or less of medications prescribed by medical providers will be non-formulary.

As of November 2014, the Healthcare Services Dashboard reported non-formulary by medical providers at 3.8%. For most of 2014, this measure was between 5-6%, dropping below 4% in September 2014.

4. Nursing

Approximately 85% of our clinical staff, some 5,195 positions, are nurses (SRN III, SRN II, RN, LVN, CNA and Psych Techs). Needless to say, having a quality nursing staff is critical to the delivery of care. The Court's review of nursing indicated serious gaps in the nursing program:

10 years ago . . .

> "The evidence establishes beyond a doubt that the CDCR fails to provide competent nurses to fill the needs of the prison medical care system. According to the Court's nursing Expert, Madie LaMarre, CDCR nurses often fail to perform basic functions and refuse to carry out specific physician's orders. She also found that a number of nurses were not even certified in basic CPR. At certain prisons, nurses often fail to identify urgent medical issues that require immediate referral to a physician. Even where face-to-face triage is implemented, nurses often fail to take vital signs or conduct examinations. Nurses then often fail to adequately assess patients and dispense appropriate over-the-counter medications for problems.
>
> "Additional, the evidence shows that those nurses who fail to perform basic duties over an extended period of time are not disciplined." *2005 Opinion re Appointment of Receiver*, at *9 (citations omitted throughout).

The *Turnaround Plan of Action* sought to remedy these deficiencies through a sustained recruiting program (see Objective 3.1.1), establishing appropriate nursing leadership and supervision at the institutions (see Objective 3.2.1) and creating professional-quality training programs for providers and nurses (see Object 3.3).

The Healthcare Services Dashboard reports monthly on the percentage of authorized positions that are filled for nurses by displaying three numbers: (1) the actual number of full-time equivalent (FTE) nursing positions used during the reporting month, taking into account hours worked by civil service staff, registry staff, and staff serving overtime, covering more than 20 classification types; (2) the authorized number of FTEs in these positions under the current budget; and (3) the percent of authorized filled. The performance target is 90% of authorized positions being filled.

As of November 2014, the Healthcare Services Dashboard reported 5,742 nursing FTEs actually used and 5,354 FTEs authorized resulting in 107% of authorized FTEs being used. As explained above (Section III(A)(1)(c)), over 90% of our supervising nursing positions are filled.

We have made available to our nurses nationally recognized training programs through HealthStream and AACN ENMO.

5. Providers

The Court's *2005 Opinion re Appointment of Receiver* highlighted inadequacies both in the number and quality of CDCR physicians as follows:

10 years ago . . .

"The CDCR also suffers from a significant vacancy rate in critical positions within the medical care line-staff. The vacancy rate for physician positions is over 15%, and this does not account for the additional significant percentage of incompetent doctors who need to be replaced. The rates differ from institution to institution, depending partly on the desirability of the location and the culture of the prison. At one institution, there are only two doctors responsible for approximately 7,000 prisoners.

"The Court finds, based on estimates by the Court Experts and CDCR's consultant, that the CDCR must hire approximately 150 competent physicians to fill vacancies and replace inadequate physicians throughout the system." *2005 Opinion re Appointment of Receiver*, at *11.

***

"The CDCR sorely lacks sufficient qualified physicians to provide adequate patient care to prisoners. While there certainly are some competent and dedicated doctors working within the system, they are unable to service even a fraction of the entire prisoner population. Many other CDCR physicians are inadequately trained and poorly qualified as, for many years, CDCR did not have appropriate criteria for selecting and hiring doctors. Dr. Shansky testified that historically the CDCR would hire any doctor who had 'a license, a pulse and a pair of shoes.' According to Dr. Puisis, 20-50% of physicians at the prisons provide poor quality of care. Many of the CDCR physicians have prior criminal charges, have had privileges revoked from hospitals, or have mental health related problems. An August 2004 survey by CDCR's Health Care Services Division showed that approximately 20 percent of the CDCR physicians had a record of an adverse report on the National Practitioner Databank, had a malpractice settlement, had their license restricted, or had been put on probation by the Medical Board of California. The Court Experts testified that the care provided by such doctors repeatedly harms prisoner patients. The Court finds that the incompetence and indifference of these CDCR physicians has directly resulted in an unacceptably high rate of patient death and morbidity.

"Inadequate medical care in CDCR is due not merely to incompetence but, at times, to unprecedented gross negligence. Indeed, the evidence from multiple sources establishes that medical care too often sinks below gross negligence to outright cruelty.

"The Court will give just a few representative examples from the testimonial and documentary evidence. In one instance, a prisoner reported a two to three week history of fever and chills and requested care. The prisoner repeatedly visited medical staff with an increasingly serious heart condition but was consistently sent back to his housing unit. Eventually, the patient received a correct diagnosis of endocarditis, a potentially fatal heart condition treatable with antibiotics, but did not get appropriate medication. Finally,

the prisoner went to the prison emergency room with very low blood pressure, a high fever and cyanotic (blue) fingertips, indications of seriously deficient blood flow and probable shock. Despite the objections of a nurse who recognized the severity of the prisoner's condition, the physician attempted to return the patient to his housing unit without treatment. Rather than being sent to a community hospital emergency room for immediate treatment, as would have been appropriate, the patient was sent to the prison's Outpatient Housing Unit for observation. He died shortly thereafter from cardiac arrest. Dr. Goldenson found that this course of treatment was 'the most reckless and grossly negligent behavior [he had] ever seen by a physician.'

"In another example, a prisoner repeatedly requested to see a doctor regarding acute abdominal and chest pains; the triage nurse canceled the medical appointment, thinking the prisoner was faking illness. When the prisoner requested transfer to another prison for treatment, his doctor refused the request without conducting an examination. A doctor did see the prisoner a few weeks later but refused to examine him because the prisoner had arrived with a self-diagnosis and the doctor found this unacceptable. The prisoner died two weeks later. Sixty-two grievances had been filed against that same physician, but when interviewed by the Court Expert, the physician advised that most of the prisoners she examined had no medical problems and were simply trying to take advantage of the medical care system.

"In a further example, in 2004 a San Quentin prisoner with hypertension, diabetes and renal failure was prescribed two different medications that actually served to exacerbate his renal failure. An optometrist noted the patient's retinal bleeding due to very high blood pressure and referred him for immediate evaluation, but this evaluation never took place. It was not until a year later that the patient's renal failure was recognized, at which point he was referred to a nephrologist on an urgent basis; he should have been seen by the specialist within 14 days but the consultation never happened and the patient died three months later. Dr. Puisis testified that 'it was like watching the natural history of high blood pressure turn into chronic renal failure somewhat similar to the Tuskegee experiment.'

"Defendants have made some efforts to identify and remove from patient care those practitioners believed to be providing substandard care; in 2004, twelve such doctors were removed. The Quality In Corrections Medical ('QICM') program, developed in conjunction with the Court Experts, Dr. Kanan, Dr. Shansky, and the University of California at San Diego seeks to evaluate the work of identified CDCR physicians in order to improve and assure physician quality. However, QICM has encountered considerable obstacles to implementation and as of yet has not satisfactorily addressed the problems of incompetence and indifference." *2005 Opinion re Appointment of Receiver*, at *6-7 (citations omitted throughout).

a. Staffing

The *Turnaround Plan of Action* addressed physician recruitment in Objective 3.1 which set a target of filling 90% of physician positions with qualified medical personnel. To ensure better quality in the recruitment process, the job description was changed to require that all applicants be board certified in family or internal medicine.

The Healthcare Services Dashboard reports monthly on the percentage of authorized positions that are filled for medical personnel, pharmacy, dental clinical, and mental health clinical. For each of these positions, the measure displays three numbers: (1) the actual number of full-time equivalent (FTE) medical provider positions used during the reporting month, taking into account hours worked by civil service staff, registry staff, and staff serving overtime; (2) the authorized number of FTEs in these positions under the current budget; and (3) the percent of authorized filled. The performance target for all of these positions is 90% of authorized positions being filled.

As of November 2014, the Healthcare Services Dashboard reported the following staffing:

	Actual	Authority	% of Authority
Medical FTE	434	463	94%
Pharmacy FTE	531	488	109%
Dental Clinical FTE	798	825	97%
Mental Health Clinical FTE	2767	3275	84%

b. Quality of Providers

A key aspect of recruiting and maintaining a quality provider workforce is a functioning credentialing, licensing and certification program. As the Court noted in its *2005 Opinion*, these important programs were not functional:

10 years ago . . .

> "The CDCR's high number of incompetent or unqualified doctors is due in part to defendants' failure to track physician credentials and to remain cognizant of the areas of practice in which their board-certified doctors are certified. The Patient Care Order required CDCR to establish a policy of credentialing and privileging physicians as a critical step to preventing harm to prisoners.
>
> "Defendants were allowed five and a half months to institute a credentialing policy. Credentialing is widely used in the health care industry, and the policies are 'not that complicated.' Instead of developing this policy in house, the CDCR contracted out the task, waiting nine months to even sign a contract with the firm performing the work.

> "At the beginning of 2005, the CDCR implemented a policy that forbade hiring independent contractors and primary care physicians who were not board-certified or board-eligible in internal medicine or family practice. The central office now investigates each new CDCR physician by doing a broad search of practitioner databases to ascertain whether other health care entities have reported adverse credentialing actions regarding them or malpractice settlements on their behalf that are indicative of problems with their patient care. However, the CDCR has not formally adopted this or any other credentialing policy, which is evidence of a lack of will (or at a minimum a lack of competence) for systemic reform in this area. Due to the lack of a credentialing policy, many CDCR doctors are not qualified to practice the type of medicine required by their position and practice outside their area of medical expertise. For example, within the CDCR, one OBGYN manages HIV patients and an incompetent neurosurgeon practices internal medicine." *2005 Opinion re Appointment of Receiver*, at *21 (citations omitted throughout).

The problems identified by the Court with credentialing, licensing and certification have been solved. As a result, over the course of the Receivership, there has been a complete transformation of our providers so that today, we can confidently assert a quantum improvement in the quality of our medical providers.

To begin, there has been an 82% turnover in medical providers pre- and post-Receivership, consisting of an 80% turnover in physician & surgeons, a 100% turnover in physician assistants, and an 80% turnover in nurse practitioners. Sixty-two percent of these providers graduated from U.S. medical schools, and thirty-eight percent graduated from foreign medical schools. Our top 10 feeder U.S. medical schools, accounting for just over 100 of our 436 providers, are as follows:

- Western University of Health Sciences College of Osteopathic Medicine
- University of California, Davis
- University of California, San Francisco
- Loma Linda University School of Medicine
- California State University, Fresno
- Keck School of Medicine of the University of Southern California
- University of California, Los Angeles
- Stanford University School of Medicine
- University of California, Irvine
- Charles R. Drew University of Medicine and Science

One important consequence of the turnover and recruitment of new providers using new hiring standards is that 92% of our physicians and surgeons are board certified (the greatest number being board certified in family medicine / family practice or internal medicine).

c. Peer Review

Maintaining and improving a quality medical workforce is done, in part, through peer review systems. Those systems were not functional prior to the Receivership, as explained in the *2005 Opinion re Appointment of Receiver*:

10 years ago . . .

> "Peer review is the periodic review of work by similarly qualified professionals. For quality control and the identification of bad practitioners, peer review is performed universally by health care organizations. But in the CDCR, peer review 'is either bogus or it's not done at all.'
>
> "The peer review process sometimes fails because there is a paucity of qualified staff to engage in the process. Doctors with internal medicine qualifications are needed to review medical decisions, correct mistakes and provide training, but such doctors are rarely present at the institutions. At some prisons, the doctors who engage in the peer review process are incompetent. As a result, 'untrained physicians who make mistakes will continue to make them because there is no one to identify and correct their mistakes.'" *2005 Opinion re Appointment of Receiver*, at *10 (citations omitted throughout).

We developed a peer review process – approved by the Court in its July 9, 2008, "Order Approving, With Modifications, Proposed Policies Regarding Physician Clinical Competency" – that ensures that assessments of clinical competency and quality are determined by active clinicians in the same discipline as the provider, clinicians who can provide an unbiased assessment of clinical care rendered. *See* "*Plata* Physician Professional Clinical Practice Review, Hearing and Privileging Procedures" (Sept. 4, 2008). Peer review occurs in a number of contexts, including both routine reviews of each provider on an annual basis as well as focused reviews that are triggered by certain events, such as a patient death, a sentinel event, potential concerns raised by patterns of practice, utilization, or supervisory observations of care delivered. Peer review occurs at all levels of the organization, local, regional and statewide depending on the individual circumstances of the case. The function of a peer review committee is only to determine whether standards of care were met and that care was appropriate. Because of the tight integration of peer review into daily process, all CCHCS clinicians undergo review at least yearly. Decisions of appropriate remediation, if other than appropriate care delivery was determined by the peer review process, are made by other committees within CCHCS and complement the peer review process.

The most serious peer review sanctions – e.g., termination or suspension or revocation of privileges – trigger a statutory filing with the Board of Medicine pursuant to Bus. & Prof. Code Section 805. From 2009 through most of 2014, our peer review processes resulted in 71 providers whose privileges were suspended or revoked, 20 providers who were terminated, retired or resigned in the face of further proceedings, and 55 Section 805 filings.

6. Quality Improvement

The *Turnaround Plan of Action* recognized that a constitutionally adequate health care delivery system would not be sustainable into the future unless supported by a strong quality management and performance evaluation and improvement system, and that the incorporation of performance and outcome measurements for improvement and accountability is required for health care transformation. Given the absence of any meaningful quality improvement program in 2008, the *Turnaround Plan of Action* emphasized that development of a quality improvement system "requires not only new policies and procedures, but a fundamental cultural change and the development of skills for clinicians, clinical units, institutions and the entire system to self-assess and self-correct" (p. 15).

When we began in 2008, there was no basic information technology or data infrastructure to support a quality improvement program. There was no statewide network for data sharing and no technical expertise for program development. Accordingly, the first several years were spent building that basic infrastructure.

The Quality Management division was formally established in 2012. Its primary initial charge was to establish data reporting and analytic tools to support creation of a Healthcare Services Dashboard that would report on key performance measures. The Healthcare Services Dashboard was first released in April 2012.

At present, the Quality Management division supports full implementation of Quality Management and the Patient Safety Program through the following activities:

- **Improvement Planning and Management of Statewide Improvement Initiatives**
  - Formulation of a statewide Performance Improvement Plan at least every two years that lists priority areas for improvement, specific performance objectives, and overarching strategies used to achieve performance objectives.
  - Providing tools, training, and direct facilitation to assist institutions in developing annual improvement plans customized to local quality concerns.
  - Remedial planning for a subset of institutions with poor performance, under the direction of the QM Committee.
  - Establishment of annual Patient Safety Goals and a Patient Safety Work Plan.
  - Staff support for the statewide QM and Patient Safety Committees, which includes design, implementation, and implementation of statewide improvement / patient safety initiatives, such as the recent Scheduling Process Improvement Initiative and Patient Safety Survey.

- **Improvement Tools and Training**
  - Creation of tool kits and staff development programs to help health care staff apply classic quality improvement techniques (Example: RCA Tool Kit).
  - Establishment of a quarterly QM Academy (two-day basic orientation to QM and patient safety topics) for Institution Quality Management Support Units (QMSU) members and other local quality champions (the current demand requires

monthly QM Academy sessions, but it's not possible at this time).

- Development of continuing education presentations and decision support tools covering clinical topics from the Performance Improvement Plan.
- Maintenance of a database of current improvement initiatives at the institution level as a reference resource (PIWP Database).
- Maintenance of a SharePoint site hosting all improvement tools, patient registries, and performance reports released to date.

- **Performance Evaluation**
  - Production of a monthly Health Care Services Dashboard, consolidating nearly 200 performance metrics across all major program areas into one organizational performance report.
  - Production of monthly "candy cane" reports showing relative performance across institutions on important health care measures; these reports are used to identify and intervene at institutions that show consistently poor performance.
  - Development and maintenance of an automated risk classification system, which uses evidence-based predictive models and screening of thousands of data points to assign each CCHCS patient a risk level, updated daily.
  - Maintenance of more than 25 patient registries, drawing together information from multiple complex clinical and administrative databases to list patients with particular chronic conditions and flag patients at risk for poor outcomes or in need of services.
  - Creation of new patient registries for high-priority conditions, as necessary.
  - Compilation of daily reports to support health care and custody efforts to identify and appropriately place at-risk patients (Cocci Movement Report and Risk-Level Change Report, among others).
  - Production of ad hoc analytics at the request of CCHCS executives to support policy decisions or investigate potential quality problems. Recent examples include identification of mental health patients whose clinical history might make them appropriate for placement at a Minimum Support Facility and a study of the correlation between staffing levels and access to care.
  - Executive performance reports detailing progress on objectives in the statewide Performance Improvement Plan.
  - Design of data collection tools and sampling methodologies and pre-population of audit tools to ensure statistically valid measurement.
  - Routine validation of statewide databases and data feeds.

- **Patient Safety**
  - Managing the Health Care Incident Reporting System, including maintenance of a reporting platform and daily staff support to a group of executives that screen and triage health incident reports.
  - Development and maintenance of an adverse/sentinel event tracking system.
  - Facilitation of root cause analyses (RCAs) at individual institutions.
  - Coordination and facilitation of aggregate root cause analyses as assigned by the Adverse/Sentinel Event Committee, including completion of the final root cause

analyses report.

- Annual reporting of root cause analysis and health care incident reporting findings.
- Quarterly reports (Patient Safety Stories) identifying and disseminating best practices in patient safety.

In recognition of the workload described above and the need to expand Quality Management at the regional and institution levels, CCHCS redirected a net of eight additional positions to the Quality Management division last year and is requesting an additional 30 positions from the Legislature in this year's budget to begin building quality management at the regional offices and institutions (10 for headquarters and 5 each for the 4 regional offices).

7. Care Management

a. Appropriate Placement of High Risk Patients

We have designated certain prisons that are located near substantial community-based medical resources as "intermediate institutions" where we can cluster a greater percentage of high risk patients and deliver care more efficiently. We report monthly the percentage of all high risk patients statewide appropriately housed at an intermediate institution (high risk patient who are newly incarcerated or soon-to-be paroled are excluded from the measure). The performance target is 90% or more of high risk patients will reside at an appropriate institution.

As of November 2014, the Healthcare Services Dashboard reported 75% compliance for appropriate placement of high risk patients. This measure has been above 70% for all of 2014.

b. Specialty Services

In its *2005 Opinion re Appointment of Receiver,* the Court highlighted the failure to provide appropriate specialty services to patients as follows:

10 years ago . . .

> "Defendants have failed to provide patients with necessary specialty services. Patients with very serious medical problems often wait extended periods of time before they are able to see a specialist due to unnecessary and preventable delays. At Pleasant Valley State Prison ('PVSP') for example, it may take over a year to see certain specialists; as of May 2005, patients with consultation referrals from early 2004 had yet to be seen. In one instance a patient with a colonoscopy referral had to wait ten months before his appointment; by the time he was seen the mass in his colon was so large that the colonoscope could not pass through. Even when patients do see a specialty consultant,

medical staff often do not follow-up on the specialist's recommendations." *2005 Opinion re Appointment of Receiver*, at *16.

There are several aspects to appropriate and timely use of specialty referrals. The *Turnaround Plan of Action* established a standardized utilization management system to ensure appropriate access to specialty services, infirmary beds and hospitalization. *Turnaround Plan of Action*, Objective 1.4, p. 7. Timely access to specialty services was also addressed by the *Turnaround Plan's* objectives establishing health care access units and improvements to the scheduling and tracking system.

Compliance with policy timelines for access to specialty care are part of the composite measures discussed above dealing with timely access to care. We report on a monthly basis compliance with policy timelines for access to high priority specialty referrals and routine specialty referrals. The performance target for these measures is 90%.

Between June and November 2014, the Healthcare Services Dashboard reported that compliance for routine specialty referrals ranged from 93% to 94%. Compliance for high priority specialty referrals ranged from 75% to 78%.

With respect to the quality of specialty referrals, we report monthly on the percentage of specialty referrals that were submitted and approved that met utilization management approval criteria under the InterQual Utilization Management System. The performance target is 90% or more of approved specialty referrals that have evidence-based criteria available to guide referral decisions are consistent with the criteria.

As of November 2014, the Healthcare Services Dashboard reported utilization specialty services compliance at 91%. This measure has been above 90% for all of 2014.

During 2015, a new measure will be added to the Healthcare Services Dashboard showing how many high risk patients have a written interdisciplinary care plan. This will be a further measure of the quality of planned care for our high risk patients.

c. 30-Day Community Hospital Readmission

We report monthly on the percentage of community hospitalizations during the reporting period that were linked to a previous hospitalization for the same patient, with no more than 30 days between the two episodes of care (excluding hospitalizations for scheduled aftercare, such as chemotherapy, and readmissions on the same day or next day as the initial hospitalization). This measure is based on a rolling six months of data. The performance target is 5% or less of all hospitalizations results in a readmission within 30 days.

As of November 2014, the Healthcare Services Dashboard reported 7.8% for 30-day community hospital readmissions. This measure has been below 10% for all of 2014.

d. Potentially Avoidable Hospitalizations

The federal Agency for Healthcare Research and Quality has identified a subset of diagnoses that qualify a hospitalization as potentially avoidable, and these are applied at healthcare organizations nationwide. The list includes conditions such as cellulitis, pneumonia, diabetes, asthma, chronic obstructive pulmonary disease, seizure disorders, urinary tract infections, dehydration, angina, congestive heart failure, and perforated appendix. We also include end stage liver disease complications, self-injury, and medication-related events. Based on a rolling six months of data, we report monthly on the rate of potentially avoidable hospitalizations per 1,000 patients per year. The performance target is that the rate of avoidable hospitalizations will be less than 10 per 1,000 inmates per year.

As of November 2014, the Healthcare Services Dashboard reported a rate of 11.3 potentially avoidable hospitalizations. This measure has been below 11.9 for all of 2014.

e. 30-Day MHCB or DSH Readmission

We report monthly on the percentage of discharges from a mental health crisis bed or Department of State Hospitals-run program that resulted in an admission to the same mental health bed type within 30 days. The performance target is 5% or less of patients who return from mental health crisis bed or Department of State Hospitals will be readmitted within 30 days.

As of November 2014, the Healthcare Services Dashboard reported 29% 30-day mental health crisis bed or Department of State Hospitals readmission. This measure has fluctuated between 23% and 31% during 2014.

8. Health Care Information Management

For obvious reasons, adequately maintained medical records are a critical component of every health care system. The *2005 Order re Appointment of Receiver* described a medical records system that was essentially broken:

10 years ago . . .

> "The medical records in most CDCR prisons are either in a shambles or non-existent. This makes even mediocre medical care impossible. Medical records are an essential component of providing adequate patient care and should contain comprehensive information about a patient that can assist a physician in determining the patient's history and future treatment.
>
> "The amount of unfiled, disorganized, and literally unusable medical records paperwork at some prisons is staggering. At CIM, the records were kept in a 30 foot long trailer with no light except for a small hole cut into the roof and were arranged into piles without any apparent order. Conditions are similar at other prisons as well. At some prisons medical records are completely lost or are unavailable in emergency situations.

> "At CIM, the use of temporary medical records creates a confusing and dangerous situation for practicing physicians who often have access only to little or none of a patient's history. The Court observed first-hand at CIM that doctors were forced to continually open new files on patients simply because the doctors could not get access to the permanent files. As a result, the risk of misdiagnosis, mistreatment, and at a minimum, wasted time, increase unnecessary.

> "The Court concurs with Dr. Puisis's testimony that the CDCR medical records system is 'broken' and results in dangerous mistakes, delay in patient care, and severe harm." *2005 Order re Appointment of Receiver*, at *14.

The *Turnaround Plan of Action* did not propose a specific solution to the medical records problem. Instead, it recognized that the first step in fixing the problem was to create a roadmap for achieving an effective management system that ensures standardized health records practice for all institutions. *Turnaround Plan of Action*, Objective 5.2.1, p. 22. At the time the *Turnaround Plan of Action* was adopted, planning was already underway for implementing a computerized patient information system for all inmates.

During the first years of the Receivership, an electronic Unit Health Record ("eUHR") system was built. The eUHR was a substantial improvement over the paper-based system. It introduced substantial standardization of medical records, significant reduced the backlog of unfiled documents, and made the medical record much more accessible to clinicians. However, the eUHR has not been adequate for our clinicians. The eUHR is only a document filing system where paper records are scanned into digital, PDF files. As more and more documents are entered into each patient's file, the eUHR becomes more and more difficult to use as an efficient medical record. As a result, performance of the eUHR system has degraded over the years.

The Healthcare Services Dashboard reports on five elements of health information availability: (1) non-dictated documents; (2) dictated documents; (3) specialty notes; (4) community hospital records; and (5) scanning accuracy.

a. Non-Dictated Documents

We report on a monthly basis the timely availability of health information in non-dictated documents by calculating a composite of the average of five measures which report the percentage of documents available in the eUHR within 3 calendar days of a patient encounter for: (1) onsite medical services; (2) onsite mental health services; (3) onsite dental services; (4) CDCR inpatient services; and (5) other miscellaneous documents. These measures compare the document scan date to the patient encounter date, and they exclude documents related to specialty, hospital, diagnostic imaging, medication administration records, laboratory, and dictated documents. The performance target is 85% or more of non-dictated records generated by clinicians are available in the chart within 3 calendar days from the date of the patient encounter.

As of November 2014, the Healthcare Services Dashboard reported the availability of non-dictated documents at 59%. This measure has been between 50% and 60% from July through November 2014.

b. Dictated Documents

We report on a monthly basis the timely availability of health information in dictated documents by calculating a composite of the average of three measures which report the percentage of dictated documents available in the eUHR within 5 calendar days of the patient encounter for: (1) medical services; (2) mental health services; and (3) specialty services. The performance target is 85% or more of dictated records generated by clinicians are available in the chart within 5 calendar days from the date of the patient encounter.

As of November 2014, the Healthcare Services Dashboard reported the availability of dictated documents at 29%. This measure has been below 50% for all of 2014.

c. Specialty Notes

We report on a monthly basis the timely availability of specialty notes by calculating the percentage of specialty consultation documents available in the eUHR within 5 calendar days of the patient encounter. The performance target is 85% or more of specialty documents will be available in the chart within 5 calendar days after services are performed.

As of November 2014, the Healthcare Services Dashboard reported the availability of specialty notes at 66%. This measure has been climbing upward to its current level from the low 30%'s in January 2014.

d. Community Hospital Records

We report on a monthly basis the timely availability of health information from community hospital records by calculating the percentage of hospital discharge documents available in the eUHR within 3 calendar days of a community hospital discharge. The performance target is 85% or more of hospital discharge records will be available in the chart within 3 calendar days after the patient is discharged.

As of November 2014, the Healthcare Services Dashboard reported the availability of community hospital records at 65%. This measure has been between 50% and 65% throughout 2014.

e. Scanning Accuracy

We report on a monthly basis the accuracy of the scanning process by calculating from a sample of pages sent to the Health Record Center for audit the percentage of documents scanned into the

eUHR that are scanned accurately. The performance target is 95% or more of documents will be scanned accurately into the chart.

As of November 2014, the Healthcare Services Dashboard reported scanning accuracy at 97%. This measure has been above 95% since July 2014 (the measure was not separately reported previously).

f. Implementation of an Electronic Medical Record

A few years ago, when it became clear that the eUHR would become inadequate for our health care system, we decided to acquire a commercially available electronic medical record system. We are now in the middle of a project to implement Cerner's medical record system. System configuration and build has largely been completed, and we have begun system testing. The first institution to go-live should occur in October 2015 with implementation at all institutions completed during 2016. Successful implementation of this system – along with substantial modification of our clinicians' work practices – should solve the problem of timely access to medical record information.

9. Mortality Review

Large health care systems generally have processes to review deaths to determine whether lapses in care contributed to a death. The death review process at CDCR was broken. The *2005 Order re Appointment of Receiver* explained as follows:

10 years ago . . .

> "Death reviews provide a mechanism for medical delivery systems to identify and correct problems. These reviews should determine whether there has been a gross deviation from the adequate provision of care and whether the death was preventable. These reviews should be conducted even when death is expected, such as with a terminal condition, to determine if appropriate care has been provided.
>
> "Expert review of prisoner deaths in the CDCR shows repeated gross departures from even minimal standards of care. In 2004, the Court Experts and Dr. Shansky reviewed approximately 193 deaths, the majority from August 2003 to August 2004. These death reviews were the result of an Order of this Court after CDCR failed to perform the death reviews independently. These were only a portion of the backlogged death review cases.
>
> "The Court Experts concluded, and the Court finds, that thirty-four of the deaths were serious and probably preventable. CDCR sent these thirty-four cases to physicians at UCSD for review. In twenty cases, the UCSD physicians found serious errors that contributed to death. The conclusions of the UCSD physicians confirmed that the medical care provided by the prison medical staff prior to the inmates' deaths was well below even minimal standards of care. The reviewing physicians used the following language to

describe some of their conclusions: 'a gross" departure from the standard of care; 'standard of care definitely not met'; 'a number of deviations' and 'a severe systemic problem'; 'a gross departure' and 'treatment . . . far below the standard'; 'the corrections medical system failed the patient' and the inmate 'died of what quite likely was a preventable process'; 'an egregious deviation'; 'a fatal omission' and 'a gross deviation'; 'multiple gross deviations'. A Court Expert also testified: 'You would not expect one death like this in a relatively large-sized facility for years. As an example, if I took one of the most problematic deaths that we reviewed, I don't think I saw one of these in my entire 20 years' experience in managing prison facilities.

"The Court will provide just one of many examples to illustrate the problems revealed by the death reviews. An inmate arrived at 4:30 a.m. at the prison infirmary due to complaints of shortness of breath and tiredness. About a week prior, the inmate had reportedly been swollen all over with a blood pressure of 150/126 and a heart rate of 100. The night before his death the inmate had been brought to the infirmary for very similar complaints. The following morning at 6:00 a.m., the nurse and physician determined that further care was unnecessary at that time and released the inmate from the infirmary. On his return to the transport van, the inmate began staggering, went down on his hands and knees and went prone. As the inmate was helped into the van, a medical provider told a correctional officer that the inmate 'was fine and just needed sleep.' When he inmate arrived at his housing unit fifteen minutes later, he stumbled out of the van, went down on his hands and knees, then went prone and became unresponsive. By 6:30 a.m., the inmate had no vital signs, and at 7:02 a.m. he was pronounced dead. The UCSD physicians determined that there were 'multiple gross deviations from the standard of care' in this case, including an inadequate monitoring of the inmate's diabetes and hypertension in the years before his death, a lack of concern for high blood pressure readings in the days and weeks before his death, the lack of a personal physician's evaluation of the inmate when he came to the infirmary, and the failure to diagnose or treat the congestive heart failure from which the inmate presumably died.

"The Court Experts have made even further findings based on their review of additional death records beyond those sent to UCSD. In March 2005, a Court Expert reviewed the death files of ten prisoners at SATF prison and determined that a least seven deaths were preventable, and two more might have been preventable. The Court Expert concluded that the care provided in most of the cases constituted medical incompetence.

"In February 2005, the Courts Experts made similar conclusions regarding the review of ten deaths at San Quentin; most of the deaths had been preventable. The Court adopts these uncontested expert findings regarding preventable deaths.

"All of this information led Dr. Puisis to the uncontested conclusion, as referenced in the Introduction, that on average, every six to seven days one prisoner dies unnecessarily." *2005 Order re Appointment of Receiver*, at *7-8 (citations omitted throughout).

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> "As discussed above, the Stipulated Order required defendants to formulate 'a minimally adequate death review process.' Although defendants have had over three years to comply, they have failed to establish an adequate death review system, and many of the unreviewed deaths present serious problems, including neglect and cruelty. The CDCR has a backlog of over 300 deaths that have not been reviewed. In addition, almost all the deaths that occurred (at an approximate rate of one per day) in March, April and May of this year have not been reviewed." *2005 Opinion re Appointment of Receiver*, at *20 (citations omitted throughout).

The Receivership has cured these deficiencies by establishing a fully-functioning, appropriately staffed death review process. There are no backlogs of unreviewed deaths.

Annual reports on inmate deaths contain significant information on medical outcomes and quality improvement. Rigorous peer review of all prison deaths identifies serious lapses in care and records numbers of preventable deaths. The death review has been used to find opportunities for systemic improvement and to identify, counsel and sanction any unsafe providers.

The death review reporting and review policy and procedure is described in the Receiver's Quality Management Policy and Procedural Manual (Volume 3, Chapter 7). Each inmate death is reviewed by a trained Clinical Support Unit (CSU) physician and by a registered nurse consultant. Findings are recorded on a standardized death review template. Reviewers summarize the decedent's healthcare record, focusing primarily on all of the clinical encounters that took place during the last six months of the patient's life.

The quality of patient triage and evaluation, the timeliness of access to primary care and specialty referral, the quality of all clinical evaluations, and results of and responses to all laboratory and diagnostic imaging studies are noted. The quality of care for any identified chronic medical condition is evaluated and reviewed for adherence to standardized and evidence based guidelines for care. All visits to specialty care, emergency departments and inpatient hospital facilities are reviewed. The quality of end of life care for terminal conditions is evaluated. The timing and quality of the responses to emergency "man down" situations are reviewed for compliance with emergency procedural guidelines.

In the past four years, reviewers have also determined whether there was an identifiable primary care physician involved in the patient's care.

In each case, the cause of death is determined, using autopsy findings when available. All lapses in care are noted, even if lapses did not contribute to the death. The reviewer then makes a judgment as to whether the death was preventable or not preventable.

Completed death reviews are presented by the reviewer to the Death Review Committee (DRC), an interdisciplinary group appointed by the Statewide Chief Medical and Nursing Executives.

The eight-member DRC, chaired by a physician and a nurse executive, includes three physicians, three nurses, one (nonvoting) mental health representative and one custody representative. The DRC is charged with reevaluating the care provided to the decedent including an evaluation as to the preventability of death. A vote is taken by the committee to achieve concurrence as to whether the death was Not Preventable, Possibly Preventable, or Definitely Preventable. Other functions of the DRC are to identify opportunities for improvement in the health care system, to make recommendations for changes in Clinical Care Guidelines, to recommend statewide training or continuing medical education programs on specific issues, to identify and refer local issues to institution leadership, systemic issues to Statewide leadership, and to identify and refer deficiencies in clinical care to the appropriate Peer Review bodies.

The results of our death review process are summarized in an annual report. Items requiring provider improvement are referred to the peer review process, and the annual reports are used by the Quality Management division in its annual Patient Safety Report.

C. Outcomes

1. Death Reports

Annual reports on inmate deaths contain significant information on medical outcomes and quality improvement. Rigorous peer review of all prison deaths identifies serious lapses in care and records numbers of preventable deaths. The death review has been used to find opportunities for systemic improvement and to identify, counsel and sanction any unsafe providers. The death review process is described above. In this section, we will describe the outcomes as reported in the annual death reports, the most recent of which is the "Analysis of 2013 Inmate Death Reviews in the California Correctional Healthcare System" (Kent Imai, MD, Oct. 27, 2014).

During the time of the Receivership, there has been a significant reduction in the number of "likely preventable deaths" as follows:

- 2006: 18 likely preventable deaths
- 2007: 3 likely preventable deaths
- 2008: 5 likely preventable deaths
- 2009: 3 likely preventable deaths
- 2010: 5 likely preventable deaths
- 2011: 2 likely preventable deaths
- 2012: 1 likely preventable death
- 2013: 0 likely preventable deaths

During these same years, while there was an initial increase in the number of "possibly preventable deaths," the overall trend has been a reduction in "possibly preventable deaths" as follows:

- 2006: 48 possibly preventable deaths

- 2007: 65 possibly preventable deaths
- 2008: 61 possibly preventable deaths
- 2009: 43 possibly preventable deaths
- 2010: 47 possibly preventable deaths
- 2011: 41 possibly preventable deaths
- 2012: 42 possibly preventable deaths
- 2013: 35 possibly preventable deaths

Combining the rates for likely preventable deaths and possibly preventable deaths, Figure 3 shows a clear downward trend in preventable deaths.

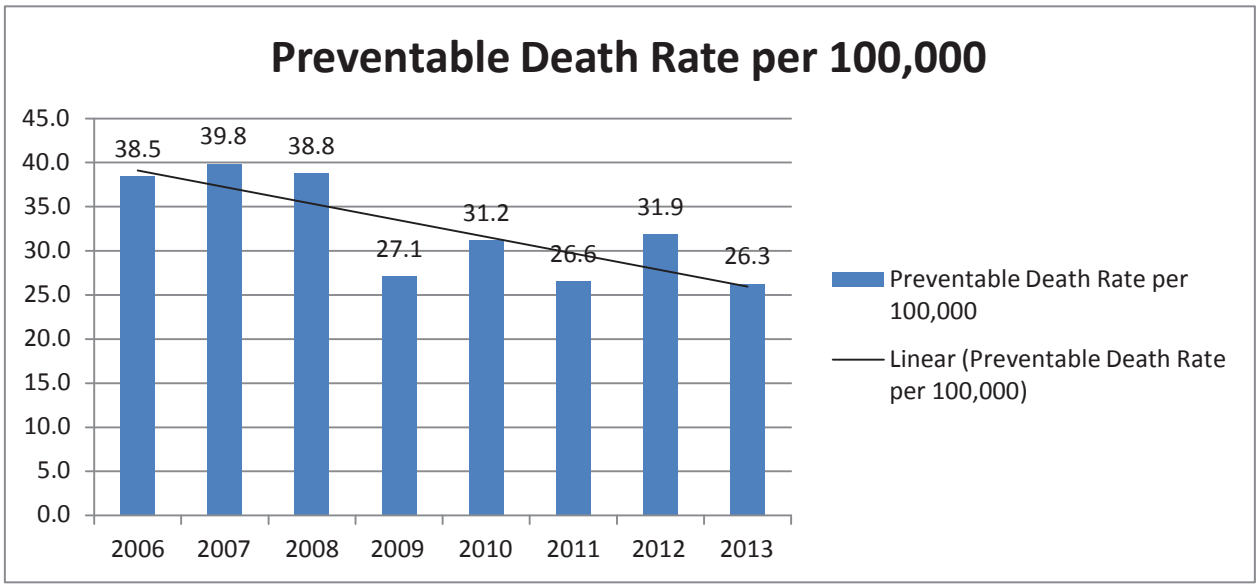

Figure 3. Preventable Death Rates 2006-2013

Figure 3 shows a 32% reduction in likely and possibly preventable deaths from the inception of the Receivership.

2. Population Health Management

Many of the items reported on the Healthcare Services Dashboard are "process" measures that only indirectly are indicators of quality of care. These measures are important because they do indicate whether the process systems are working properly and because the court orders in *Plata* direct compliance with Policies & Procedures that are, by and large, process oriented. When considering implications of population based health outcomes, 100% is not an achievable goal. This is due to the variability of the disease process, interactions between multiple conditions, patient non-compliance and the underlying environmental factors that contribute to the response to therapy. When comparing to other reference groups, consideration must be given to the similarities and differences in the demographics of the comparator populations.

Early on, the Receiver directed the Quality Management division to begin developing "outcome" measures that would more directly assess the health of our patients and the extent to which health care services actually improved the quality of our patients' health. At present, the Healthcare Services Dashboard reports monthly on the following eight "Population Health Management" measures:

- Asthma Care
- Therapeutic Anticoagulation
- Diabetes Care
- End Stage Liver Disease Care
- Utilization Specialty Services
- Colon Cancer Screening
- Breast Cancer Screening
- Diagnostic Monitoring

A ninth measure – Polypharmacy Medication Review – is being added this year.

Five of these measures – Asthma Care, Therapeutic Anticoagulation, Diabetes Care, Colon Cancer Screening and Breast Cancer Screening – have been reported since 2011, and as detailed below, the four-year trend data for each of these measures shows substantial improvements.

a. Asthma Care

Rather incredibly, the death report for 2006 indicated that there were 6 deaths from asthma. In 2008, the Receiver ordered an emergency statewide focus on asthma care so that this result would not be repeated. Now, on a monthly basis, we report on the average of two asthma care measures: (1) percentage of persistent asthmatics 18-64 years of age who were prescribed an inhaled corticosteroid (ICS) during the past 12 months; and (2) percentage of patients with asthma who received 2 or fewer short-acting beta agonist inhalers in the past 6 months. The performance target is 85% or more of asthma patients will be in good control based on the use of inhaled corticosteroids (ICS) and short acting beta agonists (SABA).

As of November 2014, the Healthcare Services Dashboard reported 81% compliance for asthma care. This measure has been above 80% for all of 2014. There have been no deaths from the failure to treat asthma since 2008. When initially reported in 2011, there was 75% compliance for asthma care.

b. Therapeutic Anticoagulation

We report monthly the percentage of patients on anticoagulation therapy whose most recent international normalizing ratio (INR) within the last 30 days was between 2 and 3.5 (excluding patients who have been prescribed Warfarin for less than 4 months). The performance target is 90% or more of all patients on Warfarin will have their most recent INR result within the last 30 days at therapeutic levels.

As of November 2014, the Healthcare Services Dashboard reported 79% compliance for therapeutic anticoagulation. This measure has been above 70% for all of 2014. When initially reported in 2011, there was 47% compliance for therapeutic anticoagulation.

c. Diabetes Care

We report monthly a composite score on diabetes care calculated by the average of the following four measures: (1) percentage of diabetic patients whose most recent hemoglobin A1C result is less than 8%; (2) percentage of diabetic patients whose most recent low-density lipid result is less than 100 mg/dL; (3) percentage of diabetic patients whose most recent blood pressure is less than 190/90 mm Hg; and (4) percentage of diabetic patients screened or treated for nephropathy. The performance target is 90% or more of diabetic patients will be in good control based on the following indicators: hemoglobin A1C, cholesterol, and blood pressure levels in good control, and screened or treated for nephropathy.

As of November 2014, the Healthcare Services Dashboard reported 81% compliance for diabetes care. This measure has been above 75% for all of 2014. When initially reported in 2011, there was 62% compliance for diabetes care.

d. End Stage Liver Disease Care

Beginning with the October 2014 dashboard, we report monthly a composite score on end stage liver disease care by calculating the average of the following four measures: (1) percentage of ESLD patients receiving an EGD within 36 months; (2) percentage of ESLD patients receiving a HCC screening ultrasound within 12 months; (3) percentage of ESLD patients not receiving a NSAID medication >= 30 days within the previous 60 days; and (4) percentage of ESLD patients receiving appropriate medication per ESLD related diagnosis. The performance target is 90% or more of end stage liver disease patients will be receiving care consistent with the CCHCS end stage liver disease care guide.

As of November 2014, the Healthcare Services Dashboard reported 74% compliance for end stage liver disease care.

e. Utilization Specialty Services

We report monthly on the quality of utilization specialty services by calculating the percentage of specialty referrals that were submitted and approved in the past month that met utilization management approval criteria. The performance target is 90% or more of approved specialty referrals that have evidence-based criteria available to guide referral decisions are consistent with the criteria.

As of November 2014, the Healthcare Services Dashboard reported 91% compliance for utilization specialty services. This measure has been above 90% for all of 2014.

f. Colon Cancer Screening

We report monthly on the extent of colon cancer screening by calculating the percentage of patients 50 through 75 years of age who were offered colorectal cancer screening (in the form of a fecal occult blood test, fecal immunochemical test, sigmoidoscopy, or colonoscopy) within the appropriate timeframe (excluding patients who have had a diagnosis of colon cancer or total colectomy). The performance target is 90% or more of eligible patients will be offered colon cancer screening as recommended by the U.S. Preventive Task Force.

As of November 2014, the Healthcare Services Dashboard reported 94% compliance for colon cancer screening. This measure has been above 87% for all of 2014. When initially reported in 2011, there was 55% compliance for colon cancer screening.

g. Breast Cancer Screening

We report monthly on breast cancer screening by calculating the percentage of female patients 50 through 74 years of age who were offered a mammogram during the last 24 months (excluding patients who have had a bilateral mastectomy). The performance target is 90% or more of eligible female patients will be offered a mammogram as recommended by the U.S. Preventive Task Force.

As of November 2014, the Healthcare Services Dashboard reported 94% compliance for breast cancer screening. This measure has been above 90% since March 2014 and above 87% for January and February of 2014. When initially reported in 2011, there was 69% compliance for breast cancer screening.

h. Diagnostic Monitoring

We report monthly on diagnostic monitoring as a composite score of 29 measures by calculating the percentage of patients prescribed select high risk medications who received appropriate diagnostic monitoring consistent with clinical guidelines. The performance target is 90% or more of patients prescribed select high risk medications will have appropriate diagnostic monitoring.

As of November 2014, the Healthcare Services Dashboard reported 80% compliance for diagnostic monitoring. This measure has been above 70% for all of 2014.

3. HEDIS Comparisons

More than 90 percent of America's health plans participate in the Healthcare Effectiveness Data and Information Set (HEDIS), submitting data annually on a core set of performance metrics. The 2012 HEDIS database included data on more than 40 percent of the U.S. population. The National Committee on Quality Assurance (NCQA) issues an annual report that rolls up HEDIS scores from various organizations into three broad comparison categories:

- Commercial HMO and PPO plans;
- Medicaid plans; and,

- Medicare plans.

NCQA reports scores at the 10th, 25th, 75th and 90th percentiles. Medi-Cal sets the "Minimum Performance Level" for its contracted managed care plans at the national 25th percentile.

CCHCS currently uses "HEDIS-like" methodologies for a number of our Healthcare Services Dashboard measures. For most of these measures, there are no significant differences between the HEDIS standards for data collection and reporting and the standards we use for our Performance Dashboard. The few differences in methodology are unlikely to materially affect our results or our ability to compare our results with national HEDIS results. However, CCHCS is in the process of partnering with UC Davis and NCQA to expand and validate our use of HEDIS methodologies so that any lingering concerns about our data may be addressed.

Currently, we collect data on 13 items, six of which are items that are part of a measure of comprehensive diabetes care. Systemwide, we are above the 25th percentile for all 13 items. For 11 of those items, we are above the 75th percentile. In other words, based on our HEDIS-like data, our outcomes are better than outcomes for patients in Medi-Cal, Medicaid and National Commercial HMO and PPO plans. The following table contains the details.

HEDIS Measures	HCS 2014 Dashboard or Other Data As of June 2014	HEDIS 75th Percentile	HEDIS 25th Percentile	National Medicaid HEDIS 2014 Overall	National Commercial HMO HEDIS 2014 Overall	Medi-Cal Managed Care HEDIS 2013
Persistent Asthma ICS Treatment	81%	87%	81%	84%	91%	---
Colorectal Cancer Screening	95%	69%	56%	---	63%	---
Breast Cancer Screening	83%	65%	51%	58%	74%	---
30 Day All-cause Readmissions	8.2%	---	---	---	8.5%	14.4%
Flu Shots for Adults (50-64)	59%	54%	44%	---	50%	---
Cervical Cancer Screening	82%	73%	62%	---	---	62%
Mental health Follow-up Visits in 7 Days	86%	58%	33%	42%	55%	---
Diabetes Care – HbA1c Control (<8%)	78%	56^	42%	46%	59%	49%
Diabetes Care – LDL-C Control (<100 mg/dL)	74%	41%	29%	34%	47%	38%

Diabetes Care – Blood Pressure Control (<140/90)	84%	64%	48%	60%	65%	63%
Diabetes Care – Medical Attention for Nephropathy	91%	83%	73%	79%	85%	82%
Diabetes Care – HbA1c Testing	96%	87%	79%	84%	90%	83%
Diabetes Care – Poor HbA1c Control (>9.0%)	12%	34%	51%	46%	31%	40%