

STATE MEDICAID HIT PLAN (SMHP)

REVISED AUGUST 30, 2011

PREPARED FOR COLORADO DEPARTMENT OF HEALTH CARE POLICY & FINANCING BY:



DOCUMENT TRACKING

ACTION	PERFORMED BY	DATE
Original Draft Submission	Colorado Department of Health Care Policy & Financing (Department)	Received 03/08/11
Response, Comments Provided	CMS	Received 05/31/11
Revised Draft Submission	Department	Submitted 09/8/11

TABLE OF CONTENTS

1. Executive Summary.....	5
2. Colorado’s As-Is HIT Landscape.....	8
2.1. Environmental Scan.....	8
2.1.1. Health Care Market Assessment	8
2.1.2. HIE Initiatives in Colorado.....	13
2.1.3. Impact of Broadband Access on Provider Adoption of HIT and HIE.....	15
2.1.4. Prospects for Participation in Statewide HIE.....	16
2.1.5. State Collaboration and Coordination.....	17
2.2. State Health IT Strategic Plan: Assessment of Current State Systems	22
2.3. State Health IT Strategic Plan: Future Vision & Enterprise Plan.....	32
2.4. Prospects for Participation in Medicaid EHR Incentive Program	34
3. A “To-Be” Vision and Roadmap for HIT in Colorado	35
3.1. Public Leadership, State Agency & Stakeholder Consensus	35
3.1.1. Consensus: Phased Approach to HIT Adoption	35
3.1.2. Consensus: State Health IT Coordination	37
3.1.3. Consensus: State-Designated Entity for Health Information Exchange	37
3.2. State Health Information Exchange Strategic Plan.....	37
3.3. Statewide Data Management and Information Sharing Protocols.....	38
3.3.1. Statewide Enterprise Architecture	39
3.4. Roadmap to Achieve “To-Be” Vision.....	39
3.4.1. Medicaid Management Information System.....	41
3.4.2. Consolidated Medicaid Provider Web Portal	43
3.4.3. “To-Be” Visioning Process for State HIT	45
4. EHR Incentive Program Administration and Oversight	46
4.1. Program Overview	46
4.2. Program Organization	46
4.3. Provider Outreach.....	47
4.3.1. Communication and Outreach Plan.....	47
4.3.2. Structure and Process for Provider Outreach on the EHR Incentive Program	47
4.4. Attestation Vendor	52
4.5. Colorado Registration and Attestation System (CO R&A)	54
4.6. EP/EH Registration.....	54

4.7. EP/EH Eligibility Determination.....	56
4.8. EP/EH Patient Volume Methodology	56
4.8.1. Patient Encounter	57
4.8.2. Patient Panel.....	57
4.8.3. Patient Volume Verification / Audit Steps.....	58
4.9. Attestation to EHR Adoption / Implementation / Utilization	59
4.9.1. Attestation and A/I/U Verification / Audit Steps.....	59
4.10. Provider Payment Process	60
4.10.1. Provider Payment Verification / Audit Steps.....	62
4.11. Specifics Regarding the Colorado R&A Solution.....	62
4.11.1. Provider Portal Features.....	63
4.11.2. State Medicaid Portal Features	63
4.11.3. Data Base Features (CO R&A).....	63
4.12. Reporting Requirements	64
4.13. Provider Appeals.....	65
4.14. EHR Incentive Program Implementation Timeline	66
5. EHR Incentive Payment Auditing Strategy.....	67
5.1. Administration	67
5.1.1. Provider Enrollment.....	67
5.1.2. Prepayment Activities.....	67
5.1.3. Post-payment Activities.....	68
5.2. Overpayments	69
5.3. Fraud and Abuse	69
5.4. Data Sources to Verify Meaningful Use	69
5.5. Sampling as an Audit Strategy.....	70
5.6. Burden on Providers.....	70
List of Attachments.....	71
Attachment A – <i>EH Payment Calculation Worksheet</i>	72
Attachment B - <i>CO R&A Configuration Worksheet</i>	76
Attachment C - <i>EP Incentive Program Workflow</i>	78
Attachment D - <i>EH Incentive Program Workflow</i>	79
Attachment E - <i>Provider Incentive Program System Architecture</i>	80
Attachment F – <i>Department Response to CMS Comments / Questions – July 2011</i>	81

1. Executive Summary

Between 2011 and 2015, the State of Colorado will implement a phased strategy for the adoption and development of Health Information Technology (HIT) that will contribute significantly to statewide improvements in patient outcomes and reduce health care costs. Colorado has been a leading state in developing a vision for statewide HIT since at least 2004 when stakeholders came together to advocate for and develop the current statewide collaborative governance model, health information organizations and initial prototypes for statewide interoperability. Created in 2007 through Senate Bill 07-196, the Health Information Technology Advisory Committee was charged with creating a comprehensive, long-term plan for HIT in the State. Governor Bill Ritter, Jr., appointed a representative group of key stakeholders to the Advisory Committee, including medical practitioners, employer groups, HIT industry representatives, home health providers, consumers, and state legislators.

The HIT Advisory Committee met over a period of 18 months. In its final report in 2009, the Advisory Committee identified the broad positive outcomes achievable through the adoption of electronic health systems but emphasized that these benefits vary across both stakeholders and technologies. Recognizing the status of electronic health record (EHR) adoption among Colorado's medical providers, the acceleration of statewide Health Information Exchange (HIE) efforts, as well as the state's fiscal and political realities, the report recommended an extensive list of actions designed to implement a phased expansion of HIT throughout Colorado.

Many of the Advisory Committee's recommendations have been implemented. Others have been superseded by the sweeping changes in federal law, guidance and resources related to HIT and HIE following enactment of the American Recovery and Reinvestment Act (ARRA; which incorporated the Health Information for Economic and Clinical Health Act, or HITECH Act) in 2009 and the Patient Protection and Affordable Care Act in 2010. Significant state legislation, initiatives, and programs have also helped shape the HIT landscape over the past couple of years.

Consistent with the findings of the Advisory Committee, Colorado's long-term strategy for HIT implementation continues to emphasize the following strategic objectives:

- Increase provider adoption in ways that accommodate a range of EHR functionalities – from the most basic electronic transactions to fully functional systems;
- Support the use of Personal Health Records and other consumer access solutions to increase the participation of consumers (patients) in their health care;
- Link HIT adoption to HIE and demonstrated quality improvement;
- Leverage and coordinate efforts among state agencies, the Colorado Regional health Information Organization (CORHIO), and other local HIE initiatives to maximize and efficiently deploy HIT-targeted federal funding;
- Balance public and private sector roles and investments so that private investments reflect a clear business case and public sector involvement supports investments that go beyond what stakeholders can achieve individually;
- Recognize the state government's role in ensuring privacy and security protections and in ensuring that HIE serves all Colorado residents, with particular focus on vulnerable populations;

- Exercise caution and restraint in legislating and regulating HIT at the state level, providing the flexibility needed to adapt to the rapidly changing HIT environment;
- Aggressively pursue opportunities to share expenses, reduce costs and build efficiencies at all levels of HIT implementation; and
- Establish standards and governance for data sharing to build trust and minimize security and liability concerns.

Colorado believes that HIT and HIE implementation is not an end in itself, but rather a means to transform the state's health care system. To be successful, that transformation process must align the incremental needs, priorities, and circumstances of Colorado stakeholders with statewide goals for improving health care. In this State Medicaid HIT Plan (SMHP or Plan), the Department of Health Care Policy and Financing (Department) reaffirms its commitment to the involvement of stakeholders in HIT and HIE goal-setting, strategic planning, and implementation in order to ensure that solutions are cost-effective and sustainable.

In the near term, priority strategies for effective adoption of HIT in Colorado include:

- Ensuring that a "critical mass" of health care providers implement EHRs and participate in HIE;
- Providing opportunities for consumer/patient input and participation to drive demand for better health information, shape outcomes, and demand change across the continuum of care;
- Utilizing HIT to simplify administrative transactions (such as for eligibility and claims), thereby reducing operating burdens on providers and presenting a strong business case for investment in adoption;
- Establishing and supporting coordinated state HIT leadership to address cost issues, fragmentation and lack of cohesiveness that has made adoption of electronic health care tools difficult and disorganized in Colorado; and
- Pursuing a staged approach to build toward widespread adoption of a comprehensive, interoperable HIT system that includes EHRs, registry functionality with report capabilities, e-prescribing, e-communication and Personal Health Records.

These objectives, and the statewide HIE architecture, serve as frameworks for the formulation of HIT and HIE goals specific to Medicaid, and the development and implementation of this SMHP. With this Plan, the Department seeks to ensure that Medicaid HIT implementation fits into the broader state HIT implementation architecture seamlessly, efficiently, and effectively. A particular emphasis of this Plan is how the Department will administer and oversee the EHR Incentive Payment Program, a key element of the State's strategy for ensuring a critical mass of health care providers adopt HIT, implement EHRs and participate in HIE.

Section 2 of this document describes the "As-Is" HIT Landscape in Colorado. Colorado currently lacks comprehensive, state-specific information on the current extent of EHR adoption for practitioners and hospitals generally, and for Medicaid providers in particular. However, existing data do suggest that Colorado adoption patterns are not significantly different from national adoption trends. Colorado has certain challenges to HIT and HIE adoption because of its geography and limited availability of broadband access. Some of those challenges are being met through robust stakeholder collaboration and the commitment of state leaders and charitable organizations. Certain areas, such as several regions ready to go "live" with HIE initiatives and the nationally-recognized Quality Health Network operating in western Colorado, provide successful models for other parts of the state, with the assistance of state and regional HIT

and HIE entities such as CORHIO. In general, Colorado has built a strong foundation for implementation of HIT and HIE and is prepared to leverage additional state and federal support to expand its successes over the next five years.

Section 3 describes Colorado's current vision for its "To Be" HIT landscape and the state's Roadmap for achieving that vision. Building upon strong public leadership, state agency and stakeholder consensus, and strong collaboration and coordination, Colorado plans to implement a phased approach to HIT adoption and development. Aligning closely with the State Health Information Exchange Strategic Plan, and integrating with broader statewide enterprise architecture development, Colorado's HIT leaders will continue ongoing work throughout the implementation of this SMHP to define a consensus "To-Be" vision for HIT and outline the roadmap needed to get there. This process will include consideration of the State's HIT goals, modernization of information systems critical to the success of health and human services programs, strategies and initiatives to advance secure interoperable information exchange, and processes to ensure future HIT investments are efficient, strategic and sustainable.

Section 4 of this SMHP provides a detailed description of the plan to implement and administer the Medicaid EHR Incentive Program including the Department's plan to:

- Establish, administer, and oversee the program;
- Capture attestations and reporting data electronically;
- Disburse and monitor incentive payments;
- Update the State's electronic systems to improve functionality and interoperability;
- Pursue incentives to encourage adoption, implementation, or upgrade of certified EHRs and Meaningful Use by eligible professionals (EPs) within their practices and by eligible hospitals (EHs) throughout the state;
- Ensure Privacy and Security of electronic Protected Health Information; and
- Ensure program integrity by preventing and detecting fraud and abuse.

Finally, Section 5 provides an overview of the strategy for auditing provider incentive payments.

2. Colorado's As-Is HIT Landscape

In order to assure maximum benefit to Coloradans, including Medicaid beneficiaries, an Environmental Scan was conducted to assure that all constituents of health information technology (HIT) and health information exchange (HIE) activities are identified and included in the scope of efforts to transform care delivery and outcomes through HIT and HIE efforts around the state. This environmental scan is a foundational document for both the Medicaid program and the state as a whole, and it reflects the foundation upon which the Colorado Statewide HIE Strategic Plan was developed in 2010. [The Department plans to conduct a more in-depth environmental scan of health care provider adoption of HIT and readiness for Meaningful Use during implementation of the SMHP, which will be provided in future updates to this plan.]

This assessment of the state's As-Is HIT Landscape provides an overview of adoption, systems, programs and initiatives as they exist today and includes a discussion of current and planned activities across state agencies and private sector partners to advance HIT and HIE across Colorado's health system.

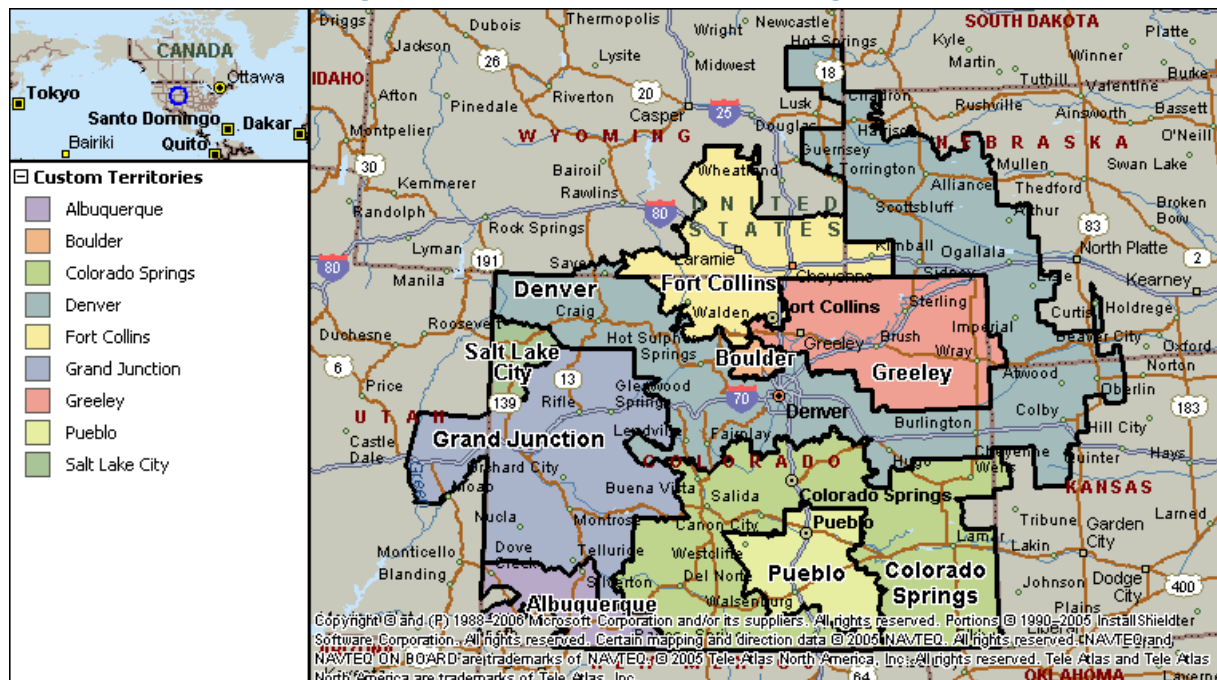
2.1. Environmental Scan

2.1.1. Health Care Market Assessment

Colorado has seven Medical Referral Regions (regions within which providers cross-refer patients to one another), which present natural boundaries for regional HIT initiatives. These regions include: Boulder, Colorado Springs, Denver, Fort Collins, Grand Junction, Greeley, and Pueblo.

Each of these distinct Medical Referral Regions has unique medical referral patterns, as well as unique cultures and relationships among parties. The Medical Referral Regions are a natural organizing unit for community-based health care and HIE because providers who cross-refer to each other have a vested interest in working together.

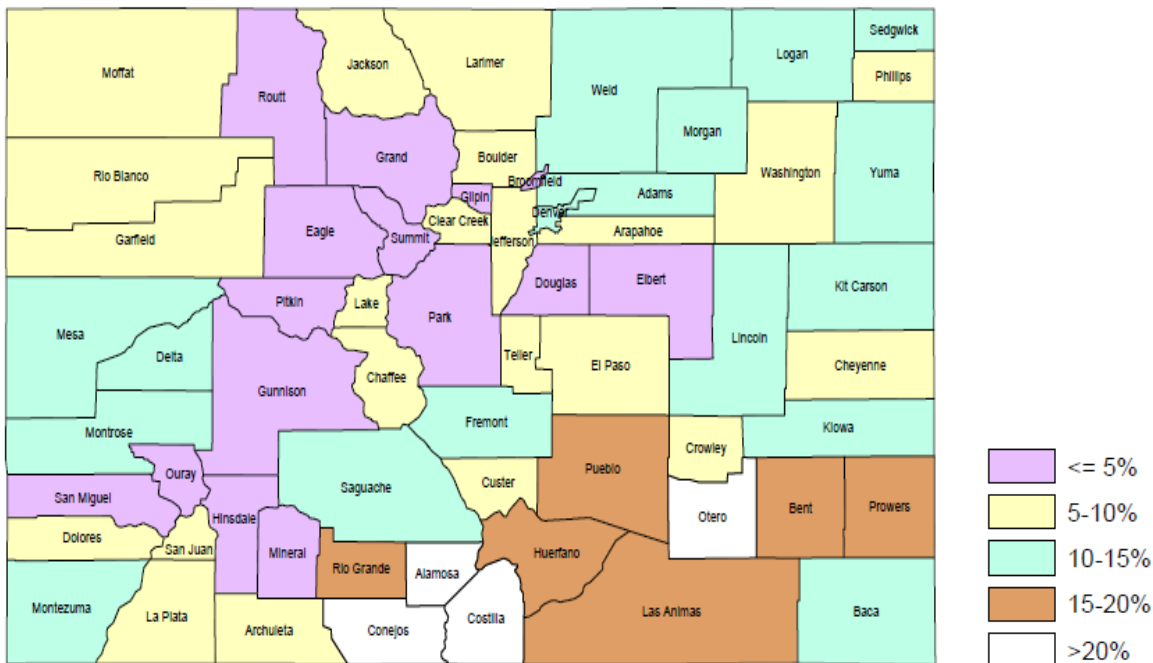
Figure 2.1: Colorado Medical Referral Regions



As depicted above, several of the Medical Referral Regions are large and cross state lines into Kansas, Nebraska, Wyoming and Utah. In addition, the Albuquerque Medical Referral Region crosses into Colorado, and there is a very small region in Colorado that is part of the Salt Lake City Medical Referral Region. Also of note is that the Medical Referral Regions tend to follow major highway systems. Boulder is unique in that it is very self-contained. Pueblo is also unique in that it is surrounded by the Colorado Springs Medical Referral Region. Ensuring that Colorado patients who travel for care in external regions, such as the Albuquerque region, or who live in the state’s rural frontier areas are not left behind is critical to successful implementation of HIT and statewide HIE, as is coordinating with neighboring states to ensure interoperability.

Colorado’s HIT and HIE environment appreciates the uniqueness of each Medical Referral Region and acknowledges that there are distinct cultures and communities in Colorado that affect how patients receive and how providers give care. For example, a few of the Medical Referral Regions have noticeably higher Medicaid enrollment than others, as is demonstrated in the map below. The Pueblo, Colorado Springs, Greeley, and Grand Junction regions have areas with particularly notable percentages of Medicaid enrollment.

Figure 2.2: Percent of Population Enrolled in Medicaid per Colorado County (2008-09)



Additionally, in 2009, Colorado Medicaid enrollees accounted for over 3,000 hospital visits in other states, with most occurring in New Mexico, Nebraska, Utah, and Wyoming and a smaller, but still significant, number in Arizona, Kansas and Texas. Doctor visits in other states were not nearly as common, with less than 100 total visits to out-of-state physicians in the same year.

HIT Adoption amongst Clinics, Safety-Net and other Medicaid Providers

There are 211 nursing facilities in Colorado. Of these, 207 are in the Colorado Medical Referral Regions and four are in the Albuquerque region. Eighty-eight of them (41.7%) are located in the Denver Medical Referral

Region. An informal survey of nursing homes across the United States indicates that approximately 20% have electronic capabilities.

There are fifteen Federally Qualified Health Centers (FQHCs) spread throughout the state serving all Medical Referral Regions. These FQHCs operate over 138 clinic sites in 35 Colorado counties and care for patients living in 55 counties. Thirteen of these facilities have or are implementing electronic health records (EHRs). The remaining two are using funds allocated through the HITECH Act to integrate EMRs across their clinics. In Colorado, the FQHCs have been actively seeking ways to encourage HIT adoption and are considered national leaders in this field.

Every Community Mental Health Center (CMHC) in the state has an EHR of one kind or another. Behavioral Health Organizations (BHOs) are managed care organizations that contract with the State to cover Medicaid mental health services. They are able to exchange health information with the CMHCs in their networks and are working to share with other community providers as well.

Additionally, there are 44 certified rural health clinics and 29 critical access hospitals. Rural providers face unique challenges in adopting EHRs and participating in HIE because of financial difficulties and a lack of reliable broadband capacity in many communities.

An example of how safety net providers in Colorado have pro-actively addressed the need for electronic synergies is the Northern Colorado Health Alliance (NCHA), an alliance of safety net providers that has created a community health record for the 40,000 clients it serves. The NCHA includes a local hospital, FQHC, and CMHC. In another example, Health TeamWorks (formerly the Colorado Clinical Guidelines Collaborative) has worked closely with the Colorado Medical Society and the physician community to reach out to physicians enabling them to use clinical guidelines and electronic tools to facilitate improved treatment, provide decision-support tools, and patient communication.

Indian Health Service, Tribal Providers, and Urban Indian Clinics

The Southern Colorado Ute Service Unit of the Indian Health Service, headquartered in the town of Ignacio, serves the Southern Ute and Ute Mountain Ute Tribes in an area that extends from the Utah and New Mexico borders into the interior Rocky Mountains. The Unit's ambulatory care services include medical, nursing, dental, optometry, nutrition, health education, community health nursing, mental health, social services, substance abuse, and environmental health services. General clinics are conducted according to a published schedule: well-child, chronic diseases, allergy, women's health, and podiatry. Pharmacy, Laboratory and Radiology services are all provided at each of the centers. The tribes offer Community Health Representative (CHR) programs funded by the IHS. Additional health care services, including in-patient and specialty care, are arranged via contracts with a variety of providers in neighboring areas, although both tribes have experienced access issues with regional health care providers not readily taking IHS patients.

Denver Indian Health & Family Services provides services for members of Federally Recognized Tribes who reside in the Denver metropolitan area. The primary care clinic is staffed with a full time nurse practitioner and a volunteer physician who provide medical services on a full time basis to tribal members in Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, and Gilpin counties. The clinic also provides access to regularly scheduled dental, diabetes, mental health and substance use treatment services.

Health Systems and Hospitals

Colorado has 80 hospitals across the state – metropolitan and rural, for-profit and non-profit, private and investor-owned, government-operated, teaching and critical access – that care for nearly 500,000 individuals each year. Of these, 78 are in the Colorado Medical Referral Regions and two in the Albuquerque region. Thirty-two of the 80 hospitals (40.0 %) are located in Denver. Reflective of the state’s large rural population, 45 of the hospitals (56.4%) have fewer than 100 beds and 26 have fewer than 25 beds. Six hospitals located in Denver and Colorado Springs have facilities with over 500 beds (7.5%). At least three health systems serve Coloradans in multiple Medical Referral Regions while many independent hospitals serve particular regions across the state. In 2007, Colorado hospitals recorded more than 9 million outpatient visits - including surgeries, home health care and emergency room visits. Hospitals provide more than 55,000 full-time equivalent jobs, with a combined payroll and benefits of more than \$3.3 billion.

From November 2008 through January 2009, the Colorado Hospital Association (CHA) conducted a survey of existing telecommunications infrastructure among Colorado’s hospitals. Over three-quarters of hospitals surveyed indicated they have an IT plan as part of their overall organizational strategic plan. This indicates that the majority of respondents recognize the importance of incorporating IT solutions into their business decision-making process. However, nearly 20% of respondents reported having no IT plan whatsoever. Successful statewide HIT adoption will depend on the robust participation of the state’s hospitals, both large and small.

Physicians

There are approximately 10,500 practicing physicians in Colorado. Practice sizes range from 1 to over 800. The largest practices are Kaiser Permanente of Colorado with 842 physicians and University Physicians, Inc., with 807 physicians. Together these two practices represent 15.7% of the physicians in the state. The largest 34 practices (25 physicians or more) represent 29.4% of the physicians in the state, and the largest 60 practices (17 physicians or more) represent 34.5% of the physicians in the state. This means that the remaining practices, representing 65.5% of the physicians in the state, have fewer than 17 physicians each.

To date, there is a significant amount of electronic adoption in the State, primarily among the largest practices and health systems, which have information technology support and access to capital. Many health systems have spent several years becoming electronic and are providing hospital portals and/or physician EHRs for their affiliated providers. Representative health systems and facilities that have developed or are considering such strategies include Boulder Community Hospital, The Children’s Hospital, Kaiser Permanente Colorado, and the HealthONE system. In 2007, Physician Health Partners, a physician group representing several physician IPAs and several hundred physicians, signed agreements with Centura Health and Exempla Healthcare to provide funding for physician EHRs in practices across the state. New West Physicians, a large independent group practice, has already adopted EHRs across all of its sites.

The above situation describes a very active environment in which more health care providers are becoming electronic and connecting to health systems and other community partners. However, this activity obscures the reality that there are many practices that are not yet electronic and face many barriers to becoming so. Nationally, only 18% of physicians in office-based practices report using an EHR. The same report also reports that adoption rates vary widely depending on the size and ownership of the practice. The national

adoption rate of a 2-4 person practice is 16% compared to an adoption rate of 29% for a practice with 10-19 physicians. The adoption rate is 39% for practices with more than 20 physicians. This is particularly impactful in Colorado because, as noted above, a large majority of the state's physician practices have fewer than 17 physicians. Practice ownership also impacts adoption. Compared with practices owned by physicians or physician groups, those owned by other health care organizations were twice as likely to have EHRs, and those owned by HMOs were three times as likely to have EHRs. Estimated costs of an EHR are \$40-50,000 per year per physician in the first year of adoption and \$10-\$20,000 ongoing. While these patterns are national, they appear to be reflective of Colorado as well.

Laboratories and Radiology

In many communities around the country nationally-owned laboratories and, to a lesser extent, radiology groups have moved quickly to establish direct data feeds to physician practices to gain a competitive advantage. As a result, some laboratories and radiology groups could see a state HIE as competition, but they could also see it as a low-cost solution to an expensive interface problem. CORHIO is actively pursuing participation agreements with the three largest reference labs in the state, LabCorp, Quest Diagnostics, Colorado Laboratory Services (formerly PAML). Participation in the HIE allows these labs to expand their lab results delivery service to future HIE participants, while decreasing implementation timelines and maintenance complexity for participants.

Medicaid and Other Payers

Approximately 84% of Coloradans are insured. Of these insured individuals, 57% are insured through employers, 9% through Medicaid, 9% through Medicare and 9% through another source. The Department of Health Care Policy and Financing (Department) now covers over 500,000 lives, and the State's caseload has been increasing dramatically due to the economic downturn and because of state and federal reforms expanding eligibility in the Medicaid and State Children's Health Insurance programs. Many of the largest insurers in Colorado have actively participated in HIE and other pilots, which is demonstrative of the collaborative and innovative climate amongst the state's health care stakeholders.

Fifty-seven percent of employer health plans are fully insured, 34% are self-insured and 8% are a blend. As of 2007, the largest health plans in Colorado were Anthem BlueCross/BlueShield, United Healthcare/Pacific Care, KaiserPermanente Colorado, CIGNA, and Aetna. Together they have commercial coverage (fully insured and self-insured) on 2,250,000 lives excluding Medicare and Medicaid.

Colorado Residents and Health Care Consumers

The Colorado State Demographers Office estimates that over 5 million people live in Colorado. Of those, 85% reside in thirteen of the sixty-four counties, mostly along the Front Range and in Mesa County near the Utah border. Together, those counties only represent 19% of the land mass in Colorado. The remainder of the population (15%) is dispersed throughout the state in mountain towns, in cities set deep in river valleys, and in farming communities on the Eastern Plains. To put this geographic diversity in perspective, the entire state of Rhode Island is the same size as the San Luis Valley in south-central Colorado. Similarly, driving from Denver to Durango in the southwest corner of the state requires a mountainous trek of 435 miles, while a trip from Washington, D.C., to Montreal is 592 miles.

In terms of demographics, about 26% of Coloradans are under 18 years old, while just over 10% are over 65. However, the projected annual growth rate for Colorado's elderly population is nearly five times higher than the growth rate for the child or working-age adult populations through 2020. This means that the elderly population in 2020 will be nearly twice today's population over 65. Colorado has one of the highest household income rates in the nation, with the median household income in 2008-2009 being \$38,393. However, approximately 19% of Coloradans live on incomes at or below 100% of the Federal Poverty Level (FPL), while about 40% live at or below 200% FPL.

Although estimates vary, about 17% of Coloradans are uninsured, which is similar to the figure of about 15% nationally. Approximately 56% of Colorado's uninsured are employed but either are not offered or cannot afford employer-sponsored insurance. In terms of utilization, over 90% of Coloradans report visiting a primary care physician in the past year, while just over 24% report having utilized an emergency room. Similarly, 76% of Coloradans utilize a doctor's office or private clinic as their usual source of care, with an additional 12% reporting community health centers or other public clinics as their primary care source. In addition, nearly 45% of uninsured Coloradans report deferring medical care due to cost, while only 18% of insured Coloradans report doing so.

It is expected that Colorado consumers attitudes toward HIT and HIE reflect the general public's attitudes in that the majority support HIT and HIE provided that these efforts strive to protect their health information using the most sophisticated privacy and security assurances available. Colorado consumers are most concerned about the use of health information by employers and insurers.

Through its involvement in the Health Information Security and Privacy Collaboration funded through the Office of the National Coordinator (ONC), the Colorado Regional Health Information Organization partnered with local organizations to explore both the Mexican immigrant community's interest and experience with HIT and HIE as well as chronic care as represented by the epilepsy community. In both cases, the findings in national studies were confirmed for these target populations in Colorado, indicating a strong willingness by consumers for not only their health care providers to be using HIT and HIE effectively, but that consumers, themselves, particularly in these subpopulations, are eager to use these health care tools to improve their care.

2.1.2. HIE Initiatives in Colorado

The Colorado Regional Health Information Organization (CORHIO) is Colorado's statewide HIE. Created in 2007, CORHIO serves everyone including consumers, employers, doctors, hospitals, nursing homes, pharmacies, home health agencies, health plans and local health information exchanges that are interested in improving the health of all Coloradans through the use of health information technology. CORHIO provides collaboration and convening services to communities and offers secure and confidential technical services. CORHIO is facilitating this work in many communities and became "live" in the first community in February 2011.

While the task of developing and coordinating a statewide health information network in Colorado is large, CORHIO is fortunate to have a firm foundation of local and regional HIE activity on which to build. This includes, among others, several clinic-based initiatives serving the underserved, quality initiatives, and hospital/physician data exchange aligned with referral patterns. In addition, there are several regions that

are considering establishing HIEs but have not yet done so. With the exception of the Quality Health Network noted below, most are small HIEs or are in the exploration and planning stage.

There are also other significant health care initiatives and organizations forming and operating that have a high level of interest in making health care data available to improve the quality of health care. They include, among others, the Colorado Hospital Association's patient safety initiative including both a website that compares quality indicators for all hospitals in the state as well as the incubation of a regional patient safety organization; the Center for Improving Value in Health Care (CIVHC), an interdisciplinary, multi-stakeholder entity created by the Governor to identify and pursue strategies for quality improvement and cost containment; the Colorado Telehealth Network (CTN), a statewide fiber-optic network connecting nearly 400 hospitals, clinics and other health care providers to enable sharing of critical medical information and communication over large geographical distances; the Colorado Health Institute, an independent information clearing house and policy research and analysis organization; the Colorado Foundation for Medical Care, the Medicare-designated quality improvement organization; COPIC, a medical liability insurance company that offers programs to physicians to improve their care outcomes; and the Colorado Department of Public Health and Environment that houses many registries that practices would find beneficial for better serving their patients if they were accessible.

Quality Health Network (QHN) is the Health information Exchange that has been electronically delivering results for western Colorado for more than five years. It serves the western 20 counties that occupy nearly 40,000 square miles of western Colorado. The medical trade area of western Colorado supports nearly 465,000 residents through its 18 hospitals and community and public health centers. Behavioral Health is also integrated with QHN, comprising three large multi-site and county systems that cover most of western Colorado. QHN currently has more than 600 providers enrolled in its network, plus an additional 2,500 support staff. Their expansion plan will soon connect together all 1,000 physicians and all hospitals in the region. This growth project extends connectivity to all western slope providers and facilitates the clinical integration of areas in order to help improve patient care.

Other limited HIEs of note are the Northern Colorado Health Alliance and the Avista Integrated Physician Network, which provide more limited functionality to a subset of Medical Referral Region providers. The Northern Colorado Health Alliance is comprised of three safety net providers in Weld County including the Weld County Public Health Department, Sunrise Community Health Center (a federally qualified health center) and North Range Behavioral Health Center. These three organizations share a community health record to serve their common patients.

The Children's Hospital has also implemented a community electronic health record called PedsConnect to over ten community practice provider locations across Colorado, as well as offered CareEverywhere, an Epic-to-Epic HIE between Children's, Kaiser Permanente Colorado, and Exempla Healthcare.

Functional since 2006, the Avista Integrated Physician Network (Avista iPN) is a physician-driven initiative supported initially through a grant from the Health Resources and Services Administration (HRSA) and the commitment of area health care providers to better serve the underserved in the Boulder area. By creating a complete longitudinal patient record, Avista iPN allows participating providers to immediately access and share patient data across EHR systems in the local FQHC, local hospitals, and many private physician

practices. Colorado Access – a Medicare, Medicaid, and CHP+ HMO – and the local public health department are also integrally involved.

Health TeamWorks and Colorado Associated Community Health Information Exchange (CACHIE) are both statewide quality initiatives that benefit from an HIE to facilitate quality improvement in clinical care. Health TeamWorks provides a disease registry, patient portal and clinical messaging system to 88 practices and 1,000+ users.

CACHIE, an initiative of the Colorado Community Managed Care Network, is building a data warehouse to manage and monitor quality performance for FQHCs and other safety net clinics. Funded through the ARRA Health Center Integrated Services Development Initiative at HRSA, CACHIE is building the technology and infrastructure for Colorado's FQHCs to: 1) develop interoperable EHR technology allowing data from diverse systems to be exchanged and reported for clinical quality purposes and the development of best practices; 2) pursue a financial sustainability model for EHR and other HIT innovations through pay-for-performance and other compensation arrangements enabled through the reporting of electronic clinical data; and 3) assist FQHCs that are still in the planning and pre-implementation stages of EHR development to expedite the process. CACHIE also received ARRA funding for a quality improvement project to specifically address immunizations as a clinical focus to improve immunization rates for FQHC patients two years of age and under. This project will utilize data from the existing CACHIE program to strengthen established immunization activities by using EHR data to improve patient health outcomes.

Currently, CORHIO engages with neighboring states on a regular basis. This relationship is continuing to evolve as the business needs for sharing health information across state lines grows. CORHIO analysis indicates that significant numbers of patients receive care in Colorado from Wyoming, Nebraska and Utah. Smaller numbers of patients from Colorado seek care in Kansas and New Mexico.

Alignment between technology capabilities and policies across state and federal levels are facilitated through the National Governors Association e-Health Alliance, The Statewide HIE Coalition, as well as independent efforts. As an example, CORHIO facilitated a meeting among the western states in May 2010, to discuss needs among the western states for implementing health information exchange so that common needs can be addressed by common solutions. CORHIO and its partners in neighboring states anticipate that after HIE is achieved in each state, laying the foundation and implementing interstate exchange will be the next step. All states in the region are committed to using national standards to support interoperability and will be able to leverage the Nationwide Health Information Network (NWHIN) to facilitate interstate exchange. A key component in the May 2010 discussion was strategizing how HIE and Regional Extension Center activities can facilitate providing low cost EHR solutions that include e-Prescribing to all providers. States participating in this effort included Colorado, New Mexico, Utah, Wyoming, Idaho, Nebraska, as well as regional exchange providers including Santa Cruz in California and Quality Health Network in Western Colorado.

2.1.3. Impact of Broadband Access on Provider Adoption of HIT and HIE

The lack of broadband access in Colorado's rural and mountainous areas presents a particular challenge for HIT adoption and HIE. Because of Colorado's mountainous terrain, construction of wireless and terrestrial facilities to facilitate high-speed internet connectivity can be economically infeasible. However, the Governor's Office of Information Technology is working intensely to analyze gaps in service and deploy

broadband and other telecommunications services to health care providers throughout the state, in support of HIT and other uses. The Colorado Telehealth Network and the Colorado Behavioral Healthcare Council are leveraging significant grant funding from the Federal Communications Commission to deploy broadband connectivity to hospitals and behavioral health providers for purposes of telemedicine and improved communication. The Colorado Broadband Data and Development Program within the Governor's Office of Information Technology is mapping statewide broadband availability and prioritizing connections between county seats of government and other local institutions.

Additionally, Colorado has received ARRA broadband funding to help meet some of the state's last-mile connectivity challenges. EAGLE Net (Educational Access Gateway Learning Environment Network) was awarded over \$100 million in ARRA funds to bring broadband service to school districts, libraries, and community anchor institutions across Colorado. The Nunn Telephone Company in north central Colorado is utilizing ARRA funding to bring broadband access to the 200 businesses and 1,000 residents it serves. The Peetz Co-operative Telephone Company is now deploying broadband infrastructure in the northeastern corner of the state, connecting anchor institutions within the remote, underserved farming community along the Wyoming border to necessary distance learning and public safety applications. In addition, the Wiggins Telephone Association was also awarded broadband funding to construct fiber-to-the-premise networks in the rural areas of northeastern Colorado.

2.1.4. Prospects for Participation in Statewide HIE

Colorado's prospects for participation in statewide HIE are strong, buoyed by growing levels of health care provider adoption of HIT and a wealth of existing HIEs throughout the State. The value proposition for participation by Medicaid, health systems and other stakeholders in statewide HIE is multi-faceted and includes improving quality by reducing redundant testing, improving timely and accurate care, and potentially providing data for analytics. There is also a business incentive; most health systems will benefit from moving from paper to electronic transactions when communicating with providers and patients as well as from reducing the number of costly interfaces required to make those electronic connections. Above all other considerations is the potential for broad health information exchange to serve as a means for delivering higher quality, more cost-effective care. Building out a statewide HIE will be particularly beneficial in efforts to better coordinate and integrate health care services, breaking down traditional barriers that obstruct the provision of comprehensive and effective care and possibly increasing access to these important services.

Health systems are essential to participation to achieve sustainability in a statewide HIE. Large health systems set the benchmark for financial participation by the other systems. Yet, frequently, it is smaller hospitals in rural regions that can be the most energized by the prospects of interoperability. Four health systems in Denver participated in the Point of Care Demonstration pilot completed by CORHIO and funded by the Agency for Healthcare Research and Quality. This demonstration offered a tremendous start in Colorado for establishing a robust set of policies, procedures and data sharing agreements that can be updated over time, offered a thoughtful review of how an effective electronic master patient index should operate and provided experience to multiple partners on the benefits and limitations of national standards in implementing HIE.

Participation with Federal Care Delivery Organizations

Because Colorado HIE is planning to leverage the Nationwide Health Information Network and other national standards, connection with the Veterans Administration, the Department of Defense and the Indian Health Service will be achieved through this national network. Other state-level HIEs (for example, Utah Health Information Network, MedVirginia, Indiana Health Information Exchange, New Mexico Health Information Collaborative) are currently conducting pilot projects with these federal agencies to demonstrate the opportunities, challenges and process for interfacing between the national network, federal systems, and state HIEs.

2.1.5. State Collaboration and Coordination

Collaborative HIE Governance Model

CORHIO is a public-private nonprofit with strong and active state government collaboration. In April 2009, former Governor Ritter issued Executive Order D 008 09 designating CORHIO as the state-designated entity to advance appropriate and secure health information exchange across the health care system. Within the Executive Order, he recognized CORHIO's broad stakeholder representation reflecting statewide perspectives from across sectors and interests including consumers, providers, health plans, government agencies and experts in health care quality, value and information technology. He also recognized the significant role that CORHIO continues to play as the statewide community collaborator and convener and the significant experience that can be leveraged from the outcomes of the Quality Health Network and CORHIO's Point of Care Inquiry demonstration project that allowed The Children's Hospital, Denver Health, Kaiser Permanente Colorado, and the University of Colorado Hospital to share medical information in a secure fashion.

Colorado is a state where collaboration is vitally important to many of our health care successes. The state's model to facilitate HIE adoption leverages work that already is being conducted across the state so that all communities and stakeholders can benefit from HIE and HIT in a way that best serves patients and allows for solid adoption and operations strategies.

CORHIO's Board of Directors represents a multi-stakeholder membership and a broad base of support from across Colorado for these efforts. The CORHIO Board of Directors includes active participation by:

- Governor cabinet-level appointees for: the Colorado Department of Health Care Policy and Financing, the state's administrative agency for Medicaid and the Children's Health Insurance Program; the Colorado Department of Public Health and Environment, the state's public health agency; the Governor's Office of Information Technology; and the Division of Insurance;
- Health care providers and associations including the Chief Executive Officers of: The Children's Hospital; the Mental Health Center of Denver; the Colorado Behavioral Health Council; the Medical Group Management Association; the Colorado Medical Society; the Colorado Hospital Association; the Weld County Department of Public Health; and Clinica Campesina, an FQHC;
- Colorado's health plan community, including the Chief Executive Officers of Kaiser Permanente Colorado and UnitedHealthcare;
- The Executive Vice President of COPIC, a medical liability insurer;
- The Executive Director of the Colorado Consumer Health Initiative, a consumer advocacy organization;
- Local health information organizations, including the Chief Executive Officers of: Quality Health Network; and Northern Colorado Health Alliance;

- Health care purchasers and employers, including the Chief Executive Officers of the Berkowitz Firm and Alumni Consulting Group International as well as a partner at Brownstein, Hyatt & Farber;
- Senior Program Director for the National Academy for State Health Policy;
- Organizations that focus on quality, including the Chief Executive Officers of Health TeamWorks, the Colorado Foundation for Medical Care and the Colorado Health Institute;

The CORHIO Board of Directors is responsible for setting the strategic direction of the statewide HIE, including establishing goals, objectives and performance measures. The strategic direction is communicated through the Statewide Health Information Exchange Strategic Plan and progress is tracked by CORHIO staff and reported quarterly to the CORHIO Board.

Medicaid Collaboration with HIT / HIE Initiatives

The Department of Health Care Policy and Financing (Department) has been involved at a leadership level since the inception of the state's discussions around HIE and HIT development and strategic planning. The Executive Director of the Department is a member of CORHIO's Board of Directors and served as Board Chair through 2010. The State HIT Coordinator and the Governor's Office of Information Technology are currently undertaking a state HIT strategic planning process, and Medicaid is an integral member of the committee advising this effort. Additionally, former Governor Ritter created through Executive Order an Interagency Health Reform Implementing Board to coordinate and direct the state's activities to comply with state and federal health reform requirements. The Department's Executive Director also chairs this interagency board, further helping to ensure collaboration and integration in the development and implementation of state health programs.

As discussed in the To-Be HIT Landscape section below, the Department intends to leverage CORHIO's statewide HIE infrastructure to provide Medicaid patients and providers with needed medical information to improve quality of care and reduce program expenditures. For example, among other activities, the Department plans to coordinate with CORHIO to:

- Improve administrative ease for providers and patients;
- Facilitate HIE to improve health care outcomes;
- Improve business intelligence capabilities; and
- Facilitate clinical decision support at the point of care.

The Department created an HIT Strategic Planning Committee, made up of senior program and IT directors and the State HIT Coordinator, that has been working with CORHIO to develop this (SMHP), integrating the state's larger statewide HIE plans and visioning efforts and triggering revisions to CORHIO's Strategic Plan as necessary. Through this process the HIT Strategic Planning Committee is also assessing how to coordinate the State's Medicaid EHR incentive program funding with existing Medicaid health IT initiatives, including those related to Medicaid Management Information Systems (MMIS) and Medicaid Information Technology Architecture (MITA), to leverage progress that has already been made in those areas.

Interoperability with Public Health

As required by Executive Order, the Department is working with the Colorado Department of Public Health and Environment (CDPHE) on electronic vital statistics information transactions for purposes of determining eligibility for Medicaid and other public insurance programs. Prospective Medicaid enrollees are required to

provide proof of citizenship, which the clients most frequently have to access through CDPHE and pay a \$25 administration fee to obtain hard copies that are in turn delivered to Medicaid eligibility determination sites. This is not only an inefficient use of state resources; it also creates an avoidable barrier to enrollment because of the cumbersome and relatively expensive process required. Through implementation of this Executive Order, the Department and CDPHE are building an interface to allow eligibility determination staff to electronically access vital statistic records, thus removing this as a burden and possible barrier to entry for prospective enrollees.

In addition to the vital records interface with the Department, CDPHE is working with CORHIO to build interoperability for public health data transmission and collection important to the goals of Meaningful Use and overall population health. CORHIO's technical team is currently working with CDPHE to identify priorities for statewide HIE and supporting Meaningful Use. The initial focus of these efforts include: electronic newborn screening orders and results delivery, electronic submissions of immunizations to the state registry from provider EHRs, and electronic submission of reportable conditions to the state registry. CORHIO and CDPHE have identified pilot initiatives to begin testing this work in hospitals and physician offices throughout 2011. Longer-term priorities are being mapped out, including streamlining processes for public health alerts and information and simplifying the recording and reporting of vital statistics, disease incidence and burden, and biological and environmental testing. As the process and resource needs for building interoperability between CORHIO and CDPHE are clarified, it is anticipated that the Department will work with these organizations to ensure alignment with Medicaid, the Centers for Medicare and Medicaid Services (CMS) and ONC priorities and secure allowable federal financial participation (FFP) to facilitate these public health components of HIE. The strategies and process to pursue these initiatives are discussed later in the To-Be HIT Landscape section of this SMHP and will be developed in more detail through future iterations and updates.

Regional Extension Center and Other ARRA-Funded Initiatives

In addition to being the State Designated Entity for HIE, CORHIO is also the lead agency for the Colorado Regional Extension Center (CO-REC). The CO-REC Director, a CORHIO employee, is responsible for the day-to-day management of the program. The CO-REC is organized by the principle that in-office expertise and relationships are already developed in many different organizations serving the priority primary care provider community, and six of these organizations serve as CO-REC partners in providing assistance to get these providers to Meaningful Use. The program is also built to align the CO-REC efforts with the statewide efforts for developing HIE to accommodate roll-out across the state. These synergies are producing a more effective use of funding across the educational and technical aspects and assuring providers can reach Meaningful Use through an EHR. As described later in this SMHP and in the discussion of Medicaid's EHR Incentive program roadmap, the CO-REC's expertise and established relationships with providers will be leveraged to make the program as efficient and effective as possible.

Bellevue College is the lead agency for the Region A Community College Consortium to Educate Health IT Professionals. The Region A Community College Consortium is composed of eight member colleges, including the Pueblo Community College in Southern Colorado. Each of the eight member colleges has committed to producing 300 graduates in certificate programs and to assist those individuals in securing and retaining employment. The Region A consortium views the Regional Extension Centers and Health Information Exchanges as the underpinning of employer connection with ONC funded training and job placement for

program graduates. This interrelationship will have a high profile with the goal of compounding the effect of parallel funding and assisting learners to job placement and retention in the workforce. The CO-REC is currently collaborating with the Consortium to identify staff in practices that may not have the skills needed to move from paper-based chart systems to EHRs. As the CO-REC works with these practices to implement EHRs and achieve Meaningful Use, individuals from the community college programs will be recruited to promote the successful transformation to an electronic health record system.

Funded through the Program of Assistance for University-Based Training, the Colorado Health Information Technology Education Collaborative's (HITEC) goal is to expand and integrate existing educational programs at the University of Colorado Denver to prepare a workforce of 155 professionals that are capable of serving as Clinical Leaders, Health Information Management and Exchange Specialists or Health IT Sub-specialists and Health Care Informatics Research and Development Scientists. This expansion combines faculty and existing coursework from the College of Nursing, Schools of Medicine, Pharmacy, Public Health, Dentistry and Business. The Colorado HITEC provides accessible interdisciplinary learning opportunities that will lead to one of three one-year certificate programs or a two-year graduate degree in health care informatics. Recruitment efforts include formation of partnerships with key organizations to ensure that 25% of graduates represent critical access or state designated disproportionate share hospitals and 25% represent certified rural health clinics and federally designated community health clinics. The Colorado HITEC has the necessary educational infrastructure to provide accessible interdisciplinary learning opportunities through distance learning modalities and has a high ratio of graduates across the three grant years. The Colorado HITEC combines a strong qualified faculty in health care informatics, health IT, health administration, and business with a robust network of health care institutions, public health, CORHIO, Quality Health Network and the business community. CORHIO is currently working with the University of Colorado, Denver, to identify students in the interdisciplinary program to assist in state data normalization and mapping activities as part of their course project activities.

Colorado's Western Slope has received a BEACON Grant from the ONC. The Colorado Beacon Consortium (CBC) is a cooperative, community-based partnership of Colorado health care organizations that has been awarded \$11.8 million to achieve the following objectives:

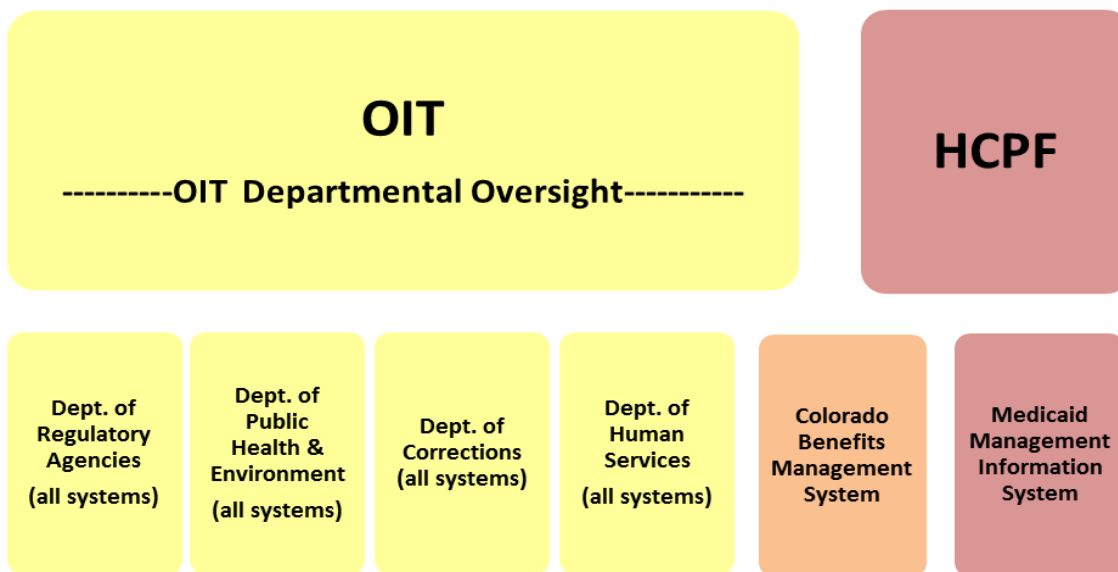
- Infrastructure Expansion - The CBC will demonstrate how EHRs and HIE systems can be implemented and adopted rapidly by physicians, hospitals, federally-funded clinics, public health agencies, and other critical community providers.
- Patient-Centered Care - The CBC will demonstrate how HIT can be used to create a more efficient, collaborative and patient-centered system of care across multiple provider types, locations, and functions.
- Monitoring, Evaluation and Outcomes - The CBC will demonstrate how community HIT assets and collaborative partnerships can be utilized to focus specific, measurable Cost, Quality and Population Health objectives.

CBC partners will utilize HIT to provide actionable data and feedback to each other throughout the demonstration and support an independent, external evaluation of outcomes by the ONC across all demonstration projects. The EHR adoption rate in the Beacon 7 counties is currently 29% among the Primary Care Providers. At the conclusion of the Beacon initiative, the adoption of electronic health records is expected to double. These outcome numbers are significantly greater than the rest of the country. QHN will

hold a strong presence in this project as HIE is a building block for the HIT connections within Colorado. CORHIO expects to provide support for the CBC by assuring interconnectivity between the Western Slope and needed tertiary services in the Denver Metro area. The Department will also work in collaboration with the CBC as its work impacts Medicaid providers and beneficiaries. The lead Consortium member, Rocky Mountain Health Plans, has served Colorado Medicaid clients since 1974 and has a history of close collaboration with the Department and other state agencies.

State HIT Coordinator

The State HIT Program Director resides within the Governor’s Office of Information Technology, the state’s central coordinating and administrative agency for IT policy, programs and initiatives, reports to State Chief Information Officer, and is responsible for building the State Health IT Strategic Plan in coordination with the Governor’s Office, state agencies, and CORHIO. The Colorado Governor’s Office of Information Technology (OIT) has been actively involved in HIT since 2007. OIT is responsible for performing HIT coordination among Colorado departments for infrastructure systems, strategic planning, data governance, operational support, technical expertise and vendor contracting related to Colorado’s HIT initiatives and has oversight to all IT systems in departments with qualifying HIT programs.



The State HIT Program Director also functions as the Health IT Coordinator, as required by the HIE Cooperative Agreement Grant Program. The State HIT Coordinator has two primary roles. One is to develop and advocate for an effective HIT policy, governance, and accountability to achieve statewide goals. The second is to coordinate state HIT efforts with Medicaid, Public Health, and other federally funded programs so that they are aligned with CORHIO for a unified approach to building a state-level HIE. To fulfill these responsibilities, the State HIT Coordinator has established a functional advisory group of key leaders across the state’s health and human services related programs. The HIT Coordinator has led efforts to define HIT for the State in order to provide the framework to describe the management of health information, including the secure exchange between consumers, providers, government and quality entities, and insurers. Together, they are developing a State Health IT Strategic Plan through three principal phases: a) conduct a current state

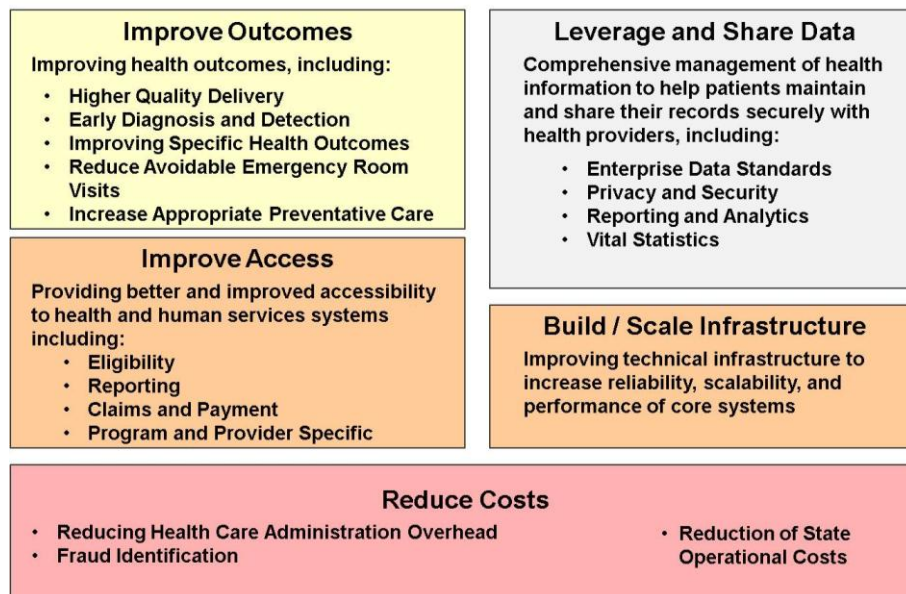
assessment, b) produce a shared future vision and c) create a state enterprise and interoperability plan that effectively leverages State IT assets and enables statewide HIE capacity.

2.2. State Health IT Strategic Plan: Assessment of Current State Systems

The first phase of the State Health IT Strategic Plan – the Current State Assessment – was completed in September 2010 and included a comprehensive inventory of State assets, programs and projects, identification of funding sources, roadmap of state and federal legislation and policy, and identification of issues, risks, and questions. This Current State Assessment provides state leaders the foundation needed to begin discussions of a shared vision for HIE implementation supporting Meaningful Use, health care reform, and the pathway to success. The Current State Assessment is an inventory of state-owned systems and initiatives and is complementary and parallel to environmental scan activities to be conducted under this SMHP to better assess health care provider adoption of HIT and readiness for Meaningful Use.

All identified programs, projects, and systems in the Current State Assessment were qualified against five criteria to establish the State HIT Portfolio. Qualifying HIT programs are defined as health and human service policies and/ or initiatives which require technology, supporting systems, or access to data and which meet one of the qualifiers identified in figure 2.3 below.

Figure 2.3: State HIT Portfolio Qualifiers



The following sub-sections detail the functional and data programs, projects, and systems identified in the assessment by health and human services-related departments on a department-by-department basis, including: Office of Information Technology (OIT), Colorado Benefits Management System (CBMS), Colorado Department of Health Care Policy and Financing (the Department), Colorado Department of Human Services (CDHS), Colorado Department of Public Health and Environment (CDPHE), Department of Corrections (DOC), and Department of Regulatory Agencies (DORA).

Governor’s Office of Information Technology (OIT)

OIT is making significant investments in broad technology initiatives, which will have impact on the overall HIT strategy for the State. These wide-ranging initiatives include the following critical initiatives:

- ARRA HITECH Coordination and Current State Assessment
- Data Governance Strategy
- Client Data Matching
- Broadband Mapping
- GIS Program Coordination
- Enterprise Governance
- Early Childhood Universal Application

OIT is also making critical improvements for ensuring sufficient bandwidth for the Colorado Department of Public Health and Environment (CDPHE) as indicated below and will support health care by improving the infrastructure over which health information is shared, providing the framework to facilitate access to this data, and leveraging shared data capabilities for departments with HIT initiatives.

Office of Information Technology (OIT) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status
Network Bandwidth Capacity Improvements	Improvement of bandwidth for Medicaid Fiscal Agent for daily processing. Improvement of bandwidth capacity for CDPHE.	Contracting for bandwidth complete, scheduled for installation.

Governor’s Office of Information Technology: Colorado Benefits Management System (CBMS)

In 2009, OIT was assigned management responsibility for the CBMS system. CBMS is an eligibility determination system that supports programs administered by the Department of Human Services and the Department of Health Care Policy and Financing. CBMS incorporates eligibility determination for Medicaid, Food Assistance, Colorado Works, Adult Financial Assistance, and the Children’s Basic Health Plan, including case management functions such as work programs.

CBMS is undergoing the following upgrades and enhancements:

Colorado Benefits Management System (CBMS) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status

Colorado Benefits Management System (CBMS) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status
CBMS Program Eligibility and Application Kit (PEAK) Phase 2	Expansion of the self-service web portal that will allow application submission for CBMS programs as well as the ability for clients to manage their information.	PEAK Phase 1 was operational in October 2009. Phase 2 was operational in May 2011 with the launch of two additional modules for citizens to apply for benefits and report changes to their eligibility application information.
CBMS Intelligent Data Entry (IDE) or CBMS Web	This project improves the caseworker interface and has a positive business case for application processing improvements by reducing the amount of time and effort required to process applications.	In development
CHP+ Enrollment Spans Migration	Technical upgrades of key platform components for CBMS, including data and application servers. This initiative is designed to improve current capacity and performance of the system for how data from CHP+ spans is shared between the CBMS and MMIS systems.	The Department of Health Care Policy and Financing is finalizing an APD to seek CMS approval for this project. CMS approval is expected in June 2011. Implementation is scheduled for early 2012.

Health Care Policy and Financing

The Department provides key business functions across the state enterprise through the Family Medicaid Program, Children’s Health Plan Plus (CHP+), Colorado Indigent Care Program, long term care services, and is the lead agency for health reform implementation and initiatives in Colorado. These programs are run through a few key systems: the Department’s MMIS where data on Medicaid and CHP+ clients resides and claims data is processed, the MMIS DSS (Decision Support System) which is the data warehouse for all claims, the Colorado Benefits Management System (CBMS) which handles eligibility and enrollment for public financial and health assistance programs, including data storage. The Department has recently completed a competitive procurement and awarded a contract for a Medicaid reform system called the Statewide Data and Analytics Contractor (SDAC) that will function as a data warehouse for accountable care organization claims and conduct advanced analytics and reporting on the data in an effort to support providers in delivering better coordinated, more effective care through new and innovative managed care and primary care medical home models. Each of these systems has a series of initiatives underway that were qualified against the five HIT definition criteria used to create the HIT Portfolio for the agency. The initiative, brief description, relevant legislation/policy and status of each are depicted in the table below:

Colorado Health Care Policy and Financing – Qualified HIT Initiatives

Key Strategic Initiative	Description	Status
Pharmacy Automatic Prior Authorization (PA)	Automatic PA will reduce the decision time for approving all pharmacy and physical/dental services requiring prior authorization.	The contractor was selected and will be implemented in Fall of 2011 by the Department’s Fiscal Agent (Affiliated Computer Systems or ACS).
Department Web Portal Re-Procurement	Procure a maintenance and operations contract for the Provider web portal for Medicaid.	The Requests for Proposal is under internal review. The Department is considering various options due to the necessity to implement HIPAA 5010 compliance by January 1, 2012. HCPF has submitted an APD to CMS for approval to extend the current contract with CGI to allow the HIPAA 5010 implementation to begin sooner. HCPF is anticipating CMS approval to extend in the Summer of 2011.
MMIS MITA	The Medicaid Information Technology Architecture (MITA) framework provides a roadmap for states to transform their MMIS environments. MITA is a CMS initiative that is intended to foster integrated business and IT transformation across the Medicaid enterprise to improve the administration of the Medicaid program	The Department of Health Care Policy and Financing intends to complete and submit the state self-assessment to CMS in December 2011. An RFP was issued in early May, responses are due mid July 2011.
Accountable Care Collaborative	Designed to transform the current Medicaid fee-for-service business model to a coordinated care model using a Regional Care Collaborative Organization structure.	The procurement process was completed for 7 regional contractors to be Regional Care Coordination Organizations (RCCOs). The first phase was operational in May 2011. Second Phase is expected to be implemented by July 2011.
Statewide Data Analytics Contractor (SDAC)	Analytical entity for the Accountable Care Collaborative that will provide detailed reporting and analytics based on MMIS claims data to support regional contractors and providers in reducing costs and improving outcomes.	A competitive procurement process was completed and a contract was awarded to Treo. The contractor is expected to be operational by Summer 2011.

Colorado Health Care Policy and Financing – Qualified HIT Initiatives

Key Strategic Initiative	Description	Status
Eligibility Modernization systems interfaces	Creation of interfaces between the Department and Department of Revenue, Income and Eligibility Verification System (IEVS) and Social Security Administration.	IEVS implementation underway. Other interface requirements are being defined.
Enrollment Strategic Assessment	Funded by The Colorado Health Foundation, the assessment will identify options for improving health and human services program enrollment metrics. This will include assessing various options including auto-enrollment, future impacts of national health care reform, coordination with the developing health insurance exchange, MMIS modernization, etc.	The Enrollment Strategic Assessment was completed in February 2011. This resulted in the hiring of an Eligibility Verification Enrollment (EVE) Coordinator, Jim Jones. In this role, he will support the State in the planning and implementation of the Colorado Health Benefits Exchange.
Colorado Health Care Affordability Act (HCAA)	<p>The HCAA implemented a Hospital Provider Fee that provides funding to expand Medicaid coverage for an additional 100,000 Coloradans.</p> <p>Relevant legislation: House Bill 09-1293</p>	<p>First phase completed. To date, the HCAA expansions have allowed 27,000 Medicaid parents, 3,300 CHP+ children, and 230 CHP+ pregnant women to enroll in health care coverage.</p> <p>Additional expansion populations are scheduled as follows:</p> <ul style="list-style-type: none"> • Buy-In Programs for People with Disabilities: Summer 2011 • Benefits for Adults without Dependent Children: Early 2012
National Correct Coding Initiative (NCCI)	<p>Implementation of the National Correct Coding Initiative into the MMIS in accordance with federal legislation.</p> <p>Relevant legislation: Patient Protection and Affordable Care Act (PPACA)</p>	States must submit an Advanced Planning Document (APD) to CMS no later than March 1, 2011 providing a list of edits for deactivation. This list of deactivated edits is updated to CMS quarterly.
HIPAA 5010 Compliance	<p>Modification of current ANSI X12N and NCPDP HIPAA transactions to the newest versions, as mandated by federal regulation.</p> <p>Relevant legislation: HIPAA 5010</p>	The Department’s Fiscal Agent is currently developing a gap analysis and remediation plan. Completion date is January 1, 2012.

Colorado Health Care Policy and Financing – Qualified HIT Initiatives

Key Strategic Initiative	Description	Status
HIPAA ICD-10 Compliance	<p>Implementation of a new diagnosis and hospital procedure code set, as mandated by federal regulation.</p> <p>Relevant legislation: HIPAA ICD-10</p>	<p>The Department’s Fiscal Agent is currently developing a gap analysis and remediation plan. Completion date is October 1, 2013.</p>
Network Bandwidth Capacity Improvements for Health Care Affordability Act	<p>Improvement of bandwidth between the Department’s Fiscal Agent and the Department for daily operations and data analysis.</p>	<p>Pricing options to increase the bandwidth are complete. The Department is finalizing an APD to seek CMS approval for this upgrade. CMS approval is expected in February 2011.</p> <p>Pricing options to increase the bandwidth are complete. The Department is finalizing an APD to seek CMS approval for this upgrade.</p>
Interagency Health Care Reform Implementation	<p>Interagency Board meets monthly to address grants and implementation issues.</p>	<p>Legislation establishing health insurance exchange passed and signed by Governor. Board appointments will be announced on July 1, 2011 and the board will convene on July 11, 2011.</p> <p>The implementation plan, Implementing Health Care Reform: A Roadmap for Colorado was completed and published in December 2010. Find it at: www.colorado.gov/healthreform</p>
All Payer Claims Database (APCD)	<p>Compile claims data from public and private insurance to support health care cost and quality analysis at state level. <i>Owned by CIVHC.</i></p> <p>Relevant legislation: House Bill 10-1330 (Creation of an All-Payer Database)</p>	<p>An Advisory board was appointed in August 2010. APCD required to be operational no later than January 1, 2013. Opportunities to align APCD initiative and claims data with HIE functionality and clinical data were explored and CIVHC and the APCD Advisory Committee submitted report to legislature and governor in March 2011.</p>

CDPHE is committed to protecting and preserving the health and environment of the people of Colorado and provides key health programs such as: vital records and statistics, health registries, health facilities and emergency medical services oversight, emergency preparedness and response services, prevention services, nutritional services, disease and epidemic control, state laboratory management, pregnancy risk assessment monitoring, and behavioral risk factor surveillance.

These programs rely on data and the many systems that collect, store and analyze this data for practical application to serve Colorado's public health needs. Specifically the systems include the following data sets:

- Colorado Vital Information System (COVIS) is used to maintain and manage vital records data.
- Colorado Immunization Information System (CIIS) provides consolidated immunization information
- ARIES provides tracking data on alcohol and drug abuse within HIV populations
- Newborn Evaluation Screening & Tracking (NEST) provides newborn hearing and lab results
- Patient Reporting Investigating Surveillance Manager (PRISM) provides surveillance and case management of STIs, HIV and viral hepatitis
- Electronic Lab Repository provides reports from private labs for reportable diseases
- Laboratory Information Tracking System (LITS) Plus is a stand-alone CDC built system that maintains chemistry, microbiology, and toxicology lab reports
- Colorado Response to Children with Special Needs maintains birth defect data
- Colorado Electronic Disease Reporting System (CEDRS) - disease reporting system
- In addition, the following specific tracking registries provide data on the following communicable diseases: eHARS (HIV and AIDS); TBdb (tuberculosis); Viral Hepatitis; Prenatal Hepatitis and Hepatitis-B in pregnant women; Elevated Lead
- Refugee Case Management Data – from refugee health clinics
- Outbreak Management – disease outbreak data
- Cancer Registry – treatment summary and care plan for cancer survivors; cancer case tracking and trending
- State Providers of Immunization Data Repository (SPIDR) - immunization system provider tracking
- Clinical Health Information Records of Patients (CHIRP) - EHR for children with special needs
- Colorado Children and Youth Information Sharing (CCYIS) - information sharing between children and youth serving agencies at state and local levels

The CDPHE initiatives detailed in the table below represent HIT AND HIE efforts beyond data collection and maintenance and include system interface development to aid and automate eligibility processing for state benefit programs and regional benefits program implementation.

Colorado Department of Public Health and Environment (CDPHE) – Qualified HIT Initiatives

Key Strategic Initiative	Description	Status
<p>Vital Statistics Interface Automation (COVIS – Colorado Vital Information System)</p>	<p>Creation of an interface between key systems to Vital Statistics to automate federal citizenship requirements and simplify eligibility processing for state benefits programs.</p>	<p>Agreements executed between CDPHE, OIT and the Department of Revenue. Pilot program has begun and will operate for six months. Full automation with CBMS is planned for late 2011.</p> <p>Exploring how to build an interface between COVIS, the statewide HIE, and health care providers.</p>
<p>Colorado Immunization Information System (CIIS)</p>	<p>This program upgrades the immunization tracking and reporting system.</p>	<p>The vendor was contracted, system implementation has begun, and the pilot for the new system is complete. The third round of system changes is complete and the new system is scheduled to go live by the end of summer 2011.</p> <p>CIIS will have direct interfaces with some provider EHRs and is working to leverage statewide HIE to streamline process and support bidirectional interfacing with providers.</p>
<p>Women, Infants and Children (WIC) Regional Program</p>	<p>Multi-state special Supplemental Nutrition Program for Women, Infants and Children.</p>	<p>The first two pilot sites began operation in February. Rollout to the remaining sites begins in July and will be complete by October 2011.</p>

Colorado Department of Human Services (CDHS)

The Colorado Department of Human Services manages, administers, oversees, and delivers social services in Colorado and relies heavily on systems such as the Rehabilitation Information System for Employment (RISE) to maintain, manage, and use client records to provide these services. CDHS programs and systems house health-related data, nearly all of which are client medical records. CDHS systems maintain a wide range of data that house medical records for clients in many programs:

- Avatar maintains client mental health records; pharmacy and laboratory records
- Colorado Client Assessment Record supports client assessment data
- Computerized Homeless Information Referral Program (CHIRP) includes client medical records
- Colorado Mental Health Institutes includes client medical records
- Colorado Trails includes children’s medical records
- Encounter includes Medicaid mental health claims
- National Aging Program includes client medical records
- Refugee Management Information System includes client medical records
- Treatment Management System includes client medical records
- Veterans’ Nursing Homes includes client medical records and Medicaid claims

Colorado Department of Human Services (CDHS) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status
Rehabilitation Information System for Employment (RISE) Implementation (CSI Aware)	Upgrade of Rehabilitation System for client medical record and case management.	System implementation in progress with deployment date of September 2012.

Department of Corrections (DOC)

DOC provides correctional facility-based health care services for offenders. Several systems coordinate care for inmates and perform functions such as maintaining all offender health information and records, health care information sharing, electronic prescribing, and offender information access for law enforcement.

Specific data systems include:

- Encounter System – offender health records
- DOC E-prescribing – offender prescription records and filling system

DOC has HIT initiatives underway to develop system interfaces to share information outside of the Department and offer electronic access to health care information by providers delivering care outside of the prison system, reducing administrative burden and costs associated with paper-based information exchange. These initiatives are detailed in the table below:

Colorado Department of Corrections (DOC) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status
Encounter System	System is housed within the Department database of all offenders (PCDIS) and keeps all offender health information (mental health, physical health problem list, dental records, medication history, etc.).	Encounter System is controlled by use access controls and offender information is coded by level of care needed. DOC is making progress towards several goals with policy development that will protect HIT. The first policy being finalized will require all staff to sign a confidentiality agreement. Once that policy is signed, we will work with the remaining issues around HIPAA compliance.
DOC-CHP (Correctional Health Partners) Interface	This interface is being developed to enable electronic exchange of offender consults to CHP for all coding and authorizations of services.	The interface is very close to completion and testing is underway for encrypted message exchange between DOC and Correctional Health Partners (CHP) with offender health record and care approval. The completion date for the data transfer is July 1, 2011.
ORILE (Offender Release of Information to Law Enforcement) System	Portal for county jails to login and access offender information. Saves time and reduces fax transmissions.	The portal is operational except for health information screens. Health information screens will be implemented when HIPAA compliance policies mentioned above are completed.

Department of Regulatory Agencies (DORA)

The Colorado Department of Regulatory Agencies is responsible for registration, licensing, certification of health care professionals, and is where the Division of Insurance (DOI) resides and functions for the State. DORA electronically tracks and houses regulated professionals' licensing/certification information and records and maintains provider databases in order to fulfill these functions. Pursuant to 2010 legislation, DORA is also responsible to maintain a medical professional profiling system to make practice histories publicly available to citizens so they are able to make informed decisions in selecting providers of medical care.

At present, DORA only maintains HIT or HIE-related data in its Provider Licensing and Certification Directory and profiling system (HPPP) and otherwise does not own any current HIT or HIE initiatives specific to HIT. The State HIT Program is working with CORHIO and the license system replacement team to determine capabilities for system integration and web service functionality to create a provider directory as detailed in the table below. As the state makes decisions about the structure and operation of the health benefit

exchanges (COHIE), it may be identified that DORA or the DOI has specific initiatives with HIT or HIE program impact and be added to the portfolio.

Colorado Department of Regulatory Agencies (DORA) – Qualified HIT Initiatives		
Key Strategic Initiative	Description	Status
DORA CAVU Implementation (Licensing System Replacement)	<p>The purpose of replacing the State licensing system is to respond to the current vendor no longer offering this type of software and not offering a future version for maintenance or enhancement of the system. The new system will improve overall service and support approximately 175,000 licenses annually that comprise over 40 occupations.</p> <p>Of the 40 occupations, approximately 21 are health professions. The State HIT Program and CORHIO are in discussions with DORA about the new CAVU license system and HPPP licensed medical professional profiling application teams to determine the capability of developing an interface or web service functionality to build a provider directory for CORHIO to use as an authoritative source to onboard providers to the statewide HIE, assign access permissions, and enable secure routing of messages or patient care documents across care settings.</p>	<p>The State HIT Program completed a high-level architectural assessment of DORA’s CAVU e-license system and HPPP profiling application, and the CORHIO Medicity HIE technology. The findings were encouraging in that the future HIE platform will be capable to support web-services integration from CAVU, and the CAVU system has capability to integrate web services for CORHIO to build a provider directory. The HIE platform however does not yet have a timeline on its availability to interface; therefore a 2-phase approach to enable this information exchange is planned.</p> <p>Phase I : Receive, Extract and Populate (automated)</p> <p>Phase II : Integrate web-services, receive data and populate (automated + real-time)</p>

2.3. State Health IT Strategic Plan: Future Vision & Enterprise Plan

Phases two and three - Shared Future Vision and State Enterprise and Interoperability Plan development - are being completed in parallel through a HIT Technical Architecture engagement with OIT, a Cisco partner team, and CORHIO. These next phases were officially kicked off in early 2011 when Governor Hickenlooper’s administration took office and new cabinet-level leaders were appointed. These next phases will establish the program governance and formal process and data exchange technical architecture for departments and entities to automate data sharing methods in a secure way. The engagement is divided into three Milestones, each with a set of deliverables described here:

Milestone #1 - HIT Program Governance Model focused on developing the governance structure for the State HIT Program that will set in place a formal process for agencies to participate in inter- and intra-department data exchange with the systems identified in the program's Phase I Current State Assessment. This includes a process framework that outlines, in phases, the information sharing process; developing business processes, standards and specification development, architectural design and implementation, and finally operations and service-level agreement management. The Statewide Master Data Management Program Initiative led in the Office of the Enterprise Architect at OIT will provide the infrastructure to enable data sharing through a managed service known as the Colorado Unique Personal Identifier, or CUPID, which will be offered as a service through OIT.

Milestone #2 - Agency Data Sharing Use-cases and Architecture Assessment focused on agency-level architectural assessments of existing systems and data sharing practices to develop a data sharing classification model. The information collected will be used to develop business scenarios for each department that define the business process that will be affected or improved through data exchange. The scenarios will also identify partners with whom data exchange will occur, and understand the current and future interaction between exchange partners so that the technical requirements and exchange architecture may be created. The findings will be utilized to gain an understanding of what it will take to integrate systems and automate the data sharing processes across agencies that are predominately done manually today. Overall, this effort will support prioritizing inter-agency exchange initiatives and create a model that will meet near-term objectives and is nimble to scale into the overall state architectural framework developed through the Office of the Enterprise Architect in OIT.

Milestone #3 - Interagency Data Exchange Architecture, scheduled for completion in July 2011, will deliver an exchange model for state-owned data sets that will include a concept future architecture, agency functional requirements necessary to exchange data, and agency and CORHIO technical system requirements for data exchange. Due to current financial environment in state government, HIT Program data sharing will be incrementally approached and prioritized based on available funding. There are two priority data sharing areas identified by CORHIO, OIT's HIT Technical and Enterprise Architect Team, and the Department that are the focus for the completion of Milestone #3. They are development of exchange models for obtaining health care facility and provider licensing data and identity information (for the near and long-term) to develop an authoritative state provider directory, and a future-state concept architecture for exchanging data with the Department of Public Health & Environment's systems for immunizations, reportable lab orders and results for disease reporting, newborn metabolic screenings, and vital statistics.

2.4. Prospects for Participation in Medicaid EHR Incentive Program

The Department anticipates there are approximately 800 - 900 eligible professionals who meet the requirements to attest for payment through the Medicaid EHR Incentive Program. This estimate is based upon the following assumptions:

- Approximately 450 EPs will be eligible based upon their service to needy individuals in Federally Qualified Health Centers (as reported by the state's primary care association);
- About 20 EPs will be eligible based upon their service in Rural Health Centers and other community-funded safety net clinics (as reported by the State Office of Rural Health and association of community-funded safety net clinics);
- 80 EPs with individual provider accounts have a sufficient number of Medicaid visits recorded in MMIS claims data for calendar year 2009 to substantiate the assumption that they meet the 30% Medicaid threshold, or the 20% threshold for pediatricians.
- Approximately 200 EPs will be eligible based upon their service to Medicaid clients in Community Mental Health Centers.
- CO-REC has identified 2,295 providers in the state who are being targeted for Regional Extension Center services and, based on early experience with providers, estimates that 1/3 to 1/4 of that number will be eligible to attest under the Medicaid program.

In addition to The Children's Hospital, which is automatically eligible, the Department estimates there are 20-25 acute care hospitals able to participate in the Medicaid EHR Incentive Program. Thirteen of those are Critical Access Hospitals.

3. A “To-Be” Vision and Roadmap for HIT in Colorado

3.1. Public Leadership, State Agency & Stakeholder Consensus

Expanding HIT across the State of Colorado has the potential to significantly reduce health care costs and improve patient outcomes. To help make this vision a reality, the Colorado General Assembly created the Health Information Technology Advisory Committee in 2007 through Senate Bill 07-196, charging the Committee with developing a comprehensive, long-term plan for HIT in the State of Colorado. Numerous issues, challenges, strategies and initiatives for using information technology to drive health care reform were discussed by the Committee throughout 2008, including electronic health records, computerized clinical support systems, computerized physician order entry, regional data sharing interchanges for health care information, data privacy and security measures, and other methods of incorporating information technology to pursue greater cost-effectiveness and better patient outcomes in health care. The Committee members were appointed by Governor Bill Ritter, Jr., to represent various stakeholder perspectives on this critical issue, with their individual expertise ranging from medical practitioners, employer groups and the HIT industry to home health providers, consumers and members of the Colorado General Assembly.

In their final report, members of the HIT Advisory Committee recognized there are broad, positive outcomes of electronic health systems, which vary by stakeholder and technology. The Committee also acknowledged the significant amount of leadership and support provided by Colorado’s governor, legislature, health agencies and leading health foundations that have been primary drivers of HIT adoption in Colorado. Without extensive stakeholder and leadership buy-in, the Committee determined, Colorado could not have made its great progress to date and will not be able to achieve its goals in encouraging the adoption of electronic health records and facilitating health information exchange.

3.1.1. Consensus: Phased Approach to HIT Adoption

Through extensive stakeholder discussions and the eighteen-month Senate Bill 07-196 process, Colorado leaders came to the understanding that a phased approach to HIT adoption and development will be most effective in the state given the status of EHR adoption amongst Colorado providers, rapidly developing statewide HIE efforts, and contemporary political and fiscal realities.

This phased approach to expanding HIT across the state emphasizes the following:

- Strategies for increasing provider adoption of HIT need to accommodate a range of EHR functionalities, from the most basic electronic transactions to fully functional systems.
- HIT adoption strategies need to be linked to achieving HIE and demonstrating quality improvement.
- Colorado will leverage the combined efforts of state leadership, the Colorado Regional Health Information Organization, and other local HIE initiatives, and work together to take advantage of HIT-targeted federal funding.
- It is important to balance the appropriate roles and investments across the public and private sectors, leveraging areas where the business case is clear to support private marketplace investments and supporting areas where public sector involvement can help go beyond what stakeholders can achieve individually.
- State government has an important role to play in ensuring privacy and security protections and in making sure HIE serves all Colorado residents, with particular focus on vulnerable populations.

- Government efforts to legislate and regulate HIT will be made very cautiously, providing for the flexibility needed to adapt in the rapidly changing environment of HIT.
- Opportunities for sharing expenses, reducing costs and building efficiencies will be pursued aggressively by the State and stakeholders alike.
- Significant new privacy laws likely are not necessary, because a large amount of personal health information is already transmitted electronically in a secure and protected fashion. With the ability to restrict access, require passwords, encrypt data, and track access logs, electronic information can be more secure than paper records.
- Establishing standards and governance for data sharing is essential to building trust and minimizing security and liability concerns.

This vision for HIT adoption in Colorado recognizes that successfully implementing HIE across the public and private sectors must address incremental stakeholder needs, priorities, and circumstances while aligning with statewide goals for improving health care. Importantly, Colorado stakeholders stress that there needs to be a general understanding that HIT is not an end but a means to transforming the state's health care system. Some of the key priorities and needs identified for effective HIT adoption in Colorado include:

- Ensuring that a "critical mass" of health care providers implement EHRs and participate in HIE;
- Providing opportunities for consumer / patient input and participation as a necessity in driving demand for better health information, shaping outcomes and demanding change across the continuum of care;
- Utilizing HIT to simplify administrative transactions (such as for eligibility and claims), thereby reducing operating burdens on providers and presenting a strong business case for investment in adoption;
- Establishing and supporting coordinated state HIT leadership to address cost issues, fragmentation and lack of cohesiveness that has made adoption of electronic health care tools difficult and disorganized in Colorado; and
- Pursuing a staged approach to build toward widespread adoption of a comprehensive, interoperable HIT system that includes EHRs, registry functionality with report capabilities, e-prescribing, e-communication and Personal Health Records.

It has proven successful in many cases for states to stage implementation to begin with electronic systems that are cost-effective and easier to implement, then advance to working on interoperability between systems and provide incentives where possible for effective electronic capabilities. This is in line with the approach to "Meaningful Use" as defined by the Centers for Medicare and Medicaid Services (CMS) in concert with the Office of the National Coordinator for Health Information Technology (ONC), as discussed below.

With a practical quality improvement framework, state agencies, health information exchanges, the HIT industry, quality improvement organizations, and communities of providers and patients can be called upon to chart a course toward meaningful deployment of HIT that serves real-time needs, builds valuable long-term capacity, and takes into account the honest evaluation of cost-effective products, capabilities, and implementation supports required.

3.1.2. Consensus: State Health IT Coordination

Another of the HIT Advisory Committee's recommendations was the creation of a resource within the Governor's Office of Information Technology to work with public and private sector stakeholders regarding the use and adoption of HIT. This resource helps improve the coordination of – and serves as an advocate for – statewide HIT through interagency policy and strategy facilitation. This HIT coordination resource is charged with serving as an interface to intra- and inter-state HIE efforts, which will help in identifying areas of redundancy and aiding in the benchmarking of exchange initiatives.

3.1.3. Consensus: State-Designated Entity for Health Information Exchange

The HIT Advisory Committee's broad member representation from across the health care community came together in recognition that the Colorado Regional Health Information Organization (CORHIO) was the entity best suited to provide collaborative stakeholder governance and services to facilitate coordinated strategies to develop, implement and sustain a statewide HIE. Subsequently, Governor Ritter designated CORHIO as the primary organization to provide governance, promote the exchange of medical information, and collaborate with community, state and national stakeholders in these efforts. The HIT Advisory Committee and Governor Ritter called upon CORHIO to:

- Lead and support collaborative work;
- Raise awareness of HIT benefits among all stakeholders;
- Develop effective methods for stakeholder input and participation;
- Eliminate counter-productive competitiveness among stakeholders, yet encourage friendly competition among alternative approaches;
- Create credible processes and transparency;
- Provide a low cost structure;
- Design a sustainable model for HIT and HIE in Colorado;
- Evaluate opportunities to assist physicians and smaller providers by offering assistance with the acquisition and maintenance of EHRs and other technology; and
- Consider evaluating system capabilities to assist providers in making strategic investments in EHRs and other HIT.

3.2. State Health Information Exchange Strategic Plan

This "To-Be" vision for HIT in Colorado is designed to be not only aligned with the Statewide Strategic and Operational Plans for HIE but to be integral in their success and dependent upon the activities outlined therein. Colorado's strategic vision for HIE is as follows: "Colorado will have an effective statewide system for electronic health information exchange used to promote and protect Coloradans' health and continuously improve the quality, cost-effectiveness and accessibility of health care services." The associated mission of HIE efforts is to "facilitate health information exchange to improve care for all Coloradans." The goals identified in the Statewide HIE Strategic Plan for the purposes of successfully implementing HIT and HIE across Colorado are the following:

1. 85% of all primary care providers/safety-net community will be meaningful users of EHRs by 2014;
2. 85% of all providers will be meaningful users of EHRs by 2015;
3. Achieve financial viability and sustainability for HIE by 2015;
4. Coordinate with Medicare, Medicaid and Other ARRA Funded Programs; and
5. Maintain capability to be flexible and adapt to developing environments.

Also included in the Strategic Plan is a discussion of the relationship between the Department and the state's HIE efforts. Specifically, the Department intends to leverage CORHIO's statewide HIE infrastructure to provide Medicaid patients and providers with needed information to improve quality of care and reduce program expenditures. For example, among other activities, the Department plans to coordinate with CORHIO to:

- Improve administrative ease for providers and patients;
- Facilitate HIE to improve health care outcomes;
- Improve business intelligence capabilities; and
- Facilitate clinical decision support at the point of care.

3.3. Statewide Data Management and Information Sharing Protocols

In 2008, Governor Ritter signed House Bill 08-1364, directing OIT to convene a Data Protocol Development Council to assist in designing and implementing an interdepartmental data protocol that would facilitate information sharing across agencies and assist in formulating and determining the effectiveness of State policies. The Data Protocol Development Council subsequently convened, met with internal and external stakeholders, and issued recommendations for enhanced data management and information sharing.

One of the principle recommendations coming out of the House Bill 08-1364 process was that there must be a formal governing body in place to oversee the policies and procedures that govern the management and sharing of data housed in State systems. In 2009, the Government Data Advisory Board (GDAB) was created in statute to perform this role. Made up of senior representation from each State department, the GDAB has two primary roles. The first is to assist the State Chief Information Officer and Chief Data Officer in determining the State's data strategy, policies, standards, architecture and assisting with issue management. The second role is to be an advocate: both *from* stakeholder communities to the State regarding needs and concerns and *to* stakeholder communities as key communicators regarding the State's progress, concerns and challenges.

It is imperative that HIT efforts, strategies, and developments closely follow the guidelines and protocols determined through House Bill 08-1364 and GDAB guidance if they are to be successful in encouraging the adoption of EHRs and facilitating the exchange of health information both amongst State agencies and externally, where appropriate. At a high level, those guidelines include the following:

- As new data sharing initiatives are begun, as new systems are implemented, or as system upgrades are initiated, systems must be documented in the same way and be able to feed the State's enterprise architecture through identified standards.
- Well-articulated data sharing agreements, which take into account legal issues and create a shared understanding of the data and its analyses, should be as comprehensive as possible – covering key definitions, project purpose / description, permitted / non-permitted uses, rules for access, limitations on disclosure, security requirements, the retention and disposition of data, and the penalties for misuse.
- A system of metrics should be developed to help monitor performance of the information sharing program across the enterprise. Such metrics include:
 - Reduction in redundant data collection
 - Reduced collection burden on agencies

- Improved “one-version” data quality by implementing common definitions and standards
- Improved access to and security of data through standardized processes and policies that are explicit and consistent
- Data resources are transformed into information assets that can be managed for effective decision and policy making
- Better coordination of services and management
- As an entity that provides funding, resources and services to Colorado residents, State government must develop the functionality necessary to be an effective steward of public monies, data and information, including the ability to:
 - Analyze and determine the effectiveness of State policies and resources by examining an issue across multiple State agencies and on a longitudinal basis;
 - Formulate informed strategic plans for the application and use of State resources based on strong, accurate, reliable, multi-dimensional data; and
 - Enable more efficient collecting, storing, manipulating, sharing, retrieving and releasing of data across State agencies.

3.3.1. Statewide Enterprise Architecture

The long-term goal for OIT and its data sharing efforts is to standardize statewide enterprise architecture as a means of connecting individual agency objectives to a shared information technology strategy so that the State can realize the return on its IT investments. This work includes aligning vertically-oriented agencies into an enterprise-focused organization, providing governance and oversight of investments, standards, processes, and alignment of business and IT objectives.

OIT will begin building this statewide enterprise architecture through a staged implementation strategy, which will start with developing the functionality to support cross-agency interoperability so that data can be effectively shared and exchanged across multiple State and local agencies. Currently, data that reside in State agency systems can be of poor quality and fragmented or duplicated across various databases and programs.

Recognizing the importance of health care data, information, and systems and their significance in helping achieve statewide health goals, OIT, relevant State agencies, and CORHIO will work together during implementation of this SMHP to design the technical architecture specific to HIT. This work will ensure that the State HIT architecture closely aligns with the statewide enterprise strategy, data model, and IT strategy, and satisfies all enterprise architecture requirements.

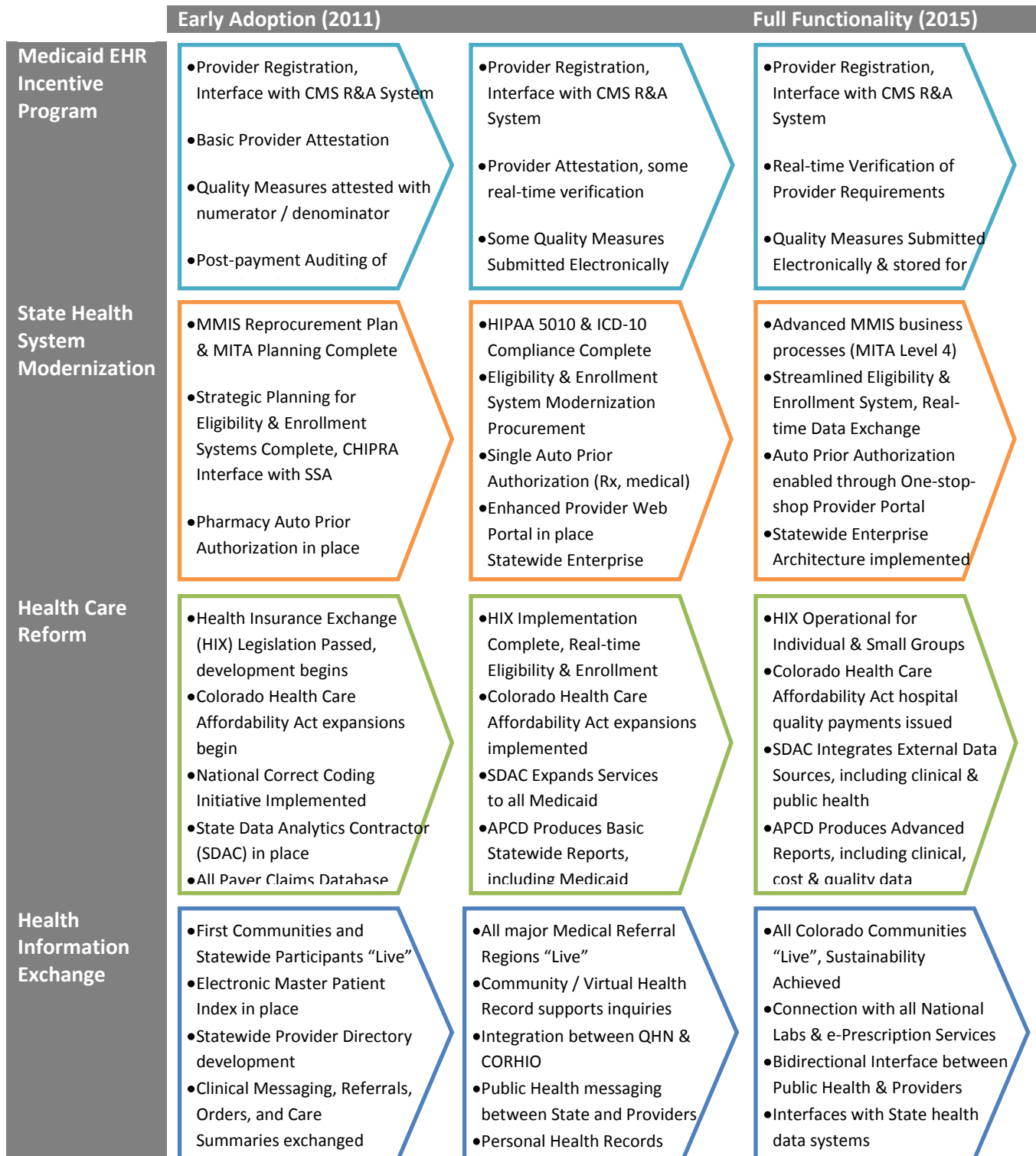
3.4. Roadmap to Achieve “To-Be” Vision

A more detailed vision for Colorado’s future HIT landscape will be developed during implementation of this SMHP, including extensive engagement of internal and external stakeholders and development of specific, actionable strategies for moving forward and achieving the desired “To-Be” environment. For example, the state’s health leaders have been working collaboratively to assess the role and performance of the State’s eligibility and enrollment system for health and human services programs, taking into consideration the rapidly changing HIT environment and quickly approaching requirements resulting from health care reform, new guidance from federal agencies, and other recent policy changes. Through this process, state leaders are considering future business functions and system needs and opportunities for aligning efforts, pooling resources, and reducing waste and inefficiency across health and human services-related systems and

initiatives. The result of these efforts will be a single strategic direction and planning for investments in the State’s eligibility and enrollment system that is in line with broader policy goals and HIT strategic initiatives.

The figure below represents a high-level roadmap for state HIT initiatives that pertain to Colorado Medicaid and the Department. These initiatives are explained in further detail below and throughout this SMHP.

Figure 3.3: Health IT Roadmap



3.4.1. Medicaid Management Information System

The Department has recently completed an assessment of the current Medicaid Management Information System (MMIS) and is developing a strategy for modernization and re-procurement of the entire system within the next five years. This strategy will incorporate the implementation of federal and state legislation within the current MMIS and provide guidance for the development of a Request for Proposals (RFP) for its re-procurement by July 2015. Until the re-procurement strategy is finalized and implemented, the Department is continuing to utilize the current MMIS under a 5-year extension to the fiscal agent contract with Affiliated Computer Services (ACS).

In two cases, Healthcare Information Technology for Economic and Clinical Health (HITECH) and the Accountable Care Collaborative (ACC), the Department is utilizing external vendors to create systems and perform work to implement legislative requirements. This approach will minimize or reduce the impact on the Department and the MMIS. HITECH implementation will have a minimal impact on the MMIS because the State of Colorado has designated CORHIO as the lead entity for HIE and the Department is planning to hire an Attestation Vendor to handle eligibility, enrollment, and payment in the Medicaid EHR Incentive Program and audit the providers and hospitals over the 10 year life of the program. This approach means that an interface between the attestation system and the current and future MMIS will be necessary in order to make the actual incentive payments, which minimizes the direct impact to the MMIS.

Many interfaces that exchange data between the MMIS and other State information systems are required in order for the Department to implement these initiatives. Some of these interfaces already exist and will have to be modified; others will have to be created between the MMIS and newly developed systems. The list below identifies these interfaces:

- Attestation Vendor to MMIS - HITECH
- Colorado Benefit Management System (CBMS) to MMIS - Children's Health Insurance Program Reauthorization Act (CHIPRA)
- Social Security Administration's (SSA) State Verification and Exchange System (SAVE) to CBMS - CHIPRA
- MMIS to Statewide Data and Analytics Contractor (SDAC) system - ACC
- MMIS to Colorado Financial Reporting System (COFRS) - HITECH and ACC
- MMIS to Provider Enrollment System – CMS Provider Application Requirements Final Rule

The Patient Protection and Affordable Care Act (PPACA) will increase the number of Coloradans that are eligible for Medicaid assistance. Additionally, the legislation promotes administrative simplification of the enrollment process and form, promotes increased communication regarding available benefits, and promotes solutions to improve access to care and quality of care. The legislative changes will increase transaction and data volumes and the Department will have to plan accordingly for these increased volumes across various platforms and systems. The most immediate impact will be the implementation of the National Correct Coding Initiative (NCCI) in the current MMIS which is scheduled to occur in 2011. As with the other initiatives, changes made to the current MMIS to comply with this legislation will be documented and tracked, as they may result in requirements for the future MMIS. For example, State legislative initiatives such as the Colorado Comprehensive Health Access Modernization Program (CO-CHAMP), the Colorado Health Care Affordability Act authorized through House Bill 09-1293 (HCAA), and ACC will all have a significant impact on the Medicaid program and the current MMIS. Each of these initiatives will have a set of

requirements that detail the changes that are necessary to the MMIS in order to support the initiative. These individual requirements may be directly transferable to the future MMIS or may overlap to create completely new functional requirements in the future MMIS.

The implementation of HIPAA 5010 transactions and ICD-10 code sets will have a major impact on the current MMIS, but should have virtually no impact on the procurement of a new MMIS because the enhancements must be implemented prior to the expiration of the current contract with ACS. This timeline means that support for 5010 transactions and ICD-10 codes sets will simply be requirements for any future MMIS considered. The current MMIS along with the current Provider Web Portal and DSS must be modified to accommodate the data structure changes related to these new transactions and code sets. These changes will require modifications to the database structure, translation programs, user interfaces and reports in virtually all operational systems. The Department intends to use an external vendor to identify the necessary changes and develop a plan for implementation. Compliance with HIPAA 5010 transactions and ICD-10 code sets will be requirements for any proposed future MMIS.

Many of these initiatives, both federal and state, will fundamentally affect the way in which the Department does business, not just the MMIS or other information systems. For example, PPACA, Medicaid Information Technology Architecture (MITA), and ACC all impact the Department functions, and this impact will have a “ripple effect” into the systems used to support the business processes it performs. The system changes required are not limited to the data that is being managed and the way in which it is being presented, but rather in the fundamental way these systems are structured and the types of capabilities they provide. The future MMIS will be based on a service-oriented architecture and provide capabilities such as business process management, a business rules engine, and business collaboration features that allow greater flexibility and more efficiency in the way the Department conducts business, as well as in the manner in which the MMIS is constructed and maintained in order to support the Medicaid business.

Because of the large number of federal and state initiatives and the impact they will have on the business and information systems, the Department will develop enterprise architecture documents that provide the following information:

- The identification of each business process performed by the Department
- The organizational units involved in carrying out each business process
- The systems and components used in supporting each business process
- The data required to complete each business process.

This documentation will create a “map”, or cross-reference, that the Department, other government agencies and entities, and vendors can reference to better understand how the Colorado Medicaid business operates, and how a change to any one of these areas (process, organization, system, or data) can impact the other areas. This documentation could be provided to any vendor that is hired to enhance and maintain the current MMIS over the next 5 years, and could be used to develop requirements for the future MMIS and provide a guide to the fiscal agent that is ultimately selected to implement the future MMIS. In essence, such documentation will provide a “big picture” view by which all future changes could be evaluated.

Additionally, this documentation will identify areas where functionality could be leveraged across the agency, eliminating redundancy in business processes, data and application use. For example, the PPACA, HCAA and

web portal rebuild projects described below all require some type of internet-based application that allows external users (i.e. clients, providers, external stakeholders) access to Medicaid data. This includes data on enrollment criteria, eligibility status, benefit information and claim status. As it stands today, there are multiple applications currently in existence or that are planned for future development that have similar functionality. The Department will consolidate web portal access for external stakeholders using one vendor and one application, with multiple interfaces to provide access to the required data.

The Department is also developing a strategy for leveraging the quality of care, care coordination and health care outcome data gathered as a result of the HITECH “Meaningful Use” criteria, the CHIPRA child health quality measures and the ACC care coordination goals. Although initial plans have this data gathered by different organizations such as the AV and SDAC, as well as clinical data accessed by CORHIO, the Department will develop a strategy to integrate this data in the near future. Once integrated, this data can be used to assist staff in developing health care policy, care coordination, and benefit plan decisions. Achievement of the MITA maturity level 3 goals are dependent on the State’s use of clinical data to make policy and program decisions that result in improved health outcomes and more efficient use of benefit dollars.

3.4.2. Consolidated Medicaid Provider Web Portal

The Department has a number of web-portal related projects on the horizon, including procurement of a web portal for online provider enrollment, development of an automated prior authorization (auto-PA) portal for pharmacy claims, auto-PA process for physical or medical services, and portal functionality to support e-Prescribing for Medicaid providers. As a result of the similarities of these four projects, the Department intends to combine these four projects to better align with the Department’s strategic direction, vision, timing, and department needs. Benefits of a consolidated web portal include:

- A single point of entry to multiple functions
- Reducing provider confusion that multiple web portals would create
- Optimizing technology expense (one solution or system versus multiple, one interface with MMIS)
- Reducing administrative overhead – avoiding multiple trainings, implementations, and maintaining multiple user accounts

The first step toward this consolidated web portal, and one which is important to the administration of the Colorado Medicaid EHR Incentive Program, is implementing an Online Provider Enrollment system (OPE). The OPE portal and associated database will automate the process of provider enrollment and verification and will allow providers online access to their demographic and registration records for real-time review and editing.

Implementation of the OPE will help ensure better accuracy and streamline administration of the EHR Incentive Program because it will allow Colorado Medicaid providers to review their registration information and, in a more streamlined fashion than the current manual process supports, correct any errors or perform any updates to their demographic data (e.g. NPI, address) before registering and attesting to receive EHR Incentive Payments. Additionally, providers not currently enrolled as billing providers with Medicaid who would like to have EHR incentive payments issued directly to their individual NPI will have a more efficient and effective option for enrollment.

The current Provider Services link on the Department’s website is maintained by the Fiscal Agent, ACS, and interfaces with the MMIS. This portal is the main channel for communication with the Medicaid provider community - with information on support services, bulletins, manuals, training, and enrollment.

Provider Services Portal

Provider Services

Welcome to the Provider Services page for the Colorado Medical Assistance Program. This site contains helpful information for Medical Assistance Program providers and other interested parties. It also provides links to other valuable information.

Please continue to check the Provider Services sections for updated information about the fiscal agent operation and the Colorado Medical Assistance Program.

***** Independence Day Holiday *****

The Independence Day holiday on Tuesday, July 4, 2006 , will affect the receipt of warrants and EFT. The receipt of payments will be delayed by one business day.

***** Attention DME and Supply Providers *****

Please be advised that there was an error on page 4 of the May 2006 Medical Assistance Program Bulletin (B0600212) regarding DME/supply claims paid by invoice. The "Codes Paid by Invoice" section should read, "All covered procedure codes currently paid on a "by invoice" basis will continue to be reimbursed as described on pages 3 and 4 of Provider Bulletin B0500206. No changes are being made to the maximum allowable reimbursement for "by invoice" codes at this time, and no "by invoice" claims will be reprocessed regardless of the date of service.

***** RTC Workshop Cancellation*****

Due to changes currently taking place in the RTC programs, the workshop scheduled in Fort Collins on Tuesday, May 9, 2006 from 2:00 PM to 4:00 PM has been cancelled. Once the new programs are in place, the fiscal agent (ACS) will schedule a special training workshop. Please watch for the new workshop announcement in future bulletins and in the Provider Services Training & Workshops section of the Department’s website.

Through the OPE initiative, the Department will enhance the current Web-based provider services functionality and provide the following enhancements:

- Online electronic application form access
- Support of Web-based enrollment by print and mail and interactive submission
- Update multiple service locations

The Department will offer three options to providers enrolling online through the existing Provider Services Link:

- Printing the forms, completing them by hand, and mailing them to the Colorado Medical Assistance Program, Provider Enrollment Department.
- Completing the forms online, printing the completed forms, and mailing them to the Colorado Medical Assistance Program, Provider Enrollment Department.
- Completing the forms online and submitting them electronically; specific forms, such as EFT enrollment, W-9s, and the signature page will still have to be printed, signed, and mailed.

3.4.3. “To-Be” Visioning Process for State HIT

Colorado has elected a new Governor, John W. Hickenlooper, who took office in January 2011. Governor Hickenlooper has appointed a new cabinet, including new Executive Directors of all State agencies responsible for health and human services programs. Additionally, the State now has split legislative chambers, with a Republican majority in the House of Representatives and a Democratic majority in the Senate. It is important that these new state leaders are engaged in and supportive of the “To-Be” vision for HIT in Colorado, as their leadership and sponsorship will be integral to the success of these strategic and important initiatives.

During implementation of this SMHP, the Department will continue working with OIT to engage State leadership and the relevant external stakeholders in the development of a single, consensus vision for the future HIT landscape, as well as a concrete and responsible roadmap for achieving that desired future state. Colorado has a strong foundation in previous stakeholder engagement, legislative direction, and interdisciplinary partnership to leverage in the development of the “To-Be” landscape. Additionally, over the past year Department leadership has actively participated in the HIT advisory group convened and supported by the State HIT Coordinator to develop the State HIT Strategic Plan. The first phase of this work, the Current State Assessment, is complete and is described in Section 2. The second phase will focus on establishing a shared future vision, and the final phase will include creation of a State HIT enterprise and interoperability plan to effectively leverage State IT assets and enable statewide HIE capacity.

As Colorado prepares for success in implementing legislative and other policy requirements in the health care sector, the Department continues to develop and refine a clear roadmap to ensure compatibility, interoperability, and efficiency in future efforts and emerging initiatives.

4. EHR Incentive Program Administration and Oversight

4.1. Program Overview

The Department is implementing HITECH and making available to eligible Medicaid providers that adopt and successfully demonstrate Meaningful Use of certified EHR technology incentive payments for allowable costs associated with the implementation, operation and maintenance of this technology.

This section describes how the Department will implement this program through the following components: program organization; provider outreach and registration; attestation and verification of eligibility; and provider payments. This section is focused exclusively on the implementation of the functionality necessary to support provider attestation to Adopting, Implementing, or Upgrading (A/I/U) certified EHR technology. A future update to this SMHP will include specific implementation information relative to the functionality needed to support attestations of Meaningful Use for subsequent years of the program.

At a high level the Department will implement a stand-alone, web-based application to manage the incentive program because modifications to the existing MMIS would prove costly and require resources that would not be able to implement those changes in a timely fashion. In addition, plans to modernize and re-procure the MMIS within the next five years would require the incentive program changes to be implemented multiple times over the life of the incentive program. This application includes messaging functionality that communicates with providers regarding the status of their attestations and subsequent incentive payments. These messages are available to providers through the integrated web portal and include system messages, auditing messages, appeals messages, reports, and payment status.

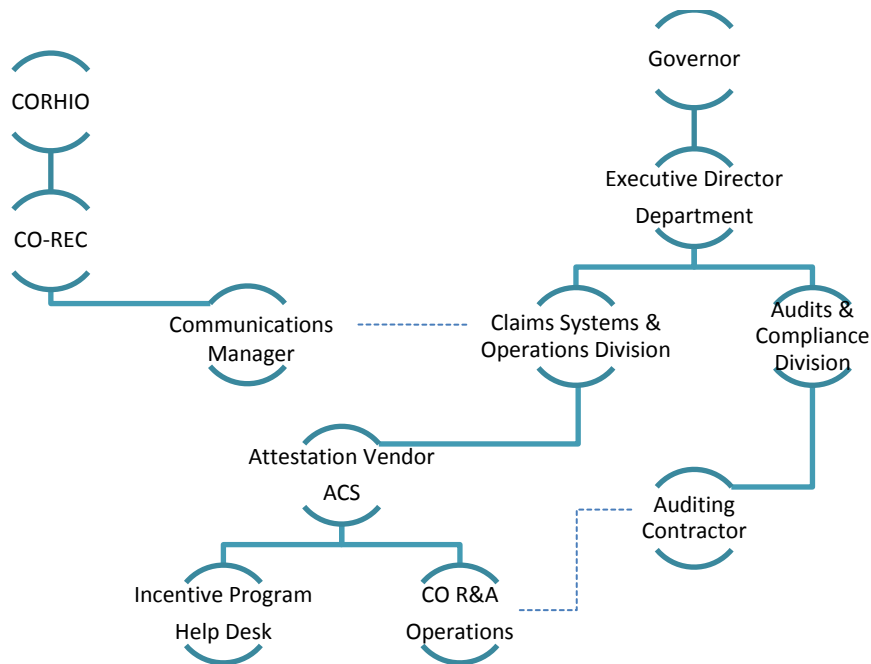
The web-based provider incentive program attestation and tracking solution, the Colorado Registration and Attestation System (CO R&A), will be a cost effective mechanism to implement the program quickly, take advantage of technology already proven in other states, and leverage the expertise of the Department's Fiscal Agent in implementing a program with a high degree of integrity. The Fiscal Agent, also serving as the vendor providing the attestation solution, will leverage the help desk already in place for Medicaid claims to also support this incentive program and the process facilitated by the CO R&A.

This implementation takes advantage of hard and soft validation checks built into the CO R&A and leverages business processes already in place at the Fiscal Agent and the Department to manage verification/ auditing/ appeal of attestations.

4.2. Program Organization

Figure 4.1 depicts the organizational structure that will be utilized to effectively administer and implement the incentive program.

Figure 4.1: Program Organizational Chart



The Department will have oversight of the Incentive Program Administration. The program will be facilitated by a web-based application that has interface to the CMS Registration and Attestation System (CMS R&A System) and the Colorado MMIS. This application (Colorado Registration & Attestation System, or CO R&A) was developed by Affiliated Computer Solutions (ACS) and has been successfully implemented in many other states. ACS provides integrated services with the CO R&A to include a help desk, management of the attestation/payment/appeals process (operations), and program auditing. The Department will leverage ACS' suite of services and utilize the Department's Claims Systems and Operations Division, Audit Division and an Auditing Contractor to audit provider attestations.

4.3. Provider Outreach

4.3.1. Communication and Outreach Plan

Provider communication and outreach is essential to participation in the EHR Incentive Program and compliance with Program rules and procedures. The objectives of Colorado's communication and outreach activities include the following.

- Communicate the specific requirements for eligibility, registration, attestation, and payment of Medicaid EHR Incentive payments in Colorado
- Educate Medicaid providers on the purpose behind EHR Incentive program – improving health IT and information exchange to promote quality and increase value in Medicaid program
- Raise visibility of EHR Incentive program among Colorado Medicaid providers, increasing likelihood they will pursue efforts to meet Meaningful Use, participate in HIE and otherwise implement HIT into their practice
- Define resource requirements necessary for the Department and partner organizations to implement and carry out successful provider communication and outreach

4.3.2. Structure and Process for Provider Outreach on the EHR Incentive Program

There are many organizations outside of state government that are well-suited to provide detailed outreach and technical assistance to providers wanting to become meaningful users. In fact, many of them are already doing so.

ONC awarded 60 Regional Extension Center grants across the nation precisely for this purpose. Colorado's Regional Extension Center (CO-REC) is a partnership among seven Colorado organizations that provides extensive services to help qualified providers meet Meaningful Use, including: education and training on HIT, vendor selection and group pricing, EHR implementation and project management, practice and workflow redesign, privacy and security best practices, evaluation of progress towards Meaningful Use, and local workforce support. The CO-REC has reached 84% of all counties in Colorado, 54 of 64 counties. As of June 2011, a total of 2,000 providers were enrolled in REC. Rather than creating a new infrastructure that duplicates CO-REC's existing capabilities and relationships with providers on HIT and HIE issues, the Department intends to utilize CO-REC in a key role in managing outreach activities under the Incentive Program.

In addition, many professional associations, nonprofit collaborative entities and private sector initiatives are also engaging providers on the components of Meaningful Use. The Department and CO-REC have already established relationships with these entities as part of broader HIE outreach efforts and can more efficiently leverage their participation in communication and outreach efforts related to the State's EHR Incentive Program. Colorado's communication and outreach strategy will be managed by a designated EHR Incentive Program Communications Manager at CO-REC, under a contract with the Department. The Department will: (1) oversee CO-REC's communications and outreach activities to ensure compliance with CMS rules and guidelines as well as state-specific requirements; and (2) help facilitate smooth integration of communication and outreach with the Department's administration of eligibility, registration, attestation, and payment of Medicaid EHR Incentive payments.

Communication and Outreach Goals and Activities

Goal 1: Develop infrastructure and strategies for communicating with eligible providers about registering, applying for, attesting to, securing and documenting incentive payments.

Activity 1.1: Execute contract with CO-REC to manage Meaningful Use program communications activities and deliverables.

Activity 1.2: Engage Communications Manager to develop and implement statewide strategies and oversee regional strategies for communications and outreach with providers

Activity 1.3: Communications Manager works with the Department and the Department's external vendor to develop a secure, web-based, provider-friendly portal to use for registration, attestation, payment and appeal process.

Activity 1.4: Communications Manager works with the Department communications team to develop collateral such as provider toolkit and other appropriate communication tools needed to engage with target audience.

Goal 2: Communicate process for registering, attesting, securing and documenting payments to state Medicaid providers.

Activity 2.1: Communications Manager engages with stakeholders to provide timely and effective communication delivery on Colorado Medicaid EHR Incentive Program.

Activity 2.3: Communications Manager develops and populates an evaluation matrix to assess communications and outreach activities.

Provider Outreach Process

1. Target Audience:

There are specific, identifiable types of providers who will need to be targeted in this communication and outreach effort, namely those Medicaid providers who are eligible for EHR incentive payments. These Eligible Professional (EP) and hospital providers include:

- Physicians (MDs, DOs and optometrists)
- Dentists
- Nurse Practitioners (NPs) and Certified Nurse Midwives (CNMs)
- Physician Assistants (PAs)
- Acute care hospitals (including Critical Access Hospitals)
- Children's hospitals

Because the practices in which eligible providers work play a role in helping them qualify for incentives and achieve Meaningful Use, the following types of EP employers should be engaged as well:

- Federally Qualified Health Centers (FQHCs)
- Rural Health Centers (RHCs)
- Community Mental Health Centers (CMHCs)
- Community-Funded Safety Net Clinics employing EPs and with significant Medicaid caseloads
- Private physician practices and clinics with significant Medicaid caseloads (including primary care and other specialties)
- Pediatric practices with significant Medicaid caseloads
- Nurse-managed health clinics with significant Medicaid caseloads
- Dental practices and clinics with significant Medicaid caseloads

2. Engagement Strategy:

The Department intends to be efficient, effective and deliberate with communication efforts with Medicaid providers to ensure successful rollout and adoption of the Meaningful Use incentive program. The Department has already engaged with an external vendor to develop a provider portal, and the Department believes providers will be most comfortable with an efficient web-based portal for registration, attestation, payments and appeals processes.

The Department will immediately contract with CO-REC to engage a Communications Manager and define the duties of CO-REC's partners/regional subcontractors to ensure all communications and outreach objectives are met. CO-REC will work with the Department to develop effective communication collateral and tools to ensure successful provider engagement. This approach to outreach and engagement will leverage current external relationships between Medicaid providers and the organizations they work with most closely.

Communications Manager (CM):

It is the duty of the CM to ensure effective and efficient delivery of communications regarding EHR Incentive Program activities and act as a bridge between the Department and CO-REC activities. The CM will ensure successful delivery of messaging and education by leveraging the relationships with the many partner organizations and associations listed below. When requested by the Department, the CM will

serve as the Medicaid EHR Incentive Program representative at many statewide stakeholder gatherings and events and will meet regularly and frequently with identified external partners. This strong community presence is necessary to ensure the effective implementation of this communication plan and inform targeted audiences on program developments, Meaningful Use education and news, and other Department and Federal communications. Specifically, the CM will provide an overview of the purpose and goals of the program, which will begin the conversation, followed by a more tailored discussion of the key state-level policies and requirements most relevant to the particular audience of providers.

Leveraging Relationships:

Utilizing existing relationships with the following provider types and associations, the CM will work to enhance current communications initiatives and serve as a resource for tools and information specific to the Colorado EHR Incentive Program.

- A. Acute care hospitals – including Critical Access Hospitals and children’s hospitals
Representation: Colorado Hospital Association, Colorado Rural Health Center
- B. FQHCs and RHCs
Representation: Colorado Community Managed Care Network/ Colorado Community Health Network, Colorado Rural Health Center
- C. Primary care practices / clinics – including family medicine, nurse-managed clinics, and medical home participants
Representation: Colorado Medical Society, Colorado Academy of Family Physicians, Colorado Nurses Association, Colorado Society of Osteopathic Medicine, Colorado Academy of Physician Assistants
- D. Physician practices – including specialist practices and pediatric clinics
Representation: Colorado Medical Society, Colorado Chapter of the American Academy of Pediatrics, Colorado Society of Anesthesiologists, Colorado Society of Osteopathic Medicine, Colorado Section – American Congress of Obstetricians and Gynecologists
- E. Behavioral Health Professionals and Clinics
Representation: Colorado Behavioral Healthcare Council, Colorado Association of Drug and Alcohol Service Providers
- F. Dentists and optometrists
Representation: Colorado Dental Association, Colorado Optometric Association

3. Outreach Activities:

ACTIVITY	RESPONSIBLE PARTY
Activity 1.1: Execute contract with CO-REC to manage Meaningful Use program communications activities and deliverables.	Department EHR Incentive Program Managing Director
Activity 1.2: Engage Communications Manager to develop and implement statewide strategies and oversee regional strategies for communications and outreach with providers.	CO-REC Support from the Department EHR Program Managing Director
Activity 1.3: Communications Manager works with the Department and the Department’s external vendor to develop a secure, web-based, provider-friendly portal to use for registration, attestation, payment and appeal process.	EHR Program Project Manager Support from CM
Activity 1.4: Communications Manager works with the Department communications team to develop collateral such as provider toolkit	CM Support from the Department

and other appropriate tools needed to engage with target audience.	Communications Director
Activity 2.1: Communications Manager engages with external stakeholders to provide timely and effective communication delivery on Colorado Medicaid EHR Incentive Program.	CM
Activity 2.2: Communications Manager develops and populates an evaluation matrix to assess communications and outreach activities.	CM

Execute Contract with Co-REC and Engage Communications Manager

(Activities 1.1 and 1.2)

The first activities under Colorado’s communications and outreach plan will occur during the same period. The Department will execute a contract with CO-REC that supports engagement of a Communications Manager and provides resources for the CM and CO-REC’s seven partner organizations to execute a statewide and regional communications and outreach program, with oversight from and collaboration with the Department.

Web-Based Provider Portal:

(Activity 1.3)

Although developing a secure, web-based provider portal will be the responsibility of the external vendor providing the Meaningful Use attestation, validation and payment functionalities, the CM will work closely with the Department program managers and vendor staff to ensure the portal is as provider-friendly as possible. The CM will also help to integrate messaging about the provider portal into Department communications about the EHR Incentive Program, including providing relevant website links for more information and referrals to external resources as appropriate. The CM will also work with the selected vendor to leverage the provider portal as a communications tool, taking advantage of the provider-facing functionality to distribute information and consistent messages to Medicaid providers.

Communication and Messaging Development:

(Activity 1.4)

The CM will coordinate with internal Department program staff on the development of tools to assist providers with registering, attesting to and receiving incentive payments. Communications should drive providers to the Department provider webpage where they can learn more about the registering, attesting and payment distribution. Specific tools to be used are:

- A. Page on Department website, with links to and from relevant provider-facing resources
- B. Educational Toolkits CO-REC partners and other collaborating organizations can easily leave with providers for self-education and follow-up
- C. Factsheets to be downloaded from site and to be distributed by CO-REC partners and other external publics
- D. Talking points for leadership, external publics and other partners to ensure clear and consistent messaging

Consistent messages will need to be developed to ensure all key issues and requirements are effectively communicated to the target audience. Some key issues and communication points include but are not limited to:

1. Description of the purpose of the EHR Incentive program and concept of Meaningful Use

2. Description of the Department’s goals for the Medicaid program, as well as broader State HIE Strategic Plan and associated goals related to Meaningful Use
3. Description of the high-level concept for how the EHR Incentive program will work for Medicaid in Colorado (i.e. graphic showing process from high-level view)
4. Discussion of specific state-level decisions regarding program development and operation (as relevant to provider audience):
 - a. State not pursuing option to move public health objectives from “menu” or optional set to “core” or required set of objectives necessary to meet Meaningful Use
 - b. Options for calculating patient volume (in fee-for-service, managed care, medical home, and hospital settings)
 - c. Methodology for determining “hospital-based” providers who are ineligible for incentives
 - d. Hospital payment timelines and methodologies
 - e. Methodologies for documenting and reporting Adoption, Implementation, and Upgrade by Medicaid providers in their first year of participation
 - f. Process for reporting exclusions of non-applicable Meaningful Use requirements for specific providers in specific circumstances
 - g. Process for program integrity (avoiding duplicate payments with CMS and other states, recouping erroneous payments, appeals process and auditing of participating providers)

Delivery and Distribution:

(Activity 2.1)

The CM will work with key provider-facing external partners (many listed above) to distribute all messaging and communication collateral. The CM will engage with and serve on various stakeholder groups to ensure the communications are being delivered out into the field. The CM will meet with the external stakeholders and continue to connect with them via email and phone to ensure broad distribution and consistent messaging are taking place. The CM will oversee CO-REC’s partners/subcontractors in the seven Colorado regions already providing HIT and HIE outreach and communication services and provide them with resources to support the baseline communications and outreach strategies for the EHR Incentive Program that they will implement on a region-by-region basis.

Evaluation:

(Activity 2.2)

The CM will develop and populate an evaluation matrix to assess communications and outreach activities. Evaluation methods may include increases to visits on the provider webpage and registrants of the provider portal. Meeting objectives and timelines will also be monitored for success and/or failure of program implementation.

4.4. Attestation Vendor

The Department intends to utilize ACS, the current Fiscal Agent, as the Attestation Vendor for implementation of the incentive program. ACS has implemented the CO R&A for other states and therefore has a proven, affordable solution. In addition, ACS has complete knowledge of the Colorado MMIS and therefore has a unique ability to ensure that the CO R&A integrates seamlessly with the MMIS. Core services provided by ACS as the Attestation Vendor include:

- On-Line help and User Manual

- Support the appeals, reconciliation, and report provider and program compliance
- Maintain an active data repository with history
- Provider Outreach Page that will allow for access to these solutions
- Tier 1 help desk
- Initial training sessions for the State and/or Fiscal Agent employees for new system roll-out, and provide initial “train the trainer” support during implementation and as major changes occur
- Provide reporting to support completion of the CMS-37 and CMS-64 Reporting
- Receive batch files from CMS R&A System for new providers that signed up for HITECH Medicaid incentives (20-30 fields per record)
- Match CMS R&A System file to seed data (audit step) – [Provider not found in queue]
- Send batch files to CMS R&A System with eligibility approval notification (9 fields)
- Receive attestation information submitted to CMS by eligible hospitals (14+ Fields)
- Request Prior Payment Information from CMS R&A System (duplicate check) (14 fields)
- Receive Prior Payment Information from CMS R&A System (duplicate check) (7 fields)
- Validation edits (x5), Data Sets (x3), Audit Rules (x1), Reports (x10 -12) and (100 hours/year)
- Payment file transmitted to MMIS and returned to the CO R&A
- Hosted solution at an ACS site (hardware, software, etc.) and all technical operations, maintenance and support associated with the solution
- Any modifications or new requirements mandated by CMS as part of the Medicaid Incentive Payments for Providers program will be implemented within CMS mandated timeframes
- Key inclusions: Validation edits (x5), Data Sets (x3), Audit Rules (x1), Reports (100 hours/year), Outreach Page

As defined by the Department in the contracting process, ACS will also provide these additional services in support of the implementation of the CO R&A and ongoing facilitation of the incentive program.

SLR Coordinator: The SLR Coordinator will serve as the subject matter expert in provider incentive reimbursement consulting and coordinating efforts between the CO R&A project, the Department and the HIE project. The SLR Coordinator will help formulate the roadmap that will integrate the CO R&A, HIE, MMIS solutions. Health Information Technologies, Health Information Exchanges, Health Insurance Exchanges, and the Provider Incentive program are in their infancy and are rapidly changing. For example, in 2012 CMS is predicting the certified EMR systems will need to be integrated with the CO R&A system to automatically exchange data to support Meaningful Use to lessen the burden on providers and increase EMR adoption. It is likely that the CO R&A system will be integrated with HIE systems as well. It is critical to manage and monitor the impact on state Medicaid programs and state budgets and to maximize the federal matching funds for Colorado.

Audit Program: The ACS core state level registry solution supports audit programs with system edits and validations and reporting. This includes audit staff to monitor, report, and perform audit functions that could range from "desk top" audits to “on site” audit functions. This function is important to reduce the liability for Colorado Medicaid and manage the audit program to support CMS reporting obligations around provider payments.

Additional Audit Features: The core state level registry solution includes a standard set of audit rules and edits. Additional rules and edits development and implementation can be added to support specific or additional state needs.

Appeals Program: The ACS core solution supports an appeals program with system tracking and processing. This will provide staff to manage the appeals on behalf of the Department. This staff person will develop and manage the provider incentive reimbursement appeals program with rendering determinations, documenting and tracking appeals, along with reporting submissions and outcomes.

Training & Provider Outreach: The ACS core solution includes initial train the trainer support along with periodic support as policy or system changes occur. Efforts range from onsite sessions, Email blasts, WebEx sessions, Tier II Help Desk support, and training content will focus on use, navigation, and trouble-shooting within the CO R&A system. The trainer will work with the Communications Director at the Regional Extension Center, Provider Organizations, and other health care stakeholders.

4.5. Colorado Registration and Attestation System (CO R&A)

One of the primary features of the CO R&A provider database is to establish a directory of Medicaid providers that could be eligible for and attest to incentives. To help establish this directory, the CO R&A obtains a file feed from the Board of Medical Examiners to establish all physicians licensed in the State. Secondly the CO R&A obtains a file from the fiscal agent for all Medicaid providers. Thus, when editing the files from the CMS R&A System, the CO R&A can determine that the provider is licensed in Colorado and the provider is approved by Medicaid. Because the CO R&A contains this broad data, it is easily exportable to the HIE provider directory as a seed file, which can then be added to during the on-boarding process.

The CO R&A will provide a number of validation checks to ensure the integrity of the attestation process. The CO R&A includes a Provider Master File (PMF) generated from an interface to the MMIS that facilitates many of these validation checks. “Out-of-the-box” hard validations include the following. The Department will decide whether these remain hard validations (meaning the provider cannot continue until that element is corrected), soft validations (meaning the application can proceed with an exception to be resolved), or a hold validation (meaning the provider can continue but the application cannot be submitted until that element is corrected). In parentheses are initial configurations for each of these verification steps:

- Validate providers TIN and NPI against PMF (hard)
- Validate TIN and NPI against CMS R&A System record (hard)
- Validate providers Medicaid ID is on PMF (verified multiple times through the process - hard)
- Validate provider against death registry (verified multiple times through the process - hard)
- Validate provider status (verified multiple times through the process - hard)
- Validate provider paid Medicaid claim in last year (soft)
- Validate document attached (signed copy of attestation or EHR contract - soft)

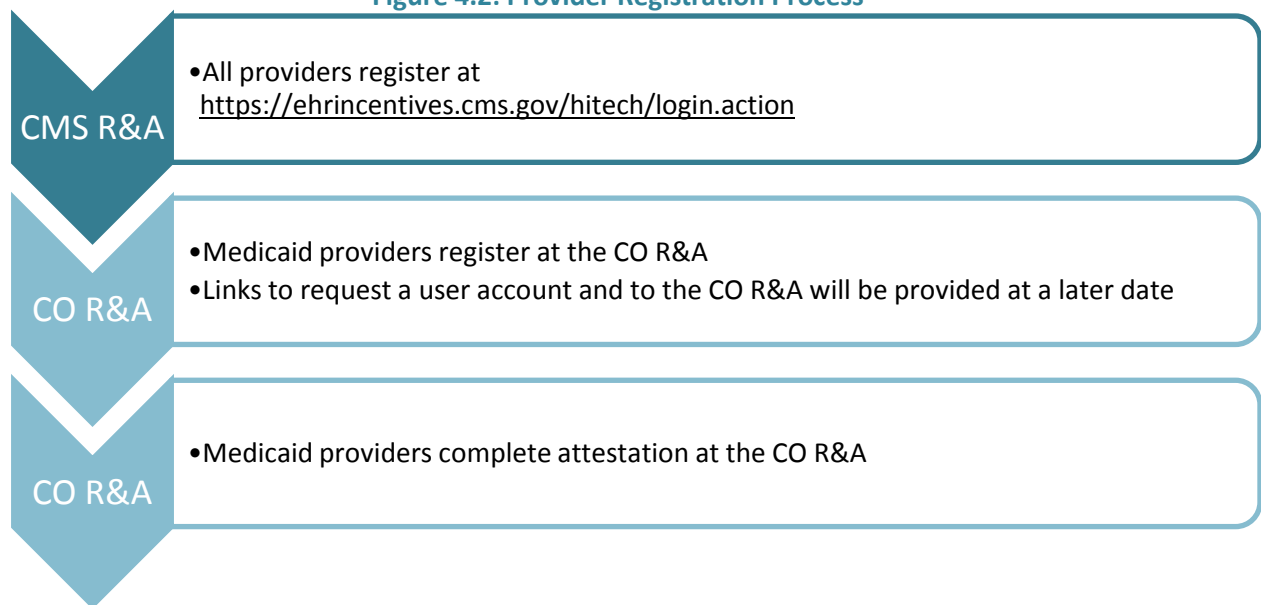
4.6. EP/EH Registration

Eligible Professionals (EPs) and Eligible Hospitals (EHs) will have the opportunity to register at the national level in the CMS EHR Incentive Program Registration and Attestation System. In order to register, all EPs and

EHs will need to have a National Provider Identifier (NPI) and an active National Plan & Provider Enumeration System (NPPES) web user account. EHs must also have a current Provider Enrollment, Chain and Ownership System (PECOS) enrollment record. All providers desiring eligibility for the incentive program must first register at the national level at <https://ehrincentives.cms.gov/hitech/login.action>. At registration the CMS R&A System will verify that providers are not subject to federal exclusion, including checking against the Death Master File and Office of the Inspector General federal database.

Medicaid eligible professionals and hospitals will then need to complete the eligibility process and execute their attestation through Colorado’s Registration and Attestation System (CO R&A). Note that in this case registration at the national level will only be possible after the CO R&A is operational and ready to accept attestations. The “go live” date for the CO R&A will be communicated as part of the provider outreach program. Figure 4.2 depicts the registration process.

Figure 4.2: Provider Registration Process



See Attachment C and D for a detailed workflow starting with registration at the CMS R&A System.

The Department's Fiscal Agent performs provider enrollment in the Medicaid program. These processes, and the data so contained in the MMIS, will be leveraged to ensure that only eligible Medicaid providers can enroll in the incentive program through the CO R&A web interface.

Implementation of HITECH requires significant interaction between systems at the national and local state levels. Information entered by EPs and EHs at the federal level will be transmitted and synchronized with the CO R&A. This interaction is important because it limits the amount of redundant data entry required by EPs and EHs and creates at the national level a repository of Meaningful Use data necessary to monitor overall improvements in the delivery of health care. The CMS R&A System serves as the centralized database for registration, payment and Meaningful Use data.

4.7. EP/EH Eligibility Determination

Eligibility verification requires that the Department, through its Fiscal Agent, verify that EPs/EHs are credentialed, not sanctioned, and are one of the types of eligible professionals or eligible institutions under the EHR incentive program. Additionally, the Department will ensure EPs are not hospital-based and will verify whether an EP is practicing predominantly at a Rural Health Center or Federally Qualified Health Center (RHC/FQHC). This verification will be done automatically by the CO R&A in comparing provider types/specialty types contained in the MMIS against the eligible list of providers for the incentive program.

The following professionals can be considered EPs for the Medicaid program:

- Physicians
 - *Special eligibility rules for Pediatricians will be specified in rules published by the Department
- Nurse Practitioners (NP)
- Certified Nurse Midwives (CNM)
- Dentists
- Physicians Assistants (PA) when practicing at an FQHC/RHC that is so led by a PA
 - *The Department will consider an FQHC/RHC to be "so led" by a PA if:
 - A PA is the primary provider in a clinic (for example, when there is a part-time physician and full-time PA, the PA is the primary provider);
 - A PA is a clinical or medical director at a clinical site of practice; or
 - A PA is an owner of an RHC.

The following hospitals can be considered EH's for the Medicaid program:

- Children's Hospitals with CMS Certification Number from 3300-3399
- Acute Care Hospitals
 - One CMS Certification Number (CCN)
 - At least 10% Medicaid patient volume
 - Average length of stay \leq 25 days + CCN (0001-0879; 1300-1399)
 - Includes Critical Access Hospitals, cancer hospitals, and general, short-term stay

4.8. EP/EH Patient Volume Methodology

The Department will be implementing patient volume calculation to allow for EP attestation either by patient panel or by patient encounter. The CO R&A will assist the EP in calculating patient volume by collecting

attestations to Medicaid patient encounters / panels, needy patient encounters / panels (if applicable), and total encounters / panels. Acute Care Hospitals and Critical Access Hospitals will be required to attest to their Medicaid and total discharges.

4.8.1. Patient Encounter

- EPs **divide** the total Medicaid patient encounters in any representative, continuous 90-day period within the preceding calendar year **by** the total patient encounters in the same 90-day period
- EHs **divide** the total Medicaid encounters in any representative, continuous 90-day period within the preceding calendar year **by** the total encounters in the same 90-day period
- To calculate needy individual patient volume, EPs working in FQHCs or RHCs **divide** the total needy individual patient encounters in any representative, continuous 90-day period within the preceding calendar year **by** the total patient encounters in the same 90-day period

4.8.2. Patient Panel

- EPs **divide** [the total Medicaid patients assigned to the EP's panel in any representative, continuous 90-day period within the preceding calendar year when at least one Medicaid encounter took place with the Medicaid patient in the year prior to the 90-day period, plus unduplicated Medicaid encounters in the same 90-day period] **by** [the total patients assigned to the provider in that same 90-day period with at least one encounter taking place with the patient during the year prior to the 90-day period plus all unduplicated patient encounters in the same 90-day period]
- To calculate needy individual patient volume, EPs working in FQHCs or RHCs **divide** [the total needy individual patients assigned to the EP's panel in any representative, continuous 90-day period within the preceding calendar year when at least one needy individual encounter took place with the patient in the year prior to the 90-day period, plus unduplicated needy individual encounters in the same 90-day period] **by** [the total patients assigned to the provider in that same 90-day period with at least one encounter taking place with the patient during the year prior to the 90-day period, plus all unduplicated patient encounters in the same 90-day period]

For purposes of the methodologies above:

- A Medicaid encounter for an Eligible Professional means services rendered to an individual on any one day where Medicaid paid for all or part of the service or paid all or part of the individual's premiums, co-payments, and cost-sharing. This includes encounters for dual eligible (eligible for both Medicaid and Medicare) individuals.
- A Medicaid encounter for an Eligible Hospital means services rendered in an emergency department and/or services rendered to an individual per inpatient discharge where Medicaid paid for all or part of the service or paid all or part of the individual's premiums, co-payments, and cost-sharing. This includes encounters for dual eligible (eligible for both Medicaid and Medicare) individuals.
- A needy patient encounter means services rendered to an individual on any one day where 1) Medicaid or CHIP paid for all or part of the service or paid all or part of the individual's premiums, co-payments, and cost sharing, 2) the services were furnished at no cost, or 3) the services were paid for at a reduced cost based on a sliding scale determined by the individual's ability to pay.
- Clinics or group practices will be permitted to calculate patient volume at the group practice / clinic level, but only in accordance with all of the following:

- The clinic or group practice’s patient volume is appropriate as a patient volume methodology calculation for the EP
- There is an auditable data source to support the clinic’s or group practice’s patient volume determination
- All EPs in the group practice or clinic must use the same methodology for the payment year
- The clinic or group practice uses the entire practice or clinic’s patient volume and does not limit patient volume in any way
- If an EP works inside and outside of the clinic or practice, then the patient volume calculation includes only those encounters associated with the clinic or group practice, and not the EP’s outside encounters

4.8.3. Patient Volume Verification / Audit Steps

Responsibility	Method	Frequency / Sample
CO R&A	Hard system validation – only active, licensed providers, not sanctioned, not deceased, etc. This data is transferred from the MMIS by way of the Provider Master File and updated on a weekly basis.	All – automatic
CO R&A	<p>Calculation that EP Medicaid encounter \geq 20% pediatricians, 30% all other provider types; EH is a children’s hospital OR if Medicaid volume \geq 10% and LOS (Ave length of stay) \leq 25 days AND the last 4 digits of CCN = 0001 to 0879, 1300 to 1399</p> <p>Note: The CO R&A, for the first year of the incentive program, will rely on the attestation to confirm EP is practicing predominantly in a FQHC or RHC. The CO R&A will calculate volume for EPs based on Medicaid encounter volume and total encounter volume entered in attestation. Alternately, the EP can indicate the number of needy individuals.</p> <p>The CO R&A attestation also gathers data from the EP regarding whether they practice in multiple states.</p>	<p>All – automatic</p> <p>An EP’s calculated Medicaid volume that is +/- 2% of required volume will result in a soft validation exception that will then require ACS/Department oversight in order for the exception to be confirmed. In these cases, Medicaid encounter volume will be verified against an MMIS report developed specifically for this purpose.</p>
CO R&A	Hospital-based status will be attested by EPs and verified against claims in the MMIS. If more than 90% of Medicaid claims appear to be in inpatient or emergency department settings, according to place of service or procedure codes, the discrepancy will trigger a request for additional information from the provider.	All – discrepancies flagged for follow up
FA Operations	Needy patient volume will be verified at the group level from reports already submitted to the Health Resources and Services Administration by RHC/FQHCs.	All
CO R&A	Document Uploads – at minimum EPs/EHs will be required to keep documentation such as their contract	CO R&A allows for a document to be attached to the attestation

	with their certified EHR vendor for a period of 6 years.	application. See Section 4.10 below.
Audit Division	Review of EH cost reports	All EHs – cost reports will be reviewed to substantiate attested discharge volumes and to verify certified EHR technology onsite and meeting A/I/U requirements.

4.9. Attestation to EHR Adoption / Implementation / Utilization

During the 2011 calendar year, the Department will focus its incentive program on A/I/U attestation. Eligible providers will have the opportunity to attest to the adoption, implementation or upgrade of certified EHR technology as defined in the Final Rule, 42 CFR §495.302:

- *Adopt.* Acquire, purchase, or secure access to certified EHR technology.
- *Implement.* Install or commence utilization of certified EHR technology such as staff training, EHR data entry, and establishment of data exchange agreements.
- *Upgrade.* Expand certified EHR functionality, such as staffing, maintenance, and training, or upgrade existing EHR technology to certified EHR Technology.

Providers can attest to the adoption, implementation or upgrade of a certified EHR by entering the CMS EHR certification number. The CO R&A will then validate that the EHR is certified by checking against ONC’s web service and validating the CMS EHR certification number. If providers did not provide a CMS EHR certification number, the Department will advise eligible providers to obtain and submit this information from the “Certified HIT Product List” (CHPL) before proceeding.

Providers have the option of attaching supporting documentation. Documents may be added via the CO M&A portal or faxed. (Faxed documents will be converted into an electronic image file.) Enrolling providers will be instructed that they should retain evidence of their EHR acquisition in their files in case they are selected for audit. Optional documentation to show evidence of A/I/U includes:

- *Adopted:* Purchase Order, Contract, Software License
- *Implemented:* Contract, Software License, Training: evidence of cost or contract, Hiring— job description or payroll records
- *Upgraded:* Purchase Order, Contract, Software License

4.9.1. Attestation and A/I/U Verification / Audit Steps

Responsibility	Method	Frequency / Sample
CO R&A	Soft system validation – validation that Certification number is listed on ONC as Certified EHR technology.	All – automatic
Audit Division	Field verification by Auditing Contractor	A sample of providers will be surveyed either in person or by phone to verify A/I/U of certified EHR technology, prior to the approval of payment.

4.10. Provider Payment Process

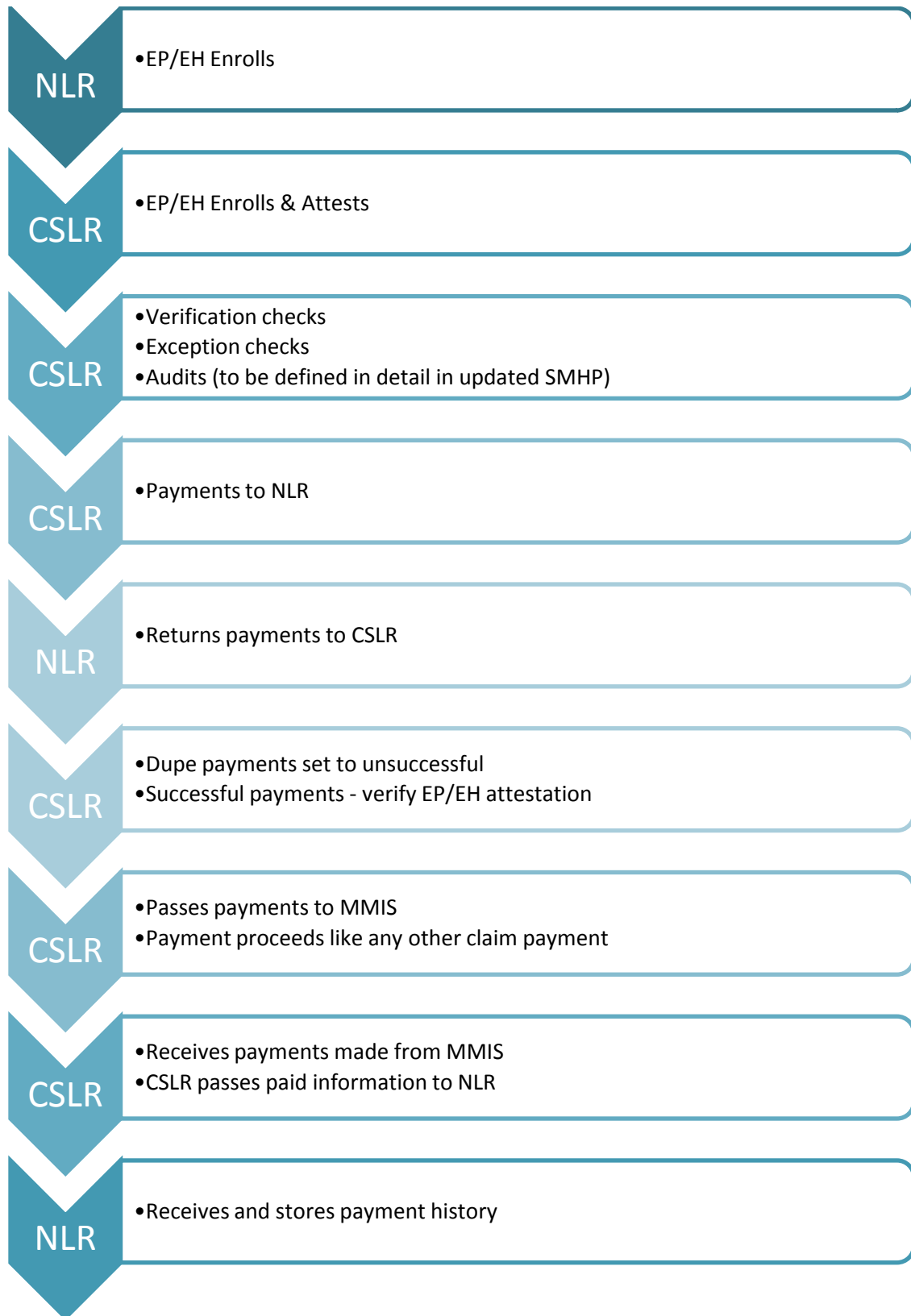
Payments to EPs and EHs who demonstrate A/I/U of certified EHR technology – and eventually those who attest to Meaningful Use – will be made one time per year of eligibility, with payments disseminated on a fixed date within the month a payment transaction is cleared through the CO R&A, CMS R&A System, and submitted via MMIS.

Figure 4.3 represents the entire cycle from the time an EP/EH enrolls to payment. Once confirmation is received from the CMS R&A System that an approved payment is not a duplicate payment and can proceed, the State will issue an incentive payment within 45 days. Payment for EHs is calculated once as defined in the Final Rule, and then will be distributed over a three-year period. In the first year, if all requirements of the program are achieved, a payment equal to 50% of the aggregate amount will be disbursed. Following a similar methodology, the second and third years will see disbursement of 40% and 10% of the aggregate amount respectively.

Once verified at the CMS R&A System, payment to an EH will proceed utilizing the existing process employed by the Department's MMIS. Therefore the TIN/EH relationship contained in the MMIS will be utilized for making the incentive payment. Funds are dispersed according to the Department's business rules via the State mainframe-based financial system (COFRS).

In order to issue an incentive payment, an EP must be either enrolled in Medicaid under their personal NPI/TIN, or complete a limited Medicaid enrollment process linking their personal NPI to the NPI/TIN used for billing. The limited enrollment is only valid for participation in the EHR Incentive Program and cannot be used for billing claims. The provider will be required to identify the NPI that is currently used for billing. Under the limited enrollment, the incentive payment must be assigned to the billing NPI/TIN. Alternatively, if the EP wishes to receive the payment directly they must assign the payment to their personal NPI rather than the NPI they use for billing, and they will be required to complete the full Medicaid provider enrollment process as a billing provider.

Figure 4.3: Provider Registration / Attestation / Payment Cycle



Additional controls are instituted to ensure that incentive payments are only made to eligible providers as depicted below.

4.10.1. Provider Payment Verification / Audit Steps

Responsibility	Method	Frequency / Sample
CO R&A	Hard system validation – only active providers, not sanctioned, not deceased, etc.	All – automatic
FA Operations	Manual inspection prior to releasing payment request to the MMIS	Inspection of provider attestation record and reconfirmation of eligibility, claim volume, and that attestation is complete.
Audit Division	On-site inspection by Auditing Contractor to validate post payment the following: -data to support total patient encounters -data to support that EP not hospital-based -use of certified EHR technology	Approx. 1-2% of attesting EPs/EHs per county

4.11. Specifics Regarding the Colorado R&A Solution

Core elements of the CO R&A:

- FTPS exchange with CMS R&A System
- SQL database backend
- Import/export process for the exchange of data (XML in conformance with CMS schema)
- Provider data and payment data exchanged between CMS R&A System and CO R&A

The solution will:

- Document, track and attest provider usage including the "Meaningful Use" of electronic health records
- Ensure providers meet or exceed minimum Medicaid patient and other thresholds
- Process provider payments according to program guidelines
- Document and validate payment for certified systems
- Audit, reconcile, and report provider and program compliance
- Coordinate overlapping program (Medicare/Medicaid) and multi-state claims to prevent duplicate or over payments
- Maintain an active data repository with history
- Receive from and provide data to CMS R&A System in accordance with CMS interface specifications

This solution will provide the State with a web-based application that delivers portal access to the CO R&A. This repository will be useful for two purposes. First, the CO R&A will house all information required for Meaningful Use eligibility, tracking, attestation and payment. Second, it may serve as the foundation of a Master Provider Index for the state's health information exchange (HIE) network.

The web-portal will allow both providers and State users to access, provide and maintain information in accordance with their security role. The following highlight the proposed system functions:

4.11.1. Provider Portal Features

- Allow secure provider log-in
- Allow providers to review and edit their demographic information
- Allow for role-based screens (EP or EH)
- Allow providers to complete Meaningful Use attestation forms
- Allow submission of completed forms to the Department
- Allow provider messaging from the Department
- Provide a payment history log
- Allow provider to initiate an appeal
- Allow providers to upload Meaningful Use quality metrics in approved XML format
- On-Line help and User Manual

4.11.2. State Medicaid Portal Features

- Allow secure role-base log-in by State approved users
- Provide work queues for users based upon role or department
- Provide for provider registration information to be routed and approved
- Allow State users to message or comment to providers on approval, denial or request additional information
- Allow inactivation of eligibility upon removal from program
- Allow State users to review and approve attestation information
- Provide payment calculation function
- Initiate payment cycle
- Manage appeals
- Review quality metrics
- On-line help and User Manual

4.11.3. Data Base Features (CO R&A)

- Receive seed data from MMIS and State regulatory boards (i.e. Board of Medicine)
- Send Master Provider File to HIE
- Establish and maintain records for providers requesting payment from the Department.
 - Receive batch files from CMS R&A System for new providers that signed up for HITECH Medicaid incentives (20-30 fields per record)
 - Match CMS R&A System file to seed data (audit step) – [Provider not found in queue]
 - Send batch files to CMS R&A System with eligibility approval notification (9 fields)
- Receive attestation information submitted to CMS by eligible hospitals (14+ Fields)
- Request Prior Payment Information from CMS R&A System (duplicate check) (14 fields)
- Receive Prior Payment Information from CMS R&A System (duplicate check) (7 fields)
- Provide payment information to CMS R&A System
- Receive Program Switch Notifications
- Receive switch between States Notifications
- Send removal notifications to CMS R&A System
- Receive hospital cost report information from CMS R&A System

- Calculate or receive provider specific information from claims information such as
 - Number of unique State Medicaid patients
 - Number of Medicaid encounters
 - Number of adjudicated prescription
 - Number of controlled prescriptions
 - Number of non-controlled Prescriptions with “electronic” as the origin code

See Attachment E depicting the Provider Incentive Program System Outline Architecture (CO R&A).

4.12. Reporting Requirements

The following planned reports are delivered by the CO R&A to assist in the administration and monitoring of the incentive program.

- Registration Report – Provider registration information for verification of EPs/EHs registered in the CO R&A
- Eligibility Report – Eligibility information to identify the status of EPs/EHs
- Validation Report – Identifies data that has been tracked to determine the validity of an EP/EHs registration and attestation
- Payment Report – Identifies the details regarding payments requested, processed and received
- CMS R&A System Report – Identifies EPs/EHs who have registered in the CMS R&A System and whether they have enrolled in the CO R&A
- A/I/U and MU Report – Identifies registered providers and whether they have completed attestation.
- Provider Report – Identifies providers who have entered information into the CO R&A and where they are in the process
- Attestation Report – Specifically identifies if a provider has completed their attestation and, if not, what information / process steps remain incomplete
- Forecasting Report – Forecasts payments to EPs and EHs and calculates average payment amount
- Ineligibility Report – Details which providers have been deemed ineligible for incentive payments and for what reason

4.13. Provider Appeals

The CO R&A facilitates an appeals process as depicted in the following workflow diagram, Figure 4.4, following the parameters and processes set forth by the Department. The Department will leverage the existing business process regarding claims appeals in responding to appeals for the incentive program. Based on Colorado statute and rules, provider appeals can be handled by the fiscal agent responsible for issuing provider payments.

In order to most efficiently offer providers redress, the Department will take two approaches to the appeal process. The first step serves as an opportunity for the provider to request additional information about the denial. Providers will send a certified letter outlining concerns related to eligibility determinations or payment amounts to ACS. The issue will be researched and ACS will contact the provider with the result. This is the preferred method for resolving provider payment issues, and it is only in the event that the provider and ACS cannot resolve the issue that the formal appeals process begins.

The secondary formal appeals process, currently used for Medicaid payment appeals governed by Colorado statute, allows providers to have their appeals heard and decided by the Department and the Colorado Department of Personnel and Administration's Division of Administrative Hearings.

This process will be consistent with the requirements as outlined in §447.253(e).

The Department envisions the following circumstances may be raised by providers if incentive payments are denied or there is the belief that the incentive payment calculation was incorrect:

- Eligibility determination
- Patient volume threshold decisions
- Meaningful use demonstrations
- AIU attestations
- Provider location (e.g., hospital-based)
- Practicing predominantly in an FQHC or RHC
- Hospital qualification (e.g., acute care, children's hospital)

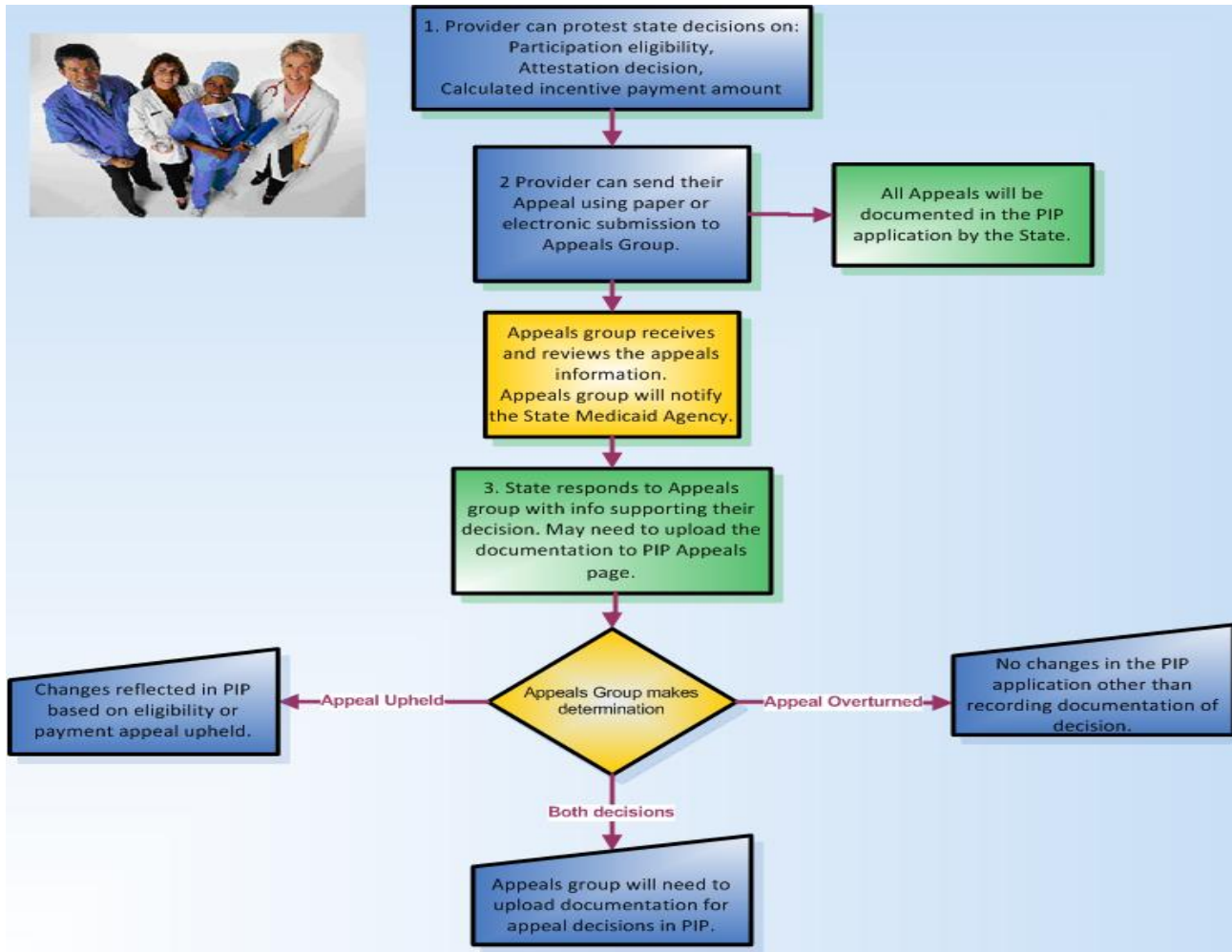
Appeals Process Steps

- EP or EH receives a notification that they do not qualify for the Medicaid EHR Incentive
- Payment or there is the belief that the payment calculation is incorrect.
- The EP or EH sends a registered letter outlining concern to ACS.
- ACS researches the issue and contacts the provider with a determination.
- If EP or EH is not satisfied with the determination, they will file an appeal.
- The appeal will be processed via the Division of Administrative Hearings.
- The EP or EH will receive final notification via the Division of Administrative Hearings.

Figure 4.4 below describes how the Appeals Process is handled by ACS. For purposes of this figure, the Appeals Group represents a function performed by ACS and the State Medicaid Agency (the Department) will

handle the appropriate process for referring appeals, as appropriate, to the Division of Administrative Hearings for formal review and report those findings back to ACS.

Figure 4.4 Incentive Program Appeals Process



4.14. EHR Incentive Program Implementation Timeline

ACTIVITY	TARGET START	TARGET FINISH
SMHP Approval	9/1/2011	9/30/2011
I-APD Approval	9/1/2011	9/30/2011
SLR Requirements Development	8/16/2011	10/30/2011
SLR Implementation	10/30/2011	1/31/2011
SLR Testing	9/5/2011	10/30/2011
SLR available for enrollment/attestation	5/1/2012	
First Incentive Payments begin	6/15/2012	

5. EHR Incentive Payment Auditing Strategy

5.1. Administration

Auditing responsibilities for the EHR Incentive Program will fall to the Audits and Compliance Division reporting directly to the Executive Director of the Department.

Colorado's program integrity efforts can be categorized into three main areas, provider enrollment, pre-payment activities, and post-payment audits.

5.1.1. Provider Enrollment

The Department expects EPs or EHs will register through the CMS Registration & Attestation System (CMS R&A System); which CMS will maintain. The CMS R&A System is the single front door for program registration for all Medicaid EPs or EHs. The CMS R&A System would ensure no duplication of payments between Medicare and Medicaid for EPs, or between States for either EPs or EHs. States will have access to the data stored in the CMS R&A System. The CMS R&A System will also confirm the status of the provider's unique identifier (i.e., the NPI and the CCN) and store the historical information on an ongoing basis that will allow providers to change programs and states. The information collected in the CMS R&A System includes:

- Name, National Provider Identification number (NPI), business address and business phone of each EH or EP
- TIN to which the EP or EH wants the incentive payment made
- EP must elect to participate in either the Medicare or the Medicaid incentive program
- EHs must submit their CMS Certification Number (CCN)

In addition to the CMS R&A System the Department, through its Attestation Vendor and Colorado Registration and Attestation System (CO R&A), will also perform enrollment functions that will, among other functions, include:

- Checking sanctions and death files
- Confirming Hospital-based provider status
- Confirming that the provider is eligible to participate (e.g., Nurse Practitioner [NP], dentist, physician, acute care etc.) and is licensed appropriately (e.g., NP is a licensed NP, not an RN)

5.1.2. Prepayment Activities

After enrolling providers, the Department will then undertake certain prepayment activities to ensure that providers are eligible for EHR incentive payments. The Department's Attestation Vendor will be responsible for performing verification activities utilizing claims reports from the MMIS. The Audit Division will direct an Auditing Contractor who will perform desk and field audits as a result of the activities reported below. Through access to the CO R&A, reporting from both the Attestation Vendor and Auditing Contractor, the Audit Division will maintain oversight of the EHR Incentive Program. Among other duties, the Division, through its Attestation Vendor and CO R&A, will ensure the following are completed prior to making payments to the providers:

- Demonstrate that during the EHR reporting period for a payment year, it has adopted, implemented or upgraded certified EHR technology, as defined
- Demonstrate that during the EHR reporting period for a payment year, it is a meaningful EHR user
- Check patient volume attestation by utilizing claims reports from the MMIS
- Confirm EPs practice predominantly in a RHC or FQHC
- Ensure payments are made in accordance with state and federal guidelines
- State submits updates to CMS R&A System on eligible provider payments

EP attestations regarding non-hospital volume submitted during the EHR incentive enrollment process will be checked against available Medicaid data for gross accuracy. Depending on the circumstances and extent of the difference, the Division may direct the Contractor to perform a desk audit and request additional information. Some of these checks are pre-payment as screen edits and desk audits, while some will be conducted as post-payment audits. To facilitate reporting of patient volume workload, the Medicaid program plans to develop a tool that creates a provider profile of Medicaid client counts based on historical claims and encounter data. Audit screening will seek to identify possible hospital-based providers and EPs with insufficient Medicaid volume to be eligible. The Department via its' Attestation Vendor will use provider profiles based on Medicaid claims and encounters as a check of attestations in both areas.

For attestations of non-hospital-based status, if more than 90% of Medicaid claims appear to be inpatient or from an emergency department, the discrepancy will trigger the Division via its' Auditing Contractor to request additional information from the provider. Both Place of Service and Procedure Code from Medicaid physician claims will be used to generate the provider profile of all physicians, nurse practitioners (NPs), certified nurse midwives (CNMs) and dentists with NPI numbers in the system. The specific coding that will define hospital-based services, specifically inpatient and emergency department services which require the use of CPT codes to identify those services will be as follows:

- Place of Service code = Facility,
- Procedure Code = CPT for Evaluation & Management Code, In-hospital consultation, or
- CPT for ED-delivered service.

5.1.3. Post-payment Activities

Post-payment review activities could be performed by a variety of different Department staff; however, the predominant audit functions will be performed by the Auditing Contractor under the oversight of the Division.

The Division will conduct annual audits of provider incentive payments. Audits may be conducted via statistical sampling. Volume, scope, methods, and procedures will be based on risk assessments and materiality consistent with the Division auditing process.

5.1.3.1. Assessment and Analysis

The audit assessment and analysis phase includes steps necessary to assemble information that will enable the audit team to make decisions concerning the nature, timing and extent of detailed audit work. The review includes a timely gathering and analysis of information so that potential audit areas can be identified and plans made to review and test management controls over these areas.

Focusing on objectives is a function of the internal control assessment and risk analysis which can be done systematically through the process of the survey.

5.1.3.2. Risk Analysis and Internal Control Assessment

The purpose of the audit survey is to identify areas of potential audit risk and design audit work to minimize the risk. The audit team will target its resources in areas with the most risk. This requires that the audit team gain an understanding of the internal control structure. With this understanding, the team should identify the controls that are relevant to the objectives of the audit. The team should then assess the relative risk for each control. There are several approaches to making a risk analysis and internal control assessment. Regardless of the method followed, the team will consider all factors relevant to the audit objective. These factors include materiality, significance of legal and regulatory requirements, and the visibility and nature of the government programs.

5.1.3.3. Refine Objectives

Through a careful process of analyzing risk and assessing internal controls, the team will ensure that the audit objectives cover the areas of highest risk consistent with resource limitations. The team will refine the overall objective(s) established in the preliminary planning phase when necessary.

5.2. Overpayments

The MMIS will be used as the mechanism for making payments to EPs and EHs. Overpayments, will be tracked as an accounts receivable in the MMIS and offsets applied to future claims payments to satisfy accounts receivable. Incentive payments made to EPs who are not typically enrolled as billing providers in MMIS may not have downstream claims payments from which offsets can be taken. In this case the overpayment would be referred to collections.

5.3. Fraud and Abuse

The Division, via its' Attestation Vendor, will evaluate the incentive payments using reports, primarily claims and encounter data from the MMIS, and other tools to be developed to analyze historical data and develop profiles of providers and report those providers whose patterns of care or utilization deviate from established normal patterns. For desk and field audits the Division will utilize its' Auditing Contractor to perform independent verification of the various aspects of the incentive payments and will coordinate that verification with other known sources of information such as the DSS, facility cost reports, etc. In the event the Division through its' Auditing Contractor identifies fraud, the case will be referred to the OIG and Attorney General.

5.4. Data Sources to Verify Meaningful Use

Although attestations to Meaningful Use will not be supported by the CO R&A until later in calendar year 2012, the Department has identified a series of existing data sources to verify meaningful use:

- Claims data will be used in the pre-payment audit function for incentive enrollment.

- The Department will identify a portion of meaningful use measures to monitor meaningful use and, as the State's HIE develops, utilize the HIE as a conduit for monitoring certain clinical quality measures. These clinical quality measures could be stored in the MMIS' DSS.
- In future years, information from the immunization registry and other public health registries will be used as systems become interoperable.

5.5. Sampling as an Audit Strategy

The Department will conduct post-payment audits of provider incentive payments. Audits will be conducted based on a statistical sampling protocol developed by the Auditing Contractor. Volume, scope, methods, and procedures will be based on risk assessments and materiality consistent with existing auditing standards and protocols. Risk-based sampling will be based on low volume as an audit trigger, among other triggers to be determined. Statistical sampling for lower risks will also take place. Since the Department is still estimating the numbers of EPs and hospitals that may participate in the EHR Incentive Program, development of the detailed sampling methodology will be deferred until Medicaid can formulate a methodology that utilizes more fully developed estimates of the sampling universe.

5.6. Burden on Providers

The Department will consult existing data sources and information first prior to requesting additional data from EPs and EHs. Additional data, or placing additional burden on providers, will be only utilized as a last resort to verify/validate numerators to which the provider has attested.

List of Attachments

- A. EH Payment Calculation Worksheet
- B. SLR Configuration Worksheet
- C. EP Incentive Program Workflow
- D. EH Incentive Program Workflow
- E. Provider Incentive Program System Architecture
- F. Department Response to CMS Comments / Questions – July 2011

Attachment A – EH Payment Calculation Worksheet

Calculation of Medicaid Electronic Health Record (EHR) Incentive Payment

Green areas are for data input from hospital cost reports.

The overall "EHR" amount is the sum over 4 years of (a) the base amount of \$2,000,000 plus (b) the discharge related amount defined as \$200 for the 1,150 through 23,000 discharge for the first payment year, then a prorated amount of 75% in year 2, 50% in year 3, and 24% in year 4.

For years 2 - 4, the rate of growth is assumed to be the previous 3 years' average.

Step 1 Calculate the average annual growth rate for the last 3 years of available data using previous hospital cost reports.

	Prior Year	Current Year	Increase/ Decrease	Growth Rate	Data Source	Line Number(s)
Fiscal Year 2007	16,000	16,500	500	3.13%		
Fiscal Year 2008	16,500	17,000	500	3.03%		
Fiscal Year 2009	17,000	17,500	500	2.94%		
Total Increase/(Decrease)				9.10%		
Average 3 year Growth Rate				3.03%		

Step 2 Calculate the discharge related amount using the annual growth rate to adjust discharges for years 2 - 4.

		Data Source	Line Number(s)
Total Discharges	22,000	CMS-2552	Worksheet S-3, Part I, Column 14
Adjustments to Discharges			
Adjusted Total Discharges	22,000		

	Per Discharge Amount	Total Discharges	Disallowed Discharges	Allowable Discharges	Amount
Year 1	\$ 200	22,000	1,149	20,851	\$4,170,200
Year 2	\$ 200	22,667	1,149	21,518	\$4,303,615
Year 3	\$ 200	23,354	1,149	21,851	\$4,370,200
Year 4	\$ 200	24,063	1,149	21,851	\$4,370,200
Total Discharge Related Amount					\$17,214,215

Step 3 Calculate the Initial Amount for 4 Years

	Year 1	Year 2	Year 3	Year 4
Base Amount	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Discharge Related Amount	\$4,170,200	\$4,303,615	\$4,370,200	\$4,370,200
Aggregate EHR Amount	\$6,170,200	\$6,303,615	\$6,370,200	\$6,370,200

Step 4 Apply Transition Factor					
		Year 1	Year 2	Year 3	Year 4
	Transition Factor	1.00	0.75	0.50	0.25
	Transition Factor	\$6,170,200	\$4,727,711	\$3,185,100	\$1,592,550

Step 5 Calculate Overall EHR Amount for 4 Years	\$15,675,561
--	---------------------

Step 6 Calculate Medicaid Share from Hospital Cost Report data					
(estimated Medicaid inpatient-bed-days + estimated Medicaid HMO inpatient-bed-days)					
/					
(est. Medicaid IP-bed-days x ((est. total charges - est. charity care charges) / est. total charges))					
				Data Source	Line Number(s)
Total Medicaid Inpatient Bed Days	1,750			CMS-2552	Worksheet S-3, Column 5, Line 2
Total Medicaid Managed Care Inpatient Bed Days	1,350				
Total Medicaid and Managed Care Inpatient Bed Days			18,850		
Total Hospital Charges	5,000,000			CMS-2552	Worksheet C, Part I, Column 8
Total Charity/uncompensated care charges	(1,000,000)				
Total Hospital Charges - Charity charges	4,000,000				
Divided by Total Hospital Charges	5,000,000				
Non-charity percentage	80.00%				
Total Hospital Inpatient Bed Days	50,000			CMS-2552	Worksheet S-3, Column 2
Total Hospital Inpatient Bed Days excluding charity			40,000		
	Medicaid Share		47.13%		

Step 7 Calculate Medicaid Aggregate EHR Incentive Amount

Overall Amount for 4 years \$15,675,561
Medicaid Share 47.13%

Medicaid Aggregate EHR Incentive Amount	\$7,387,108.25
--	-----------------------

Step 8 Calculate Annual Incentive Payment Amount

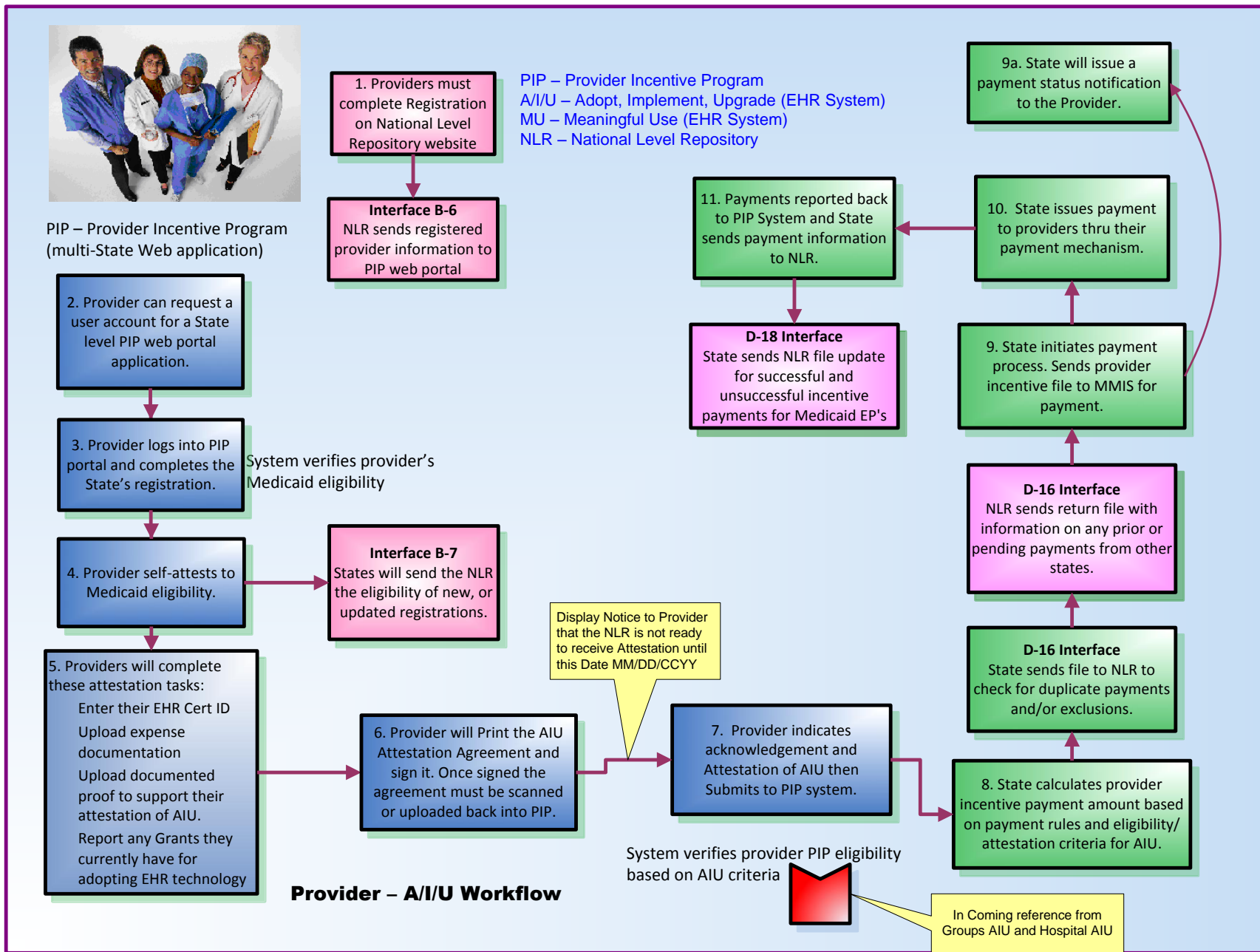
	Percentage	Payment
Year 1 Payment	50%	\$3,693,554.13
Year 2 Payment	40%	\$2,954,843.30
Year 3 Payment	10%	\$738,710.83
Year 4 Payment	0%	\$0.00

Attachment B - CO R&A Configuration Worksheet

Template	COTS Standard	State's Choice	State Notes/Comments
Validations			
Provider Create Account			
Validate that the provider's TIN and ID (NPI or SSN) combination is on the Provider Master File (PMF).	hard	Select...	
Not found on PMF then validate using the CMS R&A System record.	hard	Select...	
ACS check to validate that a "group" status is noted on the PMF for users selecting Group Representative role.	N/A	Select...	
About You			
ACS standard check to validate the provider's {Medicaid} eligibility; provider's Medicaid ID is on the PMF.	hard	Select...	
ACS standard check to validation if the provider is on the death registry.	hard	Select...	
ACS standard check provider license number is on the PMF and is active.	soft	Select...	
Will your State elect to include only active providers on the PMF?			
If yes, then skip lines 15 - 20 and 43 - 48. If no, please complete lines 15 - 20 and 43 - 48 indicating the numbers for each of the applicable status types.			
ACS standard check provider status "XX" is noted as deceased.	hard	Select...	
What number on the PMF indicates the provider is deceased? Enter here:			
ACS standard check provider status "XX" is noted as permanently suspended.	hard	Select...	
What number on the PMF indicates the provider is permanently suspended? Enter here:			
ACS standard check provider status "XX" is noted as pending a transition.	hold	Select...	
What number on the PMF indicates the provider is pending a transition? Enter here:			
ACS standard check provider status "XX" is noted as inactive	soft	Select...	
What number on the PMF indicates the provider is inactive? Enter here:			
ACS standard check provider status "XX" is noted as rejected	soft	Select...	
What number on the PMF indicates the provider is rejected? Enter here:			
ACS standard check provider status "XX" is noted as temporarily suspended.	soft	Select...	
What number on the PMF indicates the provider is temporarily suspended? Enter here:			

Medicaid Eligibility			
for EP- ACS validates that the outcome of Formula 1 or Formula 2 meets eligibility when result is as follows: o ≥ 20% for pediatricians o ≥ 30% for all other provider types	soft	Select...	
for EH- ACS validates that the outcome of the eligibility entries meets eligibility when the result is as follows: o The hospital is a Children's hospital. OR o If Medicaid volume > 10% AND LOS (Avg. Length of Stay) ≤25 days AND the last 4 digits of CCN = 0001 – 0879 or 1300 – 1399.	soft	Select...	
ACS validates that the provider has been paid a Medicaid claim in the last year	hard	Select...	
Attestation of EHR - AIU			
Criteria Method - ACS check to validate that a document with the subject value of "Contract" is attached.	soft	Select...	
EHR Certified Technology - ACS standard check valid Certification number is listed on ONC as a Certified EHR system	soft	Select...	
EHR Certified Technology - ACS check to validate that a document is attached.	soft	Select...	
Review, Sign and Attach Attestation			
ACS validates that there is a document attached	hard	Select...	
Send {Year X} Submission			
ACS standard check to validate the CMS R&A System record is on file.	hard	Select...	
Please note: Even if you noted one of these validation as "soft" at the About You/Registration page, you can change the validation to "hard" upon the final attestation.			
ACS standard check to validate the provider's {Medicaid} eligibility; provider's Medicaid ID is on the PMF.	hard	Select...	
ACS standard check for a death registry entry	hard	Select...	
ACS standard check provider license number is on the PMF and is active	soft	Select...	
ACS standard check provider status "XX" is noted as deceased.	hard	Select...	
ACS standard check provider status "XX" is noted as permanently suspended.	hard	Select...	
ACS standard check provider status "XX" is noted as pending a transition.	hold	Select...	
ACS standard check provider status "XX" is noted as inactive	soft	Select...	
ACS standard check provider status "XX" is noted as rejected	soft	Select...	
ACS standard check provider status "XX" is noted as temporarily suspended.	soft	Select...	
ACS validates that the outcome the eligibility formulas meets eligibility criteria.	soft	Select...	
ACS standard check that expenses entered meet the minimum criteria.	soft	Select...	
Program Eligibility			
B-6 interface with other State exclusion	soft	Select...	
D-16 response interface with other State exclusion	soft	Select...	
D-16 response interface with a Federal exclusion	hard	Select...	

Attachment C - EP Incentive Program Workflow

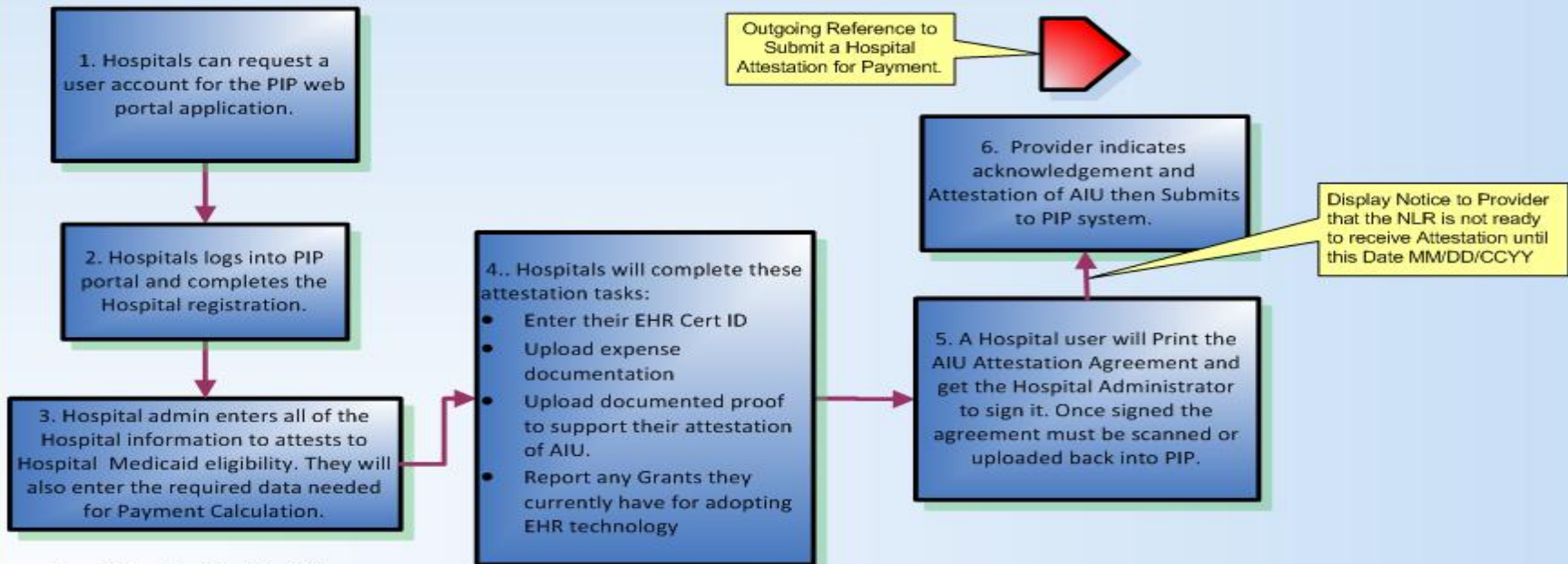


Attachment D - EH Incentive Program Workflow



PIP – Provider Incentive Program
A/I/U – Adopt, Implement, Upgrade (EHR System)
MU – Meaningful Use (EHR System)
NLR – National Level Repository

PIP – Provider Incentive Program
(multi-State Web application)

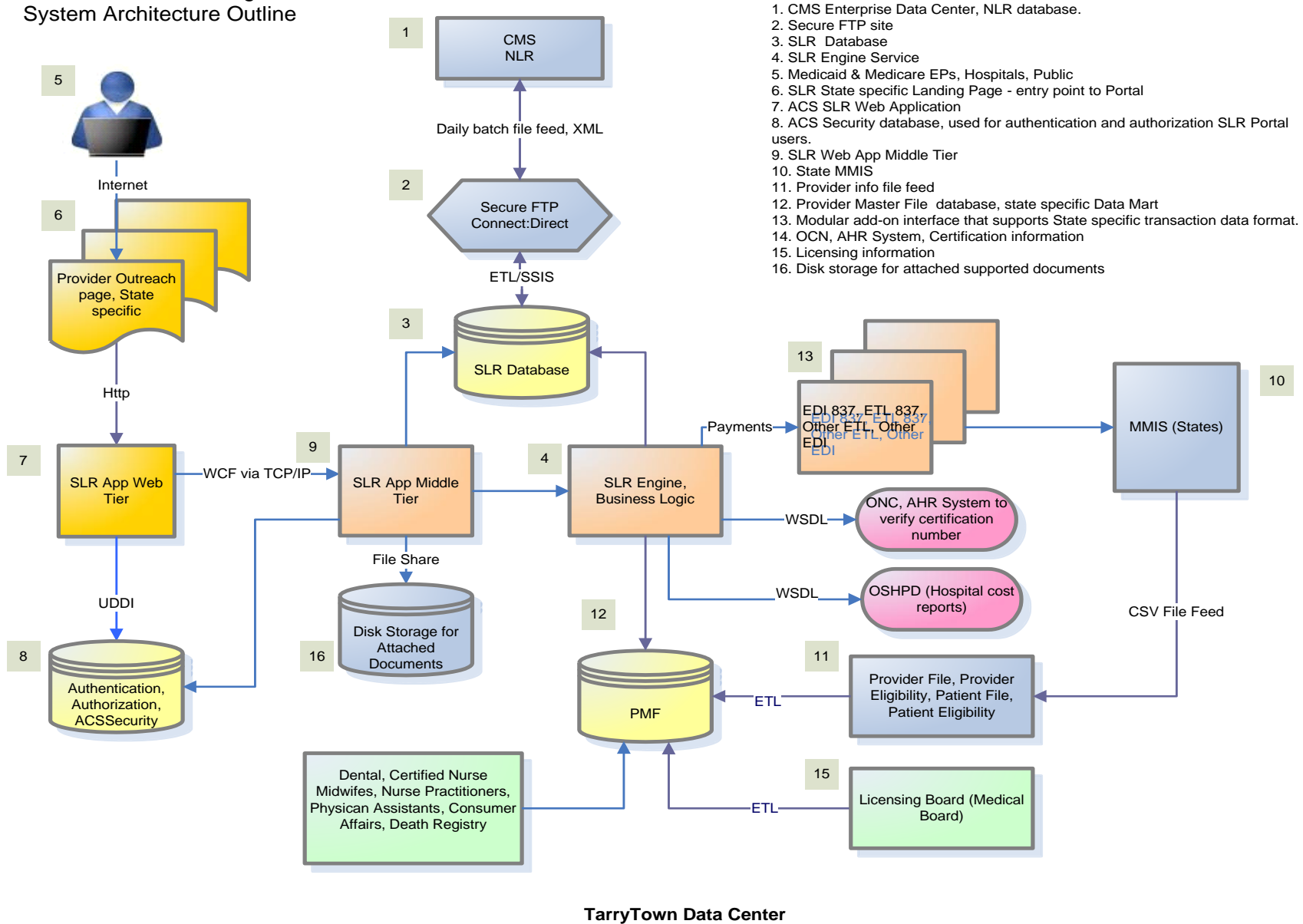


Hospital – AIU Workflow

Hospital will attest that they meet Medicaid criteria.

Attachment E - Provider Incentive Program System Architecture

Provider Incentive Program System Architecture Outline



Attachment F – Department Response to CMS Comments / Questions – July 2011

#	CMS Topic	Original SMHP	Changes Made / Comments	Revised SMHP
Enclosure A				
1	No mention of Indian Health Service, Tribal providers, Urban Indian clinics		Added relevant section to Environmental Scan. Future SMHP will include discussion of HIT adoption amongst IHS and tribal providers.	Section 2.1.1, p 10
2	Change references to "SLR" and "NLR" to Registration and Attestation System	all	References changed to Colorado Registration and Attestation system and CMS Registration and Attestation System	all
3	Describe clearly process for managed care providers not currently enrolled in the State's system, but that serve Medicaid patients. If all providers must enroll in the State's system, please make that clear.		Described limited enrollment process in Section 4.11	Section 4.10, p 61
4	Need for Colorado to identify a strategy for verifying eligibility and auditing of out-of-state patient encounters.	p 8	Auditing program and appeals process details provided in new Section 5.	Section 5.0, p 68
5	Additional details needed on state audit strategy such as reducing fraud and abuse, actions taken when fraud and abuse detected, and payment audit controls, and tracking overall payment amount. Describe audit sampling methodology and use of database matching and other electronic verifications to audit providers. How is auditing integrated with other audit activities and is the PI unit involved.	pp 36, 43-44		
6	CMS will not allow the REC to be used for auditing.	pp 41, 60		
7	Handling administrative reviews, appeals and redetermination process. Does the Department already have an appeals process.	p 44	Appeals process addressed in Section 4.14	Section 4.13, p 66
8	Issues and risks associated with linking so many program policies with rulemaking	p 44	Removed section on rulemaking	p 54

#	CMS Topic	Original SMHP	Changes Made / Comments	Revised SMHP
9	How will the State determine if a provider is in good standing and not sanctioned?	p 51	Question addressed in Section 4.5 - Colorado Registration & Attestation System	Section 4.5, p 54
10	All hospitals must complete a continued eligibility verification process with the State.	p 52	Clarified language on this issue.	Section 4.6, p 55
11	All eligible providers must have an active web-user account with NPPES and hospitals in PECOS.	p 52	Clarified language on this issue.	Section 4.6, p 55
12	CMS cannot approve modification to 90-day period in patient volume methodology.	p 53	Revised language to indicate that 90 day period must be in the previous calendar year.	Section 4.8, p 57
13	Tie references to Medicaid programs rather than using generic language from Final Rule	p 53	Revised language accordingly.	Section 4.8, p 57
14	Include data sources for all elements. State, at the least, should verify provider's numerator for all entries.	p 54	Verification / Audit steps provided in tables after each sub-section in Section 4, defining roles for Attestation Vendor, Fiscal Agent, Department and Audit Division. Verification of numerators also addressed in new auditing Section 5.	Section 4.8.3, p 59
15	Reliance on attestation for hospital-based status is not acceptable. Describe how the state will edit for hospital-based EP status for 100% of EP's pre-payment.	p 54	Comment addressed; state attestation system will verify hospital-based status against Medicaid claims and flag discrepancies for follow-up	Section 4.8.3, p 59
16	Three year record retention period not sufficient	p 54	Record retention period changed to 6 years.	Section 4.8.3, p 59
17	Be more expansive on the list of documentation needed for A/I/U and will they be uploaded to SLR.	p 55	Comment addressed; expanded list of documentation and indicated options for providers to upload or fax documentation	Section 4.9, p 60
18	Cannot preclude EP's from participating because they are not enrolled with the MMIS. Create alternate means to get them in the system.	p 56	Comment addressed; clarified process for limited provider enrollment and associating NPI with NPI/TIN to be issued payment through MMIS.	Section 4.10, p 61
19	CMS unclear about steps for payment reassignment.	p 56		
20	Identify cost report data sources for all components of the EHR hospital incentive payment, as well as verify that the data sources are consistent with what the final rule indicates. CMS cannot approve the SMHP without the hospital calculation data sources.	Attch. A	The data for the hospital incentive payments is derived from the cost reports. Any further detail will require additional cost, funding, and time. If further data is required, an audit (for all intents and purposes) will be initiated, our auditor would have to request the financial statements, from the providers directly. Then the auditor would need to compile the money from various sources to provide a total. This will be burdensome on the State's resources.	

#	CMS Topic	Original SMHP	Changes Made / Comments	Revised SMHP
Enclosure B				
1	More robust environmental scan focused specifically on HIT adoption and the capability of EP's and EH's to achieve meaningful use. Cite specific sources.		Indicated that more robust environmental scan is planned during implementation of SMHP, including updated survey information and activities as well as additional industry research.	Section 2, p 8
2	Address strategies for extending HIE beyond Medical Referral regions as well as across State borders.	p 7-8	Strategies for the development of statewide HIE, including ubiquitous adoption amongst providers in every Colorado community, and for interstate exchange are addressed in the State HIE Strategic Plan as developed by the State-Designated Entity for HIE (CORHIO) in collaboration with Colorado Medicaid. This plan is available at: http://corhio.org/media/4901/coloradostatehealthinformationexchange/strategicplan.pdf	
3	A current state assessment is listed as the first of three principal phases of the SMHP. Will there be any relationship between the environmental scan of HIT adoption performed under the SMHP and this assessment?	p 20	Yes, comment on alignment between two plans included in Section 2.2. Current State Assessment is exclusive to state-owned HIT projects, systems and initiatives but is complementary to environmental scan to be conducted under SMHP.	Section 2.2, p 21
4	When applicable, tie each HIT state system back to the EHR incentive program and identify any relationships and opportunities to leverage critical data and information for the program.	pp 20-30	Documentation of the ties between these initiatives and the EHR Incentive Program will be detailed in the next iteration of the SMHP.	
5	Please clarify if the Laboratory Information Tracking System is stand-alone or is bi-directional	p 27	Comment addressed; LITS Plus is a stand-alone system that does not currently have bi-directional capabilities	Section 2.2, p 28
6	To Be section. There is little discussion about EHR incentive program goals outside of those in the HIE state plan	To Be Section	Development of goals for EHR incentive program will be included in next iteration of SMHP.	
7	What content would ACS use to train the trainers?	p 44	Clarified that ACS training will focus specifically on use, navigation and troubleshooting for users of the R&A system. Department staff, Communications Manager, and CO-REC partners will be trained.	Section 4.4, p 54
8	Suggest leveraging CORHIO as state HIE to capture clinical quality measure data	p 58	Colorado plans to develop the implementation details for acceptance, verification and storage of Meaningful Use data submissions in the next iteration of the SMHP. The Department intends to partner with CORHIO to leverage HIE functionality to assist with clinical quality measure reporting and storage and the plan for moving forward on this issue will be incorporated into the SMHP and IAPD in the future. The Department will ensure coordination between the HIE and the Attestation Vendor as	

			needed to guarantee interoperability and reduce duplication of costs and efforts.
--	--	--	---