



California Department of Corrections and Rehabilitation REFERRAL MEMORANDUM/ROUTE SLIP

(Please Type)

Date: 5/17/2016

- | | (Initials/Date) | | (Initials/Date) |
|---------------------------|-------------------|-----------|-----------------|
| 1. <u>Duane Reeder</u> | <i>DR 5-17-16</i> | 6. _____ | _____ |
| 2. <u>Yulanda Mynhier</u> | <i>Ym 5/17/16</i> | 7. _____ | _____ |
| 3. <u>Cheryl Larson</u> | <i>CL 5/17/16</i> | 8. _____ | _____ |
| 4. _____ | _____ | 9. _____ | _____ |
| 5. _____ | _____ | 10. _____ | _____ |

LIST OFFICES WHERE REVIEW AND APPROVAL IS NEEDED - INCLUDING THOSE IN CHAIN OF COMMAND AND STAKEHOLDERS

FROM: Nancy Banh _____

(Originator)

SUBJECT: EHRSPR _____

- | | |
|---|--|
| <input checked="" type="checkbox"/> Approval/Signoff (initials) | <input type="checkbox"/> Information |
| <input type="checkbox"/> Signature | <input type="checkbox"/> Do Not Release - Call When Signed |
| <input type="checkbox"/> Hand Carry or Call for Pick Up | <input type="checkbox"/> Release When Signed |

COMMENTS:

*Call Monique or leave for pick-up.
TAP
[Signature]*

| | |
|---|--|
| Executive Office Control No.: ENTERED 2016-192 | Name of Contact Person: Monique Pratap Phone No.: 691-0760 Office: Fiscal Management Section Office Control No. (if any): <i>FMS 68</i> |
|---|--|

5/17-Forwarded to Sharon. -STR

1.0 Executive Approval Transmittal

Information Technology Project Request
Special Project Report
Executive Approval Transmittal

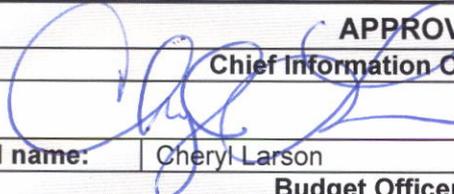
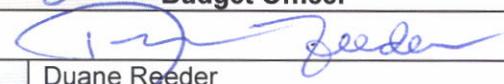
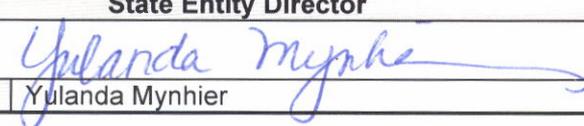


| | | | |
|--|--------------------------|------------------------------|------------------------|
| Agency/state entity Name | | | |
| California Correctional Health Care Services (CCHCS) | | | |
| Project Title (maximum of 75 characters) | | | Project Acronym |
| Electronic Health Care Record System (EHRS) Project | | | EHRS |
| FSR Project ID | FSR Approval Date | State entity Priority | Agency Priority |
| 5225-146 | September 25, 2013 | One | |

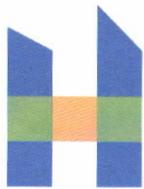
I am submitting the attached Special Project Report (SPR) in support of our request for the California Department of Technology's approval to continue development and/or implementation of this project.

I certify that the SPR was prepared in accordance with the State Administrative Manual Sections 4945-4945.2 and that the proposed project changes are consistent with our information management strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached Special Project Report. I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department that are subject to Government Code 11135 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following page).

| APPROVAL SIGNATURES | | |
|---|-----------------|--------------------|
| Chief Information Officer | | Date Signed |
|  | | |
| Printed name: | Cheryl Larson | 5-17-16 |
| Budget Officer | | Date Signed |
|  | | |
| Printed name: | Duane Reeder | 5-17-16 |
| State Entity Director | | Date Signed |
|  | | |
| Printed name: | Yulanda Mynhier | 5/17/16 |

California Correctional Health Care Services



CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

Special Project Report

for the

Electronic Health Record System (EHRS) Project

May 17, 2016

Version 1.2

TABLE OF CONTENTS

| | |
|---|-----------|
| 1.0 EXECUTIVE APPROVAL TRANSMITTAL | 4 |
| INFORMATION TECHNOLOGY PROJECT REQUEST..... | 4 |
| 2.0 INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE | 7 |
| 2.1 SECTION A: EXECUTIVE SUMMARY..... | 7 |
| 2.2 SECTION B: PROJECT CONTACTS..... | 9 |
| 2.3 SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS.... | 10 |
| 2.4 SECTION D: BUDGET INFORMATION..... | 11 |
| 2.5 SECTION E: VENDOR PROJECT BUDGET..... | 12 |
| 2.6 SECTION F: RISK ASSESSMENT INFORMATION..... | 13 |
| 3.0 PROPOSED PROJECT CHANGE | 14 |
| 3.1 PROJECT BACKGROUND/SUMMARY..... | 14 |
| 3.1.1 <i>Business Program Background</i> | 14 |
| 3.1.2 <i>Project Background</i> | 15 |
| 3.2 PROJECT STATUS..... | 15 |
| 3.2.1 <i>Major Milestones Completed</i> | 15 |
| 3.2.2 <i>Work in Progress</i> | 17 |
| 3.2.3 <i>Expenditures to Date</i> | 21 |
| 3.2.4 <i>Benefits Achieved</i> | 21 |
| 3.3 REASON FOR PROPOSED CHANGE..... | 21 |
| 3.4 PROPOSED PROJECT CHANGES..... | 21 |
| 3.4.1 <i>Accessibility</i> | 22 |
| 3.4.2 <i>Project Scope Changes</i> | 22 |
| 3.4.3 <i>Project Schedule Changes</i> | 24 |
| 3.4.4 <i>Project Budget Changes</i> | 26 |
| 3.5 IMPACT OF PROPOSED CHANGE ON PROJECT..... | 27 |
| 3.5.1 <i>Benefit</i> | 28 |
| 3.5.2 <i>Budget</i> | 28 |
| 3.5.3 <i>Schedule</i> | 28 |
| 3.6 FEASIBLE ALTERNATIVES CONSIDERED..... | 28 |
| 3.7 IMPLEMENTATION PLAN..... | 28 |
| 3.7.1 <i>Decommission Legacy Systems</i> | 29 |

| | | |
|------------|--|-----------|
| 4.0 | UPDATED PROJECT MANAGEMENT PLAN | 31 |
| 4.1 | PROJECT MANAGER QUALIFICATIONS | 31 |
| 4.2 | PROJECT MANAGEMENT METHODOLOGY | 31 |
| 4.3 | PROJECT ORGANIZATION | 32 |
| 4.3.1 | <i>EHRS Project Director</i> | 34 |
| 4.3.2 | <i>Project Leadership Team (Senior Project Managers)</i> | 34 |
| 4.3.3 | <i>Administration Team</i> | 35 |
| 4.3.4 | <i>Project Financials Team</i> | 35 |
| 4.3.5 | <i>Technical Team</i> | 36 |
| 4.3.6 | <i>Clinical Team</i> | 36 |
| 4.3.7 | <i>Solution Team</i> | 36 |
| 4.3.8 | <i>Project Management Office (PMO) Team</i> | 36 |
| 4.3.9 | <i>Go-Live Team</i> | 37 |
| 4.3.10 | <i>Learning & Adoption Team</i> | 37 |
| 4.3.11 | <i>Communications Team</i> | 38 |
| 4.3.12 | <i>Continuing Staffing</i> | 38 |
| 4.4 | PROJECT PRIORITIES..... | 43 |
| 4.5 | PROJECT PLAN | 43 |
| 4.5.1 | <i>Project Scope</i> | 43 |
| 4.5.2 | <i>Project Assumptions</i> | 43 |
| 4.5.3 | <i>Project Phasing</i> | 43 |
| 4.5.4 | <i>Project Governance</i> | 45 |
| 4.5.5 | <i>Project Roles and Responsibilities</i> | 46 |
| 4.5.6 | <i>Project Schedule</i> | 47 |
| 4.6 | PROJECT MONITORING & OVERSIGHT | 47 |
| 4.7 | PROJECT QUALITY | 47 |
| 4.8 | CHANGE MANAGEMENT | 47 |
| 4.9 | AUTHORIZATION REQUIRED..... | 47 |
| 5.0 | UPDATED RISK MANAGEMENT PLAN | 48 |
| 5.1 | RISK MANAGEMENT WORKSHEET | 48 |
| 5.2 | RISK TRACKING AND CONTROL..... | 48 |
| 6.0 | UPDATED ECONOMIC ANALYSIS WORKSHEETS (EAW)..... | 49 |

| | | |
|---|---|------------|
| 6.1 | METHODOLOGY | 49 |
| 6.2 | EXISTING SYSTEM COST ASSUMPTIONS..... | 49 |
| 6.2.1 | <i>Information Technology</i> | 49 |
| 6.2.2 | <i>Program</i> | 49 |
| 6.3 | PROPOSED SOLUTION ASSUMPTIONS | 49 |
| 6.3.1 | <i>One-Time IT Project Costs</i> | 49 |
| 6.3.2 | <i>Continuing IT Project Costs</i> | 50 |
| 6.3.3 | <i>Continuing Existing IT and Program Costs</i> | 50 |
| 6.3.4 | <i>Assumptions: Related Program Efficiencies</i> | 51 |
| 6.4 | ECONOMIC ANALYSIS WORKSHEETS | 51 |
| 6.4.1 | <i>Economic Analysis Worksheets (EAWs) from the approved Feasibility Study Report</i> | 52 |
| 6.4.2 | <i>EAWs for the Proposed Changes (this SPR)</i> | 58 |
| APPENDIX A – EHRS PROJECT WORK PLAN..... | | A-1 |
| APPENDIX B – EHRS PROJECT DETAILED RISK REPORT | | B-1 |

TABLE OF TABLES

| | |
|--|----|
| Table 3-1 – Major Milestones Completed..... | 16 |
| Table 3-2 - EHRS Project Deliverables Completed | 17 |
| Table 3-3 - EHRS Rollouts | 19 |
| Table 3-4 - EHRS Remaining Functionality | 20 |
| Table 3-5 – EHRS Remaining Milestones | 20 |
| Table 3-6 - EHRS Project Expenditures | 21 |
| Table 3-7 - EHRS Budget Changes..... | 27 |
| Table 4-1 – Continuing Program Positions | 40 |
| Table 4-2 – Continuing IT Positions..... | 42 |
| Table 4-3 - EHRS Project Priorities | 43 |
| Table 4-4 - Project Phases, Milestones, & Deliverables | 43 |

TABLE OF FIGURES

| | |
|---|----|
| Figure 1 - EHRS Project Office Functional Organization Chart..... | 33 |
| Figure 2 - EHRS Project Governance Communication Flow | 46 |

Executive Approval Transmittal IT Accessibility Certification

Yes or No

| | |
|----|---|
| No | The Proposed Project Meets Government Code 11135 / Section 508 Requirements and no exceptions apply. |
|----|---|

Exceptions Not Requiring Alternative Means of Access

| Yes or No | Accessibility Exception Justification |
|-----------|---|
| No | The IT project meets the definition of a national security system. |
| No | The IT project will be located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment (i.e., "Back Office Exception.") |
| No | The IT acquisition is acquired by a contractor incidental to a contract. |

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

| Yes or No | Accessibility Exception Justification |
|-----------|--|
| | <p>Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all agency resources). Explain:</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p> |
| | <p>No commercial solution is available to meet the requirements for the IT project that provides for accessibility. Explain:</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p> |

Special Project Report
Executive Approval Transmittal
IT Accessibility Certification
(Continued)

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

| Yes or No | Accessibility Exception Justification |
|-----------|--|
| Yes | <p>No solution is available to meet the requirements for the IT project that does not require a fundamental alteration in the nature of the product or its components.</p> <p>Explain:</p> <p>California Correctional Health Care Services (CCHCS) is acquiring an existing Commercial-Off-The-Shelf (COTS) Electronic Health Record System (EHRS) software package, portions of which were developed by the vendor prior to passage of the Americans with Disabilities Act (ADA).</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p> <p>CCHCS will follow existing reasonable accommodations processes to address EHRS access for individuals with disabilities.</p> |

2.0 Information Technology Project Summary Package

2.1 Section A: Executive Summary

| | | | | |
|-----------------------------------|-------------|-----|----------|--------|
| 1. Submittal Date | April 2016 | | | |
| 2. Type of Document | FSR | SPR | PSP Only | Other: |
| Project Number | 5225-146 | | | |
| 3. Project Title | EHR Project | | | |
| Project Acronym | EHR | | | |
| 4. Submitting Agency/state entity | CCHCS | | | |
| 5. Reporting Agency/state entity | CDCR | | | |

| Estimated Project Dates | |
|-------------------------|--------------|
| Start | End |
| June 2013 | January 2020 |

| | |
|-----------------------|---|
| 6. Project Objectives | <p>The objective of the EHR Project is to procure, configure and implement a COTS software solution.</p> <p>Implement Industry Best Practice Processes and Workflows, thereby achieving results management (imaging, laboratory, pathology, etc.) that complies with statewide policy for review, authentication, notices, and patient communications.</p> <p>Increase efficiency of care by reducing redundant procedures, streamline processes and reducing medication waste.</p> |
|-----------------------|---|

| 8. Major Milestones | Est. Complete Date |
|--|-------------------------|
| Contract Amendment for Design, Development, and Integration Vendor | Complete-June 2013 |
| Support Contract(s) Awarded | Complete-October 2013 |
| Project Planning Phase | Complete-January 2014 |
| Design Phase | Complete-December 2014 |
| Build/Configuration Phase | Complete-July 2015 |
| Test Phase | Complete-September 2015 |
| First Go-Live Institution | Complete-October 2015 |
| Regional Rollout | August 2017 |
| Implement Remaining EHR Functionality | December 2018 |
| Decommission Legacy Systems | January 2020 |
| Project Close-Out | December 2019 |
| Conduct PIER | June 2020 |

7. Proposed Solution

This project recommends procuring and implementing a COTS Electronic Health Record System (EHRS) statewide. This proposed solution will implement an integrated "Five Rights" medication administration, integrated healthcare scheduling (interfaced with the Strategic Offender Management System [SOMS]), a comprehensive clinical document management system, automated "best practices" and standardized efficient workflows, and serve as an integrated source.

2.2 Section B: Project Contacts

| | |
|------------------|----------|
| Project # | 5225-146 |
| Doc. Type | SPR |

| Executive Contacts | | | | | | | | |
|------------------------------|------------|--------------|-----------|----------|------|-----------|-------|-----------------------------|
| | First Name | Last Name | Area Code | Phone # | Ext. | Area Code | Fax # | E-mail |
| State Entity Director | Yulanda | Mynhier | 916 | 691-6164 | | | | Yulanda.Mynhier@cdcr.ca.gov |
| Budget Officer | Duane | Reeder | 916 | 691-6584 | | | | Duane.Reeder@cdcr.ca.gov |
| CIO | Cheryl | Larson | 916 | 691-0406 | | | | Cheryl.Larson@cdcr.ca.gov |
| Project Sponsor | Steven | Tharratt, MD | 916 | 691-9913 | | | | Steven.Tharratt@cdcr.ca.gov |

| Direct Contacts | | | | | | | | |
|-------------------------|------------|-----------|-----------|----------|------|-----------|-------|--------------------------|
| | First Name | Last Name | Area Code | Phone # | Ext. | Area Code | Fax # | E-mail |
| Doc. prepared by | Jeff | Lewis | 916 | 691-4859 | | | | Jeff.Lewis@cdcr.ca.gov |
| Primary contact | Duane | Reeder | 916 | 691-6584 | | | | Duane.Reeder@cdcr.ca.gov |
| Project Director | Tony | Lourick | 916 | 691-0691 | | | | Tony.Lourick@cdcr.ca.gov |

2.3 Section C: Project Relevance to State and/or Departmental Plans

| | |
|-----------|----------|
| Project # | 5225-146 |
| Doc. Type | SPR |

| | | | |
|----|---|--------|---|
| 1. | What is the date of your current Technology Recovery Plan (TRP)? | Date | 4/15/15 |
| 2. | What is the date of your current Agency Information Management Strategy (AIMS)? | Date | N/A |
| 3. | For the proposed project, provide the page reference in your current AIMS and/or strategic business plan. | Doc. | Federal Receiver's Turnaround Action Plan |
| | | Page # | N/A |

| | | | |
|----|---|-----|----|
| 4. | Is the project reportable to control agencies? If YES, CHECK all that apply: | Yes | No |
| | X a) The project involves a budget action. | X | |
| | X b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation. | | |
| | c) The project involves the acquisition of microcomputer commodities and the agency does not have an approved Workgroup Computing Policy. | | |
| | X d) The estimated total development and acquisition cost exceeds the departmental cost threshold. | | |
| | e) The project meets a condition previously imposed by Finance. | | |

2.4 Section D: Budget Information

| | |
|-----------|----------|
| Project # | 5225-146 |
| Doc. Type | SPR |

Budget Augmentation Required?

| | |
|-----|---|
| No | |
| Yes | X |

If YES, indicate fiscal year(s) and associated amount:

| FY | 16/17 | FY | 17/18 | FY | 18/19 | FY | 19/20 | FY | 20/21 |
|----|--------------|----|--------------|----|--------------|----|-------------|----|-------------|
| | \$35,838,626 | | \$29,895,209 | | \$14,891,405 | | \$5,791,977 | | \$5,791,977 |

PROJECT COSTS

| | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | Sub-Total |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 1. Fiscal Year | | | | | | | | |
| 2. One-Time Cost | \$17,447,346 | \$13,588,165 | \$54,631,291 | \$36,240,232 | \$31,831,148 | \$38,585,254 | \$25,943,010 | \$218,266,446 |
| 3. Continuing Costs | \$0 | \$0 | \$0 | \$0 | \$12,905,423 | \$15,543,694 | \$21,622,828 | \$50,071,945 |
| 4. TOTAL PROJECT BUDGET | \$17,447,346 | \$13,588,165 | \$54,631,291 | \$36,240,232 | \$44,736,571 | \$54,128,948 | \$47,565,838 | \$268,338,391 |

| | Sub-Total | 18/19 | 19/20 | 20/21 | TOTAL |
|-------------------------|---------------|--------------|--------------|--------------|---------------|
| 1. Fiscal Year | | | | | |
| 2. One-Time Cost | \$218,266,446 | \$11,202,473 | \$979,202 | \$0 | \$230,448,121 |
| 3. Continuing Costs | \$50,071,945 | \$30,931,551 | \$37,139,878 | \$37,870,664 | \$156,014,037 |
| 4. TOTAL PROJECT BUDGET | \$268,338,391 | \$42,134,024 | \$38,119,080 | \$37,870,664 | \$386,462,158 |

PROJECT FINANCIAL BENEFITS

| | 18/19 | 19/20 | 20/21 | Total |
|----------------------------|-------|-------------|--------------|--------------|
| 5. Cost Savings/Avoidances | \$0 | \$9,834,587 | \$14,772,455 | \$39,379,497 |
| 6. Revenue Increase | \$0 | \$0 | \$0 | \$0 |

EHRIS Project

May 2016

2.5 Section E: Vendor Project Budget

| | |
|---|-----|
| Vendor Cost for SPR Development (if applicable) | N/A |
| Vendor Name | N/A |

| | |
|-----------|----------|
| Project # | 5225-146 |
| Doc. Type | SPR |

VENDOR PROJECT BUDGET

| Fiscal Year | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | Sub-Total |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 1 Primary Vendor Budget | \$17,447,346 | \$13,019,457 | \$39,719,448 | \$20,328,111 | \$17,888,727 | \$19,808,919 | \$17,100,844 | \$145,312,852 |
| 2 Project Oversight Budget | | \$0 | \$153,600 | \$153,600 | \$153,600 | \$153,600 | \$153,600 | \$768,000 |
| 3 V&V Budget | | \$0 | \$580,000 | \$191,600 | \$422,136 | \$580,000 | \$580,000 | \$2,353,736 |
| 4 Other Budget | | \$0 | \$3,297,099 | \$2,080,714 | \$17,017,784 | \$9,006,617 | \$5,210,597 | \$36,612,811 |
| 5 TOTAL VENDOR BUDGET | \$17,447,346 | \$13,019,457 | \$43,750,147 | \$22,754,025 | \$35,482,247 | \$29,549,136 | \$23,045,041 | \$185,047,399 |

| Fiscal Year | Sub-Total | 18/19 | 19/20 | 20/21 | TOTAL |
|----------------------------|---------------|--------------|--------------|--------------|---------------|
| 1 Primary Vendor Budget | \$145,312,852 | \$13,466,508 | \$11,661,580 | \$11,661,580 | \$182,102,520 |
| 2 Project Oversight Budget | \$768,000 | \$153,600 | \$0 | \$0 | \$921,600 |
| 3 V&V Budget | \$2,353,736 | \$580,000 | \$0 | \$0 | \$2,933,736 |
| 4 Other Budget | \$36,612,811 | \$7,508,063 | \$6,904,063 | \$6,904,063 | \$57,928,999 |
| 5 TOTAL VENDOR BUDGET | \$185,047,399 | \$21,708,171 | \$18,565,643 | \$18,565,643 | \$243,886,856 |

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

| | | |
|---------------------------------|--------------------|---------------|
| 7 Primary Vendor | Cerner Corporation | |
| 8 Contract Start Date | | 6/29/2012 |
| 9 Contract End Date (projected) | | 6/30/2023 |
| 10 Amount | | \$177,290,491 |

PRIMARY VENDOR CONTACTS

| Vendor | First Name | Last Name | Area Code | Phone # | Ext. | Area Code | Fax # | E-mail |
|-----------------------|------------|-----------|-----------|----------|------|-----------|-------|--------------------------|
| 11 Cerner Corporation | Maile | Bennett | 916 | 691-2672 | | | | maile.bennett@cerner.com |

2.6 Section F: Risk Assessment Information

| | |
|-----------|----------|
| Project # | 5225-146 |
| Doc. Type | SPR |

RISK ASSESSMENT

| | | |
|---|-----|----|
| Has a Risk Management Plan been developed for this project? | Yes | No |
| | X | |

General Comment(s)

The EHRIS Project Team conducted a Risk Assessment that is summarized in Section 5 of this Special Project Report. The Project Team maintains a formal Risk Management Plan.

The key project risks are summarized below:

- There exists a medium probability the new EHRIS clinical workflows will not integrate seamlessly into all institutions or all disciplines.
- There is a low probability of organizational resistance to adoption of the EHRIS.
- If the funding described in this SPR is not approved, there exists a high probability of not having enough staff to support the operational EHRIS.
- Integration of CCHCS and EHRIS Vendor help desk functions will continue through rollout of the EHRIS, which could negatively affect backlog of change requests and help desk tickets.

3.0 Proposed Project Change

3.1 Project Background/Summary

3.1.1 Business Program Background

Due to the State of California's past failure to provide a constitutional level of medical care to prison inmates, the United States District Court for the Northern District of California appointed a Receiver to assume the executive management of the California prison medical system and to raise the level of care up to constitutional standards. The Receiver was tasked with improving health care conditions in the adult institutions throughout California and defined his mission as follows:

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

To accomplish this mission, the Receiver identified six strategic areas in which efforts were to be concentrated. These six areas became the basis for goals described in the Receiver's Turnaround Plan of Action (TPA). On June 16, 2008, in an order signed by Judge Henderson, the federal court found the TPA's "six strategic goals to be necessary to bring California's prison medical system up to constitutional standards." The six strategic goals identified in the TPA are:

- 1) Ensure timely access to health care services;
- 2) Establish a prison medical program addressing the full continuum of health care services;
- 3) Recruit, train and retain a professional quality medical workforce;
- 4) Implement a quality assurance and continuous improvement program;
- 5) Establish medical support infrastructure; and,
- 6) Provide for necessary clinical, administrative and housing facilities.

The EHRS fits the TPA well in that it addresses, either directly or indirectly, each of the strategic goals.

The Receiver filed a report on March 10, 2015, entitled Receiver's Special Report: Improvements in the Quality of California's Prison Medical Care System wherein he outlined the significant progress in improving the delivery of medical care in California's prisons and also the remaining significant gaps and failures that must still be addressed. The identified gaps are availability and usability of health information; scheduling and access to care; care management; and health care infrastructure at facilities. The Receiver reported that the EHRS will provide us with demonstrable and sustained benefits to patient safety, medication administration, quality and efficiency of care, and staff efficiencies and satisfaction. The EHRS, when properly implemented, will facilitate

improved practices of medication distribution and record-keeping. CCHCS and the Receiver anticipate a substantial increase in the performance of our medication management system among other improvements.

3.1.2 Project Background

At the time of the court's June 16, 2008 order, EMR referred to Electronic Medical Record systems. Subsequently, as a result of the Affordable Care Act, EMR's are now referred to as Electronic Health Care Record Systems (EHRS). The EHRS Project seeks to satisfy the court order, complete the TPA's prison medical support infrastructure objective, and complete the remaining projects established by the Receiver and approved by the federal judge.

The Receiver reports on the 19 projects in the Quarterly Joint Legislative Budget Committee Report. As of the date of this Special Project Report (SPR), CCHCS has successfully deployed 16 of the 19 projects. This EHRS Project will complete the remaining three projects identified in the TPA.

The Feasibility Study Report (FSR) makes the case for an enterprise-wide EHRS which provides access to patient information necessary to support the clinicians' abilities to improve health care decisions and effectiveness. An EHRS is the integration of two or more systems providing data into a patient's clinical health record. The EHRS contains clinical information, captures data, and documents information about the patient and their care from each practice area where this record resides. It also contains clinical results, referrals, and consultations from other providers of care for a comprehensive view of a patient's health care and history.

3.2 Project Status

The EHRS Project implemented the EHRS in all Pilot locations consisting of three institutions (California Institution for Women [CIW], Folsom State Prison [FSP], and Central California Women's Facility [CCWF]) and all CCHCS headquarters locations, Central Fill Pharmacy, Health Records Center, and regional offices. The following sections provide details on accomplishment of approved milestones and work in progress to complete the EHRS Project.

3.2.1 Major Milestones Completed

The EHRS Project formally launched with contract award to the EHRS Vendor on June 28, 2013, followed by completion of the EHRS FSR on August 30, 2013. The California Department of Technology approved the EHRS FSR in a letter dated September 25, 2013.

Initial EHRS Project activities focused on completion of contracts for PM, OCM, and IV&V services. Recruitment and selection of CCHCS staff for the EHRS Project was slower than planned resulting in slipped completion of EHRS Project Planning Phase milestones.

The EHR Vendor conducted its EHR Project Preparation activities between July 2013 and December 2013. Following its corporate project methods (MethodM), the EHR Vendor conducted sessions with CCHCS executives on strategic alignment, adoption, and OCM. Workshops were conducted with project stakeholders on project management, EHR solution overview, and EHR solution fundamentals. EHR Project Preparation activities concluded with Project Kickoff, which included a series of meetings and assessments to ready the project team for design/build/configure/test activities. Delays in recruitment and selection of CCHCS staff combined with EHR Vendor delays in completing the EHR Project Management Plan (PMP) and Project Work Plan (PWP) deliverables impacted completion of the EHR Planning Phase milestone.

EHR Design Phase activities focused on completion of detailed configuration notes, known as Data Collection Worksheets (DCWs), provided by the EHR Vendor. CCHCS formed various workgroups comprised of subject matter experts (SMEs) representing technical and program areas. During the Design Phase, CCHCS became aware of factors preventing timely completion of design activities. In response, CCHCS planned and conducted standardization summits in order to reach consensus among SMEs. A Pharmacy Summit was held in September 2013, and a cross-clinical Standardization Summit was held in January 2014. These summits produced specific actions and escalations necessary to complete EHR Design Phase activities. The overall complexity of the EHR resulted in a ten-month delay in completion of the Design Phase milestone.

The EHR Vendor methodology includes iteration between design, build, configure and test activities. CCHCS' lack of understanding of this unique methodology required significant unplanned rework to achieve the intended outcomes from the iterations, resulting in extension of the Build/Configuration Phase milestone. The Test Phase milestone was also extended to accommodate the required iteration method employed by the EHR Vendor. CCHCS added two Mock Clinic test events in order to fully exercise newly designed workflows in concert with use of the EHR.

Planning and execution of EHR Go-Live activities were executed as planned. The combined delay from prior Project events caused the delay in completion of the Go-Live Milestone.

Table 3-1 lists the estimated completion dates in the approved FSR and actual completion dates for EHR Project major milestones accomplished as of the date of this SPR. Table 3-2 lists the EHR Project deliverables completed in the same period.

Table 3-1 – Major Milestones Completed

| MAJOR MILESTONE | FSR COMPLETION DATE | ACTUAL COMPLETION DATE | COMMENTS |
|--------------------------------|---------------------|------------------------|--|
| Contract Award (PM, OCM, IV&V) | August 2013 | October 2013 | Milestone slip due to delays in FSR approval and staff assignment to the EHR Project |
| Project Planning Phase | October 2013 | January 2014 | Delayed EHR Vendor completion of Planning Phase |

| MAJOR MILESTONE | FSR COMPLETION DATE | ACTUAL COMPLETION DATE | COMMENTS |
|---------------------------|---------------------|------------------------|--|
| (Preparation) | | | deliverables and staff assignment delays contributed to slipped completion of this milestone |
| Design Phase | February 2014 | December 2014 | Time necessary for re-alignment of EHR Vendor and CCHCS Project methodologies impacted completion of Design/Build/Configuration deliverables |
| Build/Configuration Phase | August 2014 | July 2015 | |
| Test Phase | October 2014 | September 2015 | Delayed completion of Design/Build/Configuration Phase and time necessary for resolution of defects identified in testing delayed milestone completion |
| First Go-Live | December 2014 | October 2015 | Delays in completion of prior milestones impacted the date of the First Go-Live milestone |

Table 3-2 - EHR Project Deliverables Completed

| DELIVERABLE TITLE | COMPLETION DATE |
|---|-----------------|
| EHR Project Management Plan (PMP) | December 2013 |
| Strategic Adoption Session Report | December 2013 |
| Interface Management Plan (IMP) | May 2014 |
| Design Review | August 2014 |
| Workflow Gap Analysis | August 2014 |
| Learning Plan | August 2014 |
| Gateway Design | December 2014 |
| Design Decision Matrix (85% Completion Milestone) | September 2014 |
| Configure EHR | July 2015 |
| Test Plan | September 2015 |
| Customized Training Materials | September 2015 |
| Pilot Cutover & Go-Live Plan | September 2015 |

3.2.2 Work in Progress

The EHR Project continues activities to complete the initial EHR build, roll out of the EHR to all institutions, and implement the remaining EHR functionality.

Complete EHR Initial Build

Work to complete the initial EHR build continues. The first three items below are high-priority initiatives based on lessons learned from the Pilot. The remaining activities represent in-progress activities.

- Reengineer Pharmacy workflow and solution configuration.
 - For the EHRS Pilot, CCHCS procured data entry services from the EHRS Vendor and prescription verification was performed by CCHCS registry pharmacy staff. Based on lessons learned from the Pilot, CCHCS has revised the pharmacy cutover process.
 - For the remaining EHRS roll-outs, a percentage of active medication orders will be electronically loaded. Active medications will be electronically loaded into Cerner PharmNet by the EHRS Vendor running a report and importing the data fields from CCHCS's existing medication record system (Guardian). The CCHCS Central Fill registry pharmacists will then validate and verify the completeness and accuracy of the electronically entered orders. Because of the complexity, a number of orders will not be able to be electronically loaded. These will be back-loaded manually.
- Complete initial EHRS reports.
- Complete configuration of 724 Downtime Viewer and Downtime Procedures.
- Complete formal testing of functionality not ready for Integration Test milestone.
- Continue requirements traceability activities to complete the Requirements Traceability Matrix (RTM).
- Data Warehouse Migrations.
- Complete Documentation for Interfaces.
- Process improvement of Clinical Workflows.
- Configure Imprivata (Two-Factor Authentication).

EHRS Rollout

Early in the EHRS Project design phase, facilitated sessions were held with internal stakeholders to refine the rollout strategy defined in the approved FSR. The selected strategy, termed Viral Rollout, was briefed to and approved by the CCHCS Executive Steering Committee in June 2014. The key to this strategy is to assign clinical staff from institutions going live in the near future to institutions nearby already using the EHRS. The knowledge gained by clinical personnel visiting the institutions already using the EHRS will be carried back to their home institution to directly support their co-workers during and immediately after their go-live event.

The Viral Rollout Strategy consisted of two parts: Pilot; and, Post-Pilot Rollouts.

- Pilot – Included all institutions with female patients (FSP, CCWF, CIW) plus Headquarters and Regional Offices, Central Health Records, and Central Fill Pharmacy.
- Post-Pilot Rollouts - Consists of the following components.
 - Four rollouts after the Pilot.
 - In addition to the professional trainers, super-users, and other training resources, the rollouts will be enhanced by the lessons learned and experience of geographically proximate institutions that have just

completed “Go-Live”. Hence the term viral: “See one, do one, teach one” approach.

In the Viral Rollout strategy, each Rollout includes eight to nine institutions, with approximately two months separating each Rollout.

A key lesson learned from the EHR Pilot involves the number of support staff necessary to support the go-live event at each institution and at CCHCS Headquarters. Compared to the EHR Pilot, the higher number of institutions in each roll out would require significant numbers of support personnel. To address this issue and mitigate the risk of an unsuccessful rollout, the rollout schedule has been modified to stage institution go-live events in smaller and more frequent groupings than was planned in the Viral Rollout Strategy. The revised rollout strategy stages 14 go-live events. The revised Rollout Strategy continues the viral approach described above. Table 3-3 depicts the estimated timing for the remaining rollouts.

Table 3-3 - EHR Rollouts

| Rollout | Go-Live Month |
|---------|----------------|
| 1 | July 2016 |
| 2 | September 2016 |
| 3 | October 2016 |
| 4 | November 2016 |
| 5 | December 2016 |
| 6 | January 2017 |
| 7 | February 2017 |
| 8 | March 2017 |
| 9 | April 2017 |
| 10 | May 2017 |
| 11 | June 2017 |
| 12 | July 2017 |
| 13 | August 2017 |
| 14 | August 2017 |

Implement Remaining EHR Functionality

The EHR Pilot implemented all of the functionality necessary to support delivery of health care and ensure patient safety. The remaining EHR functionality to be implemented requires sufficient production data in the system for the functionality to perform as intended. Consequently, implementation of these remaining solution components was planned to occur after the Pilot. Implementation of the remaining EHR functionality is scheduled to occur in parallel with the continued rollout of the EHR.

Table 3-4 provides a listing of the remaining COTS functionality to be implemented in the EHRS. The EHRS Project Work Plan (Appendix A) depicts the timeframes for completion of design, test, and deployment of this remaining EHRS functionality.

Table 3-4 - EHRS Remaining Functionality

| Description | Time to Implement | Estimated Completion |
|--|-------------------|----------------------|
| 2017 Code Upgrade | 3 Months | May 2017 |
| CPM Code Uplift (Java) & Scheduling Enhancements | 12 Months | May 2018 |
| Cerner Resonance | 6 Months | March 2017 |
| Health Sentry | 6 Months | March 2017 |
| CAIR Bidirectional Interface | 6 Months | March 2017 |
| iBus MDI Glucometers | 12 Months | August 2018 |
| PowerInsight EDW / HealthEDW | 12 Months | June 2017 |
| HealtheIntent / EDW | 7 Months | March 2017 |
| Lighthouse | 2 Months | August 2016 |
| Electronic Dental Record System (EDRS) | 17 Months | December 2018 |
| Content360 Historical Documents Upload | 4 Months | October 2016 |

The table below lists the forecast completion dates for remaining EHRS milestones.

Table 3-5 – EHRS Remaining Milestones

| HIGH-LEVEL PLANNING ACTIVITY | FSR START DATE | FSR COMPLETION DATE | ACTUAL/ ESTIMATED START DATE | ESTIMATED COMPLETION DATE |
|--|----------------|---------------------|------------------------------|---------------------------|
| Complete Initial Build | N/A | N/A | January 2016 | August 2016 |
| Regional Rollout | January 2015 | December 2015 | July 2016 | August 2017 |
| System Acceptance | N/A | January 2017 | N/A | October 2017 |
| Implement Remaining EHRS Functionality | N/A | N/A | July 2016 | December 2018 |
| Decommission Legacy Systems | January 2016 | January 2017 | July 2017 | January 2020 |
| Close Out Project | January 2017 | June 2017 | September 2019 | December 2019 |
| Conduct Post-Implementation Evaluation Report (PIER) | January 2017 | June 2017 | December 2019 | June 2020 |

3.2.3 Expenditures to Date

EHRS Project expenditures through March 2016 are shown in Table 3-6.

Table 3-6 - EHRS Project Expenditures

| | Last Approved Budget | Cumulative Actual Cost |
|---|-----------------------|------------------------|
| One-Time IT Project Costs | | |
| Staff (Salaries & Benefits) | \$ 26,189,305 | \$ 21,032,126 |
| Hardware Purchase | \$ 2,256,374 | \$ 6,298,551 |
| Software Purchase/License | \$ 14,197,472 | \$ 17,307,294 |
| Telecommunications | | |
| Contract Services - Software Customization | \$ 34,242,701 | \$ 17,216,369 |
| Contract Services - Project Management | \$ 2,255,000 | \$ 958,716 |
| Contract Services - Project Oversight | \$ 521,378 | \$ 414,860 |
| Contract Services - IV&V Services | \$ 1,242,467 | \$ 957,390 |
| Contract Services - Other Contract Services | \$ 22,348,800 | \$ 17,429,621 |
| Data Center Services | | |
| Agency Facilities | | |
| Other | \$ 1,336,248 | \$ 858,702 |
| Total One-Time IT Project Costs | \$ 104,589,745 | \$ 82,473,629 |
| Continuing IT Project Costs | | |
| Staff (Salaries & Benefits) | \$ 17,409,542 | \$ 4,678,326 |
| Hardware Lease/Maintenance | \$ 2,439,136 | \$ 396,067 |
| Software Maintenance/Licenses | \$ 38,306,443 | \$ 14,862,753 |
| Telecommunications | \$ 540,000 | \$ 270,000 |
| Contract Services | \$ 17,353,362 | \$ 5,793,047 |
| Data Center Services | \$ 1,250,000 | \$ 575,000 |
| Agency Facilities | | |
| Other | | |
| Total Continuing IT Project Costs | \$ 77,298,483 | \$ 26,575,192 |
| TOTAL | \$ 181,888,228 | \$ 109,048,822 |

3.2.4 Benefits Achieved

Reporting of benefits achieved will be addressed in the PIER, allowing for complete implementation of the EHRS in all institutions and completion of all EHRS scope.

3.3 Reason for Proposed Change

This SPR is being submitted due to deviation from the approved scope, schedule, and budget. The following sections summarize the changes to project scope, schedule, and budget.

3.4 Proposed Project Changes

The following describes the changes reflected in this SPR, including the justification for the change.

3.4.1 Accessibility

CCHCS included accessibility requirements in its Request for Proposals (RFP) for the EHR (refer to FSR Appendix C Technical Requirements 7.71, 7.72, & 13.06). The EHR Vendor response during the solicitation process indicated it did not fully meet these accessibility requirements included in the RFP due to the fact that much of its COTS software was developed prior to passage of the Americans with Disabilities Act (ADA). CCHCS will follow existing reasonable accommodation processes to address EHR access for individuals with disabilities.

Below is the EHR vendor response regarding accessibility of the EHR.

Cerner is committed to ensuring that its products and services can be used by all end users including user modalities defined in Subpart C (§1194.31). Cerner solution seek to strictly conform to applicable Section 508 standards and be accessible to users with disabilities with exception to fundamental alteration of a compromise to the safe operation of the solution. Cerner has long maintained design standards that incorporate the principles of Section 508. As we move forward with new applications and enhancements to applications, we take into account the requirements for the effective operation of our solutions by users with disabilities throughout the development life cycle. Our design standards actually pre-date the regulation and reflected in our many applications in use today. Cerner is committed to high usability for all end users. A few years ago, we refocused our Cerner Design Language (CDL) to explicitly incorporate accessibility guidelines – such as those found within the Section 508 standards. Each guideline is listed as an individual standard with reference to the federal website (www.section508.gov).

Cerner's software development and maintenance approach will result in incremental progress towards complete compliance with requirements such as those found in the Section 508 standards as the thousands of software modules are enhanced, tested and certified in future major releases. Cerner uses a prioritized, risk-based model to meet compliance of Cerner solutions to address compliance of high-impact requirements in an intelligent fashion.

3.4.2 Project Scope Changes

The following changes in Project scope have been incorporated into the Project. This SPR includes all adjustments necessary to implement and support these scope changes.

3.4.2.1 Electronic Dental Record System (EDRS)

The California Department of Corrections and Rehabilitation (CDCR) Inmate Dental Services Program (IDSP) placed a definition for optional services in the original Cerner Agreement for development of customized PowerChart screens to support a dental health record within the EHR. Once the EHR Project was underway, detailed

analysis of PowerChart's dental record offering revealed a significant lack of critical dental functionality including an automated Odontogram, ability to manage priority cases and dental x-ray integration, making this option infeasible for IDSP.

Consequently, the IDSP evaluated options for establishing dental health record capabilities and determined the optimum route was to integrate an existing COTS dental record system with the EHRS.

Building from the EHRS functional and technical requirements, the IDSP team developed a Business Requirements Document (BRD) for the EDRS. Cerner's analysis of available COTS dental record packages resulted in selection of Henry Schein's Dentrax Enterprise solution as the best fit for the business and technical needs of the IDSP.

The EDRS will provide IDSP with the ability to record and maintain accurate, reliable and readily accessible patient dental clinical documentation without the need for the current paper and physical patient file. By interfacing with other systems, the EDRS will provide enterprise-wide access to appointment scheduling, dental radiographic imaging, and patient health information as needed to support the IDSP mission and improve patient safety. The system will also provide accurate data for more effective program planning. The EDRS will provide scheduling and charting as well as serving as the system of record for Dental Records.

The EDRS requirements and scope of work will be added to the EHRS Vendor contract in a forthcoming amendment. EDRS activities are estimated to begin July 2016. CCHCS will leverage knowledgeable EHRS resources to complete the EDRS.

3.4.2.2 Decommission Legacy Systems

Integration of the EDRS with the EHRS, presented in the prior section, will result in decommissioning of the Dental Scheduling and Tracking System (DSTS). The approved FSR did not include decommissioning of the DSTS.

Section 5 of the approved FSR indicated the EHRS would integrate with the existing scanned paper-based electronic Unit Health Record (eUHR) system. CCHCS purchased Cerner's Content360 image document management solution, which is integrated into the EHRS. This decision was made to reduce operational costs and provide seamless access to historical patient information from within EHRS. The EHRS Project scope is modified to include upload of existing medical record information from eUHR into Content360.

Section 3.7.1 describes the approach and timeline for decommissioning CCHCS legacy systems.

3.4.2.3 Medication Management Analysis

CCHCS is engaging specialized consultant services to analyze the EHRS and the medication management processes related to implementation of the EHRS statewide, through application of the Lean Six Sigma methodology. Contractors will assist the organization towards standardizing critical medication management workflows in the EHRS environment, including but not limited to, supply-side chain processes, central fill

utilization, and institution medication ordering, dispensing, and administration processes.

This Lean Six Sigma efficiency analysis is estimated to be completed within six months.

3.4.2.4 Miscellaneous Project Scope Changes

The following minor scope changes have been incorporated into the EHRS Project.

- The approved FSR specified the EHRS would be installed in 33 institutions. Since approval of the FSR, CDCR has added two institutions, bringing the total to 35.
- In preparation for CCHCS technical staff to maintain the Cerner Discern Analytics solution, CCHCS purchased three in-person training sessions from Cerner. Three courses (Discern Explorer Basic, Discern Explorer Intermediate, and Discern Explorer Advanced) will be provided in sequence to CCHCS technical staff.
- Design of the EHRS two-factor authentication functionality requires one additional CCHCS technical analyst to work with the EHRS Vendor to complete design, deployment, and operational support of this functionality.
- Design of the EHRS mobile device management functionality requires one additional CCHCS technical analyst to work with the EHRS Vendor to complete design, deployment, and operational support of this functionality.

3.4.3 Project Schedule Changes

The schedule changes described in this section are the result of impacts described in Sections 3.2 and 3.3, and are presented chronologically in this section. Topical areas in this section listed more than once (e.g., pharmacy) represent schedule changes that occurred at separate times in the project timeline.

Schedule changes were made to accommodate delays in completion of the activities listed below. These changes, among others, resulted in a re-baseline of the EHRS project schedule in January 2015.

- Addition of two Project activities to reach consensus and standardization of design.
 - Pharmacy Summit – In September 2013, the EHRS Project leadership team hosted Cerner and CCHCS subject matter experts to discuss elements of the EHRS implementation for pharmacy in order to ensure a smooth transition from current pharmacy practices to integration of pharmacy into the integrated EHRS.
 - Standardization Summit – In January 2014, the EHRS Project leadership team hosted Cerner and CCHCS subject matter experts to address necessary standardization across clinical areas of responsibility in order to ensure a smooth EHRS implementation.

- Remediation of project management practices – Following CCHCS issuance of a Notice of Breach of Contract to the EHRS Vendor in March 2014 for failure to execute project management activities conforming to the approved contract. The EHRS Vendor submitted for approval and then executed its detailed plan for remediating its project management practices to become compliant with the State of California Project Management Methodologies (CA-PMM). Remediation activities were completed in May 2014.
- Design Phase – CCHCS worked with the EHRS Vendor to complete design deliverables necessary for the EHRS Vendor to complete the Design Phase milestone. Task iteration and rework resulted in late completion of tasks. Design Phase activities were completed in December 2014.
 - Revision to the detailed design specifications activity – Section 3.4 of the FSR stated the EHRS Vendor would develop detailed design specifications. This activity was not completed as designed. Rather, the EHRS Vendor conducted detailed design activities following its MethodM process. Detailed design for the EHRS included formal sessions between Cerner solution architects and CCHCS clinical and technical subject matter experts to complete Data Collection Worksheets (DCWs) and provide answers to formalized Design Decision Matrices (DDMs).
 - System Validation Sessions (SVS) – Subsequent to this project activity, which occurred in April 2014, CCHCS determined it did not achieve the results expected and instructed the EHRS Vendor to remediate the activity by rescheduling and repeating numerous SVS sessions. The remediated SVS was completed in September 2014.
- Test Phase – Addition of Mock Clinics.
 - During project execution, CCHCS became aware of differences between its own and Cerner’s practices for integrated testing of the EHRS solution prior to deployment. CCHCS introduced two Mock Clinic sessions focused on integrated testing of clinical workflows following “day-in-the-life” scenarios of patient care. Mock Clinic #1 was held in February 2015, and Mock Clinic #2 was conducted in June 2015.

Schedule changes were necessary to incorporate the following additional project activities.

- Purchase of a Learning Management System (LMS) – The original approach was to utilize the learning system provided by the EHRS Vendor. Funds were removed from the EHRS Vendor contract associated with the LMS purchase and a competitive procurement was conducted and awarded to Halo in June 2014 for a web-based LMS in a Software-as-a-Service (SaaS) environment.
- Addition of design (February 2015 through May 2015) and build (April 2015 through June 2015) activities to incorporate Content360 into the EHRS.
- Separation of EHRS solution activities into functionality to be completed prior to Pilot go-live and remaining functionality to be implemented after Pilot.

- Revision to the EHRS Rollout schedule based on lessons learned from the Pilot.
 - Reengineer Pharmacy workflows and application to meet program needs and comply with regulations.
 - Complete downtime procedures and configure the 724 Downtime Viewer solution.
 - Complete critical reports prior to commencing EHRS Rollout.

3.4.4 Project Budget Changes

The scope and schedule changes described in Sections 3.4.2 and 3.4.3 result in the budget changes described here and summarized in the table below.

One-Time Resources

In FY 2016/17 through FY 2018/19 there is a funding need for temporary help to complete the EHRS Project as described in Section 3.2.2 (complete initial EHRS build, roll out the EHRS to remaining institutions, and implement the remaining EHRS functionality). When the EHRS Vendor contract was originally completed, the timing of the CCHCS scope of work needed for this remaining functionality had not been fully determined. The funding will allow completion of these remaining EHRS Project activities and minimize the need for additional position authority.

Continuing IT & Program Staff

There were 50.4 positions originally identified for operational support of the EHRS, but after learning more about the solution and having implemented at the Pilot sites, that need was underestimated. There is a need for an additional 96.0 positions (total 146.4) tied to IT and the other program areas. Section 4.3.2 describes EHRS continuing staffing.

EDRS

As described in Section 3.4.2.2, CCHCS and CDCR have decided to incorporate the EDRS into the EHRS to complete the entire health care record. The EDRS is a critical component that needs to be added and was not included in the original FSR due to timing constraints.

EHRS Equipment Refresh

The EHRS end-user devices must be refreshed due to the limited life span of such electronic equipment. The approved FSR did not address necessary refresh of EHRS end-user devices. CCHCS will utilize a four-year refresh cycle, resulting in one-quarter (25%) of the EHRS end-user devices being refreshed each year starting in FY 2018/19.

EHRS Maintenance Changes

The EHRS will require periodic maintenance changes to correct deficiencies, complete routine maintenance, and perform upgrades to the operational EHRS. The approved FSR did not address maintenance changes to the EHRS. CCHCS is planning for

contracted services annually beginning in FY 2017/18 in support of these EHR maintenance changes.

CCHCS IT Infrastructure/Network/Servers

CCHCS estimates hosting and network fees for the EHR, including EHR servers not hosted by the EHR Vendor. The approved FSR did not address these costs.

Pharmacy Cutover

The pharmacy cutover is a one-time need in order to move all prescriptions from the existing pharmacy program into the EHR. This includes prescription entry and validation in the EHR.

Miscellaneous Budget Changes

Miscellaneous costs include Independent Project Oversight (IPO), Learning Management System (LMS) Licenses, and Travel.

Table 3-7 - EHR Budget Changes

| BUDGET DESCRIPTION | FY 2016/17 | FY 2017/18 | FY 2018/19 | FY 2019/20 | FY 2020/21 (CONTINUING) |
|---------------------------------------|---------------------|---------------------|---------------------|--------------------|----------------------------|
| EHR Temp Help Staff | \$7,213,440 | \$5,215,776 | \$1,120,832 | \$0 | \$0 |
| EHR IT & Program Staff | \$10,573,036 | \$12,254,579 | \$12,254,579 | \$12,254,579 | \$12,254,579 |
| EDRS (Staff and Contract) | \$9,685,884 | \$7,075,425 | \$3,441,089 | \$1,636,161 | \$1,636,161 |
| EHR Equipment Refresh | \$0 | \$0 | \$2,609,662 | \$2,609,662 | \$2,609,662 |
| Maintenance Changes | \$0 | \$2,100,000 | \$2,100,000 | \$2,100,000 | \$2,100,000 |
| IT Infrastructure/Network/Servers | \$1,746,000 | \$1,746,000 | \$1,746,000 | \$1,746,000 | \$1,746,000 |
| Pharmacy Authentication/Validation | \$5,491,200 | \$0 | \$0 | \$0 | \$0 |
| Organizational Change Management | \$504,000 | \$504,000 | \$504,000 | \$0 | \$0 |
| Independent Validation & Verification | \$580,000 | \$580,000 | \$580,000 | \$0 | \$0 |
| Misc (IPOC/LMS/etc.) | \$45,066 | \$419,429 | \$369,830 | \$218,030 | \$218,030 |
| Savings/Decommissioning | \$0 | \$0 | (\$9,834,587) | (\$14,772,455) | (\$14,772,455) |
| TOTAL | \$35,838,626 | \$29,895,209 | \$14,891,405 | \$5,791,977 | \$5,791,977 |

3.5 Impact of Proposed Change on Project

This SPR reflects a schedule and budget change. Following is a description of the change for each area.

3.5.1 Benefit

Estimated benefits have been modified to include savings from decommissioning of electronic Unit Health Record and Dental Scheduling and Tracking System. Timing of the benefits has been changed due to the schedule delay. The Economic Analysis Worksheets (EAWs) reflect the updated implementation schedule.

3.5.2 Budget

The revised budget based on the changes described in Section 3 is presented in Section 6.

3.5.3 Schedule

Based on the activities completed to-date and the revised projections described above, the projected date for project completion is reflected in Appendix A (Project Work Plan).

3.6 Feasible Alternatives Considered

There are no additional alternatives to be considered at this time.

3.7 Implementation Plan

The EHRS is being implemented following Cerner's methodology, known as MethodM. This technical methodology follows five (5) phases.

- EHRS Project Plan phase consists of the Client Executive Session and the Project Preparation. EHRS Project Milestone 1 includes the creation and approval of the EHRS Project Management Plan and several tasks and subtasks which relate to the initiation of the EHRS Project and the planning for the EHRS Project.
- EHRS Project Design phase consists of the Project Kickoff, System Review and Design Review. This portion of the MethodM methodology relates to additional planning and the beginning of execution of the EHRS Project.
- EHRS Project Build phase consists of Design Review, System Validation and Trainer/Go-live Preparation. This consists of additional design review, system validation, training preparation, and go-live preparation, which is the controlling component of the EHRS project.
- EHRS Project Test phase consists of Trainer/Go-live Preparation, Maintenance Testing and Integration Testing. This consists of unit testing, system testing, integration testing, security testing, and user testing prior to go-live. These components tie to the controlling portion of the project.
- EHRS Go-live phase consists of Integration Testing, Go-live and the Post Go-live Assessment. These components tie to the closure of the project.

The EHRS Project plans to implement the proposed changes described in this SPR per the activities identified in Appendix A - Project Work Plan (PWP). The PWP is further discussed in Section 4.5.6.

As described in Section 3.2.2, the major activities remaining on the Project are completion of the EHRS Initial Build, EHRS rollouts to the remaining institutions, and implementation of remaining EHRS functionality.

3.7.1 Decommission Legacy Systems

CCHCS completed a detailed analysis of systems to be decommissioned after completion of the EHRS Project.

Decommission Summary

- Number of applications to be decommissioned: 17
- Estimated duration is 30 months. This includes planning; components decommission, and close-out activities.
- ITSD resources requested in this SPR will complete the work.

Approach

The source code of custom built applications, including all configuration files, will be checked into a version control system. All historical data (except CADDIS Archive Reporting database) is to be stored in the Enterprise Data warehouse and accessed through the Quality Management reporting system. Historical medical records from eUHR will be stored in Content360.

Assumptions

The following assumptions were made when developing the resource estimates for the decommissioning plan.

- Contracts and licenses will be rightfully terminated with vendors after the full implementation of EHRS and the completion of the necessary decommission and archiving activities.
- Decommissioning activities/tasks will be carried out by knowledgeable existing CCHCS team members.
- The cost estimates in the spreadsheet were based on state staff salary. If consultants are required for the decommission process, additional costs will be incurred.
- The data retention requirement is life+30 years, pending confirmation from legal division.
- An agreement between the Program areas and the decommission team for the code freeze to the production environment for application to be decommissioned will be in place.
- Decommissioning some system components may require partial or phased decommissioning.

Constraints

Constraints that were considered when developing the resource estimates for the decommissioning plan include the following.

- Successful implementation of EHRS.
- Resource availability.

4.0 Updated Project Management Plan

The EHRS Project Management Plan (PMP) is a key deliverable from the EHRS Vendor, is updated quarterly, and is stored in the EHRS Vendor document repository (MethodM). This section provides EHRS PMP details from the EHRS Vendor deliverable.

4.1 Project Manager Qualifications

A consultant Senior Project Manager (PM) provides day-to-day project management services for the EHRS Project. The Senior PM has thirty years of experience developing and supporting information technology (IT) systems development, including electrical engineering design of hardware and software systems, systems engineering, and project management. The Senior PM has a graduate certificate in Software Project Management, has practiced as a certified Project Management Professional for ten years, and has twenty years of experience providing project management services to State of California clients including CDCR, Employment Development Department, Department of Social Services, Office of Systems Integration, Franchise Tax Board, Department of Health Care Services, and Covered California.

4.2 Project Management Methodology

The CCHCS project management methodology is based on the State of California Project Management Methodology (CA-PMM), the Project Management Body of Knowledge (PMBOK®) from the Project Management Institute (PMI®), and the EHRS Vendor's MethodM methodology. Industry best practices and lessons learned from prior CCHCS projects are also included.

The EHRS Vendor utilizes its own internal processes for managing implementations of its Cerner Millennium EHRS. The EHRS Vendor contract requires compliance with the CA-PMM. CCHCS requires all EHRS contractors to conform to the project's methodologies and management product standards, as well as to produce specific project management-related products. The EHRS PMP provides full details of the project management methods employed on the EHRS Project. Cerner's MethodM methodology follows five (5) phases summarized below.

- EHRS Project Plan phase consists of the Client Executive Session and the Project Preparation. EHRS project milestone 1 includes the creation and approval of the EHRS Project Management Plan and several tasks and subtasks which relate to the initiation of the EHRS Project and the planning for the EHRS Project.
- EHRS Project Design phase consists of the Project Kickoff, System Review and Design Review. This portion of the MethodM methodology relates to additional planning and the beginning of execution of the EHRS Project.

- EHRS Project Build phase consists of Design Review, System Validation and Trainer/Go-live Preparation. This consists of additional design review, system validation, training preparation, and go-live preparation, which is the controlling component of the EHRS project.
- EHRS Project Test phase consists of Trainer/Go-live Preparation, Maintenance Testing and Integration Testing. This consists of unit testing, system testing, integration testing, security testing and user testing prior to go-live. These components tie to the controlling portion of the project.
- EHRS Go-live phase consists of Integration Testing, Go-live and the Post Go-live Assessment. These components tie to the closure of the project.

4.3 Project Organization

The EHRS Project functional organization is shown in Figure 1. This reflects all of the positions planned for the Project through completion. The EAWs provide detail for the required state and contractor staff by fiscal year.

The EHRS Project organization consists of the following vertical units reporting to the EHRS Project Director.

- Administration Team (Contracts/Budget).
- Project Financial Team.
- Technical Team.
- Clinical Team.
- Solution Team.
- Project Management Office (PMO) Team.
- Go-Live Team.
- Learning & Adoption Team.
- Communications Team.

Electronic Health Record System Project Office

Revised: 2/18/2016

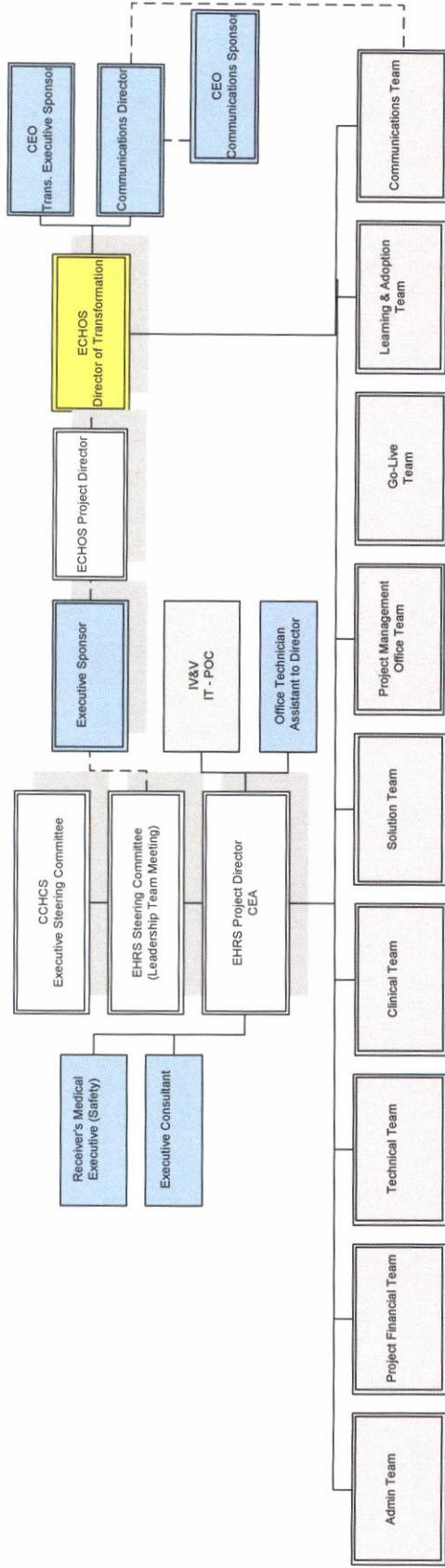


Figure 1 - EHR Project Office Functional Organization Chart

The following sections describe the entities that support or are part of the EHRS Project Office as depicted in Figure 1.

4.3.1 EHRS Project Director

The EHRS Project Director is responsible for overall budget, scope, schedule, and quality performance of the EHRS Project. The EHRS Project Director reports to the CCHCS Chief Deputy Receiver.

Under direction of the Executive Sponsors, the EHRS Project Director provides day-to-day project management direction, working with Cerner to resolve concerns, risks, and issues which could affect progress of the EHRS Project. The EHRS Project Director is responsible for achieving the objectives stated in the approved Project Charter and Feasibility Study Report (FSR). The EHRS Project Director ensures efficient and effective execution of the elements of the approved EHRS Project Management Plan.

The EHRS Project Director works with Cerner and the EHRS Project Leadership Team described below to approve changes, resolve issues and risks, and ultimately escalate concerns and decision recommendations to the Executive Sponsors.

4.3.2 Project Leadership Team (Senior Project Managers)

The Project Leadership Team (PLT) is comprised of Project Managers (PM) and leaders with specialized experience necessary to lead the teams identified in the EHRS Project Functional Organization Chart shown in Figure 1. Each PM is assigned responsibility from the EHRS Project Director for distinct areas of the EHRS Project. The PLT reports to the Project Director. Each PLT PM is fully responsible for management of scope, schedule, budget, communications, risks, issues, and quality of the output of their teams. The PLT interacts with their EHRS Vendor counterparts shown in the EHRS Project Functional Organization Chart. The combined CCHCS/Vendor PLT is responsible for Project integration management to ensure the EHRS meets program needs within the scope, budget, schedule, and quality factors approved in the EHRS FSR.

Each PLT PM provides day-to-day management and direction of the EHRS project, and is responsible for the following.

- Directing, managing, and monitoring the work being undertaken by the project staff according to the approved policies, methodologies, processes, and standards for the EHRS Project.
- Providing guidance and support to the Clinical Leadership Advisory Committee (CLAC) and Technical Advisory Committee (TAC).
- Collecting and organizing project status information.
- Providing a communication liaison to the Steering Committee, Project Director, Executive Steering Committee, and external stakeholders.
- Reporting status for scope, schedule, and cost.

- Actively monitoring and mitigating risks and issues.
- Proactively working to identify issues and follow-up to confirm the associated action plans are being executed in a way to address the impact to the project.
- Reviewing and responding to information being provided to the various stakeholders, including the legal office, IV&V, Project Oversight, and any external agencies.
- Coordinating with CCHCS resource managers to support execution of the project.
- Monitoring and verifying that all information related to the EHRS Project is consistent, correct, accurate, and timely.
- Monitoring project timeline completion and user involvement.
- Managing the requirements traceability process through the life of the project and confirming that requirements remain stable throughout the EHRS Project.

4.3.3 Administration Team

The Administration Team is led by the Administrative Manager, and is responsible for management and logistics supporting the following EHRS Project activities.

- Acquisitions and contracts.
- Human resources management.
- Office space planning.
- Travel planning.
- Events coordination and logistics.
- Staff arrivals and departure (building access badges, IT user IDs, technology requests).
- Office technician support for management.

4.3.4 Project Financials Team

The Project Financials Team is responsible for development, maintenance and reporting on the EHRS Project budget, including the following duties.

- Develop project financial reports for monthly reporting to the Chief Deputy Receiver.
- Maintenance of the Economic Analysis Worksheets (EAWs) in the Feasibility Study Report and Special Project Report.
- Prepare budget section in the monthly Project Status Reports submitted to the Department of Technology.
- Prepare budget section in the Joint Legislative Budget Committee report.

4.3.5 Technical Team

Led by the EHR Technical Architect, the Technical Team is responsible for management of the following areas on the EHR Project.

- Design, maintenance, and support of all EHR Foreign System Interfaces (FSI).
- Coordination of EHR FSI changes between foreign systems and the EHR Vendor.
- Technical Requirements in the EHR RTM.
- Coordinate with program on specifications, types, quantities, distribution, and asset management of EHR portable devices.

4.3.6 Clinical Team

Led by the Chief Medical Technologist from Health Care Operations, the Clinical Leadership Advisory Committee (CLAC) is responsible for program participation in the EHR Project and management of the following EHR Project activities.

- Program staffing of EHR program workgroups.
- Primary decision-making for the EHR Project.
- Functional Requirements in the EHR RTM.

4.3.7 Solution Team

Led by the Solution Lead, the Solution Team supports EHR Vendor and program workgroups activities related to design, implementation and rollout of the EHR solution. The Solution Team is also responsible for managing the following activities.

- Project management support to all EHR program workgroups.
 - Management of scope, issues, risks, schedule, and resource assignments.
 - Assist program workgroup members with creation, analysis, execution, and reporting of EHR change requests.
- Requirements Management.
- EHR Testing.

4.3.8 Project Management Office (PMO) Team

Led by the PMO Senior Project Manager, the PMO Team is responsible for the following EHR project management activities.

- Oversight of EHR Vendor project management activities.
- Management and reporting of the integrated project schedule.
- Management and reporting.

- Preparation of reports to all EHRS stakeholders.
- Preparation of all external project reports.

4.3.9 Go-Live Team

Led by the EHRS Transformation Lead, the Go-Live Team is responsible for the following EHRS go-live activities.

- Go-Live Strategy development, execution, and reporting.
- Organizational change management.
- Go-Live Readiness execution and reporting.
- Go-Live Command Center preparation, execution, and closure.

4.3.10 Learning & Adoption Team

Led by the EHRS Transformation Lead, the Learning & Adoption Team is responsible for all EHRS learning activities. The EHRS Project utilizes an approach that includes mixed (blended) learning interventions, along with process changes, as they apply to each department. The primary delivery method will be instructor-led training. The instructor will facilitate the course, discuss logging on to the system, discuss policy and procedure changes, and be available to students as the instructor demonstrates tasks.

During or following instructor-led training, end users will have the opportunity to practice in the TRAIN domain. One-on-one training will be used where appropriate. This strategy will best utilize available resources and help the CCHCS team realize benefits from the implementation following go live.

Subject Matter Experts

Subject Matter Experts on the EHRS project will play a key role in curriculum development as a resource to verify content and workflows. SMEs will need to be made available during the Learning Task Analysis (LTA) (Curriculum Approvals) immediately following integration testing 1. Following the LTA, SME input may be required for clarification and will be required for approvals of both paper based and eLearning materials.

Trainers

CCHCS Trainers will deliver instructor led training to CCHCS Super Users and End Users. In order to prepare for training delivery, trainers will complete a train the trainer course. After EHRS training, trainers will be a resource in their department during go live and beyond. See the Trainer Development and Resource Analysis sections for additional information on trainer resources.

Super Users

CCHCS Super Users are end users' first line of support at go-live providing at-the-elbow support to their peers. Super Users also play a key role in the success of the instructor

led training. During end user training, super users provide back of classroom support to facilitate a successful class experience.

4.3.11 Communications Team

Led by the EHRS Transformation Lead, the Communications Team is responsible for the following EHRS activities.

- Planning, preparation, and dissemination of all EHRS communications.
- Planning, preparation, execution, and reporting on formal EHRS user surveys.

4.3.12 Continuing Staffing

Continuing operations support for the EHRS solution is provided by several organizations using a multi-tiered model. This section provides an overview of EHRS operations and describes continuing State personnel resource requirements.

EHRS Continuing Operations Overview

The initial go-live for the EHRS was October 27, 2015. As of this date, the EHRS entered into the Operations Phase where the product's availability and performance in executing the work for which it was designed is maintained. Upon EHRS go-live, many of the existing CCHCS legacy systems will remain active and need to be maintained by ITSD (for up to 30 months) until the EHRS has been fully deployed and the legacy systems can be decommissioned. In parallel with EHRS operations support of legacy systems, the EHRS Project will continue design, implementation and deployment of the remaining EHRS scope. Permanent full-time staff must be established to maintain, operate and support the EHRS product independent of the remaining EHRS Project activities described in Section 3 of this SPR.

EHRS Continuing Operations responsibilities are shared between the CCHCS ITSD, the Programs (Medical, Nursing, Mental Health, Dental, Pharmacy, Lab, Imaging, Health Information Management, Dietary) represented by Health Care Operations (HCO) and Health Care Policy and Administration Division (Admin). This section provides descriptions of Continuing Operations activities and estimates for the total number of State staff resources necessary to support the operational EHRS.

The definitions below are relevant to this section of the SPR.

- **EHRS** refers to the product or solution.
This includes the Cerner Millennium application and other products built (e.g., middleware built for Foreign System Interfaces) or purchased (e.g., AirWatch Software & Servers, Dragon Software, PowerMic Devices, Dolphin Mobile Devices, Zebra Mobile Printers) to interoperate with the EHRS.
- **EHRS Project** refers to the temporary (one-time) activities approved in the EHRS FSR and approved SPR(s).
This includes the budget, schedule, and resources necessary to ready the EHRS for statewide deployment, train end users, ready the organization to maintain/operate/support the EHRS, successfully deploy the EHRS, and decommission other systems (defined in the approved FSR).

- **EHRS Continuing Operations** refers to the activities necessary to support the operational EHRS. This includes the budget, resources, and processes necessary to perform the following types of maintenance on the operational EHRS: Corrective; Emergency; Preventive; Perfective; and, Adaptive. These maintenance activities will be performed by the EHRS Vendor and CCHCS resources to correct deficiencies, complete routine maintenance, and perform upgrades to the operational EHRS.

Continuing IT Staff & Program Staff

EHRS operations support responsibilities are shared between ITSD, the Programs, and Admin. This section provides estimates for the total number of staff resources needed to support EHRS Continuing Operations.

4.3.12.1 Continuing Program Staff

The Programs require new permanent positions to support the EHRS Project Organization in the on-going work specified in the Feasibility Study Report (FSR), in addition to working on the delta differentials between the existing and new work. The positions required specifically by each Program area, and the number of resources required for each, are shown in Table 4-1, below.

Table 4-1 – Continuing Program Positions

| Area | Role | Classification | QTY |
|---|--------------------------|--|-----------------|
| Program | Clinical Leadership Team | (2) Physician & Surgeon (1) Nurse Executive (1) CEA (1) HPM III (1) Receiver's Medical Executive (1) Nurse Consultant, Program Review | 7 (Existing) |
| Sub-Total Program Positions (Existing) | | | 7 |
| Training | Training Coordinator | Instructional Designer | 3 (New) |
| Training | LMS Support | Senior Instructional Designer | 1 (New) |
| Training | LMS Support | Staff Services Manager I | 2 (New) |
| Training | LMS Support | Associate Governmental Program Analyst (AGPA) | 1 (New) |
| Acquisition Management Section (AMS) | Contract Analyst | Acquisitions Management Analyst (AGPA) | 2 (New) |
| Pharmacy | Solution Analyst SME | Pharmacist I | 8 (New) |
| Pharmacy | Solution Analyst SME | Pharmacy Technician | 4 (New) |
| Laboratory | Solution Analyst SME | Senior Clinical Laboratory Technologist (CLT) | 1 (New) |
| Radiology | Solution Analyst SME | Senior Radiologic Technologist | 1 (New) |
| Nursing | Solution Analyst SME | Nurse Consultant, Program Review | 4 (New) |
| Clinical Operations | Solution Analyst SME | Nurse Consultant, Program Review | 1 (New) |
| Mental Health | Solution Analyst SME | Senior Psychiatrist Specialist | 1 (New) |
| Mental Health | Solution Analyst SME | Senior Psychologist Specialist | 1 (New) |
| Mental Health | Solution Analyst SME | Health Program Specialist I | 2 (New) |
| Mental Health | Solution Analyst SME | Associate Governmental Program Analyst | 3 (New) |
| Sub-Total Program Positions (New) | | | 35 |
| TOTAL Program Positions | | | 42 |

4.3.12.2 Continuing IT Staff

Under the direction of the EHRS Product Director, the ITSD will provide IT staff to support the administration, training, hardware and software integration, interface connections and change management of the EHRS product. The operational EHRS will undergo changes necessary to maintain its operational status, as well as accommodate new features introduced by the EHRS Vendor into the COTS product. Management and coordination of these changes is the responsibility of ITSD, working in collaboration with Program subject matter experts and the EHRS Vendor. EHRS change management will occur via formal enterprise processes already in place within CCHCS.

ITSD has implemented many new interfaces and systems in support of the EHRS product. Many of these requirements for new software and hardware were not identified in the EHRS Project scope as "Customer Supported Platforms." These new platforms provide mission-critical functions such as the following.

- Health Care Services (HCS) - Enterprise Data Warehouse (EDW).
- Down Time Viewer (24/7 viewer).
- Imprivata I-Access.
- Proximity Card Readers for Authentication.
- AirWatch Mobile Device Manager (MDM) for Handheld Medical Devices.
- Microsoft Active Directory Forest-to-Forest Trust with the Cerner Data Centers.
- Dragon Dictation and Transcription System.
- Software and Hardware connectivity back to the EHRS hosting Data Centers.

ITSD will continue to develop, maintain, and enhance current platforms to support program needs while assuming additional functions related to the EHRS product. The additional functions related to the EHRS product are as follows.

- Integration, maintenance, and enhancement of the EHRS foreign software interfaces.
- Implementation and maintenance of the Imprivata I-Access Proximity Card system.
- Implementation and maintenance of the Health Care Services (HCS) Enterprise Data Warehouse (EDW).
- Integration, maintenance, and enhancement of systems and applications implemented to address gaps in functionality between the EHRS and systems/applications to be replaced.
- Initiation, planning, and execution of the Application Retirement and Data Archiving Project (ARDAP).
- Level 1 technical support of the Cerner AMS model.
- Device support for Cerner devices.
- Change management SMEs (IT Analysts) to support the Cerner AMS model.
- Installation, maintenance, and operations of Mobile Device Management to incorporate Cerner Handheld devices (AirWatch).

ITSD requires new permanent headquarters (HQ) positions in order to continue to develop, maintain, and enhance current platforms to support program needs, while

assuming the additional functions related to the EHR product. The required HQ positions are described in Table 4-2.

Additional support personnel will be required at institutions to support EHR end-user devices. ITSD requires 36 (one per institution and two for California Health Care Facility [CHCF]) new permanent positions for field IT support of over 16,000 new EHR end-user devices.

Table 4-2 – Continuing IT Positions

| Role | Classification | QTY |
|--|---|-----------------|
| Associate Director, EHR Product | Data Processing Manager IV | 1 (Existing) |
| Operations Manager | Data Processing Manager III | 1 (Existing) |
| Integration Architect | Senior Information Systems Analyst | 2 (Existing) |
| Contract Manager | Senior Information Systems Analyst (Specialist) | 1 (Existing) |
| Testing Coordinator | Data Processing Manager II | 1 (Existing) |
| Change Manager | Data Processing Manager II | 1 (Existing) |
| Technical Analyst | Senior Information Systems Analyst | 1 (Existing) |
| Project Manager | Senior Information Systems Analyst | 2 (Existing) |
| Solution Analyst | Associate Information Systems Analyst | 5 (Existing) |
| Change Management SME | Staff Information Systems Analyst | 2 (Existing) |
| Budget Analyst | Associate Governmental Program Analyst | 1 (Existing) |
| Project Director Assistant | Administrative Assistant 1 | 1 (Existing) |
| Project Scheduler | Associate Information Systems Analyst | 1 (Existing) |
| Business Analyst | Senior Information Systems Analyst (Specialist) | 2 (Existing) |
| Report Writer | System Software Specialist II | 2 (Existing) |
| Tester | System Software Specialist II | 2 (Existing) |
| Database Administrator | System Software Specialist II | 3 (Existing) |
| Application Architect | System Software Specialist III | 1 (Existing) |
| Programmer | Senior Programmer Analyst (Specialist) | 3 (Existing) |
| Technical Analyst | Associate Information Systems Analyst | 10.4 (Existing) |
| Sub-Total IT Positions (Existing) | | 43.4 |
| Business Analyst | Senior Information Systems Analyst (Specialist) | 2 (New) |
| Report Writer | System Software Specialist (Technical) II | 4 (New) |
| Tester | System Software Specialist (Technical) II | 2 (New) |
| Programmer | Senior Programmer Analysts (Specialist) | 3 (New) |
| Database Administrator | System Software Specialist (Technical) II | 1 (New) |
| Application Integrator/Architect | System Software Specialist (Technical) III | 1 (New) |
| Imprivata "I-Access" Administrator | System Software Specialist (Technical) II | 1 (New) |
| Airwatch MDM Administrator | System Software Specialist (Technical) II | 1 (New) |
| HQ Desktop Support | Senior Information Systems Analyst (Specialist) | 2 (New) |
| LMS Administrator | Associate Information System Analyst | 2 (New) |
| Dental Program Support | System Software Specialist (Technical) II | 6 (New) |
| Field Device Support | Staff Information Systems Analyst | 36 (New) |
| Sub-Total IT Positions (New) | | 61.0 |
| TOTAL IT Positions | | 104.4 |

4.4 Project Priorities

The project priorities have not changed, but have been reformulated to conform to California Information Technology Policy Letter (ITPL) 10-05, and are depicted in Table 4-3.

Table 4-3 - EHR Project Priorities

| Schedule | Scope | Resources | Quality |
|----------|-------|-----------|---------|
| 4 | 2 | 3 | 1 |

4.5 Project Plan

4.5.1 Project Scope

The scope of this effort is to acquire a COTS EHR solution to provide new functionality to fully meet the minimum constitutional level of health care for patients. The COTS solution will be configured to meet CCHCS requirements. As described in Section 3.4.2, the project scope has changed in response to program needs.

4.5.2 Project Assumptions

The major project assumptions include the following.

- Project procurements will not be delayed by the complex and lengthy state procurement and approval processes.
- All new hardware and software related to EHR must be in accordance with CCHCS' current technology infrastructure.
- The project is the number one priority within CCHCS and will receive all necessary support.
- End users will have participation and buy-in to ensure the solution's success.

4.5.3 Project Phasing

The overall project phasing has been updated to include the scope and schedule adjustments described in Table 4-4.

Table 4-4 - Project Phases, Milestones, & Deliverables

| Phase | Estimated / Actual Duration | Milestone (Estimated / Actual Completion Date) | Outcomes / Deliverables |
|-------|-----------------------------|--|--|
| PLAN | 3 months | 1. Project Preparation (January 2014) | Project Planning and Management |
| | | | Strategic Assessment |
| | | | Conduct Client Executive Session Event |

| Phase | Estimated / Actual Duration | Milestone (Estimated / Actual Completion Date) | Outcomes / Deliverables |
|------------------------|-----------------------------|---|--|
| | 1 month | 2. Project Kickoff (October 2013) | Project Preparation and Planning Event |
| | | | Millennium Fundamentals Course |
| | | | Project Kickoff Analysts Prep Session |
| DESIGN | 10 months | 3. Design Review (December 2014) | Conduct System Review Phase |
| | | | Conduct Design Review Phase |
| | | | Learning and Adoption Workshop |
| BUILD | 12 months | 4. Configure and Test (July 2015) | System Validation |
| | | | Unit, System and Regression Testing |
| TEST | 12 months | 5. First Go-Live Preparation (September 2015) | Trainer and Go-Live Preparation |
| | | | Maintenance Training |
| | | | Integration Test 1 |
| | | | Mock Clinics |
| | | | Integration Test 2 |
| FIRST GO-LIVE | 3 months | 6. First Go-Live (October 2015) | Go-Live/Deployment |
| | | 7. First Go-Live Review (January 2016) | Post Go-Live Review |
| COMPLETE INITIAL BUILD | 8 months | 7a EHRS Initial Build Complete (August 2016) | Initial System Complete |
| REGION ROLLOUT | 12 months | 8. Region Rollouts (August 2017) | Go-Live/Rollouts 1-14 |
| | | 8-b, 10. Data Migration and Validation (March 2017) 10. System Acceptance (October 2017) | Data Migration and Validation |
| PRODUCTION SUPPORT | ongoing | 9. Support, Operations and Upgrade Services | Production Support Plan |

| Phase | Estimated / Actual Duration | Milestone (Estimated / Actual Completion Date) | Outcomes / Deliverables |
|---|-----------------------------|---|--|
| IMPLEMENT REMAINING EHRS FUNCTIONALITY | 24 months | 11. Implement Remaining Functionality (December 2018) | EDRS Design Cerner Millennium Design Updates Updated EHRS Training Materials |
| DECOMMISSION | 30 months | 12. Decommission Legacy Systems (January 2020) | Legacy Systems Decommissioned |
| CLOSE OUT | 6 months | 13. Project Close-Out (December 2019) 14. PIER (June 2020) | Archived Project Library PIER |

4.5.4 Project Governance

EHRS Project Governance is defined in the EHRS PMP and is summarized here. Figure 2 depicts both the communications paths and escalation paths for the EHRS Project. EHRS Project decision escalation is managed through a designated governance structure. The foundation of EHRS Project Governance is to make decisions at the lowest-level possible in the Governance structure. This ensures timely decision-making, which is necessary for the EHRS Project to achieve its schedule objective. However, it is evident that many EHRS Project decisions could have significant impact to the greater CCHCS organization. Decisions made in the governance structure below the Executive Committee level are considered “Decision Recommendations” until confirmed by the Executive Committee. This EHRS Project Governance structure is intended to provide escalation of issues and decisions to the level necessary for appropriate visibility of impact to the CCHCS organization. When a decision recommendation cannot be made at the lowest level in the Governance structure, the decision recommendation item is escalated progressively upward through the Governance structure to achieve the necessary decision in context of its impact to the CCHCS organization. Decision recommendations made at the lower levels in the Governance structure are communicated to the Executive Steering Committee for confirmation.

The EHRS Project Governance structure acknowledges that routine communications occur from the Technical Advisory Committee (TAC) to the ITSD Director and from the Clinical Leadership Advisory Committee (CLAC) to the HCO Director. These routine communications paths are shown in Figure 2, including communications from the Clinical Operations Team (COT) and the Joint Clinical Executive Team (JCET).

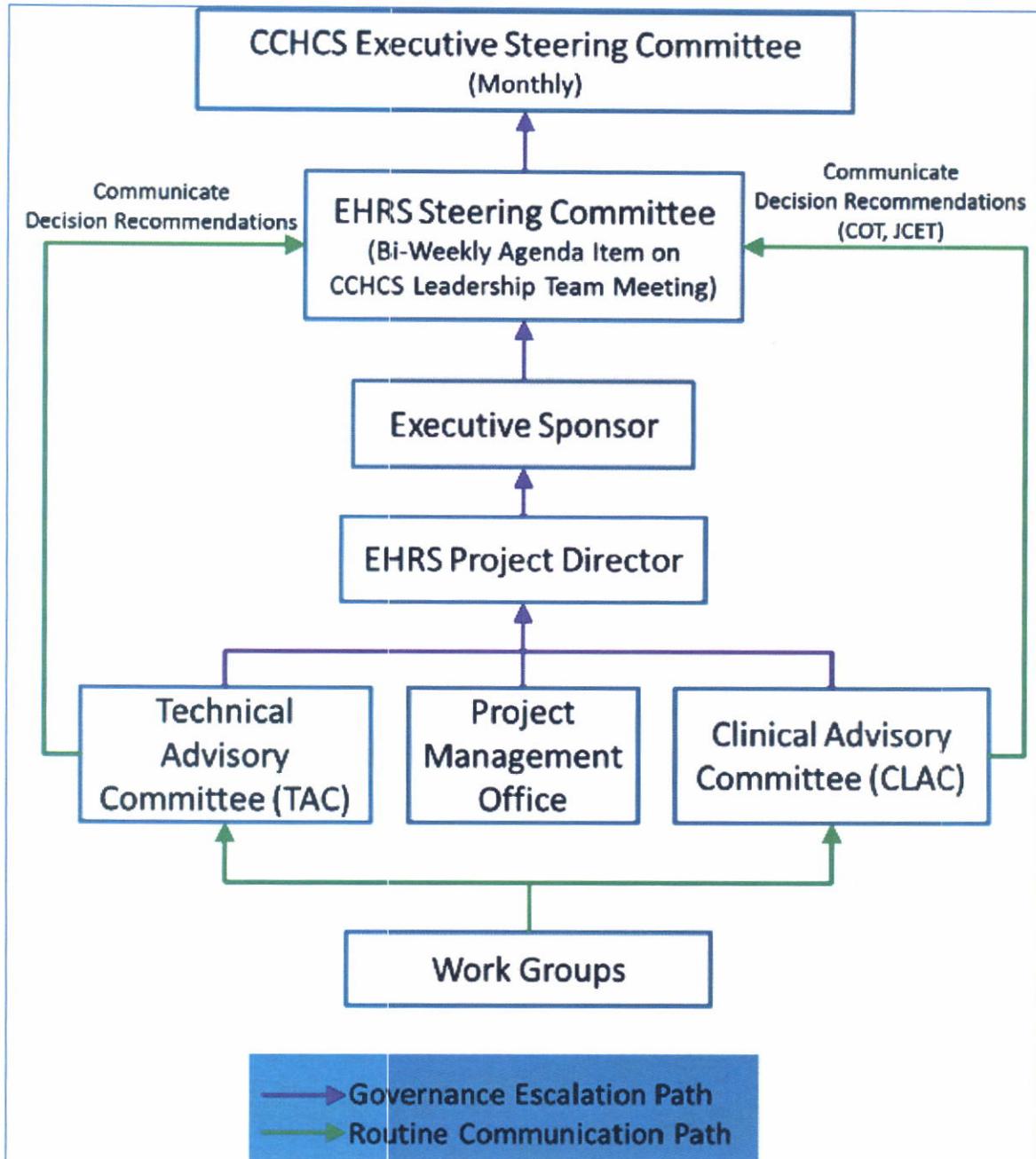


Figure 2 - EHR Project Governance Communication Flow

4.5.5 Project Roles and Responsibilities

A description of the teams that comprise the EHR Project and the roles they perform is provided in Section 4.3.

4.5.6 Project Schedule

The EHRS Project schedule depicting current and remaining Project activities is included in the SPR as Appendix A – Project Work Plan.

4.6 Project Monitoring & Oversight

The project approach to tracking and reporting on the status of project deliverables, project schedule, and project budget have not changed. The contract manager tracks completion and approval of vendor deliverables, and the PMO tracks the status of CCHCS-generated plans.

There are no changes to project oversight. The Project continues to use independent project oversight (IPO) from the Department of Technology and IV&V services provided by an independent contractor.

4.7 Project Quality

There are no changes to the project quality management processes.

4.8 Change Management

The change management processes have not changed, however the plan has been updated based on change management processes used by the EHRS vendor.

4.9 Authorization Required

No changes in authorization are required with this SPR.

5.0 Updated Risk Management Plan

The project risk management strategy has not changed, however the risk management section of the EHR Project Management Plan has been updated with minor changes.

5.1 Risk Management Worksheet

Refer to Appendix B – EHR Detailed Risk Report for risks identified for this project as of the date of this SPR.

5.2 Risk Tracking and Control

There are no changes to risk tracking and control processes.

6.0 Updated Economic Analysis Worksheets (EAW)

6.1 METHODOLOGY

The worksheets included in this section provide a comparative analysis of the costs associated with the proposed solution. The assumptions made while creating and managing the tables are listed below.

6.2 EXISTING SYSTEM COST ASSUMPTIONS

6.2.1 Information Technology

- Includes effort to complete remaining project components and stabilize the existing application portfolio.
- Total of 205.7 IT Staff are assumed in the baseline. This represents the current staffing levels. All IT Staffing Costs are based off the information provided in the EHRS Staffing Baseline Documentation, assumes that staffing levels will remain constant through the system development and implementation periods.

6.2.2 Program

- Total of 2,876.9 Program Staff are assumed in the baseline. This accounts for all the Program effort directly incurred as it relates to the current environment.

6.3 PROPOSED SOLUTION ASSUMPTIONS

6.3.1 One-Time IT Project Costs

The following assumptions apply to the Proposed Solution's one-time IT project costs:

- **General Assumptions**
 - The EHRS will be a COTS solution configured to meet the needs of CCHCS.
 - The EHRS will be remote hosted by the EHRS Vendor.
- **Staffing Assumptions**
 - A total of 578.1 PYs will be required to support the development and implementation of the system over ten years. This is the cumulative total, not an annual PY count.
- **Hardware and Software Purchase Assumptions**
 - Hardware costs are based on vendor provided and program recommendations.
- **Contract Services Assumptions**
 - OCM is assumed to require 7,200 hours per year for the first two years, then approximately 5,120 and 3,600 for the remaining two years at a rate of \$140 per hour, adjusted to match the revised project timeline.

- Contract Services for Project Management resources have been priced consistent with the executed agreement.
- **Data Center Services Assumptions**
 - EHRS will be remotely hosted and supported by the primary vendor.
 - Dragon Servers will be installed at the Federated Data Center (FDC) to support the Nuance Dragon Dictation and Transcription service.
- **Agency Facilities Costs**
 - There are no costs specific to the EHRS project.
- **Other Solution Assumptions**
 - Travel
 - Travel costs were based upon historical averages.
 - Overtime
 - No additional overtime has been assumed for this SPR.

6.3.2 Continuing IT Project Costs

The following Continuing Costs have been estimated.

- **Staffing Assumptions**
 - On-going IT staffing to support the EHRS will amount to 104.4 FTEs per year.
- **Hardware Purchase/Lease/Maintenance Assumptions**
 - Annual costs for hardware refresh are based upon 25% of the purchase price. Hardware refresh will not be procured through the primary vendor.
- **Software Purchase/Lease/Maintenance Assumptions**
 - Annual costs are based upon the executed agreement with the primary vendor.
- **Telecommunications Assumptions**
 - Telecommunications services costs have been included in the Data Center Services line.
- **Contract Services Assumptions**
 - Primary vendor-supplied on-going Application Management Service fees have been included.
 - Primary vendor-supplied on-going Remote Hosting service fees have been included.
 - Specialized consultant services for software and technical maintenance changes have been included.
- **Data Center Assumptions**
 - On-going support for Dragon servers at FDC will be provided by ITSD.

6.3.3 Continuing Existing IT and Program Costs

The following Continuing Existing IT and Program Costs have been estimated:

- **Continuing Existing IT Staff Costs**
 - Total Existing IT staff will remain constant starting in FY20/21.

- **Continuing Existing IT Other Costs**
 - This includes the continuing existing IT Other Costs of the 19 projects.
- **Continuing Existing Program Staff Costs**
 - Total Existing Program Staff Costs will remain constant starting in FY 18/19.
- **Continuing Existing Program Other Costs**
 - Existing program other costs include program operating costs associated with the 19 projects in the Turnaround Plan of Action (TPA).

6.3.4 Assumptions: Related Program Efficiencies

- All existing applications will be fully retired by the end of FY 19/20.

6.4 ECONOMIC ANALYSIS WORKSHEETS

The worksheets that follow itemize the costs of the Proposed Solution (Alternative 5) over the ten fiscal years for system development and first year of maintenance and operations.

6.4.1 Economic Analysis Worksheets (EAWs) from the approved Feasibility Study Report

6.4.1.1 Existing System Cost

SIMM 200300, Rev. 03/2011
Department: CCHCS
Project: EHRS

EXISTING SYSTEM/BASELINE COST WORKSHEET
All costs to be shown in whole (unrounded) dollars.

Date Prepared: 8/29/2013

| Continuing Information | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | TOTAL | |
|-----------------------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|----------------|----------------------|
| | PYs | Amts | PYs | Amts |
| Technology Costs | | | | | | | | | | | | | | | | |
| Staff (salaries & benefits) | 150.7 | 17,928,367 | 205.7 | 22,854,496 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 1385.0 | 153,398,956 |
| Hardware Lease/Maintenance | | 36,439,686 | | 24,441,031 | | 11,194,307 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 106,880,483 |
| Software Maintenance/licenses | | 18,490,089 | | 11,726,986 | | 8,759,038 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 70,964,342 |
| Contract Services | | 82,196,015 | | 48,998,971 | | 22,042,776 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 205,865,707 |
| Data Center Services | | 683,101 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 4,520,785 |
| Agency Facilities | | 233,361 | | 277,344 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 1,781,028 |
| Other | | 28,241,180 | | 18,703,722 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 139,976,209 |
| Total IT Costs | 150.7 | 184,211,798 | 205.7 | 127,642,165 | 205.7 | 84,019,280 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 1385.0 | 683,387,509 |
| Continuing Program Costs: | | | | | | | | | | | | | | | | |
| Staff | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 20138.3 | 2,376,359,677 |
| Other | | 27,025,504 | | 26,970,778 | | 27,446,520 | | 21,240,407 | | 14,596,794 | | 14,596,794 | | 14,596,794 | | 146,473,590 |
| Total Program Costs | 2876.9 | 366,505,458 | 2876.9 | 366,450,732 | 2876.9 | 366,926,473 | 2876.9 | 360,720,360 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 20138.3 | 2,522,833,266 |
| TOTAL EXISTING SYSTEM COST | 3027.6 | 550,717,256 | 3082.6 | 494,092,897 | 3082.6 | 450,945,754 | 3082.6 | 432,598,927 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 21523.3 | 3,206,220,776 |

California Correctional Health Care Services
EHRS Project

Special Project Report
May 2016

6.4.1.2 Alternative 1

SIMM 200300C Rev. 08/2010

Enhanced CDR with Additional Integration and eMAR

Date Prepared: 08/30/2013

All Costs Should be shown in whole (unrounded) dollars.

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | SUBTOTAL | |
|--|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|----------------|------------------------|
| | PYs | Amts | PYs | Amts |
| One-Time IT Project Costs | | | | | | | | | | | | | | | | |
| IT Staff (Salaries & Benefits) | 0.0 | \$0 | 13.0 | \$1,694,305 | 16.0 | \$2,072,234 | 16.0 | \$2,072,234 | 16.0 | \$2,072,234 | 8.0 | \$1,036,117 | 0.0 | \$0 | 56.0 | \$7,293,138 |
| Program Staff (Salaries & Benefits) | 0.0 | \$0 | 5.1 | \$1,168,983 | 14.4 | \$3,299,542 | 14.4 | \$3,299,542 | 10 | \$2,303,374 | 0.0 | \$0 | 0.0 | \$0 | 34.9 | \$7,998,041 |
| Hardware Purchase | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Software Purchase/License | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Telecommunications | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contract Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Project Management | \$0 | \$0 | \$0 | \$43,680 | \$0 | \$523,636 | \$0 | \$523,636 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| SME | \$0 | \$0 | \$0 | \$89,600 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Software Customization | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,000,000 | \$0 | \$1,000,000 | \$0 | \$1,120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Integration | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Data Center Services | \$0 | \$0 | \$0 | \$1,000,000 | \$0 | \$2,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Contract Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$263,312 | \$284,992 | \$0 | \$88,982 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Organizational Change Management | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,532,647 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Training | \$0 | \$0 | \$0 | \$241,920 | \$0 | \$224,000 | \$0 | \$224,000 | \$0 | \$224,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| CDR Solution Development | \$0 | \$0 | \$0 | \$100,000 | \$0 | \$800,000 | \$0 | \$800,000 | \$0 | \$400,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| IT&Y | \$0 | \$0 | \$0 | \$50,000 | \$0 | \$25,000 | \$0 | \$50,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| POC | \$0 | \$0 | \$0 | \$78,880 | \$0 | \$67,759 | \$0 | \$78,880 | \$0 | \$78,880 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| IT Contracted Services | \$0 | \$0 | \$0 | \$1,750,000 | \$0 | \$3,500,000 | \$0 | \$3,500,000 | \$0 | \$3,125,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL Contract Services | \$0 | \$0 | \$0 | \$4,894,080 | \$0 | \$14,126,354 | \$0 | \$3,520,387 | \$0 | \$3,222,362 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Data Center Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Agency Facilities | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | \$0 | \$0 | \$0 | \$120,600 | \$0 | \$284,600 | \$0 | \$284,600 | \$0 | \$43,200 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total One-time IT Costs | 0.0 | \$0 | 18.1 | \$4,827,587 | 30.4 | \$26,682,347 | 30.4 | \$19,065,108 | 9.0 | \$5,588,170 | 3.0 | \$399,048 | 0.0 | \$0 | 90.9 | \$60,562,240 |
| Continuing IT Project Costs | | | | | | | | | | | | | | | | |
| Staff (Salaries & Benefits) | 0.0 | \$0 | 16.5 | \$2,186,761 | 33.0 | \$4,373,522 | 33.0 | \$4,373,522 | 33.0 | \$4,373,522 | 33.0 | \$4,373,522 | 33.0 | \$4,373,522 | 181.5 | \$4,064,371 |
| Program Staff (Salaries & Benefits) | 0.0 | \$0 | 0.0 | \$0 | 13.0 | \$1,616,076 | 24.5 | \$2,984,316 | 29.0 | \$3,485,420 | 29.0 | \$3,485,420 | 29.0 | \$3,485,420 | 124.5 | \$16,086,650 |
| Hardware Lease/Maintenance | \$0 | \$0 | \$0 | \$12,595,786 | \$0 | \$2,380,060 | \$0 | \$3,169,930 | \$0 | \$3,342,816 | \$0 | \$3,407,601 | \$0 | \$2,810,793 | \$0 | \$27,706,985 |
| Software Maintenance/Licenses | \$0 | \$0 | \$0 | \$580,013 | \$0 | \$4,132,405 | \$0 | \$5,632,050 | \$0 | \$5,316,739 | \$0 | \$5,475,211 | \$0 | \$5,639,467 | \$0 | \$26,774,885 |
| Telecommunications | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contract Services | \$0 | \$0 | \$0 | \$130,855 | \$0 | \$927,312 | \$0 | \$1,263,832 | \$0 | \$1,182,852 | \$0 | \$1,228,637 | \$0 | \$1,160,451 | \$0 | \$5,893,239 |
| Data Center Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,965,938 | \$0 | \$4,876,305 | \$0 | \$6,128,772 | \$0 | \$3,413,777 | \$0 | \$3,196,537 | \$0 | \$20,581,328 |
| Agency Facilities | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | \$0 | \$0 | \$0 | \$62,355 | \$0 | \$101,326 | \$0 | \$70,149 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Continuing IT Costs | 0.0 | \$0 | 16.5 | \$19,555,069 | 46.0 | \$16,495,637 | 57.5 | \$22,270,103 | 62.0 | \$23,849,119 | 62.0 | \$21,394,169 | 62.0 | \$20,666,191 | 306.0 | \$120,330,289 |
| Total Project Costs | 0.0 | \$0 | 34.6 | \$24,382,636 | 76.4 | \$43,177,984 | 87.9 | \$41,435,211 | 71.0 | \$29,431,289 | 65.0 | \$21,793,217 | 62.0 | \$20,666,191 | 396.9 | \$180,892,529 |
| Continuing Existing Costs | | | | | | | | | | | | | | | | |
| Information Technology Staff | 150.7 | \$17,928,367 | 176.2 | \$123,771,089 | 156.7 | \$16,077,462 | 156.7 | \$16,077,462 | 164.7 | \$17,143,579 | 169.7 | \$17,761,448 | 172.7 | \$18,149,686 | 144.4 | \$226,879,113 |
| Other IT Costs | \$0 | \$166,289,432 | \$0 | \$22,247,681 | \$0 | \$18,494,695 | \$0 | \$27,721,379 | \$0 | \$17,613,552 | \$0 | \$17,615,879 | \$0 | \$17,542,367 | \$0 | \$87,408,876 |
| Total Continuing Existing IT Costs | 150.7 | \$184,211,799 | 176.2 | \$146,119,690 | 156.7 | \$34,562,157 | 156.7 | \$43,799,841 | 164.7 | \$34,757,131 | 169.7 | \$35,277,327 | 172.7 | \$35,692,053 | 96.7 | \$514,297,989 |
| Program Staff | 2876.9 | \$339,479,954 | 2871.8 | \$338,314,127 | 2849.5 | \$334,566,032 | 2838.0 | \$333,189,863 | 2846.9 | \$335,766,916 | 2847.9 | \$335,987,289 | 2847.9 | \$335,987,289 | 19378.9 | \$2,013,812,664 |
| Other Program Costs | \$0 | \$27,025,804 | \$0 | \$28,970,778 | \$0 | \$27,446,520 | \$0 | \$21,240,407 | \$0 | \$14,596,794 | \$0 | \$14,596,794 | \$0 | \$14,596,794 | \$0 | \$146,473,591 |
| Total Continuing Existing Program Costs | 2876.9 | \$366,505,458 | 2871.8 | \$367,284,905 | 2849.5 | \$362,014,612 | 2838.0 | \$354,439,269 | 2846.9 | \$350,353,709 | 2847.9 | \$350,584,083 | 2847.9 | \$350,584,083 | 19378.9 | \$2,439,766,109 |
| Total Continuing Existing Costs | 3027.6 | \$550,717,257 | 3048.0 | \$511,403,584 | 3006.2 | \$396,576,769 | 2994.7 | \$398,238,101 | 3011.6 | \$384,980,840 | 3017.6 | \$385,861,410 | 3020.6 | \$386,276,136 | 21126.3 | \$3,014,054,098 |
| TOTAL ALTERNATIVE COSTS | 3027.6 | \$550,717,257 | 3082.6 | \$535,786,221 | 3082.6 | \$439,754,754 | 3082.6 | \$439,673,311 | 3082.6 | \$414,418,129 | 3082.6 | \$407,654,627 | 3082.6 | \$406,942,327 | 21523.2 | \$3,194,946,626 |
| INCREASED REVENUES | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |

California Correctional Health Care Services
EHRS Project

Special Project Report
May 2016

6.4.1.3 Alternative 2

SNM 20CC30C, Rev. 08/2010

Core EHRS with Guardian Med Management and eMAR

Department:

All Costs Should be shown in whole (unrounded) dollars.

Date Prepared: 08/30/2013
Alt 2 Summary

| | FY 2011/12 | FY 2012/13 | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 | SUBTOTAL | | | | | | |
|--|------------|---------------|-------------|---------------|--------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
| | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts | | | | | | |
| One-Time IT Project Costs | | | | | | | | | | | | | | |
| IT Staff (Salaries & Benefits) | 0.0 | \$0 | 1.0 | \$24,086 | 24.3 | \$2,539,195 | 33.8 | \$3,124,855 | 98.2 | \$9,480,562 | | | | |
| Program Staff (Salaries & Benefits) | 0.0 | \$0 | 7.1 | \$1,578,525 | 29.3 | \$6,351,217 | 29.3 | \$6,351,217 | 80.3 | \$17,539,399 | | | | |
| Hardware Purchase | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | |
| Software Purchase/License | \$0 | \$0 | \$6,755,277 | \$5,699,216 | \$0 | \$16,200 | \$0 | \$0 | \$0 | \$12,480,193 | | | | |
| Telecommunications | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | |
| Contract Services | \$0 | \$0 | \$2,458,199 | \$14,192,839 | \$10,868,869 | \$5,816,936 | \$0 | \$0 | \$0 | \$33,336,843 | | | | |
| Software Customization | \$0 | \$0 | \$250,000 | \$1,000,000 | \$750,000 | \$312,500 | \$0 | \$0 | \$0 | \$2,312,500 | | | | |
| Project Management | \$0 | \$0 | \$0 | \$784,000 | \$784,000 | \$784,000 | \$0 | \$0 | \$0 | \$2,352,000 | | | | |
| Organizational Change Management | \$0 | \$0 | \$16,819 | \$134,549 | \$134,549 | \$117,730 | \$0 | \$0 | \$0 | \$403,647 | | | | |
| Independent Project Oversight (IPOC) | \$0 | \$0 | \$0 | \$679,764 | \$384,957 | \$225,746 | \$0 | \$0 | \$0 | \$1,290,467 | | | | |
| Independent Validation and Verification Training | \$0 | \$0 | \$0 | \$800,000 | \$800,000 | \$300,000 | \$0 | \$0 | \$0 | \$1,900,000 | | | | |
| Other EHRS Contract Services | \$0 | \$0 | \$0 | \$7,435,000 | \$5,750,000 | \$3,250,000 | \$0 | \$0 | \$0 | \$16,870,000 | | | | |
| eMAR contracted Services | \$0 | \$0 | \$508,300 | \$508,300 | \$508,300 | \$312,500 | \$0 | \$0 | \$0 | \$1,329,100 | | | | |
| TOTAL Contract Services | \$0 | \$0 | \$2,725,017 | \$25,534,452 | \$19,980,675 | \$11,119,412 | \$375,000 | \$0 | \$0 | \$59,734,557 | | | | |
| Data Center Services | \$0 | \$0 | \$1,087,000 | \$239,802 | \$0 | \$241,332 | \$0 | \$0 | \$0 | \$1,568,134 | | | | |
| Agency Facilities | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | |
| Other | \$0 | \$0 | \$108,200 | \$540,218 | \$574,310 | \$351,540 | \$0 | \$0 | \$0 | \$1,572,268 | | | | |
| Total One-time IT Costs | 0.0 | \$0 | 8.1 | \$12,376,105 | 53.6 | \$44,009,102 | 63.1 | \$30,831,554 | 53.8 | \$18,411,517 | 0.0 | \$0 | 178.5 | \$107,250,619 |
| Continuing IT Project Costs | | | | | | | | | | | | | | |
| Staff (Salaries & Benefits) | 0.0 | \$0 | 2.5 | \$306,073 | 16.5 | \$1,900,373 | 6.0 | \$572,923 | 6.0 | \$572,923 | 40.9 | \$4,379,964 | 43.4 | \$4,845,410 |
| Program Staff (Salaries & Benefits) | 0.0 | \$0 | 0.0 | \$0 | 4.0 | \$396,588 | 10.0 | \$991,470 | 13.0 | \$1,288,911 | 13.0 | \$1,288,911 | 13.0 | \$1,288,911 |
| Hardware Lease/Maintenance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Software License/Licenses | \$0 | \$0 | \$0 | \$14,530,390 | \$2,484,945 | \$501,616 | \$7,104,391 | \$7,175,292 | \$7,175,292 | \$7,248,319 | \$1,007,878 | \$1,007,878 | \$7,248,319 | |
| Contract Services | \$0 | \$0 | \$0 | \$39,476 | \$1,423,586 | \$2,474,258 | \$0 | \$0 | \$0 | \$3,621,201 | \$0 | \$0 | \$3,626,684 | |
| Data Center Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Agency Facilities | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Total Continuing IT Costs | 0.0 | \$0 | 2.5 | \$399,549 | 20.5 | \$18,319,794 | 18.0 | \$7,025,213 | 19.0 | \$13,644,792 | 53.9 | \$17,736,307 | 56.4 | \$17,818,681 |
| Total Project Costs | 0.0 | \$0 | 10.6 | \$12,775,654 | 74.1 | \$62,322,897 | 79.1 | \$37,856,767 | 72.8 | \$32,056,309 | 53.9 | \$19,358,647 | 56.4 | \$17,818,681 |
| Continuing Existing Costs | | | | | | | | | | | | | | |
| Information Technology Staff | 150.7 | \$17,928,367 | 202.2 | \$22,424,339 | 164.9 | \$18,083,650 | 166.0 | \$18,825,640 | 160.6 | \$18,277,670 | 164.8 | \$18,143,254 | 162.3 | \$17,877,808 |
| Other IT Costs | | \$186,283,432 | | \$22,125,380 | | \$18,332,253 | | \$17,490,170 | | \$9,749,905 | | \$6,085,911 | | \$6,174,945 |
| Total Continuing Existing IT Costs | 150.7 | \$184,211,739 | 202.2 | \$44,549,719 | 164.9 | \$36,415,903 | 166.0 | \$36,315,809 | 160.6 | \$25,027,574 | 164.8 | \$24,229,165 | 162.3 | \$24,052,653 |
| Program Staff | 2876.9 | \$339,479,954 | 2869.8 | \$337,904,184 | 2843.6 | \$332,734,904 | 2837.6 | \$332,140,022 | 2849.3 | \$334,935,358 | 2863.9 | \$338,193,798 | 2863.9 | \$338,193,798 |
| Other Program Costs | | \$27,025,504 | | \$26,970,778 | | \$27,446,520 | | \$21,240,407 | | \$14,596,794 | | \$14,596,794 | | \$14,596,794 |
| Total Continuing Existing Program Costs | 2876.9 | \$366,505,458 | 2869.8 | \$364,874,962 | 2843.6 | \$360,181,424 | 2837.6 | \$353,380,429 | 2849.3 | \$349,532,152 | 2863.9 | \$352,790,592 | 2863.9 | \$352,790,592 |
| Total Continuing Existing Costs | 3027.6 | \$550,717,257 | 3072.0 | \$409,424,681 | 3008.5 | \$396,597,327 | 3003.6 | \$389,696,239 | 3009.9 | \$374,559,727 | 3028.7 | \$377,019,757 | 3026.2 | \$376,843,245 |
| TOTAL ALTERNATIVE COSTS | 3027.6 | \$550,717,257 | 3082.6 | \$422,200,335 | 3082.6 | \$458,920,224 | 3082.7 | \$427,553,005 | 3082.7 | \$406,616,036 | 3082.6 | \$396,378,404 | 3082.6 | \$394,661,926 |
| INCREASED REVENUES | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |

6.4.1.4 Proposed Alternative

SIMM 20CC30C, Rev. 03/2011

PROPOSED ALTERNATIVE: Implement a full EHRS Solution

Department: CCHCS

All Costs Should be shown in whole (unrounded) dollars.

Date Prepared: 8/29/2013

| | FY 2011/12 | FY 2012/13 | FY 2013/14 | FY 2014/15 | FY 2015/16 | FY 2016/17 | FY 2017/18 | TOTAL |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| | PV's |
| | Amts |
| One-Time IT Project Costs | | | | | | | | |
| IT Staff (Salaries & Benefits) | 0.0 | 1.0 | 24.3 | 33.8 | 39.2 | 0.0 | 0.0 | 98.2 |
| Program Staff (Salaries & Benefits) | 0.0 | 2.2 | 29.3 | 29.3 | 10.0 | 0.0 | 0.0 | 70.7 |
| Hardware Purchase | \$2,256,374 | \$44,622 | \$8,351,217 | \$6,351,217 | \$2,195,710 | 0 | 0 | 15,342,766 |
| Software Purchase/License | \$14,135,473 | | \$36,300 | \$16,200 | \$9,500 | 0 | 0 | 2,256,374 |
| Telecommunications | | | | | | | | 14,135,473 |
| Contract Services | | | | | | | | 0 |
| Software Customization | \$15,820,028 | \$9,929,878 | \$6,677,295 | \$1,515,500 | \$400,000 | \$250,000 | \$250,000 | 34,242,701 |
| Project Management | | | | \$832,500 | \$340,000 | \$504,000 | | 2,256,000 |
| Organizational Change Management | | | | \$1,008,000 | \$716,800 | \$67,275 | | 3,236,800 |
| Independent Project Oversight (IPOC) | | | | \$134,549 | \$117,730 | \$67,275 | | 521,378 |
| IT&Y Services | | | | \$580,710 | \$81,047 | | | 1,242,467 |
| Trainers | | | | \$800,000 | \$300,000 | | | 1,900,000 |
| Other Contract Services | \$1,087,000 | | \$7,433,054 | \$5,000,000 | \$3,250,000 | \$375,000 | | 17,212,000 |
| TOTAL Contract Services | \$16,907,028 | \$9,997,153 | \$17,433,054 | \$5,000,000 | \$5,205,577 | \$1,962,275 | \$0 | 60,610,346 |
| Data Center Services | | | | | | | | 0 |
| Agency Facilities | | | | | | | | 0 |
| Other | | | | | | | | 1,336,248 |
| Total One-time IT Costs | 0.0 | 3.2 | 53.5 | 63.0 | 49.2 | 0.0 | 0.0 | 168.9 |
| Continuing IT Project Costs | 0.0 |
| IT Staff (Salaries & Benefits) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Program Staff (Salaries & Benefits) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Hardware Lease/Maintenance | \$201,918 | \$4,824,942 | \$60,000 | \$120,000 | \$4,238,229 | \$300,000 | \$300,000 | 17,353,382 |
| Software Maintenance/Licenses | \$13,173,170 | \$95,384 | \$50,000 | \$2,475,399 | \$300,000 | \$300,000 | \$300,000 | 12,500,000 |
| Telecommunications | | | | | | | | 0 |
| Contract Services | | | | | | | | 0 |
| Data Center Services | | | | | | | | 0 |
| Agency Facilities | | | | | | | | 0 |
| Other | | | | | | | | 0 |
| Total Continuing IT Costs | 0.0 | 0.0 | 4.0 | 13.0 | 13.0 | 47.9 | 50.4 | 128.3 |
| Total Project Costs | 0.0 | 3.2 | 57.5 | 76.0 | 62.2 | 47.9 | 50.4 | 297.2 |
| Continuing Existing Costs | | | | | | | | |
| Information Technology Staff | 150.7 | 204.7 | 181.4 | 186.0 | 180.6 | 184.8 | 182.3 | 1190.5 |
| Other IT Costs | 98,574,615 | 70,750,967 | 52,702,966 | 47,795,721 | 47,795,721 | 44,940,721 | 44,940,721 | 407,501,422 |
| Total Continuing Existing IT Costs | 150.7 | 204.7 | 181.4 | 186.0 | 180.6 | 184.8 | 182.3 | 1190.5 |
| Program Staff | 2876.9 | 2874.7 | 2843.7 | 2840.7 | 2869.9 | 2716.9 | 2716.9 | 19729.6 |
| Other Program Costs | 26,043,751 | 23,409,173 | 14,721,172 | 9,827,211 | 3,183,599 | 3,183,599 | 3,183,599 | 85,551,101 |
| Total Continuing Existing Program Cd | 2876.9 | 2874.7 | 2843.7 | 2840.7 | 2869.9 | 2716.9 | 2716.9 | 19729.6 |
| Total Continuing Existing Costs | 3027.6 | 3079.4 | 3025.1 | 3006.6 | 3020.5 | 2881.7 | 2879.2 | 20920.1 |
| TOTAL ALTERNATIVE COSTS | 3027.6 | 3082.6 | 3082.6 | 3082.6 | 3082.6 | 2929.6 | 2929.6 | 21217.3 |
| INCREASED REVENUES | 0 |

For purposes of this FSR, CCHCS Program staff was calculated at 25% of assigned personnel.

6.4.1.5 Economic Analysis Summary

SIMM 20C30C, Rev. 03/2011
Department: COHCS
Project: EHRS

ECONOMIC ANALYSIS SUMMARY
All costs to be shown in whole (unrounded) dollars.

Date Prepared: 8/29/2013

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | TOTAL | |
|-----------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|--------|-------------|
| | Pys | Amts | Pys | Amts |
| EXISTING SYSTEM | | | | | | | | | | | | | | | | |
| Total IT Costs | 150.7 | 184,211,798 | 205.7 | 127,642,165 | 205.7 | 84,019,280 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 |
| Total Program Costs | 2876.9 | 366,505,458 | 2876.9 | 366,450,732 | 2876.9 | 366,926,473 | 2876.9 | 360,720,360 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 |
| Total Existing System Costs | 3027.6 | 550,717,256 | 3082.6 | 494,092,897 | 3082.6 | 450,945,754 | 3082.6 | 452,598,927 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 |

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | TOTAL | |
|---------------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|---------|---------------|
| | Pys | Amts | Pys | Amts |
| PROPOSED ALTERNATIVE | | | | | | | | | | | | | | | | |
| Implement a full EHRS Solution | | | | | | | | | | | | | | | | |
| Total Project Costs | 0.0 | 46,673,963 | 3.2 | 15,486,187 | 57.5 | 29,282,237 | 76.0 | 30,236,708 | 62.2 | 24,611,579 | 47.9 | 18,290,321 | 50.4 | 17,307,232 | 297.2 | 181,888,228 |
| Total Cont. Exist. Costs | 3027.6 | 484,026,687 | 3079.4 | 455,924,873 | 3025.1 | 419,440,343 | 3006.6 | 407,394,686 | 3020.5 | 404,362,877 | 2881.7 | 395,210,594 | 2879.2 | 394,945,148 | 20920.1 | 2,961,305,209 |
| Total Alternative Costs | 3027.6 | 530,700,650 | 3082.6 | 471,411,060 | 3082.6 | 448,722,580 | 3082.6 | 437,631,394 | 3082.6 | 428,974,456 | 2929.6 | 413,500,915 | 2929.6 | 412,252,380 | 21217.3 | 3,143,193,436 |
| COST SAVINGS/AVOIDANCES | 0.0 | 20,016,606 | 0.0 | 22,681,837 | 0.0 | 2,223,174 | 0.0 | (5,032,467) | 0.0 | (3,019,142) | 153.0 | 12,454,398 | 153.0 | 13,702,934 | 306.0 | 63,027,339 |
| Increased Revenues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net (Cost) or Benefit | 0.0 | 20,016,606 | 0.0 | 22,681,837 | 0.0 | 2,223,174 | 0.0 | (5,032,467) | 0.0 | (3,019,142) | 153.0 | 12,454,398 | 153.0 | 13,702,934 | 306.0 | 63,027,339 |
| Cum. Net (Cost) or Benefit | 0.0 | 20,016,606 | 0.0 | 42,698,442 | 0.0 | 44,921,616 | 0.0 | 39,889,149 | 0.0 | 36,870,007 | 153.0 | 49,324,405 | 306.0 | 63,027,339 | | |

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | TOTAL | |
|--|------------|-------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|-------------|------------|-------------|---------|---------------|
| | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts | Pys | Amts |
| ALTERNATIVE #1 | | | | | | | | | | | | | | | | |
| Enhanced CDR with Additional Integration and eMAR | | | | | | | | | | | | | | | | |
| Total Project Costs | 0.0 | 0 | 34.6 | 24,382,636 | 76.4 | 43,177,984 | 87.9 | 41,435,211 | 71.0 | 29,437,289 | 65.0 | 21,793,217 | 62.0 | 20,666,191 | 396.9 | 180,892,528 |
| Total Cont. Exist. Costs | 3027.6 | 550,717,256 | 3048.0 | 511,403,584 | 3006.2 | 396,576,769 | 2994.7 | 398,238,101 | 3011.6 | 384,980,840 | 3017.6 | 385,861,410 | 3020.6 | 386,276,136 | 21128.4 | 3,014,054,098 |
| Total Alternative Costs | 3027.6 | 550,717,256 | 3082.6 | 535,786,221 | 3082.6 | 439,754,754 | 3082.6 | 439,673,311 | 3082.6 | 414,418,129 | 3082.6 | 407,654,627 | 3082.6 | 406,942,327 | 21523.3 | 3,194,946,625 |
| COST SAVINGS/AVOIDANCES | 0.0 | 0 | 0.0 | (41,693,324) | 0.0 | 11,191,000 | 0.0 | (7,074,384) | 0.0 | 11,537,185 | 0.0 | 18,300,687 | 0.0 | 19,012,987 | 0.0 | 11,274,151 |
| Increased Revenues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net (Cost) or Benefit | 0.0 | 0 | 0.0 | (41,693,324) | 0.0 | 11,191,000 | 0.0 | (7,074,384) | 0.0 | 11,537,185 | 0.0 | 18,300,687 | 0.0 | 19,012,987 | 0.0 | 11,274,151 |
| Cum. Net (Cost) or Benefit | 0.0 | 0 | 0.0 | (41,693,324) | 0.0 | (30,502,324) | 0.1 | (37,576,708) | 0.1 | (26,039,523) | 0.1 | (7,738,836) | 0.1 | 11,274,151 | | |

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | TOTAL | |
|--|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|---------|---------------|
| | Pys | Amts | Pys | Amts |
| ALTERNATIVE #2 | | | | | | | | | | | | | | | | |
| Core EHRS with Guardian Med Management and eMAR | | | | | | | | | | | | | | | | |
| Total Project Costs | 0.0 | 0 | 10.6 | 12,775,654 | 74.1 | 62,322,897 | 79.1 | 37,856,767 | 72.8 | 32,056,309 | 53.9 | 19,358,647 | 56.4 | 17,818,681 | 346.8 | 182,188,955 |
| Total Cont. Exist. Costs | 3027.6 | 550,717,256 | 3072.0 | 409,424,681 | 3008.5 | 396,597,327 | 3003.6 | 389,696,239 | 3009.9 | 374,559,727 | 3028.7 | 377,019,757 | 3026.2 | 376,843,245 | 21176.5 | 2,874,858,232 |
| Total Alternative Costs | 3027.6 | 550,717,256 | 3082.6 | 422,200,335 | 3082.6 | 458,920,224 | 3082.7 | 427,553,005 | 3082.7 | 406,616,036 | 3082.6 | 396,378,404 | 3082.6 | 394,661,926 | 21523.3 | 3,057,047,187 |
| COST SAVINGS/AVOIDANCES | 0.0 | 0 | 0.0 | 71,892,561 | 0.0 | (7,974,470) | (0.0) | 5,045,922 | (0.0) | 19,339,278 | 0.0 | 29,576,910 | 0.0 | 31,293,388 | 0.0 | 149,173,589 |
| Increased Revenues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net (Cost) or Benefit | 0.0 | 0 | 0.0 | 71,892,561 | 0.0 | (7,974,470) | (0.0) | 5,045,922 | (0.0) | 19,339,278 | 0.0 | 29,576,910 | 0.0 | 31,293,388 | 0.0 | 149,173,589 |
| Cum. Net (Cost) or Benefit | 0.0 | 0 | 0.0 | 71,892,561 | 0.1 | 63,918,091 | 0.0 | 68,964,013 | (0.0) | 88,303,291 | (0.0) | 117,880,201 | 0.0 | 149,173,589 | | |

6.4.1.6 Project Funding

SMM 20030C, Rev. 03/2011

PROJECT FUNDING PLAN

Department: CCHCS

All Costs to be in whole (unrounded) dollars

Date Prepared: 8/29/2013

Project: EHRS

| | FY | 2011/12 | FY | 2012/13 | FY | 2013/14 | FY | 2014/15 | FY | 2015/16 | FY | 2016/17 | FY | 2017/18 | TOTALS | |
|---|-----|------------|-----|------------|------|------------|------|------------|------|------------|-------|------------|-------|------------|--------|-------------|
| | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts |
| TOTAL PROJECT COSTS | 0.0 | 46,673,963 | 3.2 | 15,486,187 | 57.5 | 29,282,237 | 76.0 | 30,236,708 | 62.2 | 24,611,579 | 47.9 | 18,290,321 | 50.4 | 17,307,232 | 297.2 | 181,888,228 |
| RESOURCES TO BE REDIRECTED | | | | | | | | | | | | | | | | |
| Staff | 0.0 | 0 | 3.2 | 568,708 | 57.5 | 9,986,967 | 76.0 | 12,231,418 | 62.2 | 8,619,613 | 47.9 | 5,963,347 | 50.4 | 6,228,793 | 297.2 | 43,598,846 |
| Funds: | | | | | | | | | | | | | | | | |
| Existing System | | 46,673,963 | | 14,917,479 | | 19,295,270 | | 12,972,823 | | 12,972,824 | | 12,326,974 | | 11,078,439 | | 130,237,773 |
| Other Fund Sources | | 0 | | 0 | | 0 | | 5,032,467 | | 3,019,142 | | 0 | | | | 8,051,609 |
| TOTAL REDIRECTED RESOURCES | 0.0 | 46,673,963 | 3.2 | 15,486,187 | 57.5 | 29,282,237 | 76.0 | 30,236,708 | 62.2 | 24,611,579 | 47.9 | 18,290,321 | 50.4 | 17,307,232 | 297.2 | 181,888,228 |
| ADDITIONAL PROJECT FUNDING NEEDED | | | | | | | | | | | | | | | | |
| One-Time Project Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Continuing Project Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| TOTAL PROJECT FUNDING | 0.0 | 46,673,963 | 3.2 | 15,486,187 | 57.5 | 29,282,237 | 76.0 | 30,236,708 | 62.2 | 24,611,579 | 47.9 | 18,290,321 | 50.4 | 17,307,232 | 297.2 | 181,888,228 |
| Difference: Funding - Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total Estimated Cost Savings | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 153.0 | 11,808,550 | 153.0 | 11,808,550 | 306.0 | 23,617,100 |

| FUNDING SOURCE* | 100% | 46673963.38 | 100% | 15486187 | 100% | 29282237 | 100% | 30236708 | 100% | 24611579 | 100% | 18290321 | 100% | 17307232 | 100% | 181888228 |
|------------------------|------|-------------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|-----------|
| General Fund | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| Federal Fund | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| Special Fund | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| Reimbursement | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| TOTAL FUNDING | 100% | 46673963.38 | 100% | 15486187 | 100% | 29282237 | 100% | 30236708 | 100% | 24611579 | 100% | 18290321 | 100% | 17307232 | 100% | 181888228 |

*TYPE: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.
Other Fund Sources in Fiscal Year 2014/15 and 2015/16 come from the Department's budget.

6.4.2.1 Existing System Cost

SNM 30C, Rev. 06/2014
Agency/state entity: CHCS
Project: EHRS

EXISTING SYSTEM/BASELINE COST WORKSHEET
All costs to be shown in whole (unrounded) dollars.

Date Prepared: 4/18/2016

| Continuing Information | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | FY 2018/19 | | FY 2019/20 | | FY 2020/21 | | TOTAL | |
|------------------------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|----------------|------------------------|
| | Pys | Amts | | |
| Technology Costs | | | | | | | | | | | | | | | | | | | | | | |
| Staff (salaries & benefits) | 150.7 | 17,928,367 | 205.7 | 22,854,498 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 205.7 | 22,523,218 | 2002.2 | 220,968,610 |
| Hardware Lease/Maintenance | | 36,439,686 | | 24,441,031 | | 11,194,307 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 8,701,365 | | 132,984,577 |
| Software Maintenance/Licenses | | 18,490,889 | | 11,726,986 | | 8,759,038 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 7,997,057 | | 94,955,513 |
| Contract Services | | 82,196,015 | | 48,998,971 | | 22,042,776 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 13,156,986 | | 245,336,666 |
| Data Center Services | | 683,101 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 639,614 | | 6,439,666 |
| Agency Facilities | | 233,361 | | 277,344 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 254,065 | | 2,543,222 |
| Other | | 28,241,180 | | 18,703,722 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 18,606,262 | | 195,794,994 |
| Total IT Costs | 150.7 | 184,211,798 | 205.7 | 127,642,165 | 205.7 | 84,019,280 | 205.7 | 71,878,567 | 2002.2 | 899,023,209 |
| Continuing Program Costs: | | | | | | | | | | | | | | | | | | | | | | |
| Staff | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 | 2876.9 | \$339,479,954 |
| Other | | 27,025,504 | | 26,970,778 | | 27,446,520 | | 21,240,407 | | 14,596,794 | | 14,596,794 | | 14,596,794 | | 14,596,794 | | 14,596,794 | | 14,596,794 | | 190,263,971 |
| Total Program Costs | 2876.9 | \$366,505,458 | 2876.9 | \$366,450,732 | 2876.9 | \$366,926,473 | 2876.9 | \$360,720,360 | 2876.9 | \$354,076,747 | 2876.9 | \$354,076,747 |
| TOTAL EXISTING SYSTEM COSTS | 3027.6 | \$50,717,256 | 3082.6 | \$49,092,897 | 3082.6 | \$450,945,754 | 3082.6 | \$432,598,927 | 3082.6 | \$425,955,314 | 30771.2 | \$4,484,086,718 |

California Correctional Health Care Services
EHRIS Project

Special Project Report
May 2016

6.4.2.2 Proposed Alternative

SJMW 30C, Rev. 06/2014

PROPOSED ALTERNATIVE: Implement a full EHRIS Solution

Date Prepared: 4/18/2016

Agency/State entity: CHCS
Project: EHRIS

All Costs Should be shown in whole (unrounded) dollars.

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | FY 2018/19 | | FY 2019/20 | | FY 2020/21 | | TOTAL | | |
|---|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|----------------|--------------------|----------------|--------------------|-----------------|----------------------|--------------------|
| | Pvs | Amts | Pvs | Amts | Pvs | Amts | | | |
| One-Time IT Project Costs | | | | | | | | | | | | | | | | | | | | | | | |
| IT Staff (Salaries & Benefits) | 0.0 | | 1.0 | 142,706 | 27.8 | \$3,234,960 | 44.6 | \$4,988,018 | 38.9 | \$4,498,189 | 108.1 | \$13,045,136 | 80.3 | \$9,773,440 | 52.9 | \$5,962,890 | 6.7 | \$979,202 | 104.4 | \$12,559,049 | 360.2 | \$42,966,872 | |
| Program Staff (Salaries & Benefits) | 0.0 | | 2.2 | 426,002 | 35.1 | \$7,546,184 | 38.9 | \$4,498,189 | 23.3 | \$4,413,804 | 55.4 | \$9,253,626 | 52.7 | \$9,140,637 | 10.4 | \$2,207,383 | | \$0 | 42.0 | \$6,745,972 | 217.9 | \$41,585,825 | |
| Hardware Purchase | | \$12,144 | | \$20,116 | | \$6,928,526 | | \$6,928,526 | | \$6,928,526 | | \$0 | | | \$199,750 | | \$0 | | | | \$0 | \$10,179,752 | |
| Software Purchase/License | | \$9,168,862 | | \$8,104,726 | | \$8,996,297 | | \$4,544,311 | | \$189,610 | | \$1,078,497 | | \$1,078,498 | | \$0 | | \$0 | | | | \$0 | \$33,360,551 |
| Telecommunications | | | | | | | | | | | | | | | | | | | | | | \$0 | |
| Contract Services | | \$7,179,340 | | \$4,867,315 | | \$13,867,422 | | \$5,487,095 | | \$750,000 | | \$7,285,978 | | \$4,331,438 | | \$1,487,850 | | \$0 | | | | \$0 | \$45,256,438 |
| Software Customization | | | | | | \$1,522,240 | | \$0 | | \$238,140 | | \$281,397 | | \$281,397 | | \$0 | | \$0 | | | | \$0 | \$2,323,174 |
| Project Oversight | | | | | | \$153,600 | | \$153,600 | | \$153,600 | | \$153,600 | | \$153,600 | | \$153,600 | | \$0 | | | | \$0 | \$921,600 |
| IT&I Services | | | | | | \$580,000 | | \$191,600 | | \$422,136 | | \$580,000 | | \$580,000 | | \$511,000 | | \$0 | | | | \$0 | \$2,933,736 |
| Other Contract Services | | \$1,087,000 | | \$27,300 | | \$11,639,768 | | \$11,663,704 | | \$17,031,380 | | \$6,807,000 | | \$504,000 | | \$511,000 | | \$0 | | | | \$0 | \$49,271,172 |
| TOTAL Contract Services | | \$8,266,340 | | \$4,894,615 | | \$27,763,030 | | \$17,495,999 | | \$18,595,256 | | \$15,107,995 | | \$5,850,435 | | \$2,732,450 | | \$0 | | | | \$0 | \$100,706,120 |
| Data Center Services | | | | | | | | | | | | | | | | | | | | | | \$0 | |
| Agency Facilities | | | | | | | | | | | | | | | | | | | | | | \$0 | |
| Other: | | | | | | \$62,294 | | \$88,000 | | \$1,198,707 | | \$100,000 | | \$100,000 | | \$100,000 | | \$0 | | | | \$1,649,001 | |
| Total One-time IT Costs: | 0.0 | 17,447,246 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 31,831,148 | 163.5 | 38,585,254 | 133.0 | 25,943,010 | 63.3 | 11,202,473 | 6.7 | 979,202 | 0.0 | 0 | 0 | 578.1 | 230,448,121 |
| Continuing IT Project Costs | | | | | | | | | | | | | | | | | | | | | | | |
| IT Staff (Salaries & Benefits) | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 30.0 | \$2,281,050 | 38.0 | \$4,750,761 | 55.0 | \$7,092,291 | 99.4 | \$11,828,263 | 104.4 | \$12,559,049 | 326.8 | \$38,512,114 | |
| Program Staff (Salaries & Benefits) | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 0.0 | \$0 | 7.0 | \$855,959 | 35.0 | \$5,162,588 | 42.0 | \$6,745,972 | 42.0 | \$6,745,972 | 126.0 | \$19,510,492 | |
| Hardware Lease/Maintenance | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Software Maintenance/Licenses | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Telecommunications | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Contract Services | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Data Center Services | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Agency Facilities | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | | | | | | \$0 | |
| Other: | | | | | | | | | | | | | | | | | | | | | | \$0 | |
| Total Continuing IT Costs: | 0.0 | 0 | 30.0 | 12,905,423 | 45.0 | 21,672,828 | 90.0 | 30,931,551 | 141.4 | 37,139,878 | 146.4 | 37,870,664 | 452.8 | 156,014,027 | |
| Total Project Costs | 0.0 | 17,447,246 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 31,831,148 | 193.5 | 54,128,948 | 178.0 | 47,565,838 | 153.3 | 42,134,024 | 148.1 | 37,139,878 | 146.4 | 37,870,664 | 1030.9 | 386,462,158 | |
| Continuing Existing Costs | | | | | | | | | | | | | | | | | | | | | | | |
| Information Technology Staff | 150.7 | 17,928,367 | 204.7 | 22,711,792 | 177.9 | 19,288,258 | 161.2 | 17,535,200 | 166.8 | 17,682,698 | 164.8 | 18,143,254 | 161.7 | 17,793,808 | 161.6 | 17,777,008 | 160.6 | 17,629,392 | 162.3 | 17,877,808 | 1,672.4 | 184,367,586 | |
| Other IT Costs | | 112,896,645 | | 85,928,437 | | 53,323,951 | | 43,797,972 | | 44,977,678 | | 48,193,569 | | 49,353,660 | | 49,353,660 | | 45,465,792 | | 45,465,792 | | 578,797,156 | |
| Total Continuing Existing IT Costs: | 150.7 | 130,825,012 | 204.7 | 108,640,229 | 177.9 | 72,612,209 | 161.2 | 61,333,172 | 166.8 | 62,660,376 | 164.8 | 66,336,823 | 161.7 | 67,147,468 | 161.6 | 67,130,668 | 160.6 | 63,095,184 | 162.3 | 63,343,600 | 1,672.4 | 763,124,742 | |
| Program Staff | 2876.9 | 339,479,954 | 2874.7 | 339,053,952 | 2841.9 | 331,833,770 | 2838.1 | 330,981,765 | 2853.6 | 335,066,150 | 2869.9 | 337,898,571 | 2869.9 | 337,898,571 | 2716.9 | 328,061,984 | 2716.9 | 328,061,984 | 2716.9 | 328,061,984 | 28,175.6 | 3,336,394,683 | |
| Other Program Costs | | 33,728,328 | | 30,912,579 | | 16,323,961 | | 8,792,493 | | 2,982,498 | | 3,431,588 | | 3,520,044 | | 3,520,044 | | 3,520,044 | | 3,520,044 | | 110,260,883 | |
| Total Continuing Existing Program Costs: | 2876.9 | 373,218,282 | 2874.7 | 369,966,481 | 2841.9 | 348,157,131 | 2838.1 | 339,774,258 | 2853.6 | 338,048,648 | 2869.9 | 341,328,169 | 2869.9 | 341,416,615 | 2716.9 | 331,582,028 | 2716.9 | 331,582,028 | 2716.9 | 331,582,028 | 28,175.6 | 3,446,655,666 | |
| Total Continuing Existing Costs: | 3027.6 | 504,043,294 | 3079.4 | 478,606,710 | 3019.8 | 420,769,340 | 2999.2 | 401,107,430 | 3020.4 | 400,709,024 | 3034.7 | 407,664,992 | 3030.6 | 408,564,083 | 3031.8 | 440,846,720 | 3,025.7 | 432,796,292 | 3,025.6 | 432,796,292 | 30,879.0 | 4,209,780,408 | |
| TOTAL ALTERNATIVE COSTS | 3027.6 | 521,490,640 | 3082.6 | 492,194,875 | 3082.6 | 475,400,631 | 3082.6 | 437,247,662 | 3082.6 | 448,445,595 | 3228.2 | 461,793,940 | 3209.6 | 456,129,921 | 3031.8 | 440,846,720 | 3,025.7 | 432,796,292 | 3,025.6 | 432,796,292 | 30,879.0 | 4,596,242,566 | |
| INCREASED REVENUES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

6.4.2.3 Economic Analysis Summary

SIMN 30C, Rev. 06/2014
Agency/state entity: CCHCS
Project: EHS

ECONOMIC ANALYSIS SUMMARY
All costs to be shown in whole (unrounded) dollars.

Date Prepared 4/18/2016

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | FY 2018/19 | | FY 19/20 | | FY 20/21 | | TOTAL | | |
|-----------------------------|------------|-------------|------------|-------------|------------|--------------|------------|-------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|----------|---------------|----------|---------------|---------|---------------|--|
| | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | PVS | AMTS | |
| EXISTING SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Total IT Costs | 150.7 | 184,211,798 | 205.7 | 127,642,165 | 205.7 | 84,019,280 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 205.7 | 71,878,567 | 2002.2 | 899,023,209 | |
| Total Program Costs | 2876.9 | 366,505,458 | 2876.9 | 366,450,732 | 2876.9 | 366,926,473 | 2876.9 | 360,720,360 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 2876.9 | 354,076,747 | 28769.0 | 3,585,063,509 | |
| Total Existing System Costs | 3027.6 | 550,717,256 | 3082.6 | 494,092,897 | 3082.6 | 450,945,754 | 3082.6 | 432,598,927 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 3082.6 | 425,955,314 | 30771.2 | 4,484,086,718 | |
| PROPOSED ALTERNATIVE | | | | | | | | | | | | | | | | | | | | | | | |
| Total Project Costs | 0.0 | 17,447,346 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 44,736,571 | 193.5 | 54,128,948 | 178.0 | 47,565,838 | 153.3 | 42,134,024 | 148.1 | 38,119,080 | 146.4 | 37,870,664 | 1030.9 | 386,462,158 | |
| Total Cont. Exist. Costs | 3027.6 | 504,043,294 | 3079.4 | 478,606,710 | 3019.8 | 420,769,340 | 2999.2 | 401,107,430 | 3020.4 | 400,709,024 | 3034.7 | 407,664,992 | 3031.6 | 408,564,083 | 2878.5 | 398,712,696 | 2877.5 | 394,677,212 | 2879.2 | 394,925,628 | 29848.0 | 4,209,780,408 | |
| Total Alternative Costs | 3027.6 | 521,490,640 | 3082.6 | 492,194,875 | 3082.6 | 475,400,631 | 3082.6 | 437,347,662 | 3082.6 | 445,445,595 | 3228.2 | 461,793,940 | 3209.6 | 456,129,921 | 3031.8 | 440,846,720 | 3023.7 | 432,795,292 | 3023.6 | 432,795,292 | 30879.0 | 4,596,242,566 | |
| COST SAVINGS/AVOIDANCES | 0.0 | 29,226,617 | 0.0 | 1,898,022 | 0.0 | (24,454,877) | 0.0 | (4,748,735) | 0.0 | (19,490,281) | (143.1) | (35,838,626) | (127.0) | (30,174,607) | 50.8 | (14,891,406) | 57.0 | (6,840,978) | 57.0 | (6,840,978) | (107.8) | (112,155,848) | |
| Increased Revenues | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Net (Cost) or Benefit | 0.0 | 29,226,617 | 0.0 | 1,898,022 | 0.0 | (24,454,877) | 0.0 | (4,748,735) | 0.0 | (19,490,281) | (143.1) | (35,838,626) | (127.0) | (30,174,607) | 50.8 | (14,891,406) | 57.0 | (6,840,978) | 57.0 | (6,840,978) | (107.8) | (112,155,848) | |
| Cum. Net (Cost) or Benefit | 0.0 | 29,226,617 | 0.0 | 31,124,639 | 0.0 | 6,669,762 | 0.0 | 1,921,027 | 0.0 | (17,569,254) | (143.1) | (53,407,880) | (270.1) | (83,582,487) | (219.3) | (98,473,893) | (162.3) | (105,314,871) | (105.3) | (112,155,848) | (213.1) | (224,311,697) | |

6.4.2.4 Project Funding

SIHM 30C, Rev 06/2014
Agency/state entity: CCHCS
Project: EHRS

PROJECT FUNDING PLAN
All Costs to be in whole (unrounded) dollars

Date Prepared: 4/18/2016

| | FY 2011/12 | | FY 2012/13 | | FY 2013/14 | | FY 2014/15 | | FY 2015/16 | | FY 2016/17 | | FY 2017/18 | | FY 18/19 | | FY 19/20 | | FY 20/21 | | TOTALS | |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|------------|----------|------------|----------|------------|--------|-------------|
| | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts | PYs | Amts |
| TOTAL PROJECT COSTS | 0.0 | 17,447,346 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 44,736,571 | 193.5 | 54,128,948 | 178.0 | 47,565,838 | 153.3 | 42,134,024 | 148.1 | 38,119,080 | 146.4 | 37,870,664 | 1030.9 | 386,462,158 |
| RESOURCES TO BE REDIRECTED | | | | | | | | | | | | | | | | | | | | | | |
| Staff: | 0.0 | 0 | 3.2 | 568,708 | 62.8 | 10,881,144 | 83.4 | 13,486,207 | 62.2 | 9,254,324 | 97.5 | 5,963,347 | 82.0 | 6,312,793 | 57.3 | 6,329,593 | 52.1 | 6,477,209 | 50.4 | 6,228,793 | 550.9 | 65,502,118 |
| Funds: | | | | | | | | | | | | | | | | | | | | | | |
| Existing System | | 17,447,346 | | 13,019,457 | | 43,750,147 | | 17,741,070 | | 12,972,824 | | 12,326,974 | | 11,359,836 | | 11,078,439 | | 11,078,439 | | 11,078,439 | | 161,852,971 |
| Other Fund Sources | | 0 | | 0 | | 0 | | 5,012,955 | | 22,509,423 | | 0 | | 0 | | 0 | | 0 | | 0 | | 27,522,378 |
| TOTAL REDIRECTED RESOURCES | 0.0 | 17,447,346 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 44,736,571 | 97.5 | 18,290,321 | 82.0 | 17,672,629 | 57.3 | 17,408,032 | 52.1 | 17,555,648 | 50.4 | 17,307,232 | 550.9 | 254,877,467 |
| ADDITIONAL PROJECT FUNDING NEEDED | | | | | | | | | | | | | | | | | | | | | | |
| One-Time Project Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 66.0 | 20,294,933 | 51.0 | 8,270,381 | 6.0 | 11,202,473 | 5.0 | 979,202 | 0.0 | 0 | 128.0 | 39,767,787 |
| Continuing Project Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 30.0 | 15,543,694 | 45.0 | 21,622,828 | 90.0 | 13,523,519 | 91.0 | 19,584,230 | 96.0 | 20,563,432 | 352.0 | 90,837,702 |
| TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 96.0 | 35,838,627 | 96.0 | 29,893,209 | 96.0 | 24,725,992 | 96.0 | 20,563,432 | 96.0 | 20,563,432 | 480.0 | 90,457,828 |
| TOTAL PROJECT FUNDING | 0.0 | 17,447,346 | 3.2 | 13,588,165 | 62.8 | 54,631,291 | 83.4 | 36,240,232 | 62.2 | 44,736,571 | 193.5 | 54,128,948 | 178.0 | 47,565,838 | 153.3 | 42,134,024 | 148.1 | 38,119,080 | 146.4 | 37,870,664 | 1030.9 | 386,462,158 |
| Difference: Funding - Costs | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total Estimated Cost Savings | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 153.0 | 9,834,587 | 153.0 | 14,772,455 | 153.0 | 14,772,455 | 459.0 | 39,379,497 |
| FUNDING SOURCE* | | | | | | | | | | | | | | | | | | | | | | |
| General Fund | 100% | 17,447,346 | 100% | 13,588,165 | 100% | 54,631,291 | 100% | 36,240,232 | 100% | 44,736,571 | 100% | 54,128,948 | 100% | 47,565,838 | 100% | 42,134,024 | 100% | 38,119,080 | 100% | 37,870,664 | 100% | 386,462,158 |
| Federal Fund | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| Special Fund | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| Reimbursement | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| TOTAL FUNDING | 100% | 17,447,346 | 100% | 13,588,165 | 100% | 54,631,291 | 100% | 36,240,232 | 100% | 44,736,571 | 100% | 54,128,948 | 100% | 47,565,838 | 100% | 42,134,024 | 100% | 38,119,080 | 100% | 37,870,664 | 100% | 386,462,158 |

*Type: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.
Other Fund Sources in Fiscal Year 2014/15 and 2015/16 come from the Department's budget.

6.4.2.5 Cost Variances

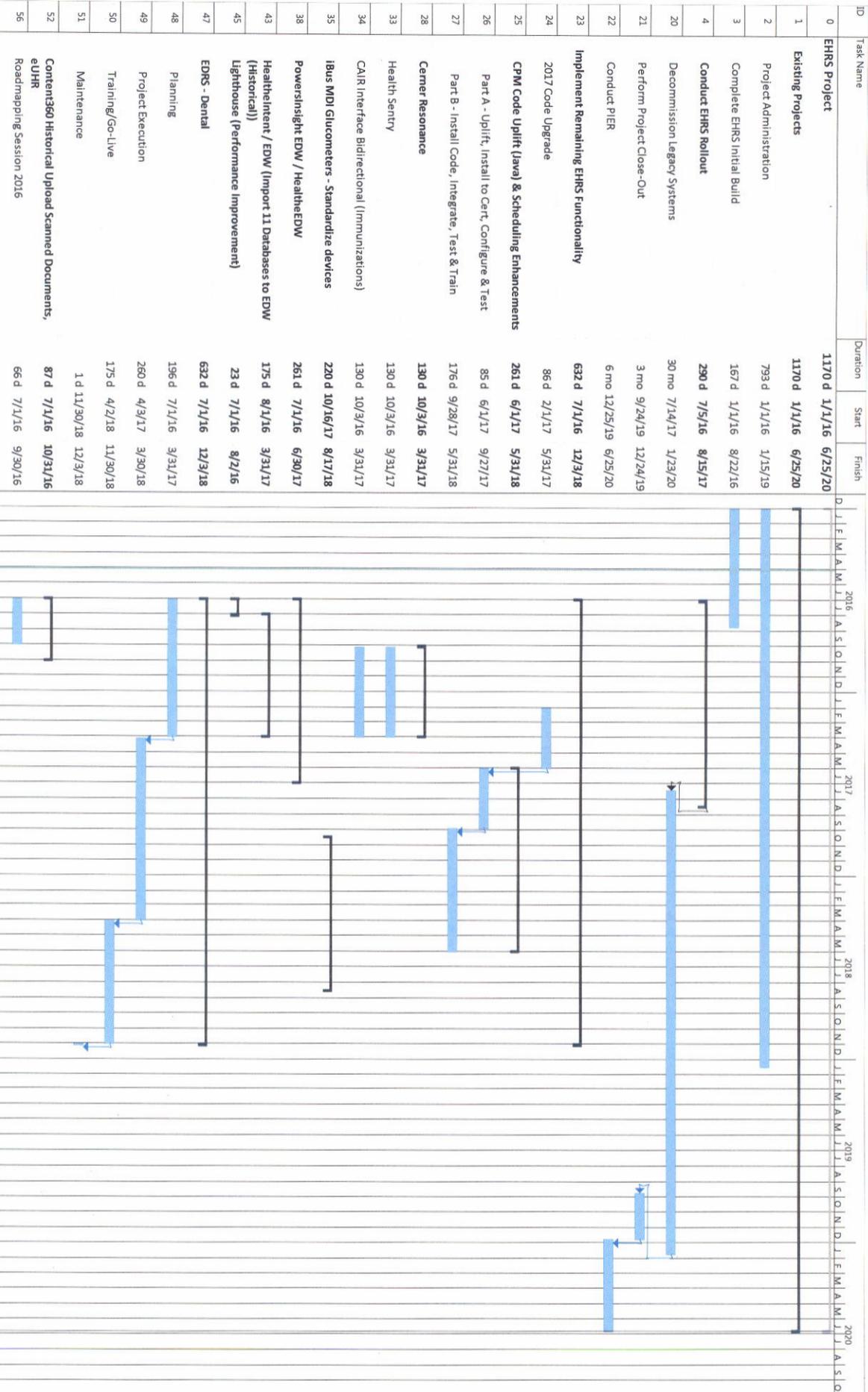
Agency/state entity: CCHCS
Project: EHRS

Cost Variance Table

Date Prepared: 4/18/2016

| | Approved FSR FY 11/12-17/18 | SPR FY 11/12-20-21 | Variance | Reason for Variance |
|--|--------------------------------|-----------------------|----------------------|---|
| One-Time IT Project Costs | | | | |
| Staff (Salaries & Benefits) | \$26,189,305 | \$84,552,697 | \$58,363,392 | Requesting additional PYS |
| Hardware Purchase | \$2,256,374 | \$10,179,752 | \$7,923,378 | Additional Equipment purchase |
| Software Purchase/License | \$14,197,472 | \$33,360,551 | \$19,163,079 | 4 years of Continuing costs were moved to One-time costs in the SPR (FY 11/12, 12/13, 13/14, 14/15). Additional SW costs of \$2.3M associated to EDRS. |
| Telecommunications | | | \$0 | |
| Contract Services | | | \$0 | |
| Software Customization | \$34,242,701 | \$45,256,438 | \$11,013,737 | Increase in Implementation services are tied to EDRS |
| Project Management | \$2,255,000 | \$2,323,174 | \$68,174 | Change in schedule will result in extending services required |
| Organizational Change Mgmt | \$3,236,800 | | (\$3,236,800) | Expenditures were moved to the "Other Contract Services" line within the SPR |
| Project Oversight | \$521,378 | \$921,600 | \$400,222 | Change in schedule will result in extending services required |
| IT&V Services | \$1,242,467 | \$2,933,736 | \$1,691,269 | Change in schedule will result in extending services required |
| Trainers | \$1,900,000 | | (\$1,900,000) | Expenditures were moved to the "Other Contract Services" line within the SPR |
| Other Contract Services | \$17,212,000 | \$49,271,172 | \$32,059,172 | \$8.5M = Pharmacy Cutover; \$3.3M = SOMS; \$2.8M = Learning Management System; \$2.1M = Data Drops; \$9.9M Technical Services Contracts; \$5.2M = 3 years of Continuing (Remote Hosting and Managed Services) costs were moved to One-time costs in the SPR (FY 12/13, 13/14, 14/15). |
| TOTAL Contract Services | \$60,610,346 | \$100,706,120 | \$40,095,774 | |
| Data Center Services | | | \$0 | |
| Agency Facilities | | | \$0 | |
| Other | \$1,336,248 | \$1,649,001 | \$312,753 | Increase in Travel due to change in training plan |
| Total One-time IT Project Costs | \$104,589,745 | \$230,448,121 | \$125,858,375 | |
| Continuing IT Project Costs | | | \$0 | |
| Staff (Salaries & Benefits) | \$17,409,542 | \$58,022,606 | \$40,613,064 | Requesting additional PYS |
| Hardware Lease/Maintenance | \$2,439,136 | \$7,964,684 | \$5,525,548 | Additional Equipment requires additional refresh |
| Software Maintenance/Licenses | \$38,306,442 | \$42,180,071 | \$3,873,629 | 3 years have been added to the FSR (FY 18/19, 19/20, 20/21) = \$2.1M. EDRS = \$1.7M. Expenditures were accounted for and included in the "Data Center Services" line within the SPR |
| Telecommunications | \$540,000 | | (\$540,000) | \$8.4M = Maintenance Changes; \$2.1M = Learning Management System; \$9.2M = 3 years have been to the FSR (FY 18/19, 19/20, 20/21). \$2M = EDRS. |
| Contract Services | \$17,353,362 | \$39,116,676 | \$21,763,314 | Additional IT network infrastructure costs and 3 years have been added to the FSR (FY 18/19, 19/20, 20/21) |
| Data Center Services | \$1,250,000 | \$8,730,000 | \$7,480,000 | |
| Agency Facilities | | | \$0 | |
| Other | | | \$0 | |
| Total Continuing IT Costs | \$77,298,482 | \$156,014,037 | \$78,715,555 | |
| Total Project Costs | \$181,888,228 | \$386,462,158 | \$204,573,930 | |

Appendix A – EHRIS Project Work Plan



Appendix B – EHRS Project Detailed Risk Report

Risks associated with activities described in this SPR are listed below.

- There exists a low probability the new EHRS clinical workflows will not integrate seamlessly into all institutions or all disciplines.
- There is a low probability of organizational resistance to adoption of the EHRS.
- If the funding described in this SPR is not approved, there exists a high probability of not having enough staff to support the operational EHRS.
- Integration of CCHCS and EHRS Vendor help desk functions will continue through rollout of the EHRS, which could negatively affect backlog of change request and help desk tickets.