ACCESS TO CARE INITIATIVE

Draft Design Document

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TABLE OF CONTENTS

I. INTRODUCTION 3
- **A. Alignment with Mission** 3
- **B. Major Problems with Current Processes** 3
- **C. Progress to Date and the Need for Urgency** 4
- **D. Access-to-Care Domains** 5
- **E. Goals and Measures** 5

II. COMPONENT DOMAINS 7
- **A. Reception/Receiving and Release (R&R)** 7
- **B. Sick Call/Primary Care** 9
- **C. Chronic Care** 13
- **D. Specialty and Infirmary/Acute Care** 17

III. INITIATIVE STRUCTURE AND SUPPORT 20
- **A. Interdependencies** 20
- **B. Utilization Management / Specialty and Bed Management** 21
- **C. Care Coordination and Redesign of the Health Care Placement Unit** 23
- **D. Patient Scheduling and Tracking and Other IT Support** 24
- **E. Custody Escort** 25
- **F. Boundaries** 25
- **G. Readiness Factors, Barriers, and Capacity for Failure** 26
- **H. Requirements for Success** 28
- **I. Governance/Budget** 30
- **J. Project Management** 31
- **K. Sequencing** 31

IV. APPENDICES 32
- **A. Access to Care Conceptual Model** 32
- **B. Utilization Management Program Organization Chart** 32
- **C. R&R Work Plan** 32
- **D. Sick Call/Primary Care Work Plan** 32
- **E. Specialty Care Work Plan** 32
- **F. Project Budget** 32
- **G. Key Indicators** 32
- **H. HMA Summary Themes from the Administrative and Operations Assessment** 32
- **I. Glossary** 32

Mission of the California Prison Receivership (Proposed)

Reduce avoidable morbidity and mortality and protect public health by providing patient-inmates timely access to safe, effective and efficient medical care, and coordinate the delivery of medical care with mental health, dental and disability programs.

I. INTRODUCTION

A. Alignment with Mission

While the Receivership has made considerable progress in key areas such as staffing, leadership, information technology, and facilities, the Receiver's draft Strategic Plan and seventh quarterly report reflect the need to accelerate progress at the patient care level. The Access-to-Care Initiative will address the heart of the Receiver's mission: *timely access to safe, effective and efficient medical care*. This initiative will dramatically improve the day-to-day medical care provided to all *Plata* class members by creating standardized, measurable, and reliable access-to-care processes that are sustainable after the system is returned to the State.

B. Major Problems with Current Processes

The prevalence of poor medical care and unnecessary deaths has been documented extensively in *Plata* and described in the Receiver's draft Strategic Plan. The extent of the problems should not be surprising given that virtually every aspect of healthcare delivery within CDCR suffers from inadequate management, inefficient workflows, and broken processes. For example:

1. Processes for seeing patients in reception/R&R, sick call, chronic care, specialty care, infirmary care, and acute care are inefficient, often unsafe, and not standardized or adequately monitored.
2. *Plata* Policies and Procedures (P&Ps) are outmoded, and there is no process for review, revision, posting/ distribution, or notification of parties as required by Court order.
3. Clinician education and training capacity is impoverished.
4. There is no web-accessible workspace to support project collaboration.
5. There is no statewide leadership in laboratory, radiology, rehabilitation, or medical records.
6. Quality indicators and associated data collection procedures are non-standardized and unvalidated.
7. Quality improvement programs are nominal or non-existent at local and state levels.
8. Utilization management is scant and ineffective.
9. Capacity is strained at all facilities.
10. Costs are unnecessarily high, particularly with regard to unnecessary custody escorts/transports and lengthy outside hospital stays.

C. Progress to Date and the Need for Urgency

For the past two years, the Receivership has focused on putting in place the foundation that will enable the launching and completion of this Access-to-Care Initiative. Progress to date has included:

- A dramatic increase in the number and caliber of clinical staff.
- Increases in the availability of custody escort staff.
- Facility and equipment improvements.
- Information technology improvements.
- Development of a coherent senior leadership team.
- Implementation of new pharmacy organization, staffing, technology, formulary, and processes.
- Development of a cadre of nursing and physician change agents supported by new training and education initiatives and web-based decision support.
- Removal of bureaucratic barriers to effective operations of the Receivership (e.g., expenditure of necessary funds, acquiring staff and equipment, improving facilities, paying external providers and health care facilities in a timely manner, putting in place committed, coherent and accountable leadership at the regional and local levels, and so forth).

The Access-to-Care Initiative could not have been launched without the progress achieved to date. However, it is time to accelerate clinical progress. In the first two years of the Receivership, the only multi-prison clinical process redesign effort has occurred in the area of pharmacy and medication administration.

The need to accelerate progress is driven by several factors, including:

- The clinical urgency to prevent unnecessary morbidity and mortality.
- The judicial imperative to impose a remedy and withdraw as expeditiously as possible.
- The need to streamline and standardize workflows and forms prior to implementation of health information technology in order to avoid “hardwiring” unsafe and inefficient processes.
- The need within two and a half years to open new facilities with a new fully-functional and sustainable system of prison health care—from staffing, to ancillary and support services, to clinical processes, to information technology.

This new system of care will require fundamental changes in clinical roles and the way business is conducted throughout the prison health care system. It will also require recruiting, developing, and/or contracting for significant human resources to lead, manage, and support this change process over the next two years.

D. Access-to-Care Domains

The Access-to-Care Initiative encompasses four domains:

1. Reception/Receiving and Release (R&R)
2. Sick Call/Primary Care
3. Chronic Care
4. Specialty, Infirmary, and Acute Care
    a. Utilization Management
    b. Care Management

Interdependencies. These clinical domains are interdependent. A chronic illness, for example, should be identified and assessed in the reception center process, and that assessment should lead to chronic care follow-up, trigger specialty care as needed, and be available at any sick call appointment.

Also, the Access-to-Care Initiative will require coordination across clinical disciplines. Beginning with reception center assessment, medical care processes must be integrated with mental health and dental care. Follow-up of patient needs also requires coordination, so one outcome of the initiative will be development of a sustainable scheduling and tracking information system integrating medical, dental, and mental health care.

In addition, all of the Access-to-Care Domains are dependent upon custody staff, so these are integrated throughout the Access-to-Care Initiative. Custody staff from the Receiver's team and CDCR will be integral members of each project team so that the new workflows are safe and efficient. The Access-to-Care Initiative will coordinate closely with the on-going efforts of the Receiver's custody access teams.

The domains are also dependent upon information technology. The Receiver's information technology staff will provide project support, encourage the standardization required for optimal electronic solutions, and guide selection and implementation of an electronic scheduling and tracking system.

The Access-to-Care Initiative Conceptual Model (see Appendix A) illustrates the interdependencies.

E. Goals and Measures

Successful implementation of the Access-to-Care Imitative will achieve the following goals:

1. Improve access to care by creating standardized, measurable, and reliable processes that are amenable to implementation across variations in custody levels and physical plants.

2. Develop a sustainable integrated scheduling and tracking information system that conforms to best practices; reflects efficient workflows for medical, dental, and mental health care; and integrates with the Receiver's other IT initiatives.
3. Develop integrated utilization management (UM) and care management (CM) systems to support chronic care, specialty services referral processes, and infirmary/ acute care management (see Appendix B).
4. Develop system competence in the Model for Improvement (rapid-cycle quality improvement)[1] and use of human factors and reliability science[2] to support additional progress and sustainability post-Receivership.

Achieving these goals will meet the urgency needs discussed above related to clinical access and quality, sustainability, information technology, and the new facilities. In addition, the initiative will result in significant reductions in custody escort and outside hospital costs.

Useful measurement data will derive from:

- Access-to-care measures, *e.g.*, how many sick call requests were reviewed within appropriate timeframes.
- Standardized, free-world clinical quality measures, e.g., those developed by the National Committee for Quality Assurance and/or endorsed by the National Quality Forum.
- Utilization data.
- Qualitative evaluations, systematically performed and reported.

Appendix G includes a set of selected key indicators for each domain.

Because we are developing new enterprise-level information systems, including an electronic scheduling and tracking system, attention to measurement takes on added importance during this initiative. Even free-world, well-standardized measures require different implementation in paper vs. electronic systems. Correctional access-to-care measures pose these same challenges. In addition, they lack the standardization and validation that free-world quality measures have undergone. While we can begin using some of the access-to-care measures developed by the Quality Management Assistance Team (QMAT) and the Office of the Inspector General, we also need to reassess how well these measures perform.

The Institute of Medicine's 2006 volume, Performance Measurement: Accelerating Improvement,[3] lists the data element definition requirements as follows:

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[1] See www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove.

[2] Resar RK. Making Noncatastrophic Health Care Processes Reliable: Learning to Walk before Running in Creating High-Reliability Organizations. *Health Services Research*, 2004: 41: 1677-89.

[3] Institute of Medicine. *Performance Measurement: Accelerating Improvement*. Washington, DC: National Academy Press; 2006.

> Clinical quality measures generally consist of a descriptive statement or indicator…, a list of data elements that are necessary to construct and/or report the measure, detailed specifications that direct how the data elements are to be collected (including the source of data), the population on whom the measure is constructed, the timing of data collection and reporting, the analytic models used to construct the measure, and the format in which the results will be presented.

We will engage external expertise to provide technical assistance so that we can meet the multiple measurement challenges raised during the Access-to-Care Initiative.

II. COMPONENT DOMAINS

A. Reception/Receiving and Release (R&R)

The reception center process should provide comprehensive screening on the day of arrival to prison, providing the foundation of care management by establishing identification and timely treatment of high-risk patients. With the permission of Judge Henderson and under the direction of the Office of the Receiver, the San Quentin State Prison reception/intake system was redesigned and implemented in 2006-2007. The redesign was guided by a committee that met weekly for five months with representation from custody, pharmacy, medical, mental health, and dental care. Essential elements of the pilot included:

- Process redesign.
- Professional role redesign.
- Policy and forms revision.
- Introduction of information technology.
- Physical plant improvements.
- Training and change management.

The pilot reception process provides integrated medical, dental, and mental health screening on the day of arrival as well as laboratory testing, medication review and administration, and referrals to providers based on national guidelines. It stratifies inmates by age and medical need so that medical providers spend less time with young, healthy inmates.

By integrating screening on the day of arrival rather than staggering it into subsequent clinics, the San Quentin pilot program has reduced delays, cancellations, and reschedules in all disciplines, reduced sick call volumes, reduced the burden on custody, and reduced emergency encounters and hospitalizations. It has improved care timeliness and has better aligned and allocated health care resources.

The reception/receiving and release component of the Receiver's new Access-to-Care Initiative will build on the San Quentin efforts and the ongoing improvements facilitated there by new pharmacy and laboratory information technology. The recently-developed San Quentin reception center policies now need updating in wake of

Guardian pharmacy and laboratory electronic access. Process mapping and workflow redesign at pilot sites in the Southern and Central Regions will complement the San Quentin work and lead to a standardized change package, similar to the Maxor Guardian Implementation Guide, informally known as the "cookbook." Implementation teams will then partner with local leaders and champions on statewide dissemination of the redesigned process. Appendix C provides a Reception/R&R work plan including project activities, milestones, and timeline.

The most formidable challenge to progress at all the sites will be inadequacies in physical space and environment. That barrier notwithstanding, the goal is to develop standardized reception screening processes and implement them at each of the major reception center prisons by January 2009.

Reception project activities

- Develop Reception Redesign Team.
- Develop assessment tools for categorizing reception center inmate populations / intake data and doing gap analysis of space, staffing, leadership, and practices.
- Conduct assessments at major reception centers.
- Collect best practices, building on San Quentin practices and materials.
- Develop reception center "change package" standardized for statewide use, including policy updates, revised forms, training curricula, data collection and evaluation components, taking into account changes in Guardian pharmacy and laboratory electronic access.
- Further refine protocols for tuberculosis and laboratory screening.
- Further stratify "return-to-custody" inmates who were recently assessed within CDCR.
- Begin at first pilot site, Richard J. Donovan Correctional Facility (RJD).
- Move implementation team to subsequent sites with iterative revisions of change package (using Maxor Guardian medication administration model).

Activities at each Reception Center

- Ensure custody cooperation and commitment
- Establish local Reception Committee with high-level representation from custody, including population management, medical, mental health, dental, pharmacy, laboratory, and medical records.
- Plan space accommodations as needed to establish adequate physical space including confidential screening space and exam rooms with sinks, exam tables, computers, fax, phones, and accompanying electrical power support. (A number of reception centers are scheduled for physical construction or redesign.)
- Anticipate competing demands for space.
- Supplement staffing as necessary.
- Conduct staff training with general orientation for custody staff and skills development for nursing assessment.
- Begin plan-do-check-act cycles of process redesign
- Coordinate jail intakes with custody and in-coming agencies

- Redesign data collection tools.
- Monitor, conduct ongoing and final evaluation.

Outcomes

- Standardized processes for scheduling, tracking, and continuity of service, creating capacity for electronic automation.
- Improved health risk identification and timeliness of appropriate treatment.
- Decreased clinic volumes.
- Decreased emergency visits to the Triage and Treatment (TTA) and outside emergency rooms.
- Reduced custody escort costs and hospital costs
- Increased community safety.

Barriers

- Overcrowding.
- Lack of health care space in reception areas.
- Inadequate custody escort resources.

Support Required for Reception Redesign Team

- Centralized assistance with policy revision, including analysis of Court orders and state and federal regulations.
- Training in process mapping and redesign.
- Training in rapid-cycle quality improvement (plan-do-check-act PDSA cycles)
- Centralized assistance with funding and procurement as needed.

Additional Challenges

- Develop a medical classification system based on standardized assessment.
- Establish process for accessing and storing jail transfer summaries.
- Revise the "chrono" system to be safer, more effective, and more efficient.
- Redesign and standardize the receiving and release process and implement statewide.

B. Sick Call/Primary Care

In their textbook chapter on sick call,[4] Catherine Knox and Steven Shelton describe the advantages and disadvantages of multiple options for managing each aspect of the sick call process, including means of patient-inmate access, paper triage and face-to-face triage, redirection of non-clinical requests, nursing assessment, nursing protocols, mid-level practitioners, doctor lines, quality improvement, and the various forms used along the way.

[4] Knox CM, Shelton S. Sick call. In Puisis M (ed): *Clinical Practice in Correctional Medicine*. St. Louis: Mosby, 2006.

On paper, California's sick call processes are acceptable, and in some prisons they work either as designed or with reasonable local work-arounds. At best, however, they involve too much ambiguity, too many forms, too many handoffs, too many chances for patients to fall between the cracks, and no safeguards against errors. They are not optimized and standardized for conversion to the electronic era. At every prison, both the nurse lines and primary care provider (PCP) lines suffer from inconsistencies, delays, and errors. Nurse and PCP assessments are often inadequate, documentation is often incomplete, use of nursing protocols is inconsistent, and unnecessary PCP referrals abound. Low patient satisfaction contributes to "no-shows." Delays in obtaining PCP care contribute to unnecessary specialty referrals and inmate movement. PCPs must often make decisions about treatment without access to critical information.

At the worst prisons, the processes are best described as chaotic. A recent case report chronicled care of an inmate with severe hypertension who was seen at reception and sick call, then lost to follow-up. The follow-up visits were scheduled but did not occur. The investigators wrote, "It is not clear who was responsible for scheduling the appointments. Site visit found that providers were often re-directed to other areas of the institution and the yard clinic lines were cancelled. There is confusion on how the nursing staff re-schedules missed appointments when the MD/NP is not able to see everyone on the list for each day."

While there are multiple ways of accessing sick call, the Sick Call/Primary Care Redesign Team will initially focus on creating a standardized, measurable sick call process using the Inmate Request for Services CDCR Form 7362 with an aim of providing timely and quality access to medical care. Using the same sites as the reception pilots above, as well as prisons thought to have already established best practices, the initiative will focus on developing standardized and measurable processes that can be implemented statewide and that are amenable to conversion from paper to electronic format. Appendix D provides a Sick Call/Primary Care work plan including project activities, milestones, and timeline.

Sick Call/Primary Care Project Activities

- Recruit and hire project staff, including project manager, two physician and two nurse leaders, and analytical support
- Form the sick call/primary care project team including custody, IT and medical record representation
- Conduct baseline statewide sick call assessment
- Develop a detailed project plan
- Define the scheduling system's business requirements based on the improved process
- Identify sick call "best practices" facilities
- Develop change package
- Identify and select pilot sites in coordination with other access to care teams
- Conduct sick call training at the pilot institution
- Refine sick call processes with local Process Improvement Teams
- Review and modify sick call policies in the inmate medical hand book

- Test and improve change package at the pilot sites
- Procure scheduling system

Activities at the Pilot Site

The Richard J Donovan Correctional Facility (RJD) will serve as the first pilot site for evaluation of the CDCR's core sick call processes, delineated below:

1. Patient-inmate fills out a Request for Services (Form 7362).
2. Nursing staff (LVN or RN) picks up the 7362s daily.
3. "Paper triage" occurs: RN evaluates the 7362s and sorts them according to discipline (mental health, dental, or medical) and type of request (medication refills, inquiries about the status of pending services, etc.).
4. For a medical concern deemed significant, patient is brought to the clinic for face-to-face encounter with RN within 24 hours of receipt of 7362.
5. RN evaluates the patient and either resolves the issue, possibly using a nursing protocol (authorized via a standardized procedure recognized by California Board of Registered Nursing), or refers the patient to PCP as urgent, emergent or routine.
6. Office technician or nurse schedules patient see the PCP sometime in the future from within 1- 7 days.
7. Patient is seen by PCP within the appropriate time frame.

Following assessment, redesign, and implementation efforts at RJD, the Sick Call/Primary Care Redesign Team will join the Reception Redesign Team at the second pilot site. While the Reception Redesign Team is likely to move from site to site, using the Maxor Guardian conversion team model, in order to reach the limited number of reception centers, the Sick Call/Primary Care Redesign Team must eventually reach all 33 prisons. Accordingly, the sick call dissemination strategy may differ. The "learning collaborative model," which brings local teams offsite to a central location, as planned in the Chronic Care Initiative, offers an alternative dissemination strategy.

Process redesign activities will include:

- Review and revision of standardized nursing procedures and approved protocols.
- Redesign of nursing supervision as called for by new Supervising RN (SRN II) deployment, with new role in custody liaison for yard clinics.
- Reconsideration of mid-level provider (NP/PA) roles.
- Potential expansion of PCP clinic hours.
- Potential development of same-day access to PCPs based on "advanced access" and queuing theory models now being used in free-world systems.

Outcomes

- Standardized processes for sick call access, assessment, treatment, referral, and follow-up.
- Development of utilization and quality indicator data collection procedures.
- Improved compliance with the *Plata* access-to-care requirements

- Improved custody-health care interactions and streamlined operations.
- Improved patient satisfaction and adherence with treatments and scheduled visits.
- Decreased clinic volumes.
- Capacity for transition to electronic scheduling and tracking system.
- Enhanced clinical skills for management of routine conditions and recognition of red-flag urgent signs and symptoms.
- Enhanced capacity for ongoing change and improvement in primary care.

Barriers

- Potential delays in approval and recruitment of team members
- Inadequate scheduling and tracking system
- Weak management on the institutional level
- Insufficient clinical staffing (physician, mid-levels, nursing, health records)
- Potential lack of custody escorts and buy-in
- Frequent lock-downs
- Security issues requiring separation of inmate groups

Support Required for Sick Call Redesign

The Sick Call/Primary Care Redesign Team, like the Reception Redesign Team, will need custody and IT participation, project management, quality improvement, and analytical support. Local leaders and clinical champions will need to devote time to the project, requiring some clinical backfill. Space issues in both the sick call and reception projects will be similar, as will the need for extensive nurse training, policy-and-procedure revision, development of a change package with revised forms, training curricula, data collection and evaluation components. As electronic scheduling and tracking becomes available, the roles of office technicians, nurses, and PCPs will inevitably need to change.

The change methodology used across the reception, sick call, and chronic care efforts will be the Model for Improvement, including rapid-cycle quality improvement cycles and human factors/reliability science.

The goal is to review sick call processes, forms, and staffing models, redesign them as needed, and disseminate via a quality improvement initiative involving at least half of CDCR prisons by January 2009.

Primary Care Encompassing Sick Call and Chronic Care

The above activities focus on ensuring a reliable sick call process based on the Request for Services (Form 7362) because of the central role of this process in inmate-patients' access to care. As critical as this process is, "sick call" has come under attack because it reinforces an outmoded episodic care model that too often fails to hold clinicians accountable for patient outcomes. While defensible as the dominant model of care in jail settings, it is not so in prison. In response to the Receiver's draft Strategic Plan, Dr.

Robert Greifinger strongly objected to our failure to pursue a unified primary care model:

> "Sick call" is a widely-used term behind bars (and in the military). In my opinion, "sick call" is should be abolished as a phrase, except for history books. It is archaic. Instead, I would focus on developing a primary care model, with continuity of care with a primary practitioner to the extent possible.

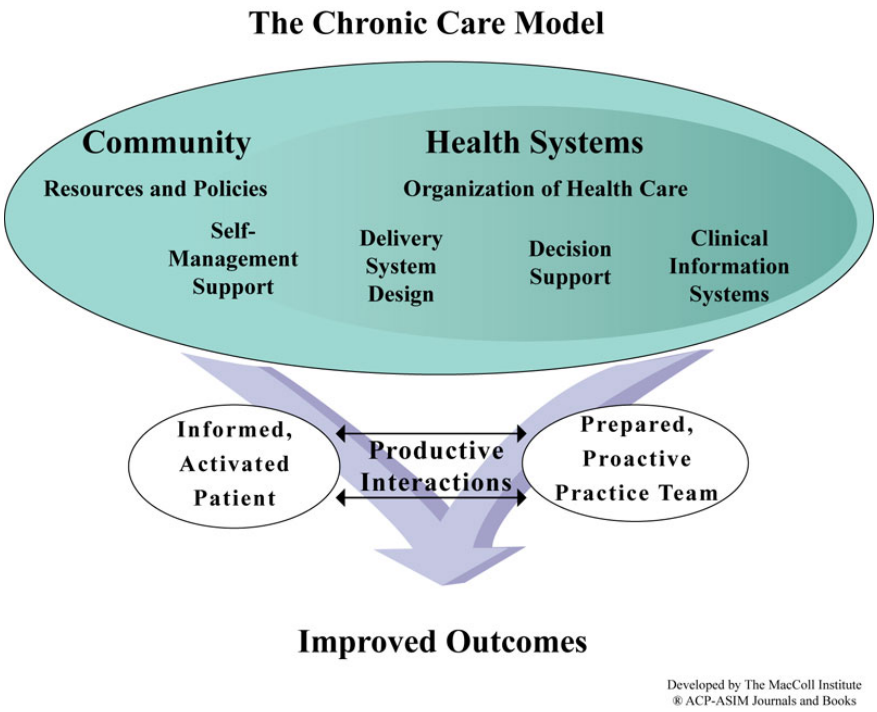
The thrust of this criticism is valid and consistent with the direction of CPR/CDCR leadership discussions over the past six months. The Sick Call/Primary Care Redesign Team still needs to focus initially on core sick call processes, but it will also be charged with envisioning and implementing full-fledged primary care within CDCR. Some of the CDCR facilities attempt to achieve provider and nurse continuity in the prison yard clinics, and yet the primary care model depends upon more than minimal continuity. Primary care involves multidimensional relationships and responsibilities. The primary care provider and nurse provide healthcare screening, manage the patient's acute and chronic medical conditions using established guidelines for care, advocate for the patient, communicate with other providers, track test results and act on them, follow the patient across all the points of care (sick call, chronic care, emergency room, hospital, specialty visit), and are ultimately accountable for the health outcomes of the patient. The Chronic Care Model presupposes primary care.

C. Chronic Care

On January 25, 2008, Health Management Associates (HMA) was contracted to conduct a comprehensive assessment of CDCR's health care system as it relates to chronic diseases and, specifically, asthma screening and treatment. The stated goals of the HMA contract are as follows:

1. Design and direct a quality initiative to achieve evidence-based asthma care in the CDCR, encompassing practice redesign, clinical guidelines, policies, documentation tools, and staff education resources.
2. Develop culturally and linguistically appropriate education resources and collaborate with CDCR on appropriate peer education programs for patients with asthma.
3. Develop and lead implementation of a chronic care team model appropriate for corrections, delineating roles, responsibilities, and measures of team function in the asthma context.
4. Design and pilot an implementation plan for a disease registry, care coordination, and case management for patients with asthma.
5. Develop process improvement methodologies within the CDCR including use of quality measures, rapid-cycle quality improvement, and high-reliability practices in the asthma context.

The Chronic Care Model[5] calls for interventions and measures within six fundamental areas: (1) self-management; (2) decision support, *e.g.*, by operationalizing guidelines in the examination room, (3) clinical information system, *e.g.*, use of a registry; (4) delivery system design, *e.g.*, clarifying roles and tasks of the various clinicians; (5) organization of health care, *e.g.*, aligning incentives with the quality program; and (6) bringing community programs to bear. Fortunately, the Chronic Care Model is becoming increasingly familiar, so much so that the legislature is now considering writing it into the California Health and Safety Code (AB1555 Lieber).



HMA visited eight prisons in the assessment phase of the project. The assessments revealed deficiencies in each of the six components of the Chronic Care Model (see Appendix H). The findings also reflect deficiencies in each of the four domains of asthma-specific care required by the National Asthma Education and Prevention Program Expert Panel Report (NAEPP)[6]: (1) assessment and monitoring, both initial and periodic, including classification by severity; (2) education for a partnership in asthma care, including use of individual patient action plans; (3) control of factors contributing to asthma severity, and (4) pharmacotherapy.

These deficiencies are no surprise. In 2003 as part of the *Plata* remedial program, the CDCR introduced a nominal Chronic Care Program, but the "pulmonary disease" component of the *Plata* Policies and Procedures failed to address major components of

[5] Wagner EH. Chronic disease management: What will it take to improve care for chronic illness? *Effective Clinical Practice*. 1998;1(1):2-4.

[6] NIH National Asthma Education and Prevention Program. Expert panel report 3: guidelines for the diagnosis and management of asthma. 2007. Available at http://www.nhlbi.nih.gov/guidelines/asthma/index.htm.

the then-current asthma guidelines, the program was not consistent with the Chronic Care Model, and the program resource deficits included inadequate medical records, almost non-existent information technology, and a shortage of qualified clinicians and managers. Even the multiple interventions made over the past year in wake of the 2006 asthma deaths, while they may have saved lives, have failed to address major components of the Chronic Care Model and asthma guidelines. While asthma deaths dropped in 2007, we know of one asthma death and one near-death in 2008. Merely developing a new medication guideline and doing nurse and provider education will not reliably improve outcomes. Asthma care remains far too episodic and provider-centric.

Chronic Care Project Activities

Both the pilot program development and dissemination phases will employ the Learning Collaborative strategy.[7] Collaboratives commonly occur over the course of 8-12 months with teams from different sites attending four two-day learning sessions separated by action periods. Our 4-6 chronic care pilot prisons will participate in a compressed collaborative from June to October 2008. An intensive skills-based course on quality improvement will be imbedded in the learning sessions. Beginning around November 2008, pilot site teams will fold into three regional collaboratives involving all 33 prisons. Other activities, organized by domains of the Chronic Care Model, are as follows:

1. Create Capacity and Culture of Quality Improvement
    - Teach the Model for Improvement and organizational change via learning collaboratives as described above.
    - Supplement pilot learning sessions with weekly site meetings attended by regional staff, as well as monthly conference calls.
    - Develop skills of regional nurse consultants and Clinical Support Unit (CSU) physicians so that they can function as quality improvement advisors.
2. Redesign Systems to Optimize Chronic Care Program
    - Observe CDCR best practices in case management, e.g., at Pelican Bay State Prison.
    - Redesign the chronic care program, restructuring primary care visits to ensure planned care and optimal patient self-management and utilizing a case management approach between visits.
    - Adapt nursing duty statements to be consistent with chronic care visit and define/redefine roles of clinic staff consistent with Chronic Care Program.
    - Develop a "change package" standardized for statewide use, including policy updates, revised forms, training curricula, data collection and evaluation components.
3. Develop Clinical Decision Supports

[7] *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement.* IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. (Available on www.IHI.org).

- Conduct two webinars for all sites emphasizing key recommendations from NAEPP guidelines and chronic care concepts.
- Distribute NAEPP guidelines summary, pocket cards and wall posters for asthma champions to disseminate locally.
- Develop a standard tool for observation and feedback of clinical asthma encounters and train CSU physicians in its use.
- Develop UCSF "warmline" for pulmonary specialty advice, to be expanded over time to other conditions.

4. Develop Patient Self-Management Supports
    - Train nurse consultants in self-management support and case management.
    - Develop asthma educational videos for institutional TV channel.
5. Develop Information Systems
    - Work with pilot sites to identify population of patients with asthma, establish interim registry which will include critical information for clinical care and case management.
    - Pilot a web-based personal health record in pilot sites with connectivity; a simple spreadsheet "registry" in pilot sites without connectivity; and if necessary, a paper registry in pilot sites without computer access.
6. Strengthen Community Linkages and Supports for Chronic Care Program
    - Map interdependencies of reception, sick call/primary care, chronic care and specialty care, and work with respective teams in pilot sites to improve and integrate core processes.
    - Develop draft presentations and prepare chronic care champions to train correctional staff in asthma basics.
    - Develop draft presentations and prepare asthma champions to train Men/Women's Advisory Committees in asthma basics.
    - Work with peer education initiative to provide educational materials and support as needed in development of asthma peer education program.
    - Ensure asthma educational programs are being aired on institutional TV channel.

Barriers and Support Required for Chronic Care Redesign

The Chronic Care Redesign Team will need similar staffing and support as the Reception and Sick Call/Primary Care Teams described above. It will also face similar barriers.

Chief among these challenges is the need for statewide and regional leaders to organize and supervise these various efforts, given all their other duties. Similarly, the nurse consultants and CSU physicians need to act as change agents across the entirety of the Access-to-Care Initiative.

The good news is that, given the interdependencies and common needs of the reception, sick call/primary care, and chronic care efforts, the HMA trainings will be applicable to all three. It is imperative that the CDCR clinical leaders develop competencies in managing quality improvement initiatives and in doing the nuts-and-bolts of process

redesign and rapid-cycle quality improvement (the Model for Improvement), and that they become competent in teaching/coaching these change methodologies.

It also makes sense for the Asthma/Chronic Care Redesign Team to use the same pilot sites as in the reception and sick call/primary care efforts. The obvious danger is site overload, so the reception/sick call/asthma efforts at RJD, for instance, will need to be staggered.

Diabetes and Cardiovascular Disease

We chose to begin chronic care redesign with asthma because of its obvious importance and deficiencies in care, because asthma care is less complex than certain other chronic conditions, e.g., diabetes, and because we already have incipient projects focused on other chronic conditions. Regarding the latter, the long-standing HIV Advisory Committee has assumed responsibility for hepatitis C oversight, and work on chronic pain management is now well underway with the assistance of UCSF.

Diabetes is the quintessential multi-faceted chronic care challenge, made even harder in the correctional environment. Asthma care improvement requires reasonable collaboration of nurses, primary care providers, and pharmacists, with significant cooperation from custody. Diabetes care improvement requires reasonable collaboration of nurses, primary care providers, pharmacists, dietitians, podiatrists, and ophthalmologists, among others, with enormous cooperation from custody, preferably supported by reliable linkages to and analysis of laboratory and utilization data. Given that complexity, plus all the disarray and deficiencies described above, plus CDCR's inexperience with the Chronic Care Model and quality improvement, a diabetes initiative would face abysmal odds of success.

And yet, once we have made sufficient headway with our chronic care and quality improvement capacity, clinical urgency will demand that we turn to diabetes. Diabetes, the metabolic syndrome, and cardiovascular disease are intertwined, so this effort could take shape in several ways. We have asked Health Management Associates to anticipate these developments as they work with us on the initial chronic care phases of work. Meanwhile we are launching a separate Emergency Response Initiative that will focus heavily on the red flag symptoms of cardiovascular disease.

D. Specialty and Infirmary/Acute Care

Specialty care services and infirmary/acute care processes are all included in one of the four domains of the Access-to-Care Initiative. These two process share one common element—care access is dependent on services that extend beyond primary care, usually to external providers. There have been extensive efforts made to address the appropriateness of specialty care and referrals, first at San Quentin, then at California State Prison–Los Angeles County (LAC) and California Correctional Institution (CCI). The latter effort has been formalized as the Specialty Services Coordination Pilot.

The goal of the Specialty Services Coordination Pilot has been to develop and implement policies and practices that will reduce cancellations and missed appointments, eliminate backlogs, and improve provider relations with an end result of providing timely access to specialty services. Progress at LAC has been smoother than at CCI because of high staff turnover at CCI, particularly in leadership positions, and the preponderance of registry physicians there. The Receiver's seventh quarterly report describes these issues, as well as:

- Efforts to reduce the number of cancellations for offsite specialty appointments.
- New roles for and coordination among nurses, physicians, and custody staff.
- Use of the new Pre-Confirmation Appointment form.
- Use of InterQual Outpatient Criteria.
- Availability of transport vans.
- Clustering of offsite appointments.

The Access-to-Care Initiative will encompass the Specialty Services Pilot. Since specialty care services often lead to acute hospitalization, the same project team will address both clinical processes as part of the care continuum.

Based on the lessons learned from the LAC-CCI Specialty Services Coordination pilot, sustainability of the improved processes is dependent on a sound utilization management (UM) program, bed placement functions, and scheduling information system support. These critical success factors will be discuss in the next section. The UM function is even more critical when managing patients hospitalized in a high risk and high cost acute care environment. Once the statewide UM leaders are assembled, a new Specialty/Infirmary/Acute Care clinical process improvement team will be formed. The new team will build on the experience, innovations, and tools employed in the San Quentin and LAC-CCI pilot work and provide additional support to those institutions in preparation for statewide dissemination of the new processes. Appendix E provides a Specialty Care work plan including project activities, milestones, and timeline.

Specialty/Infirmary/Acute Care Project Activities

- Develop a new specialty care project team including contracting and Health Care Placement Unit representations.
- Review LAC/CCI processes and modify for standardization and dissemination
- Review LAC/CCI processes related to planned and unplanned acute hospitalization and redesign a standardized process
- Review best practices to inform clinical and administrative processes redesign.
- Develop assessment tools for specialty referral processes based on LAC/CCI pilot and best practice sites, if appropriate.
- Conduct assessments of the subsequent sites.
- Develop specialty/infirmary/acute care referral processes "change package" standardized for statewide use, including policy updates, revised forms, training curricula, data collection and evaluation components, taking into account changes in Guardian pharmacy, laboratory electronic access, and scheduling and tracking strategies such as the Strategic Offenders Management System (SOMS).

- Select subsequent pilot sites based on high cost and high volume referral and inpatient data if available.
- Move implementation team to subsequent sites with iterative revisions of change package (using Maxor Guardian medication administration model).

Activities at Each Pilot Site

- Ensure custody cooperation and commitment
- Establish local Process Improvement Team with high-level representation from custody, including population management, medical, mental health, dental, pharmacy, laboratory, and medical records.
- Plan space accommodations as needed to establish adequate physical space including confidential clinic space and exam rooms with sinks, exam tables, computers, fax, phones, and accompanying electrical power support.
- Anticipate competing demands for space.
- Supplement and back-fill project staffing as necessary.
- Conduct staff training with general orientation for custody staff
- Begin plan-do-study-act (PDSA) cycles of process redesign
- Coordinate and communicate changes in processes with external stakeholders such as contracted specialty services providers and hospitals.
- Redesign data collection tools in collaboration with SOMS team and other IT stakeholders.
- Monitor, conduct ongoing and final evaluation.

Barriers

- Lack of organized utilization management functions.
- Inadequate specialty services providers
- Inadequate custody escort resources.

Support Required for Specialty/Infirmary/Acute Care Clinical Process Improvement Team

- Centralized UM Program support
- Information system for referral, scheduling, tracking, and reporting.
- Centralized assistance with policy revision, including analysis of Court orders and state and federal regulations.
- Centralized assistance with funding and procurement as needed.
- Training in process mapping and redesign.
- Training in rapid-cycle quality improvement (plan-do-check-act PDSA cycles)
- Ongoing InterQual training for clinical staff
- Provider network development and contracting
- Ongoing Specialty services contract monitoring and oversight

Additional challenges

- Limited specialty care services providers in specific geographic areas.
- Redesign and standardize the receiving and release process and implement statewide.

Outcomes

- Appropriate specialty services referrals based on InterQual Outpatient criteria.
- Proactive demand management to ensure appropriate and timely access to specialty care
- Manageable referral volume
- Reduce cost related to inappropriate specialty service and hospital referrals.
- Standardized processes for scheduling, tracking, and continuity of service, creating capacity for electronic automation.
- Improved chronic care management and timeliness of appropriate specialty care services.
- Decreased referral volumes.
- Decreased emergency visits to the Triage and Treatment Area (TTA) and outside emergency rooms.
- Reduced custody escort costs and hospital costs

III. INITIATIVE STRUCTURE AND SUPPORT

A. Interdependencies

The Access-to-Care Initiative encompasses several interwoven domains. Change in any one of these domains depends on and causes change in the others. The clinical domains of reception/R&R, sick call/primary care, chronic care, specialty care, infirmary and hospital care all interact among themselves, depend on information technology and custody escorts, and require collaboration across medical, mental health, and dental disciplines. Changes in laboratory, radiology, pharmacy, medical records, and telemedicine will interact with each of these clinical domains as well, requiring adjustments in processes, forms, and policies.

As already noted, the interdependency between the custody access team efforts and specialty referrals has long been glaringly obvious, since the lack of utilization management has chronically bloated outside referrals and transport needs.

Similarly, while the contracting efforts by the Chancellor Group and Navigant can be classified as financial and therefore outside the scope of the Access-to-Care Initiative, success at contracting with hospitals depends heavily on good infirmary bed management, and success at specialty provider contracting depends on having reliable referral and scheduling processes and utilization management.

Success of the broad Access-to-Care Initiative also depends on developments outside the formal scope of the initiative. Most prominently, we are in the process of hiring a CMO for the Quality and Safety Branch, to be charged with development of measurement and data analysis capacity and quality initiative expertise. Additionally, we need leadership and resources to resurrect the Policy Unit, charged with facilitating maintenance of the Policy and Procedures developed under *Plata*, including appropriate

posting and distribution, with periodic review and revision as needed to accommodate changes in the delivery system and medical science.

B. Utilization Management / Specialty and Bed Management

Utilization Management (UM) is an organization-wide, interdisciplinary approach to managing cost and quality. The UM program is a critical managed care structure required to support the interdisciplinary clinical team to manage the patient population through out the health care delivery system to ensure consistent effective care quality and cost efficiency. Hence, the UM program is a necessary structure required to support clinical processes and care management including specialty services referral, acute hospitalization, and placement. The UM process provides criteria-based decision-making to assure that services provided are appropriate and cost-effective, taking into consideration patients' illness and needs. For specialty care it includes review of referral appropriateness and coordination of authorized referrals. For acute care, the review process includes pre-authorization; admission review, concurrent review, and discharge review. For patient placement, criteria provide guidelines for continuity of care planning in a proactive fashion. Retrospective reviews are conducted as needed to establish the larger historical picture of how physicians, labs, or hospitals handle their patient populations. These reviews can reveal patterns of care based on the necessity, appropriateness, and efficiency of medical services, procedures, facilities, and practitioners.

For more than a decade, report after report from various state agencies has taken CDCR to task for failing to develop an effective UM program. In 2006, for instance, the State Controllers Office (SCO) reported: "Some UM nurses informed SCO auditors that they never received any training concerning review guidelines, protocols, and procedures, and that their heavy workloads limit the scope of their reviews. The UM nurses also said that they are often reluctant to question the judgment and decisions of outside specialists, despite the fact that the specialists may have financial incentives to make referrals. In some cases, the State prison's management circumvented the utilization review process."[8]

There are many issues plaguing the CDCR UM system:

- Lack of a formal UM structure to support clinical decisions.
- Failure to use standardized clinical criteria or guidelines to support decisions.
- Failures of physician, nursing and mid-level staff to perform adequate clinical assessments.
- Poor, inadequate, and incomplete documentation of evidence-based clinical care.
- Unnecessary referrals to specialty providers.
- Lack of primary care and continuity-of-care accountabilities at the institutional level.

[8] "California Department of Corrections and Rehabilitation Healthcare Delivery System." Steve Westly, California State Controller, August 2006.

Compounding these issues, each of the 33 prisons maintains separate scheduling units for mental health, dental, medical, and custody functions, and these units rarely if ever coordinate their activities. Where electronic technology exists, it is only in the form of numerous disconnected, unsupported Access databases that must be manually synchronized via floppy diskette or USB flash drive. Paper-based Referrals for Service, generated by primary-care providers, can arrive in batches of hundreds on the desk of the UM nurse. Backlogs on requested services extend for months, leading to repeated requests for service and cyclical increases in backlog. Referring clinicians receive little or no feedback on the status of their referral requests. Unnecessary referrals go unchecked.

The over-utilization of outside services is causing delays in access to care for other patients who have verifiable medical needs. Furthermore, at facilities such as Avenal State Prison with no state primary care physicians, the referrals are so chaotic and the number of unnecessary transports so high that Joe McGrath's written summary is simply, "This is killing custody."

Within the Access-to-Care Initiative, the first UM goal is to create a standardized, functioning, auditable UM system that manages use of medical services and costs through effective planning and decision-making to ensure that services are appropriate and cost-effective, based on appropriate assessments and identifiable outcome goals. The centralized UM program will encompass the UM committee, a data analysis unit that reports standardized metrics, and a bed placement unit, making available objective second- and third-level medical opinions to support appropriate local specialty services referral, appropriate infirmary and acute admissions, and timely discharges.

Creating a standardized and centralized program structure at headquarters and Regional level is mission-critical to ensuring that the overall program structure is sound and operational. The following roles are vital:

- The UM Chief Medical Officer (CMO) role is to provide medical leadership and clinical expertise for the centralized UM program.
- The UM Physician Advisor role is to provide UM medical advisory support to the institutions using evidence-based criteria.
- The Nursing Director of Utilization/Care Management role is to provide a centralized nursing program to support utilization management, care coordination and care management functions in collaboration with the UM Program CMO.
- The hospital Case Manager role is to provide UM oversight and telephonic case management for hospitalized patients to ensure appropriate length of stay (LOS), timely discharge, and continuity of care.
- The UM data analyst role is to provide UM data tracking, analysis and reporting.
- The specialty case manager role is to provide telephonic expert clinical consultation or face-to-face care management for non-hospitalized patients with

complex chronic illness, disabilities and/or catastrophic conditions requiring care management across facilities or multiple levels of care.
- The current UM nursing role will be redesigned to include clinical care coordination and specialty care referral functions.

The implementation and assessment team will be an interdisciplinary group consisting of physicians, nursing, and UM analysts. The project team and core program structure must have the following dedicated resources and competencies:

- Project Manager (2 years)
- 1 PY- Utilization Management CMO
- 1 PY- UM Physician Advisor lead
- 1 PY Nursing Director of Utilization/Case Management
- Specialty Case Managers

Outcomes

- A standardized, functioning, auditable UM system that supports ongoing management of medical costs and use of specialty, infirmary, and hospital services through effective planning and evidence-based decision-making to ensure continuity of care and achieve desired clinical outcomes.
- Standardized UM program, policy, procedures and forms at all institutions.
- Standardized and accurate UM data, essential for prudent medical and fiscal management.
- Improved inmate access to care.
- Decreased burden on custody.
- Appropriate and timely acute admissions, decreased inappropriate hospitalizations.
- UM oversight of contracted hospitals.
- Decreased acquisition of hospital-acquired infection due to inappropriate LOS.

C. Care Coordination and Redesign of the Health Care Placement Unit

Another immediate challenge for the new UM program is supporting the Office of the Receiver's hospital contracting efforts. In order to secure diagnosis-based hospital rates rather than per diem rates, we must be able to take patients promptly and safely back once they are medically ready for discharge. Currently it is often difficult or impossible for the local CDCR UM nurses to find an infirmary bed in CDCR, and patients languish in hospital beds, incurring per diem costs and imposing significant burdens on custody.

The CDCR Healthcare Placement Unit (HCPU) is charged with coordinating inmate custody classifications and medical needs, but this headquarters unit has little clinical support, no power to overrule local CMO decisions, and abysmal access to clinical data on infirmary bed use.

We have yet to take advantage of the 2006 Lumetra study on Aging Inmates and the 2007 Abt Associates study, both of which made contributions to understanding

CDCR's long-term care and hospital needs and developing new assessment methodologies. The Lumetra report described "options for the care management system to have two or three levels of intensity, which can be accessed short-term, long-term, or intermittently" as follows:

> "A mildly demented inmate without ADL limitations may need only low-level, long-term monitoring for several years. An inmate who has a new event and new ADL limitations two months prior to parole will need intensive short-term care coordination…. Efficient use of differing levels of care management increases system capacity. Some inmates, e.g., a healthy 60-year-old man, may need no direct work from a care manager but would benefit from being in the care management tracking system to ensure that he gets annual screening, checkups, and preventive care from the healthcare team…. To summarize, care management programs that have been successful in addressing cost and quality with the chronic care model have tended to target high-risk patients, use interdisciplinary teams, coordinate complex care plans, shift to lower cost levels of care, and redesign the delivery of care…. Care managers must be able to work effectively, efficiently, and collaboratively with the other healthcare and custody staff. Developing such a system will require new relationships and decision-making among social workers, physicians, and correctional counselors…. Cost-effectiveness for care coordination lies largely in keeping inmates out of hospitals and at the lowest level of care. Keeping significantly more inmates in GP or special care yards and out of medical beds depends on getting past the present stage of isolated, improvised, heroic creativity to everyday collaboration among healthcare and custody staff with support from local and state leadership."

The first steps toward effective care management will be the development of an effective UM program and deployment of energy and resources to bolster and empower the current HCPU functions.

D. Patient Scheduling and Tracking and Other IT Support

Scheduling of initial and follow-up primary care, mental health, dental, and specialty visits is now done by a variety of clinicians and support staff using a mélange of unconnected computers and paper forms, lists, and calendars. This non-system is one of the core reasons for the imposition of Receivership.

A major end goal of the Access-to-Care Initiative is development of a sustainable, integrated, patient-centric scheduling and tracking information system that conforms to best practices; reflects efficient workflows for medical, dental, and mental health care; and integrates with the Receiver's other IT endeavors. The Healthcare IT Executive Committee (HITEC), with representation from medical, dental, and mental health services and the *Plata*, *Coleman*, *Perez*, and *Armstrong* courts, will provide guidance and oversight for this project.

Before attempting to implement an electronic scheduling and tracking system, however, the Access-to-Care Initiative redesign teams must simplify and standardize all the cumbersome and inconsistent workflows and paper forms involved in reception, sick call/primary care, chronic care, specialty care, and bed management. The expertise of the Receiver's clinical informatics, IT, and project management leaders will be vital to supporting and integrating the redesign teams, which will progress along parallel tracks in an effort to accelerate improvements in these critical processes.

An Access-to-Care Initiative redesign team has been formed and will be facilitated by a contracted project manager and supported by a contracted process documentation specialist. The clinical team will be made up of subject matter experts from medical, dental, and mental healthcare. The goal of the team will be to review the cumbersome and inconsistent workflows and paper forms involved in reception, sick call/primary care, chronic care, specialty care, and bed management. The team will then work to simplify and standardize these processes and then produce a report that will define a first pass at what Healthcare scheduling should be.

Once the Access-to-Care Initiative redesign team has finished documenting the processes and made recommendations, the Receiver's team and HITEC will make decisions about interim and long-term electronic solutions. In addition to the hardware, software, and training required for these solutions, their deployment will itself trigger additional process redesign, additional pilot testing, and additional statewide dissemination efforts. The new scheduling and tracking solutions must be tightly integrated with the new clinical data repository and other IT initiatives.

E. Custody Escort

The Receiver's Seventh Quarterly Report provided a status report from the Custody Access team, detailing progress toward development of full Health Care Access Units at San Quentin State Prison, California Medical Facility, and Avenal State Prison. The team has also completed Preliminary Operational Reviews for 18 prisons, pointing out site-specific shortcomings that impede patient-inmate access to care prior to formation of the Health Care Access Unit organizational structures.

As already mentioned, the Receiver's custody leaders have long noted the burden imposed on custody by dysfunctional clinical processes. The Access-to-Care Initiative redesign teams will include representation from the Receiver's custody team, and local redesign efforts will depend heavily on support and participation from local custody staff. The Preliminary Operational Reviews will inform those efforts. Conversely, those efforts may lead to streamlining of the Health Care Access Unit efforts at many of the institutions.

F. Boundaries

As an effort to clearly define the boundary of Access-to-Care Initiative scope of work, this section will discuss other inter-related initiatives and programs.

The Emergency Response Initiative is relatively independent of the Access-to-Care Initiative, although both initiatives will intersect in multiple places, e.g., the Triage and Treatment Areas (TTAs), which play a key role in reception/R&R, in returns from offsite care, and in response to asthma attacks, etc. Similarly, the Orientation Initiative is relatively independent, although the Access-to-Care Initiative will eventually lead to countless changes in the orientation content.

Telemedicine, at least for now, is independent of the Access-to-Care Initiative. The University of Texas report advised addressing electronic scheduling, utilization management, and the contracted provider network prior to full-fledged implementation of telemedicine. The Access-to-Care Initiative will address each of these domains, after which accelerated progress in telemedicine will be possible.

The HIV-Hepatitis C Advisory Committee recently developed new clinical policies and guidelines. Full implementation of these must await development of the care management infrastructure via the Access-to-Care Initiative; for now HIV and hepatitis C will remain outside the scope of the Access-to-Care Initiative. The Pain Management Advisory Committee will likewise remain outside the scope of the Access-to-Care Initiative.

Finally, development of nursing and physician staffing models with appropriate clerical support and prison-by-prison post assignment assessments is outside the formal boundary of the Access-to-Care Initiative, although the Access-to-Care Initiative will directly inform development of those staffing models, and the prison-by-prison assessments should follow work at all of the Access-to-Care pilot sites

G. Readiness Factors, Barriers, and Capacity for Failure

The Access-to-Care Initiative would not have been possible prior to maturation of the statewide and regional leadership structures, recruitment of new nurse consultants (nurse consultant program review or NCPRs) and Clinical Support Unit (CSU) physicians, and development of the Healthcare IT Executive Committee (HITEC).

Furthermore, initiation of the complex Access-to-Care Initiative would have been unwise prior to significant success in the Nursing Medication Delivery Process Redesign Initiative, which was the Receivership's first clinical redesign project, one that stutter-started until the creation of dedicated, fully-staffed, and talented project teams with professional project management support. The three conversion teams of this initiative are now using three nurse consultants, one analyst, one office technician, three project managers, and one nurse from Maxor, in addition to the Maxor pharmacists and IT staff. Even with this commitment of resources towards a relatively straightforward process change, we have received reports of nurses reverting to their former practices once the conversion team has moved on. Within the pharmacy itself, Maxor has noted the slow pace of change in some facilities, as demonstrated by this Maxor plea for support sent to our regional leaders in March 2008:

> "Standardizing Pharmacy Policies and Procedures across all CDCR adult institutions is an important goal of the system-wide CDCR P&T Committee. Standardization is key to ascertaining acceptable levels of quality and access to healthcare to all inmates system-wide. As you can see, many facilities are lagging behind in implementation, despite intensive follow up efforts."

When viewed against the background of the CDCR's colossal historical failures to improve health care, the Maxor observations are hardly disturbing. But other more recent failures lend cause for concern. The new orientation initiative failed in its initial pilot sessions for lack of planning and competence. It is now proceeding well, but only after an infusion of new staff and managerial oversight. The medical telemedicine program is struggling, and recruitment efforts in the Central Valley continue to be difficult.

Even at this point, with more mature regional leadership and with nurse consultants and CSU physicians, the Access-to-Care Initiative is taking off from an unfinished runway. The chain of command is still unreliable at the local leadership level. The education infrastructure is still impoverished, and the quality infrastructure is only incipient. There is no Policy Unit and no Forms Committee. Only a handful of people within CDCR and CPR can do process mapping and process redesign; even fewer can teach and supervise it.

The barriers of space, staffing, staff competencies, training, and information technology have already been noted. The most worrisome barrier, however, might be described as the "culture of low expectations," first noted in the Challenger disaster:

> Corners get cut, safety checks bypassed, and alarms ignored or turned off, and these behaviors become normal—not just common, but stripped of their significance as warnings of impending danger. In their discussion of a catastrophic error in healthcare, Mark Chassin and Elise Becher used the phrase "a culture of low expectations." When a system routinely produces errors (paperwork in the wrong chart, major miscommunications between different members of a given healthcare team, patients in the dark about important aspects of the care), providers in the system become inured to malfunction. In such a system, what should be regarded as a major warning of impending danger is ignored as a normal operating procedure.[9]

In the case cited above of the hypertensive patient who was lost to follow-up, investigators also noted that nurses recorded high blood pressure readings apparently without notifying any physicians. Such deviations from standard practice can occur when nurses have a history of attempting to get help from physicians and failed, either because physicians were not available or because they failed to respond appropriately.

[9] See http://psnet.ahrq.gov/glossary.aspx.

But it's not only frontline line staff who can become inured to bad practice; managers and leaders can become so as well. In an organization with a long history of failure, it would be imprudent to assume a successful outcome in an initiative requiring major social change.

H. Requirements for Success

If progress is imperative, and yet failure possible, what are the major success factors that should occupy our attention? The redesign teams need adequate and timely resources and support, obviously. But more than that, (1) the Access-to-Care Initiative needs to be firmly situated within the leadership and chain-of-command structures of the organization, and (2) the teams need talented leaders capable of implementing and disseminating the Model for Improvement methodologies.

The governance structure of the Access-to-Care Initiative, discussed below, will engage executive leadership. Beyond that, however, the clinical redesign teams must be seen as extensions of the statewide and regional chain of command. If they are seen merely as special projects people or optional consultants, competing issues will distract the local leaders, and Access-to-Care Initiative will repeatedly stall. Local leaders instead must feel responsible for the success or failure of the redesign efforts, and they must be held accountable if their attention strays.

While we have already selected Richard J. Donovan Correctional Facility as the first pilot site, it may be wise to insist that subsequent pilot sites submit formal applications in order to participate. These applications need not be long or elaborate, but they would need to be signed by the Warden, Health Care Manager, Chief Medical Officer, and Director of Nursing. Our cardinal rule will be to do pilot work in the most functional prisons.

In a study of the Veterans Affairs system, researchers found that dedicated resources and leadership commitment best distinguished facilities that did well in guideline implementation from those that did not:

> The key difference separating the HPF [high-performing facilities] from the LPF [low-performing facilities] appears to revolve around dedicated effort and local adaptation. For example in LPF, the medical executive committee interpreted, disseminated, and helped implement the guidelines, in addition to addressing many other medical concerns. In contrast, HPF reported having a separate committee exclusively to handle Clinical Practice Guideline implementation. In addition, HPF also made use of a guidelines advocate/champion; no LPF reported using champions in this manner. Electronic resources… tended to be used ''as is'' by the LPF, whereas the HPF tended to adapt these resources to their own needs, adding (*e.g.*, 100 percent sampling for the chart abstractions conducted by one HPF) and revising (*e.g.*, customizing clinical reminders and templates) as necessary. In sum, HPF allocated dedicated resources toward guideline

> implementation, and customized their resources to their local facility to facilitate their adoption and use; conversely, LPF relied primarily on preexisting resources for guideline implementation, engaging in little if any tailoring to their facility.[10]

Another study[11] of successful change initiatives found similar results, highlighting in particular the role of team leaders:

> The basic structure for improvement project teams is quite similar among all organizations that we interviewed. The team leader is responsible for the day-to-day progress and pace. Each team is assigned an executive sponsor to keep the team connected to organizational strategy, to coordinate the efforts with other projects, and to increase the chances of success. Teams also have one or more technical experts, persons who know the clinical subject matter intimately and who understand the processes of care, and an expert on improvement methods depending on the needs of the project. Of course, for many organizations the issue is not how much of someone's time to allocate to a project. The issue is finding and developing people in the organization capable of integrating a portfolio of projects or leading one of those projects. The high-performing organizations that we talked with made it a strategic priority to continually increase the pool of persons in the organization with the following skills and attributes:
>
> - *Curiosity*: To achieve results at the system level requires system-level change. No easy answers are available. A successful leader of large-scale execution must be open to finding and translating ideas both from within health care and from other industries.
> - *Capability to move between conceptual thinking and execution*: Integrating a portfolio of improvement projects and learning about what changes are producing system-level results requires conceptual thinking skills. It also takes disciplined project management skills. Leaders that are effective at execution have both.
> - *Quantitative and related computer skills*: Effective improvement almost always requires measurement. The measurement and learning challenge increases as the size and ambition of the portfolio increase.
> - *Ability to work well with all levels of the workforce and professional disciplines*: To achieve system-level results requires contributions from all levels of the organization and also requires cooperation among them.
> - *The confidence to link with senior executives*: Senior executives play a vital role in ensuring that the overall strategic improvement aims are achieved.

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[10] Hysong SJ et al. Clinical Practice Guideline Implementation Strategy Patterns in Veterans Affairs Primary Care Clinics. *Health Services Research*. February 2007.

[11] Nolan TW. *Execution of Strategic Improvement Initiatives to Produce System-Level Results*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2007.

Leaders will require cooperative interaction with executives as peers to effectively execute projects that achieve system-level results.

- *Ability to be a good communicator*: When the organization sets system-level aims and makes fundamental changes to accomplish them, people in the organization will want to know, "What are we going to do?" and "Why are we doing it?" One successful executive said that he was not confident that his message was understood until he communicated the message "eight times, eight ways."

If the Access-to-Care Initiative is to succeed, we need our regional leaders to be personally engaged and to hold local leaders accountable, and we need the team leaders with the talents noted above.

Because only a few of our people have experience with clinical process redesign and have the skills to lead such efforts, we need to train them. Within the next two months, we will need to begin offering systematic and repeated training in the Model for Improvement, including rapid-cycle quality improvement and reliable process redesign.

I. Governance/Budget

The Access-to-Care Initiative Executive Coordination Committee will consist of Terry Hill, Dwight Winslow, Betsy Chang Ha, Rich Kirkland, Joe McGrath, Jamie Mangrum, and Justin Graham.

Mental health and dental care will need representation as IT begins work on the scheduling and tracking system.

Each of the teams will need an executive sponsor and team leader, both of which may change as the project moves from one phase to another, e.g., as the Chronic Care Initiative moves from assessment to pilot and dissemination phases. Also, the UM team will encompass central office infrastructure development as well as specialty care and infirmary/acute care, so this team may need sub-teams.

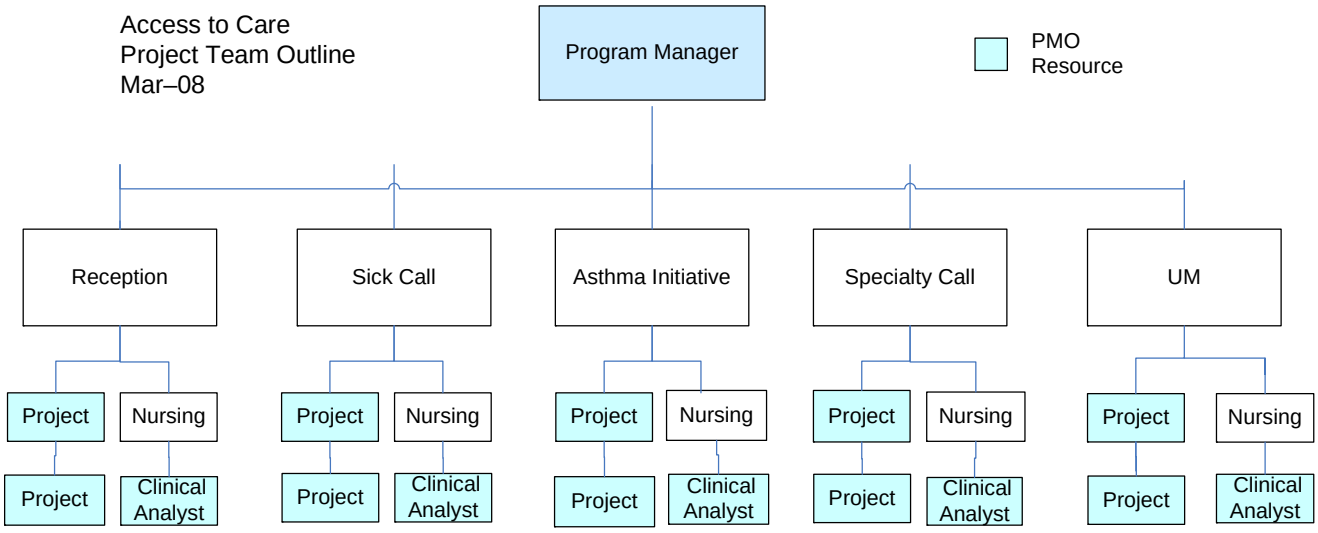
Each team will need custody and IT participation, project management support, a quality improvement lead, and analytic support (eventually provided by the Quality and Safety Branch).

At the pilot sites, each team will need to identify local champions from the clinical staff and first-level supervisors. In addition, each team needs various levels of clinical, custody, and IT staff. Teams may include CSU physicians and nurse consultants or line staff from other prisons, as has occurred with the URS/Bovis project. We will need to backfill any line staff used for the initiative. Considering the massive scope of the Access-to-Care Initiative with four concurrent domains of clinical processes redesign, additional project staff, equipment, and supplies wil be required to ensure the success of the project. A detailed project budget is described in Appendix F

J. Project Management

The Office of the Receiver's Program Management Office (PMO) is developing an Enterprise Project Portfolio Management (EPPM) tool to assist project stakeholders in having access to up-to-date project status across the organization.

We will be using Computer Associates (CA) Clarity Project Management Suite as our EPPM tool. The tool will be deployed as a web based system that will provide a high level dashboard view of all identified projects. Each identified project will include a red/yellow/green status indicator of overall project health. A single mouse click on any specific project will launch a project specific dashboard providing status information on the current state and activity of the project. The status information will be updated on a weekly basis by the project managers or associated leads of each identified project. The tool will also include an option to launch a printable version of a complete portfolio project status update report. CA Clarity will offer each project the ability to collaborate electronically.



K. Sequencing

As already noted, each team will need to move through project phases, e.g., assessment, pilot site work, then dissemination/collaborative, as in the Chronic Care Initiative. Development of the IT scheduling and tracking system will require all of the teams to coordinate at several pilot sites, but the teams need not necessarily be on the same site simultaneously. The reception/R&R work may take place long before the infirmary bed management work, for instance.

IV. APPENDICES

A. Access to Care Conceptual Model

B. Utilization Management Program Organization Chart

C. R&R Work Plan

D. Sick Call/Primary Care Work Plan

E. Specialty Care Work Plan

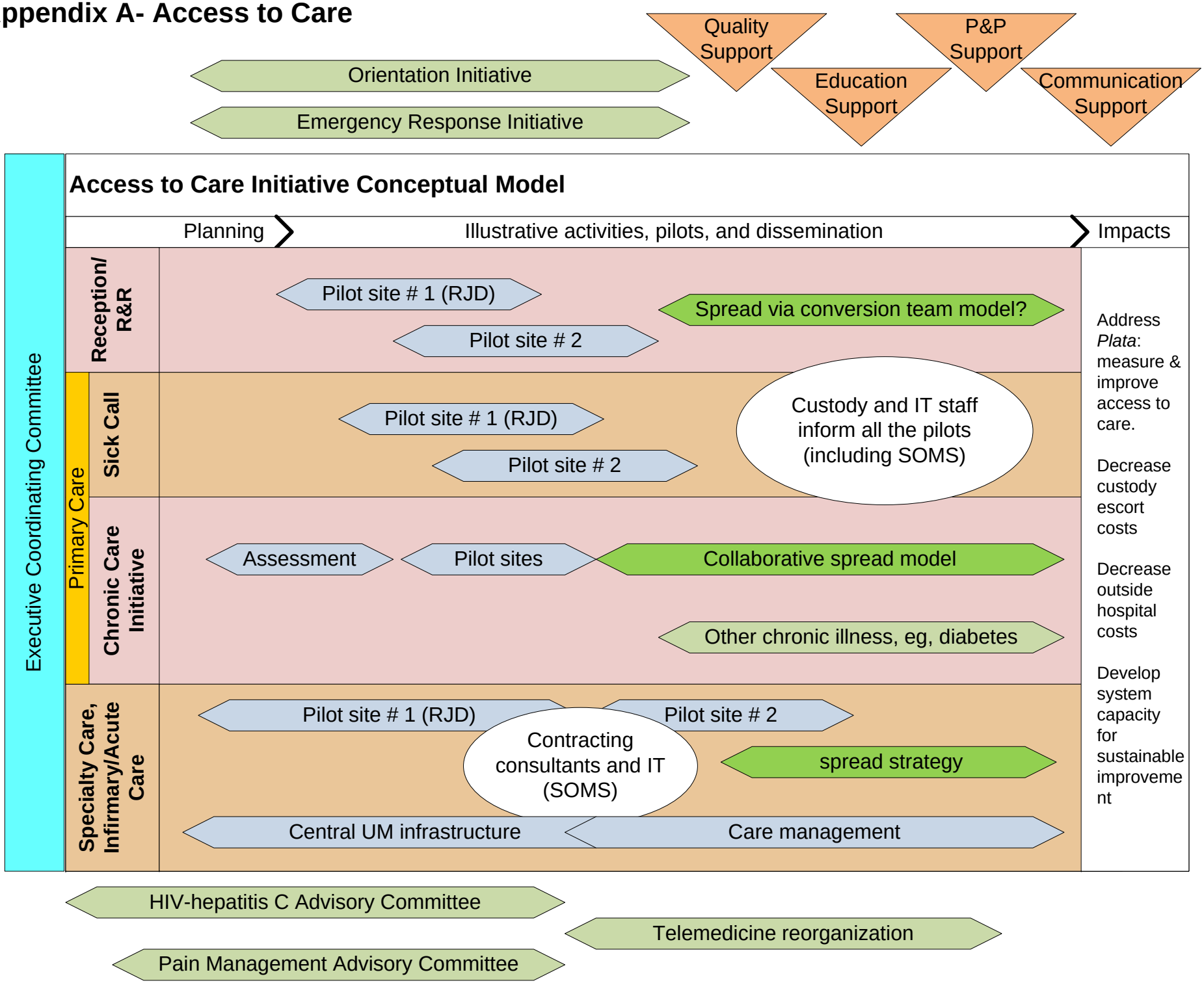
F. Project Budget

G. Key Indicators

H. HMA Summary Themes from the Administrative and Operations Assessment

I. Glossary

Appendix A- Access to Care



APPENDIX G

Access to Care Initiative

Selected Key Indicators

Reception/ Receiving and Release	• 7371 completed by the sending institution • 7371 signed by the receiving institution (R&R RN or designee) • Patients are individually interviewed and screened by the RN • RN completed form CDC 7277 for the patient
Sick Call	• 7362 of a medical nature will be reviewed and triaged by an RN within 24 hours. • Patients referred to sick call as urgent will be seen within 24 hours. • Patients referred to sick call as routine will be seen within 7 days.
Chronic Care	• Severity assessment at each asthma chronic care visit • Inhaled corticosteroid use by each persistent asthmatic • Current asthma action plan for each persistent asthmatic • Spacer prescribed with metered dose inhaler for each asthmatic
Specialty Care Services	• Access to urgent specialty services within 14 days • Access to routine specialty services within 90 days • Access to PCP within 14 days post specialty services consultation or procedure
Acute Care/ Hospitalization	• Average Length of Stay (ALOS) • Acute Bed-days per K (1000 patients) • Aberrant Days

Appendix H

Health Management Associates

Summary Themes from the Administrative and Operations Assessment

Below are excerpts from a longer document prepared by Health Management Associates (HMA) following the assessment phase of their work on asthma and chronic care. The original document includes positive findings and interventions for improvement. Listed here are selected negative findings, edited to spell out medical abbreviations. The findings are organized by the six components of the Chronic Care Model.

1. Organization of the Healthcare Delivery System:
(Leadership/support for chronic care improvement.)

- Much of the effort at the system and the regional levels seems to be focused on crisis intervention, not on restructuring practices at the institutional level.
- Limited or no information available about health care utilization and practice at the system, regional or institutional levels.
- Limited or no local quality improvement teams, goals, plans relative to chronic care.

2. Self-Management Support:
(Identifying and addressing self-management needs, action plan, other education/self-management materials.)

- Staff notes that the *Plata* Chronic Care Program was "set up to fail" and not "patient-centered," but "attorney-centered" for audits.
- Self-management support is virtually absent.
- Patients assessed had poor inhaler technique.
- Many patients didn't understand difference between inhaled corticosteroids (ICS) and short-acting beta-agonists (SABA).
- No spacers.
- No action plans.
- Few educational tools or materials.
- No audio-visual programming on asthma.

3. Clinical Information Systems:
(Patient registry, guideline prompts at point of contact, feedback to provider, info on patient subgroups needed particular attention.)

- Poorly developed scheduling and tracking system (IMSATS).
- No current infrastructure for electronic health records or patient registry.

4. Clinical Decision Support:
(Guidelines, involvement of specialists in improving primary care, provider education)

- Decision support hampered by lack of IT infrastructure.
- Limited availability of spirometers.

- Limited provider education, prompts or supports.
- Maxor asthma flow sheets don't appear to be used.
- No formal communication from Triage and Treatment Area (TTA) to primary care regarding urgent asthma visits.
- No formal pharmacy/nursing communication to primary care clinic regarding increase in SABA refills/use.

5. Delivery System Design:
(Clearly defined and appropriate staff roles, practice team functioning.)

- Limited indication of interdisciplinary cooperation/collaboration.
- In some sites, triage nurse sometimes (particularly in winter) gets overloaded with sick call requests; needs backup to help with high volume.
- Sick call request requires completion of written form; "cellie" often needs to complete for low-literate cellmate.
- For primary care visits, it appeared that nurses were occupied with other tasks and that the provider was responsible, but not sufficiently prepared, to conduct all visit components: too physician centered; inefficient use of resources.
- RNs appear underutilized given their scope of practice.
- Respiratory therapists appear underutilized.
- No beds in infirmaries for post-asthma episode observation of high-risk pts.
- In some sites, LVNs give nebulizer treatments in primary care without peak flow readings or education then just send person back to cell.
- The medication renewal process is flawed; since patients use inhalers at variable rates, the renewal has to be generated by the inmate in off-cycle intervals resulting in occasional delays.

6. Community Linkages:
(Linkages between health system and corrections, and health system and other community providers/resources.)

- There is wide variability of medical staff connection/relationship with community referral sources; lack of timely return of consult notes from specialists.
- Correctional officers (COs) occasionally confiscate all keep-on-person (KOP) medications during "incidents."
- There is risk of confiscating KOP meds if medication label with name/dates not on inhaler.
- COs receive limited training in health, one CO was identified as barrier to health services access by inappropriately "triaging" patients.

Appendix I

Glossary of Acronyms

AA	Administrative Assistant
AGPA	Associate Government Program Analyst
AHPA	Associate Health Program Analyst
AISA	Associate Information Systems Analyst
CA	Career Assignment
CEA	Career Executive Assignment
CEO	Chief Executive Officer
CMO	Chief Medical Officer
COO	Chief Operations Officer
IT	Information Technology
LVN	Licensed Vocation Nurse
NCPR	Nurse Consultant Program Review
OT	Office Technician
P&S	Physicians & Surgeons
PM	Project Manager
QI	Quality Inspector
RN	Registered Nurse
SME	Subject Mater Expert
SOMS	Strategic Offender Management System
SRN	Supervising Registered Nurse
SSA	Staff Services Analyst
SSM	Staff Services Manager
UM	Utilization Management