

**Schedule 13**

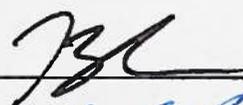
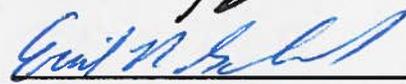
**Funding Request for the FY 2015-16 Budget Cycle**

**Department of Health Care Policy and Financing**

PB Request Number R-09

**Request Titles**

R-09 Personal Health Records and Online Health Education

Dept. Approval By:	Josh Block		<input checked="" type="checkbox"/>	Supplemental FY 2014-15
			<input type="checkbox"/>	Change Request FY 2015-16
			<input type="checkbox"/>	Base Reduction FY 2015-16
OSPB Approval By:			<input type="checkbox"/>	Budget Amendment FY 2015-16

Line Item Information	Fund	FY 2014-15		FY 2015-16		FY 2016-17
		Appropriation	Request	Base Request	FY 2015-16	Continuation
	Total	\$8,228,926	\$0	\$12,196,176	\$772,570	\$1,485,279
	FTE	-	-	-	-	-
Total of All Line Items	GF	\$1,302,893	\$0	\$1,699,618	\$122,257	\$352,528
	CF	\$0	\$0	\$0	\$0	\$0
	RF	\$0	\$0	\$0	\$0	\$0
	FF	\$6,926,033	\$0	\$10,496,558	\$650,313	\$1,132,751

Line Item Information	Fund	FY 2014-15		FY 2015-16		FY 2016-17
		Appropriation	Request	Base Request	FY 2015-16	Continuation
	Total	\$8,228,926	\$0	\$12,196,176	\$772,570	\$1,485,279
01. Executive	FF	\$6,926,033	\$0	\$10,496,558	\$650,313	\$1,132,751
Director's Office - Health Information Exchange Maintenance and Projects	GF	\$1,302,893	\$0	\$1,699,618	\$122,257	\$352,528

Letternote Text Revision Required?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	If Yes, describe the Letternote Text Revision:
The Department requests that the General Assembly add a footnote to the FY 2015-16 Long Bill to allow for roll-forward authority of unspent funding into FY 2016-17.					
Cash or Federal Fund Name and CORE Fund Number:	FF: Title XIX				
Reappropriated Funds Source, by Department and Line Item Name:	N/A				
Approval by OIT?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Required: <input checked="" type="checkbox"/>
Schedule 13s from Affected Departments:	N/A				
Other Information:	N/A				



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

- In order to implement online health education and Personal Health Record (PHR) technology for Medicaid clients, the Department requests:
  - FY 2015-16: \$772,570 total funds, \$122,257 General Fund, and \$650,313 federal funds;
  - FY 2016-17: \$1,485,279 total funds, \$352,528 General Fund, and \$1,132,751 federal funds;
  - FY 2017-18: \$1,170,279 total funds, \$421,028 General Fund, and \$749,251 federal funds;
  - FY 2018-19: \$1,045,209 total funds, \$484,576 General Fund, and \$560,633 federal funds; and
  - FY 2019-20 and ongoing: \$950,139 total funds, \$475,069 General Fund, and \$475,070 federal funds.

#### ***Current Program***

- Online health education and Personal Health Record (PHR) technology have been shown to improve health and reduce health care spending; the Department currently does not offer these services to its clients

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

- The Department has an opportunity to improve client health and reduce spending on medical services by implementing online health education and PHR technology
- Online health education enables clients to become better informed about their health conditions and treatment options; research shows that better-informed consumers tend to favor less-invasive and correspondingly less-costly medical services
- PHR technology gives clients access to their electronic medical information and offers various opportunities to improve client health and reduce costs through, for example, PHR-based smoking cessation counseling, medication list sharing to avoid adverse drug interactions, and complete laboratory results sharing to avoid redundant medical tests
- This technology would capitalize on Colorado's growing Health Information Exchange (HIE) network managed by the Colorado Regional Health Information Organization (CORHIO)

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

- If this request is not approved, the Department would miss opportunities to educate clients about their health conditions and treatment options and clients would continue to be unable to easily access and share their electronic medical information or utilize other features of PHR technology; consequently, the Department would miss an opportunity to improve client health and reduce state spending on medical services

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

- The Department proposes to implement online health education resources and PHR technology for Medicaid clients, who could access these services through a single online portal
- The work would largely be performed by CORHIO
- The Department anticipates clients would use online health education resources to learn more about their health conditions and treatment options and consequently favor less-invasive, less-costly treatments, creating long-term cost savings on medical services for the Department
- The Department anticipates clients would use PHR technology to view their electronic medical information and appropriately share the information and communicate with providers through the PHR technology, leading to long-term cost savings on medical services for the Department and improved client health



# COLORADO

Department of Health Care  
Policy & Financing

FY 2015-16 Funding Request | November 1, 2014

John W. Hickenlooper  
Governor

Susan E. Birch  
Executive Director

**Department Priority: R-9**

**Request Detail: Personal Health Records and Online Health Education**

Summary of Incremental Funding Change for FY 2015-16	Total Funds	General Fund
Personal Health Records and Online Health Education	\$772,570	\$122,257

**Problem or Opportunity:**

Online health education and personal health records (PHRs) are new technologies that present an opportunity to increase engagement of Medicaid clients in their health care through client health education and client access to their personal electronic medical data. Industry research has shown that these technologies result in healthier consumers and decreased spending on health care services.

Online health education refers to online health article repositories and online shared decision making tools. Online health article repositories are essentially online encyclopedias covering general health concepts, pathologies, treatments, and more. These articles are tailored to health care consumers and are updated at least annually to include new research and evidence-based practices. Online shared decision making tools provide consumers with information and recommendations on treatment options so that consumers can better participate in health care decisions with their provider. These shared decision making tools can take several forms including informational videos, digital pamphlets, and interactive questionnaires that recommend treatments based on a consumer’s preferences and values. Use of these shared decision making tools can be tracked and can be tailored to the consumer based on their medical conditions, demographics, or other data.

PHR technology gives consumers online access to their electronic health records (EHRs). EHRs are an electronic replacement for paper medical records and are created by providers, laboratories, and other health entities using specialized software. They contain information such as client demographics, medical diagnoses, doctor’s notes, and laboratory test results. Health Information Exchange (HIE) is a private, statewide computer network managed by the Colorado Regional Health Information Organization (CORHIO) that enables providers and other entities to electronically share EHRs.<sup>1</sup> PHR technology essentially allows consumers to log on to the HIE network to view their aggregated EHRs. This enables consumers to see, for example, treatments they’ve received or doctors’ notes from any provider participating in HIE. Additionally, the consumer can add information to their record such as their height and weight or

<sup>1</sup> For more information about HIE, see the Department’s FY 2014-15 R-5 funding request “Medicaid Health Information Exchange.”

the results of an at-home medical test such as a blood sugar test. The consumer can also electronically send medical information and exchange secure electronic messages with their provider using the PHR system. This functionality has been shown to help with activities such as smoking cessation management because providers are able to counsel consumers via electronic messaging more frequently and consistently than face-to-face interaction typically allows.

Recent industry research indicates online health education and PHRs produce long-term cost savings after initial implementation costs. Online health education results in greater utilization of lower-cost treatment options, producing long-term net savings on health care services.<sup>2</sup> The reason this occurs is that well-informed health care consumers tend to choose less-invasive, less-risky treatment options and these options tend to cost less than their more-invasive counterparts. Likewise, PHRs have high initial implementation costs, but begin producing a net savings three to four years after implementation due to decreased spending on health care services.<sup>3</sup> PHRs produce savings on health care services through, for example, reductions in drug-drug interaction adverse drug events due to the ability to share complete medication lists through the PHR, avoiding redundant tests through sharing complete test results, and congestive heart failure remote monitoring through the PHR.

Several other states have implemented or are in the process of implementing PHR systems. New York invested in a statewide PHR system in 2013 that is administered by CORHIO's New York counterpart. The system is statewide and utilizes New York's HIE network so that data across all providers and payers is available to the client. Similarly, Kansas and Indiana have invested in PHR systems. After a successful implementation, Indiana published a report on lessons learned. This report has helped inform the proposed solution in this request and emphasizes the value of capitalizing on work done by existing HIE networks to connect disparate data across the health industry.

***Proposed Solution:***

In order to implement online health education and PHR technology for Medicaid clients in combination with a centralized web portal where clients can access these services, the Department requests:

- \$772,570 in FY 2015-16 (\$122,257 General Fund, and \$650,313 federal funds);
- \$1,485,279 in FY 2016-17 (\$352,528 General Fund, and \$1,132,751 federal funds);
- \$1,170,279 in FY 2017-18 (\$421,028 General Fund, and \$749,251 federal funds);
- \$1,045,209 in FY 2018-19 (\$484,576 General Fund, and \$560,633 federal funds); and,
- \$950,139 in FY 2019-20 and ongoing (\$475,069 General Fund, and \$475,070 federal funds).

Ongoing funding beginning in FY 2019-20 is for continuing maintenance costs of the hardware, software, and services associated with the proposed technology. There are no FTE included with this request.

For the online health education component, the Department proposes to hire vendors to provide an online health article repository and an online shared decision making tool. Medicaid clients would have access to

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<sup>2</sup> See "Policy Options to Encourage Patient-Physician Shared Decision Making" by Ann S. O'Malley and others.

<sup>3</sup> See "The Value of Personal Health Record (PHR) Systems" by David Kaelber, MD, PhD and others.

the online health article repository where trustworthy health articles would be maintained and regularly updated by a third-party vendor. Likewise, the shared decision making tool would provide clients with videos, articles, and interactive questionnaires to guide them through their treatment options for any health care decisions they may face. Clients could be required to use the shared decision making tool before certain services are approved; for instance, a client could be required to view a video outlining less invasive options before a surgery is approved.

For the PHR component, the Department proposes to hire a vendor to provide a PHR system that enables Medicaid clients to view, add to, and share their health information as well as securely communicate with their provider. The PHR system would be hosted by CORHIO in order to integrate with Colorado's HIE network, allowing access to EHRs, and to allow for ready expansion of the PHR system beyond Medicaid if desired in the future. The PHR system would also connect to the Medicaid Management Information System (MMIS) and the Colorado Benefits Management System (CBMS) for other client health-related data. Clients would only have access rights to their own information, but could access another client's information if authorized, such as a dependent child's information.

For the centralized web portal component, the Department proposes to hire a vendor to create a website where clients log on for centralized access to the online health education and PHR components described above. Clients could log on from any internet-connected computer or mobile device. Without a centralized web portal, clients would need to visit separate websites with separate logons for each service (at least three separate websites). This would create a barrier to client adoption of the technology that could be avoided with a centralized portal. A centralized web portal provides a user friendly means for clients to access health information and is critical to the success of the other components of this request because they depend on client adoption.

The Department considers the proposed solution the best way to take advantage of the opportunities that online health education and PHR technology offers. The Department has reviewed industry research, pilot programs, and recent implementations of this technology for best practices that are incorporated in this proposal. The time is right for this technology because, although new, it has now been tested in other states and studied enough to demonstrate its ability to improve client health and reduce spending on health services. It is also the right time to implement this technology in Colorado because it capitalizes on the state's ongoing investments in HIE. Today, more than 2,700 office-based providers, 50 hospitals, and 134 long-term and post-acute care facilities participate or are working toward participation in Colorado HIE.

In addition to the funding requested, the Department requests that the General Assembly add a footnote to the FY 2015-16 Long Bill to allow for roll-forward authority for unspent funding. Because a number of these components would need to be competitively procured, the timing for spending FY 2015-16 funding is relatively uncertain; it is possible that lengthy proposals or appeals could delay the start of the project. As a result, the Department may not know that it needs to shift funding into a future year until after the statutory deadline for supplemental requests and budget amendments. A footnote to allow for roll-forward authority would prevent reversions that could impair the project's implementation. The Department is only requesting such a footnote for FY 2015-16; for FY 2016-17 and future years, the Department would be able to use the regular budget process to request any needed funding changes.

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

The Department anticipates the outcomes of implementing online health education and PHR technology would be improved client health and reduced Medicaid spending on health care services. This outcome would be a result of widespread client adoption of the online health education and PHR technology.

One way the Department would measure this proposal's outcomes would be tracking and analyzing client use of the online health education and PHR technology. Data would be collected in several ways as follows:

- Data would be obtained from logon data from the proposed centralized web portal. This would reveal the frequency and length of client logons.
- Data would be gathered through statistics from the shared decision making tool, revealing which videos or other shared decision making tools each client has used.
- Data would be derived from statistics from the PHR technology, revealing, for example, which clients are participating in smoking cessation management or congestive heart failure remote monitoring through the PHR.

Program success would be evidence of widespread use of the technology, such as frequent user logons and high utilization of PHR functionality.

Another way the Department would measure outcomes would be to compare data on clients who use the technology with those who do not. This could establish causal relationships between use of the technology and other variables, revealing whether or not use of the technology improves client health and reduces spending on health services. Evidences of success in these measurements would be that for clients who access the technology health improves and spending on health care services decreases as compared to those clients who do not use this technology.

If this request is successful, the Department anticipates that it would see reductions in medical spending by Medicaid clients. However, because the literature indicates that savings occur in the medium-to-long term, and because the Department would implement this request in phases, the Department has not included an offset to its Medicaid expenditure as part of this request. Actual savings achieved would be accounted for during the regular budget process through reduced requests for caseload and per capita cost.

If approved, this proposal would contribute to several goals in the Department's FY 2014-15 Performance Plan. First, it would contribute to the Client Engagement goal, which is to foster collaboration between providers, clients, and their families when it comes to health care decisions. This proposal would help foster collaboration through the online shared decision making tools and through clients adding information to and communicating with their providers through the PHR. Second, it would contribute to the Health Information Technology goal, which is to encourage the adoption of EHRs for Medicaid clients. This proposal would contribute to greater familiarity with EHRs among Medicaid clients and help mainstream these technologies. Last, it would contribute to the Cost Containment goal, which is to reduce per capita spending in Medicaid without sacrificing health outcomes or client experience. As discussed earlier in this proposal, research has shown this technology can reduce spending on health care services while improving client health.

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

Table 1 in the attached appendix shows the requested funding broken out by fiscal year. Table 2 shows the funding again broken out by fiscal year, but also grouped within each fiscal year by federal match rate. Finally, Table 3 gives the most detailed view of the funding, breaking out the funding into each cost-generating component of the request. The information in Table 3 forms the basis for the request. The remainder of this section discusses Table 3 row by row and in doing so, illuminates the assumptions and calculations behind this request.

The funding in Table 3, row A, is for two contracted project managers to perform project planning, communication, technical guidance, and project support for three years beginning in January 2016. Similarly, the funding in row B is for two contracted technical project managers to perform technical support and guidance beginning the second year of the project. These calculations are based on the assumption that each contractor would have equivalent duties and compensation as a General Professional IV classification level. See Table 4 for details. These positions would be filled through the Department's existing contract with CORHIO because most of the work for these positions would be implementing and maintaining the proposed PHR system, which would be hosted by CORHIO. The distinction between the project managers and technical project managers is that the project managers would work from a high-level perspective of the project and the technical project managers would work at a detailed, technical level. The Department assumes the federal government would support these contracted positions with a 90% federal match rate under the Health Information Technology for Economic and Clinical Health (HITECH) Act.

The funding in rows C through F of Table 3 is for a vendor to implement the proposed PHR system. The funding in row C is for obtaining and configuring the system. The funding in rows D through F is for interfacing the PHR system with Colorado's HIE network, CBMS, and the MMIS, which would be done at a rate of approximately one interface per year to pace the cost and work of the project. Although the PHR system would be hosted by CORHIO and built into their network, the work of implementing the system would be performed by a third-party vendor. The interfaces with CBMS and the MMIS would require help from the Governor's Office of Information Technology (OIT) which the Department would pay for through a Memorandum of Understanding (MOU) with OIT. The funding needed to implement the PHR system was estimated based on a recent vendor survey performed by CORHIO that identified typical market pricing for PHR products. The Department assumes the federal government would support this implementation with a 90% federal match rate under the HITECH Act because it would be managed by CORHIO, which the federal government recognizes as the State-Designated Entity (SDE) for Colorado HIE.

The funding in row G of Table 3 is for a vendor to implement the proposed centralized web portal. This funding was estimated based on similar work the Department recently performed to create single sign on functionality between Connect for Health Colorado and CBMS. The Department assumes the federal government would support this implementation with a 90% federal match rate under the HITECH Act.

The funding in Table 3 rows I through K is for ongoing technical project management, PHR system operations, and centralized web portal operations. Technical project management would be needed on an ongoing basis in order to manage the ongoing operations of the various proposed systems. The PHR system would require ongoing operational funding relative to the number of client users of the system. The

Department assumes client use would gradually ramp up during the first three years of having the PHR system, reflected in Table 3 by the funding gradually ramping up for this component. Lastly, the centralized web portal would require ongoing operational funding and was estimated again based on the recent work related to CBMS. The Department assumes the federal government would support these operational costs with a 50% federal match rate.

Finally, the funding in row L of Table 3 is for the shared decision making tool. This funding is ongoing and based on an informal survey by the Department of vendors that offer such tools. The Department assumes the federal government would support this cost with a 50% federal match rate.

Note that the proposed online health article repository is not found in Table 3. The Department assumes it could be implemented at no cost by leveraging free resources already utilized by some Regional Care Collaborative Organizations (RCCOs).

If funding is approved, then approximately the first six months of FY 2015-16 would be required to prepare, receive, and evaluate vendor bids for the following contracts proposed in this request: PHR system implementation, centralized web portal implementation, and the shared decision making tool. These contracts would begin in approximately January 2016. Project management would also begin in approximately January 2016 to manage these contracts, while technical project management would begin in July 2016 to provide additional support as the technical demands of the contracts increase.

R-9 Personal Health Records and Online Health Education  
Appendix A: Calculations and Assumptions

<b>Table 1 - Summary by Fiscal Year and Line Item</b>				
<b>Row</b>	<b>Line Item</b>	<b>Total Funds</b>	<b>General Fund</b>	<b>Federal Funds</b>
<b>FY 2015-16</b>				
A	Contracts and Projects, Health Information Exchange Maintenance and Projects	\$772,570	\$122,257	\$650,313
<b>FY 2016-17</b>				
B	Contracts and Projects, Health Information Exchange Maintenance and Projects	\$1,485,279	\$352,528	\$1,132,751
<b>FY 2017-18</b>				
C	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Health Information Exchange Maintenance	\$1,170,279	\$421,028	\$749,251
<b>FY 2018-19</b>				
D	Contracts and Projects, Health Information Exchange Maintenance and Projects	\$1,045,209	\$484,576	\$560,633
<b>FY 2019-20 and Ongoing</b>				
E	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Health Information Exchange Maintenance	\$950,139	\$475,069	\$475,070
F	<b>Total</b>	<b>\$5,423,476</b>	<b>\$1,855,458</b>	<b>\$3,568,018</b>

R-9 Personal Health Records and Online Health Education  
Appendix A: Calculations and Assumptions

<b>Table 2 - Summary by Fiscal Year and Federal Match Rate</b>				
<b>Row</b>	<b>Year</b>	<b>Total Funds</b>	<b>General Fund</b>	<b>Federal Funds</b>
	<b>FY 2015-16</b>			
A	90% Federal Match	\$660,070	\$66,007	\$594,063
B	50% Federal Match	\$112,500	\$56,250	\$56,250
C	<b>Subtotal for FY 2015-16</b>	<b>\$772,570</b>	<b>\$122,257</b>	<b>\$650,313</b>
	<b>FY 2016-17</b>			
D	90% Federal Match	\$975,279	\$97,528	\$877,751
E	50% Federal Match	\$510,000	\$255,000	\$255,000
F	<b>Subtotal for FY 2016-17</b>	<b>\$1,485,279</b>	<b>\$352,528</b>	<b>\$1,132,751</b>
	<b>FY 2017-18</b>			
G	90% Federal Match	\$410,279	\$41,028	\$369,251
H	50% Federal Match	\$760,000	\$380,000	\$380,000
I	<b>Subtotal for FY 2017-18</b>	<b>\$1,170,279</b>	<b>\$421,028</b>	<b>\$749,251</b>
	<b>FY 2018-19</b>			
J	90% Federal Match	\$95,070	\$9,507	\$85,563
K	50% Federal Match	\$950,139	\$475,069	\$475,070
L	<b>Subtotal for FY 2018-19</b>	<b>\$1,045,209</b>	<b>\$484,576</b>	<b>\$560,633</b>
	<b>FY 2019-20 and Ongoing</b>			
M	50% Federal Match	\$950,139	\$475,069	\$475,070
N	<b>Subtotal for FY 2019-20</b>	<b>\$950,139</b>	<b>\$475,069</b>	<b>\$475,070</b>
O	<b>Total</b>	<b>\$5,423,476</b>	<b>\$1,855,458</b>	<b>\$3,568,018</b>

R-9 Personal Health Records and Online Health Education  
Appendix A: Calculations and Assumptions

<b>Table 3 - Summary by Component</b>							
<b>Row</b>	<b>Cost component</b>	<b>FY 2015-16</b>	<b>FY 2016-17</b>	<b>FY 2017-18</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>Row Total</b>
	<b>90% Federal Match</b>						
A	Two Contracted Project Managers	\$95,070	\$190,139	\$190,139	\$95,070	\$0	<b>\$570,418</b>
B	Two Contracted Technical Project Managers, Implementation	\$0	\$190,139	\$190,139	\$0	\$0	<b>\$380,279</b>
C	PHR System Implementation	\$150,000	\$150,000	\$0	\$0	\$0	<b>\$300,000</b>
D	Clinical Data Interface	\$15,000	\$15,000	\$0	\$0	\$0	<b>\$30,000</b>
E	Eligibility Data Interface	\$0	\$30,000	\$0	\$0	\$0	<b>\$30,000</b>
F	Claims Data Interface	\$0	\$0	\$30,000	\$0	\$0	<b>\$30,000</b>
G	Centralized Web Portal Implementation	\$400,000	\$400,000	\$0	\$0	\$0	<b>\$800,000</b>
H	<b>Subtotal for 90% Match</b>	<b>\$660,070</b>	<b>\$975,279</b>	<b>\$410,279</b>	<b>\$95,070</b>	<b>\$0</b>	<b>\$2,140,697</b>
	<b>50% Federal Match</b>						
I	Two Contracted Technical Project Managers, Operations	\$0	\$0	\$0	\$190,139	\$190,139	<b>\$380,279</b>
J	PHR System Operations	\$62,500	\$250,000	\$500,000	\$500,000	\$500,000	<b>\$1,812,500</b>
K	Centralized Web Portal Operations	\$0	\$160,000	\$160,000	\$160,000	\$160,000	<b>\$640,000</b>
L	Shared Decision Making Tool	\$50,000	\$100,000	\$100,000	\$100,000	\$100,000	<b>\$450,000</b>
M	<b>Subtotal for 50% Match</b>	<b>\$112,500</b>	<b>\$510,000</b>	<b>\$760,000</b>	<b>\$950,139</b>	<b>\$950,139</b>	<b>\$3,282,779</b>
N	<b>Total</b>	<b>\$772,570</b>	<b>\$1,485,279</b>	<b>\$1,170,279</b>	<b>\$1,045,209</b>	<b>\$950,139</b>	<b>\$5,423,476</b>

R-9 Personal Health Records and Online Health Education  
Appendix A: Calculations and Assumptions

**Table 4 - Calculation of Project Manager Contractor Costs**

Row	Amount	Explanation
A	General Professional IV Salary \$70,422	Middle of salary range (\$57,168 to \$83,676)
B	Administrative Load <sup>1</sup> \$24,648	Row A * 35%
C	<b>Total</b> <b>\$95,070</b>	

<sup>1</sup> The 35% Annual Administrative Load includes all health, life, and dental benefits, operating expenses, and commercial leased space.