

## Schedule 13 Funding Request for the 2014-15 Budget Cycle

**Department:** Department of Human Services  
**Request Title:** Health Information Management System (HIMS) Line Increase  
**Priority Number:** R-21

**Dept. Approval by:** Will Bl 10-29-13  
 Date

**OSPB Approval by:** Erin 10/29/13  
 Date

- Decision Item FY 2014-15
- Base Reduction Item FY 2014-15
- Supplemental FY 2013-14
- Budget Amendment FY 2014-15

Line Item Information		FY 2013-14		FY 2014-15		FY 2015-16
		1	2	3	4	5
	Fund	Appropriation FY 2013-14	Supplemental Request FY 2013-14	Base Request FY 2014-15	Funding Change Request FY 2014-15	Continuation Amount FY 2015-16
<b>Total of All Line Items</b>	<b>Total</b>	339,168	0	339,168	229,129	96,339
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	211,290	0	211,290	229,129	96,339
	CF	0	0	0	0	0
	RF	127,878	0	127,878	0	0
	FF	0	0	0	0	0
	MCF	0	0	0	0	0
	MGF	0	0	0	0	0
	NGF	211,290	0	211,290	229,129	96,339
<b>(2) Office of Information Technology Services, (A) Information Technology, Health Information Management System</b>	<b>Total</b>	339,168	0	339,168	229,129	96,339
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	211,290	0	211,290	229,129	96,339
	CF	0	0	0	0	0
	RF	127,878	0	127,878	0	0
	FF	0	0	0	0	0
	MCF	0	0	0	0	0
	MGF	0	0	0	0	0
	NGF	211,290	0	211,290	229,129	96,339

Letternote Text Revision Required? Yes:  No:  If yes, describe the Letternote Text Revision:  
 Cash or Federal Fund Name and COFRS Fund Number: N/A  
 Reappropriated Funds Source, by Department and Line Item Name: N/A  
 Approval by OIT? Yes:  No:  Not Required:   
 Schedule 13s from Affected Departments: N/A  
 Other Information: N/A

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### ***Cost and FTE***

- The Department requests \$229,129 General Fund in FY 2014-15 and \$96,339 in FY 2015-16 for increased contract costs for the Health Information Management System (HIMS) and to upgrade the fiber optic infrastructure (FOI) at the Mental Health Institutes.

### ***Current Program***

- The Department operates the State's two Mental Health Institutes, at Fort Logan and Pueblo, to treat both civil and forensic patients with serious mental illnesses.
- The HIMS system (a.k.a. Avatar) supports clinical and administrative business functions within the Institutes, the Regional Centers, and the Department of Youth Corrections. HIMS and other network applications for the Institutes are enabled by their FOI. The Department contracts with vendors to maintain the HIMS system.
- The HIMS system and the FOI are crucial to maintain operations at the Institutes and allow the Department to effectively treat the patients and efficiently operate the hospitals.

### ***Problem or Opportunity***

- Vendor costs over the next 5-year contract period (FY 2013-14 to FY 2017-18) will increase beyond funding available in the Department's budget and the existing FOI has insufficient bandwidth to handle current and projected network usage.
- AVATAR is the current electronic health information (HER) system for the Institutes, and must be maintained until a modern Electronic Health Record (EHR) is available for clinical decisions, patient care and performance evaluation.
- Insufficient bandwidth of the FOI impacts effectiveness and efficiency of client care, decision-making, and performance analysis. It hampers access to patient information and causes problems for data transfer between AVATAR and ancillary systems, including frequent "timing-out" when running large processes.

### ***Consequences of Problem***

- Institute and other agency operations will increasingly become ineffective and inefficient.
- Pressure on operating expense budgets will increasingly restrict spending on operations and patient services (transportation, durable goods, and social/occupational/vocational therapies).

### ***Proposed Solution***

- The Department requests on-going increased funds to offset annual increases in vendor cost and FOI access cost, and one-time funding to upgrade the FOI.
- The funding for the HIMS contract will end when it is replaced with an Electronic Health Record.

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*State of Colorado*  
*Department of Human Services*  
*FY 2014-15 Funding Request*  
*November 1, 2013*

*John W. Hickenlooper*  
Governor

*Reggie Bicha*  
Executive Director

**Department Priority: R-21**  
**Request Detail: Health Information Management System (HIMS) Line Increase**

Summary of Incremental Funding Change for FY 2014-15	Total Funds	General Fund
Health Information Management System	\$229,129	\$229,129

***Request Summary:***

The Department requests \$229,129 General Fund in FY 2014-15 and \$96,339 in FY 2015-16 for increased contract costs for the Health Information Management System (HIMS) and to upgrade the fiber optic infrastructure (FOI) at the Mental Health Institutes (Institutes).

***Problem or Opportunity:***

The Health Information Management System (HIMS) system supports clinical and administrative business functions within the Mental Health Institutes (Institutes), the Regional Centers, and the Department of Youth Corrections (DYC). The Department has negotiated new five-year contracts with the vendors that provide and maintain the software that currently comprise the HIMS used by multiple divisions within CDHS. The contracts will continue until a new Electronic Health Record (EHR) system is developed to replace this system. Separate operating and capital construction requests have been submitted related to the EHR initiative.

Until the EHR is operational, Avatar (the HIMS system) is the electronic health information system for the Institutes and must be maintained. Information and data provided by Avatar and its related supporting systems support clinical and administrative business functions at the Mental Health Institutes, the Regional Centers, and the Division of Youth Corrections' detention and institutional facilities. The data and information collected from the various facilities is used daily by staff to make clinical decisions for individuals served and is critical in the analysis and reporting to, state and federal authorities on program operations (clinical and business); division and facility management for performance and strategic decisions; and to the Department for performance of C-Stat performance metrics. The request will maintain current operability while pursuing an EHR solution for the Mental Health Institutes and the Regional Centers.

Vendor costs over the next five year contract (FY 2013-14 to FY 2017-18) to maintain Avatar (the HIMS system and its related Laboratory, Pharmacy, and Dietary systems) will increase beyond the Department's current appropriation for HIMS. In addition, the fiber optic infrastructure (FOI) has insufficient bandwidth

to handle current and expected network usage. If not funded, the increasing software maintenance costs will require the Institutes to use funding from their operating expenses appropriations and delay or forego necessary equipment maintenance, repair and replacement. Insufficient bandwidth of the FOI impacts effectiveness and efficiency of client care, decision-making, and performance analysis. It also hampers access to patient information and causes problems for data transfer between Avatar and ancillary systems, causing frequent "timing out" when running large processes.

### ***Proposed Solution:***

Department requests an increase of \$229,129 General Fund in FY 2014-15 to address the problems mentioned above. Specifically, the request will provided:

- \$27,265 to cover vendor contract increases for maintenance;
- \$96,000 to upgrade the FOI at the Colorado Mental Health Institute at Pueblo;
- \$50,000 to upgrade the FOI at the Colorado Mental Health Institute at Fort Logan (CMHIFL); and
- \$55,864 for a high bandwidth service contract at Pueblo to upgrade network access speed.

In FY 2015-16, the request will be reduced to \$96,339 General Fund as follows:

- \$40,475 to cover vendor contract increases for maintenance; and
- \$55,864 for a high bandwidth service contract at Pueblo.

No additional funding is requested after FY 2015-16 because the EHR is expected to be completed at the start of FY 2016-17 (the EHR operating request removes HIMS funding in FY 2016-17).

The request will benefit patients and staff at the Institutes through preventing the diversion of operating funds from patient services and needed equipment repairs and replacements and the improved data bandwidth and modernized FOI will allow improvements in staff efficiency and effectiveness of patient care, performance management and reporting. Critical infrastructure improvements required for an EHR environment will be in place already for the installation and modification of the EHR, rather than attempting to implement the EHR on an incomplete foundation.

### ***Anticipated Outcomes:***

The increase in appropriations will allow the Department to maintain the existing HIMS system through necessary updates, controlled maintenance, and required upgrades (i.e. security requirements, Medicaid billing, and Health Care Reform / Affordable Care Act (HCR/ACA) until the EHR is complete. Upgrading the fiber optic infrastructure is crucial to the existing operation and the planned system upgrade with the development of the EHR system.

As stated earlier, the request benefits multiple Divisions within the Department. Improving the telecommunications-vendor-network access speed at the Mental Health Institute - Pueblo will allow clinical service providers to have:

- faster access to patient information (reduce current 10 second load of screens);

- eliminate the “timing-out” of large reports – therefore improving efficiency; and
- improve the effectiveness of data transfers between Avatar to ancillary systems (currently batched and processed during low-use cycles, which delays the effective use of the ancillary system information); and

The FOI upgrade is necessary at both Institutes, in preparation for the new EHR and in order to support its secure, wireless capacity and real-time loading of clinical information onto provider’s tablets and mobile devices. Without fiber optic cabling throughout the clinical and administrative areas of the Institutes, the amount of time to deliver diagnostic images, lab results, pharmacy orders and histories, legal information, etc., to the new, more complex screens on both desktops and tablets, could be minutes rather than the second or so required in a medical setting. The improvement in speed, convenience and efficiency is necessary when transitioning clinical and support staff from a familiar, paper-based process to a fully-integrated, automated system – poor system performance would guarantee great resistance to using the new EHR.

Outcomes of these system enhancements will be measured through system audits by OITS staff to ensure that:

- the 1 Gbs speed is maintained for the Institutes by the telecommunications vendor to CDHS servers and the internet points of access; and
- speed is maintained through the fiber optic cabling and wireless system to desktops and mobile devices at the Institutes.

Continued support of the Institutes’ Health Information Systems, as well as the improvements to network speed and reliability, directly impact the Department’s ability to collect, analyze and report on its goals to:

- maintain the forensics wait list for admission of ITP and competency evaluation inpatients at an average of less than 24 days, and at no more than 28 days for any one patient; and
- reduce the number of consumers readmitted to MHI inpatient psych units within 180 days.

These goals correspond to Department C-Stat Performance Measures, and align with the CDHS #4 goal: “To promote quality and effective behavioral health practices to strengthen the health, resiliency and recovery of Coloradans.”

#### ***Assumptions and Calculations:***

The annual projected increases in HIMS vendor costs are based upon annual percent increases provided by the vendors, per a negotiated five-year rate. Estimated costs for server support are based upon historical activity and related expense.

The \$96,000 at CMHIP and \$50,000 at CMHIFL estimated for fiber optic infrastructure utilize a \$400 estimate per each wireless access point, with additional costs for fiber optic cabling, based upon recent OIT experience in similar projects. At CMHIP, the amount equals \$74,800 for 187 access points, with \$21,200

for remaining cabling expenses. At CMHIFL, it equals \$33,600 for 84 access points, with \$16,400 for cabling expenses.

**Estimated Funding Need and Funding Split**

Forecast for expenditures exceeds appropriation in FY 2014-15 and FY 2015-16.

**FY 2014-15**

<b>Long Bill Line Item</b>	<b>Total</b>	<b>FTE</b>	<b>GF</b>	<b>NGF</b>
(2) Office of Information Technology Services – Health Information Management System.	\$229,129	0.0	\$229,129	\$229,129
<b>Total</b>	<b>\$229,129</b>	<b>0.0</b>	<b>\$229,129</b>	<b>\$229,129</b>

**FY 2015-16**

<b>Long Bill Line Item</b>	<b>Total</b>	<b>FTE</b>	<b>GF</b>	<b>NGF</b>
(2) Office of Information Technology Services – Health Information Management System.	\$96,339	0.0	\$96,339	\$96,339
<b>Total</b>	<b>\$96,339</b>	<b>0.0</b>	<b>\$96,339</b>	<b>\$96,339</b>

**Funding Time Frame**

Funding is requested in FY 2014-15 and FY 2015-16.

<b>Description</b>	<b>FY 2014-15</b>	<b>FY 2015-16</b>
Long Bill General Fund Appropriation	\$211,290	\$211,290
Revenue Transfer from Program Operating Lines	\$127,878	\$127,878
Projected Expenditures	(\$568,297)	(\$435,507)
<b>Surplus / (Deficit)</b>	<b>(\$229,129)</b>	<b>(\$96,339)</b>



**Costs Breakout**

	<b>FY2014-15</b>	<b>FY2015-16</b>
<b>Vendor Contracts</b>	<b>Amount</b>	<b>Amount</b>
Multidata Computer Systems (Lab)	\$60,792	\$62,604
Netsmart (Avatar)	\$160,804	\$167,578
Opus-ISM (Pharmacy)	\$52,808	\$54,500
Vision Software Technologies (Dietary)	\$58,640	\$61,572
<b>Contracts Subtotal</b>	<b>\$333,044</b>	<b>\$346,254</b>
<b>Server Support</b>		
HP Support Contract	\$1,500	\$1,500
NDC Dial Up Charges	\$3,900	\$3,900
VMWARE Charges	\$6,457	\$6,457
Avatar Backups	\$1,532	\$1,532
<b>Server Subtotal</b>	<b>\$13,389</b>	<b>\$13,389</b>
<b>Fiber Optic Infrastructure (FOI)</b>		
CMHIP Fiber Optic Infrastructure	\$96,000	\$0
CMHIFL Fiber Optic Infrastructure	\$50,000	\$0
CMHIP Vendor Bandwidth Increase	\$55,864	\$55,864
<b>FOI Subtotal</b>	<b>\$201,864</b>	<b>\$55,864</b>
<b>Compliance Modifications</b>		
System modifications and upgrades related to HCR/ACA, efficiencies in business processes, and to maintain compliance with other federal / state requirements	\$20,000	\$20,000
<b>Compliance Subtotal</b>	<b>\$20,000</b>	<b>\$20,000</b>
<b>Total</b>	<b>\$568,297</b>	<b>\$435,507</b>
<b>HIMS Budget</b>	<b>\$339,168</b>	<b>\$339,168</b>
<b>Unbudgeted Amount</b>	<b>(\$229,129)</b>	<b>(\$96,339)</b>

