Colorado’s
State Health Innovation Plan

DRAFT FOR REVIEW

November 4, 2013
EXECUTIVE SUMMARY .............................................................................................................. 3
INTRODUCTION .......................................................................................................................... 14
CHAPTER 1: BACKGROUND ........................................................................................................ 18
CHAPTER 2: DELIVERY SYSTEM DESIGN AND PAYMENT METHODS ........................................... 30
CHAPTER 3: THE COLORADO FRAMEWORK: INTEGRATING BEHAVIORAL HEALTH AND PRIMARY CARE .......................................................................................................................... 55
CHAPTER 4: COLORADO’S HEALTH CARE WORKFORCE: BUILDING THE CAPACITY TO SUPPORT OUR GOALS .......................................................................................................................... 94
CHAPTER 5: HEALTH INFORMATION TECHNOLOGY AND HEALTH INFORMATION EXCHANGE ................................................................................................................................. 112
CHAPTER 6: PUBLIC HEALTH .................................................................................................... 135
CHAPTER 7: PATIENT EXPERIENCE .......................................................................................... 159
CHAPTER 8: LEGAL BARRIERS TO INTEGRATED CARE ............................................................. 179
CHAPTER 9: EVALUATING COLORADO’S STATE HEALTH INNOVATION PLAN ................................................................. 179
CHAPTER 10: MANAGING THE INNOVATION PLAN ................................................................. 185
EXECUTIVE SUMMARY

Introduction

Colorado’s State Health Innovation Plan lays out a vision for making Colorado the healthiest state in the nation by:

- **Creating** coordinated, accountable systems of care that give Coloradans access to integrated primary and behavioral health services regardless of their insurance payer or status
- **Ensuring that** each Coloradan has access to a trusted home for care that meets them where they are
- **Integrating** physical and behavioral health
- **Leveraging** the power of our public health system to support the delivery of clinical care and achieve broad population health goals
- **Using** outcomes-based payments to enable transformation
- **Engaging** individuals in their care and improving consumer satisfaction

By aligning our public and private resources and levers, we hope to drive our markets in a direction that reinforces coherence and coordination. Doing so will require buy-in from, support for and engagement with payers, providers, purchasers, policymakers and—most importantly—patients.

The integration of primary care and behavioral health is the cornerstone of our vision. We strongly believe that coordinated, accountable systems of care begin with primary care and work outward from there. And, because more mental health and substance use conditions are seen in primary care than in any other healthcare setting, and patients in primary care frequently exhibit co-occurring behavioral health issues along with chronic medical conditions, it is both logical and imperative that we implement models of care that incorporate behavioral health into the organization and delivery of primary care.

Accordingly, we have developed a model for integrating primary care and behavioral health, and sustaining it through outcomes-based payments. This model is embodied in a bold and important goal:
By 2019, 80 percent of Coloradans will have access to coordinated systems of care that provide integrated primary and behavioral health care.

By creating a strong foundation of integrated primary and behavioral health, and building upon that to achieve the vision outlined above, we can improve the experience of care for our citizens, improve the health of our population and bend the cost curve: a Triple Aim win.

Outline of the Innovation Plan: Highlights of Findings and Recommendations

Chapter 1: Background

In order to create the context for our vision and approach, this Innovation Plan begins with a “Background” section that examines the broad factors shaping Colorado’s health care landscape:

- Demographic profile and geography.
- Population health issues and considerations.
- Description of Colorado’s highly competitive commercial health insurance market.
- Coverage and cost trends for both commercial and government-sponsored insurance

Chapter 2: Delivery and Payment Redesign

With this context informing our approach, we then lay out our overall vision for transforming the delivery and payment of health care. We start by examining the current “as is” state of health care delivery and payment in Colorado, highlights of which include:

- Fragmented care as illustrated by a number of factors, including the relative absence of large, coordinated systems of care and continued prevalence of small provider practices, and siloed administration of physical and behavioral health benefits in both commercial insurance and Medicaid.
- A largely fee-for-service (FFS) payment system that perpetuates fragmentation, exacerbated by a proliferation of differing outcomes measurements from Colorado’s payers.
- A provider community that is just beginning the transformation of clinical and administrative systems to enable participation in payment models that require them to manage their patient panel’s to outcomes targets within annual budgets.
Numerous opportunities and innovations that provide a strong foundation from which to launch our transformation efforts, including: a strong PCMH foundation in both safety net and private practices; Medicaid’s Accountable Care Collaborative, which builds upon a patient-centered medical home (PCMH) model enabled by care coordination payments and gain-sharing opportunities; a movement toward alignment of PCMH delivery, measurement and payment approaches through the participation of eight commercial payers and Medicaid in the Comprehensive Primary Care (CPC) Initiative; widespread embrace of integrated primary care and behavioral health, as witnessed by numerous initiatives underway statewide; access to clinical data through a network of health information exchanges, and to claims data through Colorado’s All Payer Claims Database, both of which will enable better management of care and costs and system-wide coordination; numerous regional alliances that bring together safety net, public health and community agencies into local systems of care.

Based on the needs and opportunities identified in the first part of the chapter, we then identify targets for transforming the current state into our preferred, “to be” vision of health system transformation:

- Improve health care quality:
  - Improve performance on indicators of chronic disease and behavioral health over the next five years.
- Transform payment:
  - By 2019 a majority of primary care expenditures in Colorado will be made through prospective, outcomes-based payment models.
  - By 2024 a majority of all health care expenditures in Colorado will be made through prospective, outcomes-based payment models.
- Reduce statewide health care spending trend:
  - Reduce the average annual growth rate of health care spending from 8.6 percent annually to the rate of overall inflation over the next five years.

Our strategies for reaching these targets and achieving our vision include:
• Build on existing PCMH foundation in Medicaid and private sector to connect all Coloradans with a primary care home that provides integrated care.
  o For certain populations (e.g., Medicaid enrollees with severe and persistent mental illness) this “health home” will be a community mental health center that folds primary care into its behavioral health services. Accordingly, Colorado is exploring a federal waiver to enable this model of integration.
• Implement a defined, evidence-based, agreed-upon model of integrated care in primary care practices statewide. Adapt this model to enable “bi-directional” integration of primary care into behavioral health settings consistent with the Medicaid Health Homes approach.
• Work with Medicaid and commercial payers to accelerate transition to outcomes-based, value-oriented payment models. Start with the FFS plus care coordination payment model of the CPC Initiative, then proceed along a path that enables payers to transition to prospective payments within their existing retrospective FFS-based systems.
  o For example, payers can work with providers (in the later stages of practice transformation) to set agreed-upon budgets. Practices can still bill FFS against those budgets, with a “retrospective true-up” on a quarterly or annual basis.
• Leverage common measures in primary care (such as those agreed upon for CPC) to drive alignment on measures for the integrated care model.
• Establish criteria to assess practices’ readiness to implement the systems necessary to integrate care and manage risk; identify a neutral party (i.e., not an entity associated with either payers or providers) to evaluate practices and connect them with payers upon successful completion of the criteria. Start with the 73 CPC practices as “early adopters.”
• Provide technical assistance and support to primary care practices to enable their transition to integrated care models, success with non-FFS payments and partnerships in coordinated systems of care. We have laid out a “glide path” to payment transformation for integrating primary care and behavioral health that can also serve as blueprint for transitioning to new payment models within larger accountable systems of care.
• For public programs, align rules and policies among primary care and behavioral health programs to enable integration.
• Facilitate the creation of “virtual” ACOs and community-based systems of care by building on and learning from existing community health alliances to coordinate clinical care with the public health delivery system and community agencies.

The chapter closes by identifying some outstanding questions whose answers will help us implement these strategies; ongoing engagement with stakeholders will be critical for answering those questions.

Chapter 3: The Colorado Framework – Integrating Behavioral Health and Primary Care

Because we plan to begin moving toward the broad vision of coordinated care outlined in Chapter 2 by first integrating primary care and behavioral health, Chapter 3 explains our rationale and plan for doing so: “The Colorado Framework.”

The Colorado Framework defines integrated behavioral health care as:

The care that results from a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population. This care may address mental health, substance abuse conditions, health behaviors (including their contribution to chronic medical illnesses), life stressors and crises, stress-related physical symptoms, ineffective patterns of health care utilization.

We are focusing our efforts on this model for three reasons:

• Robust evidence that integrating behavioral health service delivery into the primary care setting can improve care and control costs, especially for patients with co-occurring chronic (e.g., diabetes, heart disease, asthma, etc.) and behavioral (e.g., mental and substance use) conditions.
• Strong base of integrated care initiatives in both safety net and commercial health care delivery settings on to build.
• Strong base of patient-centered medical home models in Medicaid and the commercial sector on which to build.

Practices working within our framework for integration will implement tailored models that work for their specific communities and populations. These models fall along a continuum from coordination to co-location to fully integrated care with an embedded behavioral health provider on the primary care team, the end goal. We recognize that some practices in Colorado will never
be in a position to achieve that ultimate goal, but we intend to move all as far along the continuum as practicable. (Note: the Framework focuses on a primary care-based approach to integrated care because that is the way most Coloradans will experience it. However, we also want to enable so-called “bidirectional” approaches that bring primary care into a behavioral health setting. This model of integrated care is critically important for Coloradans with severe and persistent mental illness whose health home is a community mental health center, not a primary care practice.)

Key elements of our model include:

- Team-based care
- Shared patients and mission
- Systems to support integration

Certain core competencies are necessary to achieve these elements: leadership and practice engagement, quality improvement processes, data capacity, population management, patient-centeredness and care coordination.

Achieving these competencies requires a coherent shared vision and model for transformation, resources to support the transformation, and the coordination of the providers and the provision of support services within a statewide infrastructure. We propose using a statewide Colorado Health Extension System to do this: a central hub of collaborative organizations providing organization and practice support services for health extension agents hired and deployed at the community level. The approach to practice transformation is highlighted in this chapter and explained in more detail in the “Practice Transformation” portion of the Appendix.

Sustaining this new model of care requires a simultaneous movement away from FFS to outcomes-based payment models that reward the transformation. Accordingly, this chapter outlines a payment reform trajectory that supports integration, builds on current approaches and can align both public and private payers, as illustrated below:
Chapter 4: Workforce

This chapter examines how to build a health care workforce with the capacity, training, efficiency and effectiveness to support the “Colorado Framework” integrated care model—and, especially, to ensure we can meet the goal of giving 80 percent of Coloradans access to this model by 2019.

We face challenges in transforming our health care workforce. While its overall size is appropriate by many measures, rural and frontier regions face ongoing shortages of both primary care and behavioral health providers. In addition, Colorado has a documented deficit of providers in specific behavioral health specialty areas.

Our workforce strategy is to develop a statewide roadmap that recognizes the wide range of issues, including training, licensure, scope of practice, recruitment and retention. The roadmap will recognize the need for local decision-making and innovation combined with statewide support, financial sustainability, a shared vision and an ongoing culture of collaboration. It is framed around five critical areas:
• Building on Colorado’s base of information and data to aid decision-making.
• Creating a statewide systems-level plan of workforce training.
• Strengthening our workforce pipeline.
• Addressing policy barriers related to workforce innovation.
• Leveraging local technology, innovation and leadership.

Chapter 5: Health Information Technology and Health Information Exchange

Colorado has a strong base of health information technology (HIT) and health information exchange (HIE), but much work remains to be done to create a statewide system to support our integrated care model, specifically, as well as our broader vision of creating coordinated systems of care. Key HIT challenges include differing (and sometimes incomplete) electronic health record (EHR) systems among hospital systems and practices, and between different state agencies; different EHRs, consent requirements and data capture ability for physical and behavioral health care settings; and misperceptions about the limits on information-sharing posed by current state and federal privacy laws. These fundamental issues make effective information exchange problematic.

In order to facilitate integrated care, as well as the creation of more coordinated systems of care, this chapter outlines a combined HIT/HIE strategy that includes:

• Promoting the adoption of advanced EHRs that can capture both physical and behavioral health information, as well as other tools that support integrated care.
• Expanding telehealth infrastructure for rural populations.
• Overcoming barriers to information sharing between physical and behavioral health providers by developing a common consent model for behavioral health information exchange regardless of care setting.
• Educating both providers and patients about what state and federal privacy laws do and do not allow in terms of information-sharing.
• Developing capabilities for alerts and notifications for ER visits or hospital admissions.
• Expanding analytics capabilities for providers, using aggregated clinical and administrative data.
• Enabling patient access to their own clinical records through the HIE.
• Incorporating public health databases such as vaccine registries, birth and death records and others into the HIE infrastructure, in order to enable providers a more complete picture of their patients’ health care use patterns and needs.

Expanding HIE statewide is essential to achieving our vision, but requires significant investment. The state is pursuing federal funds to broaden connectivity and interoperability among its programs and agencies.

Chapter 6: Public Health

Our examination of Colorado’s public health system in this chapter shifts the focus from the micro level of supporting our integrated care model to the macro level of supporting the broad vision of creating coordinated systems of care.

In order to bring public health in line with the rest of the care delivery system and the payment models that support it, Colorado must make some significant changes how public health is delivered. Key components that will facilitate the integration of public health with the larger delivery system include:

• Building connections between public health and direct care including resource sharing, goal-setting and community collaboration using a Health Extension Service. Population health goals can only be met with input from the population. Public health has clear connections through recent community health assessment and planning and their population focus; clinical care providers have direct access to influencing health at the individual level. Clinical care providers and public health must collaborate to impact population health

• Connecting public health to the statewide Health Information Exchange. Determining public health priorities requires data about the overall health and health care provision of the population. Currently the public health system controls the population-based data and direct care controls the health care provision data. By connecting with the state HIE, public health can use these multiple levels of data to create a more comprehensive picture of health across communities to aid in more robust health priority setting.
• Incorporating mechanisms for reimbursement of services provided through the public health system into new payment models. Public health is reliant on government funding and grants to support ongoing work. With additional sustainable sources of funding, our public health agencies will be able to invest in more long-term prevention initiatives to improve population health.

Chapter 7: Patient Experience

The patient experience of health care services in Colorado varies based on one’s health insurance coverage, ability to pay for needed care, age, health care needs and location. Accessing coordinated health care can be challenging for Coloradans with chronic health conditions. The lack of care coordination system-wide can result in delayed diagnosis and incomplete or duplicative care. The costs and complications of uncoordinated care keep many from seeking the help they need. Coloradans want more respectful interactions with the health care system, better information sharing and coordination of care, and transparency about costs and billing.

Chapter 8: Statutory and Regulatory Changes Necessary to Implement This Plan

Colorado’s legal and regulatory landscape is inconsistent with creating a health care system dedicated to the triple aim of improving population health, improving the patient experience, and reducing costs. It requires changes in order to support a transformation to coordinated systems of care and integrated provision of primary care and behavioral health. The fragmented professional and facilities licensing laws, reimbursement regulations, building codes, and other public health provisions reflect a bygone era when health care was delivered in silos and patient care ignored population-wide needs and efficiencies. Statutory provisions currently regulate providers without reference to their collaboration with other professionals. Legal obligations are contradictory and uncoordinated. Regulations that define Colorado’s current payment system operate as affirmative barriers to integrated care.

This chapter summarizes the major legal issues that must be addressed to ready our state for integrated care:

• Unify fragmented regulatory oversight of mental health, behavioral health and substance use disorder providers.
• Clarify privacy and confidentiality rules under HIPAA and Colorado law.
• Reconsider “carve out” reimbursement for mental health care in Colorado’s Medicaid program.
• Reconsider diagnosis requirement for mental health reimbursement.
• Critically evaluate behavioral health organization infrastructure.
• Remove “same day billing” restrictions in Medicaid.
• Align professional licensing laws, professional duties and regulatory obligations.
• Coordinate conflicting health facilities building and construction codes.
• Simplify, clarify and coordinate providers eligible for reimbursement.

The chapter recommends that Colorado undertake an intensive legislative reform project: a comprehensive overhaul to the state’s mental, physical, and public health laws resulting in an Integrated Health Statute that unifies, aligns, and coordinates the laws that affect the delivery of integrated health.
INTRODUCTION

Making the Case for Colorado

Colorado aims to become the healthiest state in the nation by:

- **Creating** coordinated, accountable systems of care that give Coloradans access to integrated primary and behavioral health services regardless of their insurance payer or status.
- **Ensuring that** each Coloradan has access to a trusted home for care that meets them where they are.
- **Integrating** physical and behavioral health.
- **Leveraging** the power of our public health system to support the delivery of clinical care and achieve broad population health goals.
- **Using** outcomes-based payments to enable transformation.
- **Engaging** individuals in their care and improving consumer satisfaction.

The integration of primary care and behavioral health is the cornerstone of our vision. We strongly believe that coordinated, accountable systems of care begin with primary care and work outward from there. And, because more mental health and substance use conditions are seen in primary care than in any other healthcare setting, and patients in primary care frequently exhibit co-occurring behavioral health issues along with chronic medical conditions, it is both logical and imperative that we implement models of care that incorporate behavioral health into the organization and delivery of primary care.

Accordingly, we have developed a model for integrating primary care and behavioral health, and sustaining it through outcomes-based payments. This model is embodied in a bold and important goal:

**By 2019, 80 percent of Coloradans will have access to coordinated systems of care that provide integrated primary and behavioral health care.**
Achieving this vision will not be easy. We acknowledge the challenges we face, most notably a fragmented delivery system enabled by a predominantly fee-for-service payment system. The resulting duplicative work and misaligned treatment plans result in poor care and poor health for the patient.

Yet, we are confident in our ability to fulfill our vision and achieve our goal. The detailed Innovation Plan that follows illustrates our strategies for overcoming these and other challenges. These strategies are enabled by a strong history of leadership from our elected officials, public-private collaboration and innovation. Colorado’s payers, providers, purchasers, patient advocates, policymakers and policy organizations work together closely, aided by strong support from the state’s philanthropic community, to craft and realize innovations to support health care transformation. It is worth taking a moment to highlight examples of this spirit in action:

- In 2006 Colorado’s General Assembly passed SB 06-208 establishing a bipartisan, multi-stakeholder Blue Ribbon Commission for Health Care Reform. The Commission worked for 11 months to develop 32 recommendations for increasing health care coverage and access, controlling costs and improving quality. Many of the Commission’s recommendations have been implemented, including Medicaid and Child Health Plan Plus coverage expansions and the creation of a statewide health insurance exchange.
- In 2008, Colorado’s hospitals voluntarily established a fee on themselves that draws down additional federal dollars that Colorado has used to enable Medicaid and Child Health Plan Plus expansion.
- In 2009, four commercial health plans and Medicaid came together to participate in a joint patient-centered medical home pilot. This in turn laid the groundwork for Colorado’s successful application for the Comprehensive Primary Care Initiative in 2012. Eight commercial health plans, one self-insured payer and Colorado Medicaid have embraced this approach to primary care transformation.
- Colorado’s General Assembly passed bipartisan enabling legislation for the State’s health insurance exchange in 2011, with support from health plans, business, consumer advocates and physicians.
- In 2011, Colorado Medicaid launched the Accountable Care Collaborative, in which seven Regional Care Collaborative Organizations (RCCOs) manage care statewide. Three
of the RCCOs are not managed by health plans but by community-based, multi-provider organizations that have come together to build on unique local strengths in order to address local needs.

- In 2011, a broad array of stakeholders convened by the Center for Improving Value in Health Care (CIVHC) developed a “Framework for Transforming Health Care Payment in Colorado,” which describes a vision for moving Colorado toward integrated systems of care reimbursed through global payment models. Since the creation of that framework, Colorado providers, payers and purchasers have been actively partnering to develop bundled payments for chronic conditions and acute care episodes.

- Colorado’s primary care and behavioral health providers are national leaders in partnering to provide integrated physical and behavioral health. More than 100 federally qualified health centers and community health centers around the state provide whole-person care to their safety net clients, and at least 10 grant-funded initiatives (including four funded by the Center for Medicare and Medicaid Innovation) are testing different models for integrating care.

- In April 2013, Governor John Hickenlooper released his “State of Health” agenda, outlining a vision for building a comprehensive, person-centered statewide system that delivers the best care at the best value to help Coloradans achieve the best health. The plan reflects research conducted by the Colorado Health Institute, Colorado Coalition for the Medically Underserved and other nonprofit organizations as well as state agencies, and calls upon public and private organizations, as well as Colorado citizens, to work together to achieve specific targets in four focus areas:
  - Promoting prevention and wellness
  - Expanding coverage, access and capacity
  - Improving health system integration & quality
  - Enhancing value and strengthening sustainability

These initiatives, plus many more around the state, demonstrate Colorado’s collaborative approach to addressing our population’s health care needs. They give us confidence in our ability to align our public and private resources and levers; engage payers, providers, purchasers, policymakers and patients; and drive our markets in a direction that reinforces coherence and
coordination. By creating a strong foundation of integrated primary and behavioral health, and building upon that to achieve the vision outlined above, we can improve the experience of care for our citizens, improve the health of our population and bend the cost curve: a Triple Aim win.
CHAPTER 1: BACKGROUND

Demographics and Geography

Colorado is a large, primarily rural state with pockets of dense urban development in one corridor running along the Rocky Mountains. While the population in Colorado remains one of the healthiest in the nation, it is much less healthy that it was just a few years ago. We have a very competitive health insurance market that hasn’t reduced the upward pressure on health insurance premiums and makes multi-payer alignment incredibly challenging. Statewide, median income tends to be somewhat higher than the national average, however the distribution of that wealth is unbalanced and the discrepancy between low- and high- income Coloradans is increasing. Rising health insurance premiums combined with stagnant or decreasing incomes have placed a significant burden on Colorado’s lower and middle class residents.

Figure 1: Colorado and U.S. per Capita Income vs. CO per Capita Health Expenditures

Colorado was recently identified as one of the fastest growing states with a population increase of over 3 percent from 2010 to 2012, largely due to in-migration.\(^1\) While the bulk of the incoming residents are young, Colorado’s population is aging. Between 2000 and 2010, Colorado’s population aged 55 – 64 increased by an annual average of 6.1 percent from 338,000

to 619,000 compared to the total population growth of 1.7 percent\(^2\). By 2030, Colorado’s population 65+ will be 150 percent larger than it was in 2010 growing from 540,000 to 1,350,000 from aging alone.\(^3\)

**Figure 2: Population Growth by Age by Decade\(^4\)**

![Population Growth by Age by Decade](image)

The racial mix in Colorado in 2012 was primarily White (84 percent), and the percentage of Black (4 percent), American Indian or Alaska Native (1 percent), Asian (3 percent), multiracial (3 percent) and Native Hawaiian or other Pacific Islander (1 percent) populations was low compared to other states. It is important to note that much of the population classified as “White” includes Hispanics, whose proportion of the state’s population is over 21 percent, a 42 percent increase from 2000 to 2012.

The population distribution and geography in Colorado present some unique obstacles to health care access and provision. Colorado is the eight largest state in the nation in terms of land mass,

---


but with a population of just over 5 million, is only the 22nd most populous. Approximately 86 percent of the population is concentrated on 20 percent of the state’s land, primarily along the I-25 corridor stretching from north to south across the state, while the remaining 13 percent of the state’s population is spread across 80 percent of the state. The non-urban populations are split between rural frontier communities of <6 people per square mile. Twenty-three of Colorado’s 64 counties are frontier and an additional 24 counties are rural. In fact, only 21 of Colorado’s 64 counties have populations greater than 25,000. Colorado’s numerous mountain passes and the low population density in areas of the state can make access to health care services extremely challenging.

**Figure 3: Colorado: County Designations, 2013**

Public Health Issues and Considerations

From the outside, and on the surface, Colorado can seem like a very healthy state. Indeed, more than 27 percent of Coloradans regularly meet the federal physical health guidelines--more than

---


any other state in the nation and Colorado ranks tenth among states in healthy living.9,10 Governor Hickenlooper has set an explicit goal for Colorado to become the healthiest state in the nation and identified strategies and targets to get us there.11

We face numerous challenges to meeting this goal. Colorado continues to lag behind on several critical measures of health care provision, ranking 28th in prevention and 40th in health care access.12 Other challenges include:

- **The state’s rising obesity rate.** While Colorado continues to have the lowest rate of obesity in the nation, that rate has been steadily rising and recently exceeded 20 percent, a number that would have made us the fattest state in the nation just 15 years ago.13 Altogether, more than 60 percent of the state is either overweight or obese, including almost one in three children.14 However, there is some indication that efforts to address obesity may be having a positive effect. In 2007, 14.2 percent of Colorado’s children between 10 and 17 were obese; that rate fell to 10.9 percent in 2011.15

- **Access to mental health and substance use treatment.** Three in ten Coloradans need treatment for mental health or substance use disorders each year, yet less than half of them are able to access care.16 Colorado also lags in mental health spending, currently ranking 32nd out of the 50 states and spending less than one-third the national average to treat substance abuse disorders.17 Mental health concerns are especially pronounced in the Colorado adolescent population where the suicide rate is the eighth highest in the nation.18 We know that racial minorities and the poor have a more difficult time

---

17 Ibid.
Homeless in Colorado

In Colorado, 16,700 people are estimated to experience homelessness on any given night. Nearly 15 percent of homeless individuals in the Metro Denver area reported “mental illness, emotional problems” as the cause of their homelessness in 2013. Approximately 70 percent of homeless patients in Colorado have no health insurance, primarily because they do not qualify for public insurance and cannot afford private insurance.

Lack of housing increases an individual’s exposure to disease and can worsen preexisting medical conditions. As a consequence of homelessness and unemployment, health care for this population is frequently interrupted and uncoordinated. Limited or no access to transportation can also make health care inaccessible for many people experiencing homelessness, particularly in rural areas.

state and has more than quadrupled since 2000. This increase, combined with the higher than average rates of uninsurance among children and the high adolescent suicide rates, makes Colorado’s kids a clear priority for any effort to improve the health of Colorado. Living in high poverty areas decreases the chances of getting adequate access to health care, healthy foods and safe outdoor activities. Children below the poverty level are approximately six times as likely to be obese compared to children with incomes above 400 percent of the federal poverty level.

- **Racial and ethnic disparities.** Minority populations in Colorado are growing and are disproportionately affected by poor health and poverty. Colorado’s overall poverty rates topped 13.5 percent in 2011, but 27.3 percent of the African-American community

accessing available mental health services, but the information we have is incomplete and almost certainly understates the need among those populations.19

- **Children’s health.**

According to the 2013 “Kids Count” report from the Annie E. Casey Foundation, Colorado ranks in the bottom ten states in the nation for children’s health.20 The number of Colorado youth living in high poverty areas is growing faster than any other

---

lived below the federal poverty line.\textsuperscript{25,26} The Latino population had the next highest rate at 24.3 percent. Meanwhile, white, non-Hispanics had a much lower poverty rate with only 9.4 percent of the population living in poverty.\textsuperscript{27}

---

**Children and Youth in Colorado**

Colorado’s children are among those most in need across the state. According to the 2013 Kids Count report, Colorado ranks in the bottom ten states in the nation for children’s health. In 2011, there were 1.2 million children under the age of 18 living in Colorado. More than 23 percent of the state’s children 12 years and younger lived at or below the federal poverty level during 2011. The percentage of children living in poverty increased from 14 percent in 2000 to 18 percent in 2013, representing an additional 77,000 children living in poverty. Approximately 9 percent of children had no form of insurance during 2011. Children without insurance are more likely to lack a medical home and thus are less likely to receive coordinated medical, mental and dental care.

Many children have difficulties in the social and emotional realm that interfere with the child’s optimal development, ultimately affecting their ability to be ready for school and life. The 2011 Colorado Child Health Survey indicates that 16 percent of Colorado’s parents report concerns about their children’s emotions, concentration, behavior, or getting along with others. Of these, 64 percent identify these difficulties as moderate or severe, yet only 25 percent of these parents reported seeking counseling or treatment. Approximately 346,000 children under the age of six years live in Colorado. According to the Division of Behavioral Health, approximately 3,640 children under the age of six years, or 1 percent, receive services through Colorado’s public mental health system. Based on the 2011 Healthy Kids Colorado Survey, over one-fifth (22 percent) of Colorado high school students reported that they felt sad or hopeless every day for at least two weeks within the past 12 months. Overall, 15 percent of students reported that they had considered attempting suicide in the past 12 months, and overall, 17 percent of middle school students reported having ever seriously thought about killing themselves. A total of 6 percent of Colorado students reported attempting suicide in the past 12 months.

Minority populations also have a more difficult time receiving needed care than white Coloradans. Black and Hispanic Coloradans experience worse overall health, higher rates of obesity and inactivity as well as lower scores on key public health indicators such as

\textsuperscript{25} U.S. Census Bureau, 2011 American Community Survey. Accessible at: www.census.gov
\textsuperscript{26} Ibid.
\textsuperscript{27} Ibid.
infant mortality, low birth weight, diabetes and high blood pressure.\textsuperscript{28,29,30} Colorado lacks the data capacity to track mental health services to minority Medicaid beneficiaries and as a result has no clear picture of the level of mental health access available to these populations. We know that youth and adults of color are disproportionately likely to receive their mental health care in a correctional facility.\textsuperscript{31} Colorado’s two tribal communities share in this disparity, experiencing increased rates of mental health problems and diabetes as well as decreased access to care and specialists.

\textbf{Commercial and Public Health Coverage and Cost Trends}

\textit{Coverage}

The majority of Colorado’s insured population is covered by commercial health plans. In 2011, the most recent year available, 68.9 percent of Coloradans were covered by commercial insurance (57.4 percent through employer-sponsored group health coverage and 11.5 percent in the individual market). Nearly 30 (29.7) percent of Coloradans were covered by public, government-based health plans including Medicaid, Medicare, Tri-Care, the Federal Employees Health Benefit plan and the Veterans Administration. Colorado currently has over 731,000 residents enrolled in Medicaid, representing 14 percent of the population\textsuperscript{32}. Another 13 percent or 653,000 Coloradans are enrolled in Medicare\textsuperscript{33}. Four percent of the population is enrolled in other government-based health care, including 69,087 children and pregnant women in the state’s CHP+ program.

\textsuperscript{32} Colorado Department of Health Care Policy and Financing. www.colorado.gov/hcpf, Figure for August 2013. Accessed 10/16/2013.
\textsuperscript{33} Department of Regulatory Agencies. Annual Report of the Commissioner of Insurance to The Colorado General Assembly on 2012 Health Insurance Costs. April 25, 2013
Among those covered by group health insurance, 61.3 percent are in employer self-insured plans. The market share of this segment has decreased steadily since 2008 when approximately 70 percent of those covered by group health insurance were enrolled in self-insured plans. Interestingly, employer self-insurance has been on the rise throughout the rest of the country during this time.\(^\text{35}\) There are, however, some initial indications that more employers are now moving to self-insured status as a response to reforms in the Affordable Care Act; this may mean that the self-insured trend in Colorado will reverse in the coming years.

**Commercial insurance premium trends and driving factors**

Colorado’s private insurance market is one of the most competitive in the country. While more than 450 health plans write coverage in the state, 10 insurers account for 69 percent of the market.

---

\(^{34}\) Ibid.

Figure 5: Top Health Insurers in Colorado and Their Market Share

![Top Health Insurers in Colorado and Their Market Share](image)

Premiums in Colorado have followed the national trend, increasing faster than inflation for decades. From 2010 to 2011, premiums for private payer insurance in Colorado jumped substantially, with average individual premiums increasing by 12.5 percent to $5212 and average family premiums increasing by almost 11 percent to $14,850. Figure 6 shows the sharply increasing premium rates in comparison to the slow growth in the state GSP.

---

36 Ibid.
In response to these increasing premiums, Colorado employers are increasingly shifting premium and out-of-pocket costs on to their employees through plan design changes, premium share increases and high deductibles. In its annual survey of Colorado employers in 2012, Lockton Companies, a large international insurance brokerage, found that more than one-half (53 percent) of respondents said their 2013 plan would include a deductible of $1,000 or more, up from 46 percent the year before. This is significantly higher than the national average of 34 percent reported by the Kaiser Family Foundation. Forty percent of Lockton respondents in Colorado offered a health savings account (HSA)-eligible high deductible health plan (HDHP) in 2012, which is substantially higher than the 19 percent reported nationally by the Kaiser Family Foundation. Additionally, nearly one-quarter (23 percent) of employers said they would consider adding a HSA-eligible HDHP in 2013 if one were not currently offered.38

Medicaid/Child Health Plan Plus: Enrollment and Cost Trends

Medicaid currently covers approximately 731,000 Coloradans, 14 percent of the population; the Colorado Health Institute estimates that 478,000 will become eligible for Medicaid as a result of

---

38 Lockton Companies 2013 Colorado Employer Benefits Survey, October 2012. The survey was sent to 647 Colorado employers of all sizes; breakdown of respondents by number of benefit-eligible employees roughly tracks the overall composition of the Colorado market, with three-quarters of respondents having fewer than 1,000 employees and 16 percent having fewer than 51.
the Affordable Care Act expansion, half of whom are expected to enroll.\textsuperscript{39,40} Due to the recession, Colorado’s Medicaid enrollment has been increasing as the newly unemployed find themselves eligible for the program. Colorado also expanded Medicaid eligibility in 2010, adding children up to 250 percent FPL and both parents and adults without dependent children with incomes up to 100 percent FPL (adult enrollment was capped at 10,000). These expansions were enabled by levying a fee on the state’s hospitals.

Enrollment in Colorado’s State Children’s Health Insurance Plan, Child Health Plan Plus (CHP+), increased in FY 2011-12 from 69,008 to 76,330, a 10.61 percent growth. Caseload growth slowed in FY 2012-13 to 4.08 percent, primarily due to a shift in enrollment from CHP+ to Medicaid and decreased spending for CHP+ as a result of the Deficit Reduction Act.\textsuperscript{41}

CHP+ also saw an increase in per capita costs for children between FY 2011-12 and FY 2012-13 of 2.86\%, compared to the decrease seen between FY 2010-11 and FY 2011-12.\textsuperscript{42} The Department of Health Care Policy and Financing (HCPF) oversees Medicaid and CHP+ and believes that the decline in per capita costs in the prior year is a result of comprehensive cost cutting measures as well as the stabilization of per capita costs for the expansion populations, 205\%-250\% Federal Poverty Level, which were added in FY 2009-10.

Per capita spending in Medicaid has been decreasing in Colorado for the last four years, with an average rate of -6.86 percent.\textsuperscript{43} This decrease is due to a number of factors including new cost containment measures and the fact that the newest enrollees tend to be the newly unemployed and relatively healthy as they likely had health insurance at a previous job.

While these programs have experienced declining per capita costs, record caseload growth has continued to drive total costs upward. From FY 2009-10 through FY 2012-13 overall Medicaid spending experienced an average growth rate of 9.2 percent. Spending on key services has also been steadily increasing. For example, inpatient hospital expenditures increased by an average of 3.64 percent over the last four years; spending on durable medical equipment has increased at an

\textsuperscript{39} Colorado Department of Health Care Policy and Financing. \texttt{www.colorado.gov/hcpf}, Figure for August 2013. Accessed 10/16/2013.
\textsuperscript{40} Medicaid Expansion and Newly Eligible Coloradans: A Demographic Portrait, April 2013, Colorado Health Institute, pp. 4-5.
\textsuperscript{41} November 1, 2013, FY 2014-15 Budget Request, R-3 “Children’s Basic Health Plan”, Exhibit C4, page C4-1
\textsuperscript{42} Ibid.
\textsuperscript{43} November 1, 2013 FY 2014-15 Budget Request, R-1 “Medical Services Premiums”, Exhibit N1, page EN-1
average rate of 7.72 percent and prescription drug spending has increased at a rate of 9.84 percent.44

Other Government Programs

Government-based health care programs in the state include the Indian Health Service, the primary source of care for the state’s residents living on the Ute Mountain Ute Indian reservation and for tribal members living off reservation across the state. The Southern Ute Reservation recently applied for and received a P.L. 93-638 contract through the Indian Self-Determination Act to uncouple from the IHS and place their health system under Tribal control.

Colorado also has two high-risk insurance plans: CoverColorado and GettingUSCovered. CoverColorado is a nonprofit, state subsidized high-risk health plan that covers those who cannot qualify for individual insurance because of pre-existing conditions. At the end of 2011, 13,841 people were enrolled in CoverColorado. GettingUSCovered is a federally supported high-risk pool for those that have been uninsured for 6 months or more and have one or more pre-existing conditions. At the end of 2011, 1053 people were enrolled in GettingUSCovered. Both of these programs are slated to phase out in 2014 as pre-existing condition exclusions are eliminated in accordance with the ACA.

44 Ibid.
CHAPTER 2: DELIVERY SYSTEM DESIGN AND PAYMENT METHODS

Executive Summary

Through the Colorado State Health Innovation Plan (SHIP), we envision a future in which most care for most Coloradans will be provided through coordinated systems of care that integrate physical and behavioral health, and connect public health agencies, clinical care delivery systems and community organizations to achieve population health goals. We aim to facilitate this coordination by accelerating the movement toward outcomes-based payment in both Medicaid and the commercial market. And we will begin the transformation by strengthening primary care and integrating it with behavioral health, providing “whole person” care so that, by 2019, 80 percent of Coloradans will have access to integrated primary and behavioral health within these coordinated systems of care.

Our approach is designed to achieve the Triple Aim: improve the health of our population and the individual experience of care, while reducing the per capita cost of health.

This seamless, integrated vision is very different from the current structure and practice of Colorado’s health care delivery system, which is largely siloed and fragmented. Most care is reimbursed retrospectively through fee-for-service (FFS) payment; outcomes are evaluated on a multiplicity of similar-but-not-quite-the-same measures by the many payers in our state.

The current lack of coordination in Colorado creates an inherent weakness by dividing the attention of the delivery system, inhibiting overall system redesign. By asking overburdened providers to focus on many priorities, we force them to pay attention to none. This is true in all areas critical to system transformation: not just quality, but financing, administration, patient engagement, culture and many other determinants of system performance.

Despite these challenges, we have a strong foundation on which to build our vision of coordinated care, including robust initiatives for patient-centered medical homes, numerous pilots that integrate primary and behavioral health, and participation in non-fee-for-service payment models. What we lack at this point is a coherent and coordinated approach to reform.
By aligning our public and private resources and levers, we hope to drive our markets in a direction that reinforces coherence and coordination.

Achieving this vision will require buy-in from, and support for, both payers and providers, both of which are just beginning to transition to new payment and delivery models. Accordingly, our plan includes robust recommendations for supporting practice transformation; identifies data resources that practices can use to manage budgets, monitor performance and chart improvements across all their payers; outlines a detailed “glide path” to help practices and payers transition to new payment models; proposes a “Health Extension System” to support practice transformation and foster linkages between providers, public health agencies and community health improvement initiatives; supports patient, family and care-giver engagement and understands the needs of some targeted populations in Colorado; and calls for expanded health information exchange to support greater coordination.

It is also essential that stakeholders from across the spectrum—patients, advocates, employers, state and community leaders—understand, support and commit to the vision of this Innovation Plan. Ongoing outreach to and engagement with key stakeholders is essential to refine and implement our vision.

In addition, some questions remain to be answered in order to flesh out our strategy; these are identified at the end of this chapter. Our engagement with stakeholders must include processes for addressing those outstanding issues.

**Current Status: How is care being delivered and paid for in Colorado?**

Health care delivery in Colorado is generally quite fragmented. Even as providers affiliate with each other through a variety of business arrangements, there are few integrated systems of care. This fragmentation can be attributed in part to the way practices have traditionally been structured in our state, as well as a largely fee-for-service (FFS) payment system that does not foster greater coordination.

In contrast to some other states, Colorado has few large, multi-specialty physician groups and still has many physicians in small (one-three members) practices. Some physicians join
independent practice associations or align with management service organizations that contract with health plans, both arrangements that still allow autonomy for the individual practice. At the same time, many Colorado physicians are selling their practices to hospitals or entering into direct employment contracts. Estimates of the number of hospital employed physicians vary: from approximately 30 percent according to the Colorado Medical Society to more than one-half according to the Colorado Hospital Association; data from Colorado’s major malpractice insurer show that approximately 26 percent of young physicians prefer hospital employment. The trend towards hospital employed physicians is undeniable. Indeed, certain specialties (e.g., cardiology) have virtually no independent practitioners remaining in Colorado. This trend may enable more coordinated systems of care by facilitating the creation of more accountable care organizations (ACOs).

The degree of coordination afforded by these hospital-physician networks in Colorado varies. While some have succeeded in getting all their providers on one, well-integrated electronic health record, improving communication among facilities and providers and creating at least “de facto” ACOs, others struggle to meld systems and cultures. This problem has been exacerbated by the fact that most of Colorado’s hospital systems have been expanding at a rapid pace in

---


---

**Current Health Care for Indian Tribes in Colorado**

Health care is administered differently between the two Ute Tribes. The Ute Mountain Ute Tribe’s health services are primary administered by IHS at the Ute Mountain Ute Health Center (UMUHC). The Ute Mountain Ute Tribe also has some health services it manages under a 638 contract such as EMS/Ambulance services, Public Health Nursing, Community Health Representatives, and Mental Health Technician services. The UMUHC in FY 13 had 13,507 living patients registered at the facility, had over 28,000 patient visits, and issued 40,594 prescriptions.

The Southern Ute Indian Tribe has a 638 contract for health care, which transfers the responsibility of health care from the Federal government to the Tribe. According to the Southern Ute Tribal Health Department’s annual report for fiscal year 2012, the Health Center in 2011 served 9,269 living patients, 23,335 ambulatory care visits, and 33,648 prescriptions.

Because of the geographic consolidation of services, tribal members may have to travel hundreds of miles get access to care if they are off the reservation or need specialty care not readily available on site.
recent years by merging with or setting up joint operating agreements with previously independent facilities. This kind of rapid consolidation inevitably creates challenges for the participants.46

Fragmentation is perpetuated by the largely separate operations for physical and behavioral health services in both Medicaid and the commercial market. Both Medicaid and commercial health plans administer and pay for behavioral health benefits separately from physical health benefits, creating siloed delivery systems. Medicaid has a behavioral health “carve-out,” providing and paying for mental health and substance use services through a contracted network of behavioral health organizations (BHOs). In contrast to other Medicaid providers, BHOs are paid on an entirely capitated basis. Most commercial payers cover “brief therapy” (i.e., a limited number of visits with a counselor) and a certain number of mood stabilizers, anti-depressants and psychotropic drugs; generally, they do not cover inpatient therapy.

There is also a lack of systematic coordination between our clinical and public health delivery systems, and between clinical and social services providers. In general, few health care providers are aware of the services local public health and social services agencies provide. Coordination between these agencies and health care providers is further stymied by the fact that such agencies generally lack electronic health records, much less a means to transmit data securely. As a result, care coordination becomes more challenging and fragmentation is exacerbated.

Health care delivery in Colorado is largely supported by fee-for-service (FFS) based payments. The state has only one large HMO (Kaiser Permanente) whose integrated staff-model system is concentrated in metropolitan Denver. Only Kaiser and one other smaller HMO (Denver Health Medical Plan) employ physicians and do not pay on a FFS basis for most care provided in their systems. A 2012 survey administered by the Center for Improving Value in Health Care (CIVHC) found that, for other payers, more than 90 percent of their expenditures are for traditional, non-outcome-based payments (FFS, DRGs, etc.). Care coordination payments to primary care practices are common and opportunities for shared savings exist. Payers are starting to work with providers to develop accountable care products and one payer, Rocky Mountain

46 Five hospital systems—four non-profit, one of which is anchored by the state’s academic medical center, and one for-profit—include the majority of community hospitals in metropolitan areas in the state.
Health Plans, is beginning to experiment with global budgets for portions of its population. Colorado is only beginning its journey away from encounter-based payment in the commercial insurance sector.

Colorado’s Medicaid program, however, is leading the movement away from FFS and towards outcome-based payment. Its Accountable Care Collaborative (ACC) launched as a pilot serving a subset of Medicaid enrollees in 2011. The ACC divides the state into seven Regional Care Collaborative Organizations (RCCOs); each ACC enrollee is connected with a primary care medical provider (PCMP) within the RCCO. Both the RCCO and the PCMP receive per-member, per-month care coordination payments, designed to help both the RCCOs and PCMPs implement the infrastructure that will help coordinate care within and among practices.

In addition, Colorado’s strong safety net of federally qualified health centers (FQHCs), rural health centers (RHCs) and community mental health centers (CMHCs) features numerous collaborative relationships among providers.

Challenges

Several factors create challenges to fostering new coordinated models of health care delivery and non-FFS payment in Colorado. Colorado’s Innovation Plan is designed to address the challenges described below.

- Physicians in small, independent practices struggle to get the resources necessary to transform into high-performing primary care practices (e.g., through enhanced use of HIT, enhanced staffing to provide team-based care, etc.) in a FFS-based payment system. At this time, most also lack the “critical mass” necessary to manage care and costs with risk-based payment.

- Colorado’s competitive insurance landscape has led to a plethora of performance measures. In 2012, the Colorado Medical Society identified 699 individual performance measures across six private payers plus Medicare, and found that only 38 of those measures were common to four or more payers. The lack of alignment among measure sets creates a significant expense and reporting burden for providers, limits the reliability
of the data, increases costs and makes it almost impossible for providers to focus their improvement efforts to truly benefit population health.

- The fragmentation we see in urban Colorado is, not surprisingly, compounded in rural parts of the state—which account for the vast majority of the state’s geographic area but less than 20 percent of its population. Lack of access to specialty care also makes it challenging to provide truly coordinated care to Colorado’s rural residents.

**Figure 7: Urban/Rural Distribution in Colorado**

---


48 Colorado State Demographer, [http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheadername1=Content-Disposition&blobheadername2=Content-Type&blobhkey=id&blobtable=MungoBlobs&blobwhere=1251848585503&ssbinary=true](http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheadername1=Content-Disposition&blobheadername2=Content-Type&blobhkey=id&blobtable=MungoBlobs&blobwhere=1251848585503&ssbinary=true)
Opportunities and Innovation

Colorado has an impressive number of payment and delivery initiatives underway around the state, a summary of which can be found in Figure 2 at the end of this chapter with full details available in the appendix for this chapter in the Inventory of Non-FFS Payment and Delivery Innovations. The following highlights key developments that provide the foundation on which we are building the Colorado SHIP.

Colorado’s robust PCMH foundation:

- **PCMH certification:** In 2011, 567 of the 3,000-3,500 physicians in Colorado (16-19 percent) had achieved PCMH recognition from NCQA. Assuming four physicians per practice and 2,000 patients per physician, that equates to roughly 141 practices and 1,134,000 Coloradans seen in PCMHs.49

- **Meaningful Use:** The Colorado Regional Health Information Organization (CORHIO) reports that, as of August 2013, 1,298 practices had achieved Stage 1 Meaningful Use; 2,295 were using their electronic health records for e-prescribing and reporting. All of Colorado’s FQHCs have achieved Stage 1 Meaningful Use.

- **Comprehensive Primary Care (CPC) Initiative:** Eight commercial health plans and Colorado Medicaid are participating in this CMMI-led PCMH initiative. The 73 participating primary care practices are concentrated in the metropolitan areas along the I-25 corridor though some are located on the Western Slope.

- **FQHC Advanced Clinical Transformation project:** The Colorado Community Health Network is providing grant-funded technical assistance to 18 community health centers to facilitate their continued transformation to PCMHs. 13 safety net clinics are participating in this national demonstration project.

- **Medicaid ACC:** The Medicaid ACC is based upon a PCMH approach to primary care, with both RCCOs and primary care medical providers receiving care coordination payments. Originally launched with just 60,000 enrollees, the ACC has grown in just two years to cover 335,000 Medicaid recipients—almost half of the current 719,000 Medicaid

---

49 Figures and estimates provided by HealthTeamWorks, Oct. 18 and 28, 2013.
enrollees. By 2016, an estimated 555,000 Coloradans, 58 percent of Medicaid enrollees, will be part of the ACC.\textsuperscript{50}

**Initiatives to integrate primary care and behavioral health:**

- **Pilots for integrated care:** Numerous pilots are underway around the state testing different approaches for integrating physical and behavioral health and/or incorporating behavioral health services into community health improvement initiatives. The list includes five initiatives funded through the CMMI Innovation Challenge, two SAMHSA/HRSA-funded initiatives, and numerous grant-funded projects. (See appendix for details.)

- **Community collaboration:** Community mental health centers and physical health providers are collaborating at more than 120 sites statewide.

- **Medicaid Integration:** Medicaid is integrating primary care and behavioral health within the RCCO Region 1 global payment pilot. The program is also exploring ways to better integrate the RCCOs and BHOs as those contracts are re-bid.

**Current market movement toward value-based payment models:**

- **Care coordination payments and shared savings:** All Colorado health plans offer per-member-per-month care coordination payments to primary care and some pediatric practices, usually in combination with a shared savings opportunity if practices meet budget and quality targets. Medicaid, in conjunction with stakeholders, has also developed a shared savings model for RCCOs and PCMPs to incentivize improved performance within the ACC (contingent upon approval from CMS). One Colorado provider group is participating in the Medicare Shared Savings Program ACO demonstration.

- **Bundled payments:** Three Colorado hospitals are participating in the CMMI Bundled Payments for Care Improvement Initiative and one in the ACE bundling demonstration. Colorado’s employer purchasing coalition, the Colorado Business Group on Health, is

\textsuperscript{50} Calculation based upon 719,000 current Medicaid enrollees as of May 2013 (http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251857416952&ssbinary=true) plus estimated additional 239,000 due to ACA expansion (Medicaid Expansion and Newly Eligible Coloradans: A Demographic Portrait, April 2013, Colorado Health Institute, pp. 4-5)
sponsoring PROMETHEUS bundled payment pilots for chronic conditions with self-insured employers in Alamosa, Colorado Springs and Boulder. Colorado’s Regional Health Improvement Collaborative, the Center for Improving Value in Health Care, is developing bundled payments for acute care episodes with physician groups and hospitals in metro Denver. And, one of the state’s major commercial payers is also working with hospitals to develop bundled payments for certain acute episodes.

- **Global payment approaches:** Medicare Advantage plans in the state are paying full capitation, including both up- and down-side risk, to a small number of independent provider associations in metro Denver. Colorado Medicaid, in partnership with Rocky Mountain Health Plans (RCCO Region 1) is piloting global payment within the ACC in 2014-15. Rocky Mountain Health Plans is also testing global payment for integrated primary care and behavioral health for a subset of its members on the Western Slope.

**Access to claims and clinical data, and telehealth connectivity:**

- **All Payer Claims Database (APCD):** Created by statute in 2010, the APCD combines closed health insurance claims from Medicaid, Medicare and commercial health plans in a comprehensive, secure data warehouse. Public, high-level reports illuminate spending and utilization differences across regions, payers and providers, pointing the way toward opportunities for transformation. Detailed custom reports enable providers to get aggregated data from all payers (rather than discrete reports in differing formats from each payer)—a critical tool for setting budgets and identifying opportunities to better manage costs without compromising quality. Efforts are underway to combine APCD claims data with clinical data, creating a powerful new engine for population health management.

- **Colorado’s health information exchanges:** Colorado Regional Health Information Organization (CORHIO) and Quality Health Network (QHN, which was part of a Beacon Community grant)—connect nearly 1,500 primary care and specialty practices, hospitals, long-term care facilities, home health agencies and other providers. (See Health Information Technology chapter)
- **Telehealth**: The Colorado Telehealth Network has used grants from the Federal Communications Commission to provide telehealth connectivity more than 200 hospitals, clinics and community mental health centers statewide.

**Community-based care coordination infrastructure:**

- **Healthy Transitions Colorado (HTC)**: HTC is a statewide collaborative, coordinating dozens of care transitions initiatives to achieve a common goal: eliminate 8,700 hospital readmissions; help patients avoid an extra 34,000 days in the hospital; and save $80 million by July 2015.

- **Health Alliances**: Local health alliances in 19 communities around the state combine clinical care, public health and community supports (see Public Health chapter). Some of these groups have pioneered health information exchange in their regions; all have seen improvements in access and outcomes.
Transforming Long Term Supports and Services Organization and Delivery

Significant work is now underway to transform how Long Term Supports and Services (LTSS) services are organized and delivered in Colorado. When elderly and disabled individuals have more choice and autonomy in the design of their services, the services can be better targeted to their needs and preferences. Clients who spend their own budgeted funds have more self-direction and voice in their care.

In July 2012, Governor Hickenlooper created the Office of Community Living to redesign all aspects of the LTSS delivery system, including service models, payment structures and data systems to create efficient, person-centered, community-based care. In 2012, he also convened the Community Living Advisory Group (CLAG) to provide leadership and a central forum in which to develop these activities. HCPF continues to identify needed program initiatives and changes, and has developed multiple work groups to focus on key topics and timelines. There are three LTSS projects that highlight the movement to person-centered and integrated care:

- **Community First Choice**: The Community First Choice (CFC) in the Affordable Care Act allows states to provide person-centered, home and community based attendant services and supports through Medicaid to those who need institutional level care. In September 2012, HCPF established the CFC Council to explore the feasibility of CFC in Colorado. HCPF is preparing a feasibility analysis report, which includes input from the CFC Council and anticipates a public report on CFC planning in fall 2013.

- **Waiver Redesign and Simplification**: The proliferation of LTSS waivers in Colorado places a heavy burden on state, county and agency staff as well as consumers and their families. Differing program descriptions, service packages, eligibility procedures and manuals are confusing and difficult to update. In addition, increasing federal paperwork requirements require more staff time to complete. Colorado is working to redesign and simplify its 12 waivers, creating simpler programs with fewer forms and requirements, and adopting a flexible set of benefits based on individualized assessment of needs and preferences to promote cost effective administration and a better beneficiary and provider experience. With recommendations from the CLAG, HCPF hopes to submit a consolidation plan to CMS by the end of 2015.

- **Colorado’s Olmstead Plan**: Colorado has always been a leader in providing services to support the full integration of persons with disabilities in community life, allowing many individuals to avoid institutionalization. Colorado’s Strategic Olmstead Plan will identify individuals in institutional care who want to move to a community living option and ensure successful transition through person-centered planning. The plan will focus on factors that will support community living such as increasing appropriate housing options throughout the state and improving the skills and expertise of the workforce that serves these clients.
Quality performance by key indicators (for each payer type)

The following is a snapshot of primary care measures currently in use by Medicaid and commercial payers in Colorado.

Medicaid

(Can we say anything about how Medicaid tracks behavioral health outcomes – either currently within the BHOs or plans for doing so in future when RCCOs and BHOs are more closely aligned?

Also, per TA – is it possible to create a table showing ACC results compared to non-ACC results for these indicators? –E. Sonn)

Since its inception in 2011, the ACC has assessed PCMPs on three key performance indicators (KPIs). RCCOs and PCMPs both have the opportunity earn incentive payments based on their performance on these KPIs:

- 30-day all-cause readmissions
- Emergency room visits
- High-cost imaging
- Well-child visits (added July, 2013)

In November 2012, Colorado Medicaid announced the following results for the first three KPIs and the program as a whole:

- **Inpatient hospital readmissions**: Compared to non-enrolled Medicaid patients, ACC members had an 8.6 percent reduction in hospital readmissions.
- **Emergency room utilization**: Overall, ER utilization increased by 1 percent for Colorado's Medicaid patients. However, members of the ACC increased their utilization just .23 percent compared to an increase of 1.47 percent for non-enrolled patients.
- **High-cost imaging**: Utilization rates of high-cost imaging services for ACC enrollees decreased 3.3 percent more than non-enrolled patients.
- **Chronic disease management**: The ACC program reduced the rates of preventable hospitalizations and readmissions for beneficiaries with asthma and with diabetes.
• **Total cost of care:** The ACC program is estimated to save Colorado between $9 million and $30 million for 2011-2012. When the range of savings is combined with evidence on utilization patterns and cost avoidance for certain services, the report estimated that the program could save approximately $20 million in one year.

Five of the seven RCCOs improved their performance in at least two KPIs for the second quarter of FY 2013 (October-December 2012). This means that both the RCCOs and the PCMPs received a per member per month incentive payment based on the region’s performance for the quarter.

**Commercial Payers**

Health plans in Colorado each use distinct, though similar, outcomes measures. However, the CPC Initiative provides a vehicle for some common measurement across private and public payers. Participating payers must evaluate their CPC practices on specific measures in the following domains, as identified by CMMI:

- Patient/caregiver experience
- Care coordination (risk-standardized, all condition readmissions; readmissions related to heart and lung disease)
- Preventive health (screening for fall risk; flu immunizations; tobacco use assessment and cessation counseling; screening for depression and colorectal cancer; mammography)
- At-risk populations (controlling diabetes, high blood pressure, heart disease and heart failure)

**Goals for Payment and Delivery System Transformation**

We have identified the following goals to connect Coloradans to coordinated systems of care and improve the health of our population, the care experience for individuals and bend the cost curve:

**Overall goals**
• By 2019, 80 percent of Coloradans will have access to integrated primary/behavioral health within these coordinated systems of care.
  o We do not currently have a means of measuring this. The state will need to conduct additional work with stakeholders, and refer to best practices elsewhere in the country, to identify the best means of measuring progress toward this goal.
• These coordinated systems of care will eventually extend beyond the walls of the clinical care delivery system to include public health, long-term care, social services and other community providers, creating comprehensive networks to improve population health.
• These coordinated systems of care will be supported by prospective payment arrangements that reward providers for keeping patients healthy and improving the quality of care.
• Payment and delivery approaches will be aligned between Medicaid and Colorado’s commercial health plans.

Specific targets

• Transform payment:
  o By 2019, a majority of primary care expenditures in Colorado will be made through prospective, outcomes-based payment models.
  o By 2024, a majority of all health care expenditures in Colorado will be made through prospective, outcomes-based payment models.
• Reduce statewide health care spending trend:

<table>
<thead>
<tr>
<th>The Vision of Health Care for Indian Tribes in Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both Ute tribes in Colorado would benefit from:</td>
</tr>
<tr>
<td>• An increased focus on preventative care, which may require educational programs.</td>
</tr>
<tr>
<td>• An increased focus on the health and well-being of the elderly, including the development of nursing homes and programs that help connect the elderly with youth so that wisdom and culture can be shared.</td>
</tr>
<tr>
<td>• Integration of cultural traditions into nutrition initiatives.</td>
</tr>
<tr>
<td>• Improved food distribution to increase access to healthy foods.</td>
</tr>
<tr>
<td>• Coordinated physical and behavioral healthcare, such that an interdisciplinary team of people are working together for the patient.</td>
</tr>
<tr>
<td>• Enhanced behavioral health services at all levels, including emergency and short and long term care, as well as services that address a range of issues from substance abuse to psychiatric care.</td>
</tr>
</tbody>
</table>
Personal health care expenditures in Colorado have been rising by an average annual growth rate of 8.6 percent over the last three decades. We aim to reduce that trend to the rate of overall inflation over the next five years.

The Vision for Children and Youth

Most children with mental health issues are more likely to be seen in a primary care setting than in the mental health system, and children with chronic medical conditions are two times more likely to have mental health difficulties than those children without such medical conditions. Because of these kinds of issues, it is critical for early identification of mental health difficulties to be integrated into the primary health care system.

A system of care coordination is imperative in order to best serve the medical and mental health needs of children and their families. There needs to be a mechanism to ensure that comprehensive, flexible and individualized care coordination can occur. In early care and education settings in Colorado, 11 percent of care providers report that children under the age of six years in their care demonstrate ongoing and interfering behaviors such as hurting themselves or others, showing disrespect or defiance, or being irritable, mad, frustrated, or withdrawn. Ten out of every 1,000 children or 1 percent are being removed from their early care and education setting due to challenging behaviors, with family child care homes dismissing children from their care at a rate six times higher than that in child care centers.

Desired outcomes for integration for children and youth include:

- Fewer behavior problems and expulsions,
- Children are emotionally and socially ready to learn, increasing their likelihood to be successful in school,
- Increased social/emotional wellbeing for children,
- Greater family and child resiliency,
- Environments that supports positive social-emotional development,
- Workforce that can support the needs of young children,
- Follow-up/referral from screenings,
- Increased access to treatment/intervention,
- Increased number of environments providing early identification and mental health consultation,
- Systems change that results in cross systems collaboration between early learning and early childhood mental health and K-12 education.

---

• Improve health care quality:
  o Improve performance on indicators of chronic disease and behavioral health (see the Winnable Battles discussion in the Public Health chapter).

Strategies for Achieving Our Goals

Our strategy builds upon the opportunities and innovations outlined earlier in this chapter—most importantly, our strong foundation of primary care. Our approach is predicated on a belief that effective systems of care have a primary care home at their center. For some Coloradans, this primary care home may actually be at a mental health center, which is why we are exploring a Medicaid Health Homes waiver to provide the best possible care for these individuals. Our plan focuses first on enhancing primary care and does not explicitly address the role of specialty or hospital-based care is because systems based on primary care are best positioned to improve overall health and control costs. Primary care can address small problems before they turn into big problems, and potentially prevent those problems from occurring. By expanding primary care to include behavioral health services, we expand its impact and increase its ability to improve care for individuals, advance the health of our population and control system costs. Key elements of our strategy include the following:

• Build on existing PCMH foundation in Medicaid and the private sector to connect all Coloradans with a primary care home.
  o Expand the Accountable Care Collaborative to cover all Medicaid recipients.
  o Pursue Section 2703 Health Homes funding to enable community mental health centers to qualify as medical homes for Medicaid enrollees with severe and persistent mental illness.

• Implement an evidence-based definition of integrated care in primary care practices statewide. Adapt this model to enable bi-directional integration of primary care into behavioral health settings consistent with the Medicaid Health Homes approach.
Strategies for Colorado’s Children and Youth

Colorado’s early childhood and K-12 mental health system of care follows the public health model of promotion, prevention, and intervention. Successful implementation requires partnering with other child-serving systems and sectors in a comprehensive and coordinated child and youth mental health system. Elements of such partnership include:

- Collect and integrate information among the various professionals and settings (e.g., mental health, primary care, psychiatry, child welfare, child care, schools) providing services to children and families, using a medical home approach for coordination of services.
- Coordinate and align early childhood and K-12 services systems to create a continuum of coordinated services designed to address the needs of infants, toddlers, young children, youth and their families (e.g., being seen by an integrated mental health clinician during a routine well-child check as a covered benefit that does not require a mental health diagnosis).
- Provide universal early screening for social and emotional difficulties along with developmental screening; include evaluation of family and psychosocial risk factors to identify and address problems early.
- Integrate mental health services into primary care, early care and education settings, home visitation, and WIC.
- Support social-emotional development in K-12 populations with “best practice” programs for early childhood/youth mental health.
- Enhance screening and referral for parental depression, stress, and related mental health issues.
- Expand availability of parenting education through early care and education, schools, community organizations and pediatric primary care settings.
- Increase access to early childhood and youth mental health resources and services through primary care, outpatient, in-home, consultation and family centered programs, particularly for children who have entered the child welfare system, their parents and caregivers.

In building this integrated system, we must:

- Assess policy, system and program readiness to address early childhood and youth mental health issues statewide.
- Assess the ability to integrate early childhood and youth mental health into existing health care coverage and networks, creating a sustainable and enduring system of care including primary and preventive mental health services.
- Integrate the perspectives of parents, caregivers, state agencies, childcare providers and health care professionals.
- Include professional development for all stakeholders.
- Promote relationship-based payment for young children and their caregivers.
- Account for differences in system capabilities and structures in rural and urban communities.
An integrated delivery model responds to the specialized needs of homeless adults and children, blending the delivery of patient-centered physical care (medical, dental, vision, pharmacy, and chronic disease self-management) with behavioral health care (mental health care and substance treatment services) and supportive housing. Street outreach personnel and patient navigators ensure that clients are able to access the care they need and can effectively navigate the systems in which it is provided.

- Work with Medicaid and commercial payers to accelerate the transition to outcomes-based, value-oriented payment models that will support the transformation to integrated care in the practice setting. These models will support the creation of broader coordinated systems over the next five years and beyond.
  - Use the CPC Initiative payment mechanism (FFS plus care coordination payments) to support the initial transition to integrated behavioral health and primary care.
  - The glide path to new payments (see the Colorado Framework chapter) also serves as a path for payers to go beyond FFS and care coordination payments. Because most Colorado payers rely on FFS claims processing platforms that pay providers based on
retrospective billing, it is important that we create a path that guides their transition to prospective payments.

- Using the glide path approach, payers can work with practices on budget setting. Practices can still bill FFS against those budgets, with a retrospective reconciliation on a regular basis. This type of approach creates a transition period for payers and practices to rework their billing and payment systems.
- This approach will allow health plans, hospitals and specialty physicians to continue developing bundled payments for acute care episodes. Bundled payments can be seen as an interim prospective payment strategy on the path toward true global payments.

- Leverage common measures in primary care to drive alignment on measures for the integrated care model.
- Establish criteria to assess practices’ readiness to implement the systems necessary to integrate care and manage risk. Identify a neutral party, not associated with payers or providers, to evaluate practices and connect them with payers on completion of the criteria.
  - Many of the 73 practices currently participating in the CPC Initiative practices are already integrating behavioral health and all are considered high-performing primary care practices. These early adopters can facilitate the transition to integrated care.
- Support primary care practice transformation so practices can implement this integrated care model, participate in coordinated systems of care and succeed with non-FFS payments.
  - Connect practices with resources, experts and successful peers to learn how to provide integrated care and become part of coordinated systems of care. The Health Extension System (HES) being developed by the University of Colorado, School of Medicine, Department of Family Medicine, CIVHC, HealthTeamWorks and others can be an important resource in this process. One of the functions of the HES will be to assess primary care practices’ readiness for primary care and behavioral health integration and link the practices with appropriate consulting services and other resources needed to transform their care delivery systems, including training in integrated care models. (See Colorado Framework chapters for details).
  - Provide coaching and support to primary care providers to move along the glide path to accepting new payment model). This will be a vital part of the practice
transformation assistance for practices, staged according to practice readiness and stage of transformation.

- Create infrastructures that enable small practices to share administrative and analytic capabilities. Many small practices will not be part of hospital-based delivery systems. For these practices, management services organizations (MSOs) and independent practice associations (IPAs) may provide the critical mass necessary to coordinate care and manage population health and costs.

- Provide timely, aggregated claims data across all payers from the APCD to practices to enable them to track and manage costs and budgets for their patient populations and monitor progress on claims-based outcomes measures. Good access to data is critical for transforming delivery and payment.

- Facilitate the creation of virtual ACOs and community-based systems of care by building on and learning from existing community health alliances (see Public Health chapter). This could include technical assistance on issues such as developing collaborative care agreements or formal contracts among participants.

- For public programs, align rules and policies among primary care and behavioral health programs to enable integration.

- Coordinate clinical care with the public health delivery system and community agencies.
  - The HES can connect primary care practices with community health improvement efforts as part of practice transformation support and advancing a shared vision of population health. It can also train primary care practices to use community health workers to collaborate effectively with community service providers, local public health agencies and other organizations. (see Public Health chapter)
  - Use local public health agencies’ and hospitals’ community health improvement plans to leverage both clinical and community resources.
  - Expand HIE connectivity to cover all clinical care and public health sites statewide, enabling real-time exchange of clinical data to foster better coordination of care.
  - Link the APCD with clinical registries and other data sources including public health databases such as immunization registries, birth and death records to enable population-based assessment of outcomes and costs.
Create additional academic collaborations and programs that support the education of primary care and behavioral health care providers in preparation to work and thrive in an integrated environment. (see Workforce chapter)
Transitioning to Prospective, Accountable Payment Models

Moving from FFS to prospective payments that focus on quality of care requires time and investment from both providers and payers. Practices must implement the systems and develop the expertise to track and manage outcomes and costs, and need funding to put those systems in place and to pay for the coaching needed for analytic and financial skill building. Payers need time to adapt systems from retrospective claims processing platforms to prospective payment models. Accordingly, we developed a transition “glide path”: to phase in new payment approaches as practices develop the capacity to analyze data and manage budgets.

As illustrated below, this path starts with FFS + care coordination payments. As practices gain experience managing care and costs, they will add on shared savings opportunities. Finally, after practices have demonstrated success in a shared savings model, the path adds downside risk. Similar to Medicare’s Shared Savings Program and Pioneer ACO, practices will have a period of years to progress along the glide path. Importantly, practices will begin this journey at different points along the path, and the elements in each phase may vary depending upon a practice’s sophistication. For example, some practices are participating in shared savings arrangements but may not yet have the internal systems in place to track costs.

Our vision is to create true global budgets that cover primary, specialty and some tertiary care, as well as the public health delivery system. As our model starts with integrated primary and behavioral care, we will start by moving toward an annual payment for primary care services.
Outstanding Questions

In order to achieve its vision, Colorado needs to answer a number of questions that are not addressed in the strategies outlined above, including:

- Coordinated systems of care can control costs by minimizing duplication of services and enhancing care management among teams, but they can also increase costs by concentrating market power. We must acknowledge that tension—and then explore the market and regulatory levers available to mitigate the potential consequences of our goal.
- The delivery strategies and payment transformation outlined here are focused on primary care, though the goal is to create comprehensive delivery systems supported by true global payment that can support specialty care, hospitals and community organizations. We must outline the steps necessary to fulfill that larger vision.
- What policies would the state need to adopt to foster the creation of more IPAs and MSOs to support independent practices?
- How do we best align benefit designs with this new payment and delivery approach?
- Parity laws do not require all carriers to cover behavioral health services, but only require parity if carriers already cover mental health. What are the implications of this for our model?
- Efforts to align commercial insurance and Medicaid have focused on fully-insured plans, but self-insured employers represent a significant percentage of Colorado’s commercial insurance market. How can we foster better alignment between self-insured and fully-insured payers?
- Do we need regulatory or statutory action to ensure measure alignment among payers?
- Care coordination payments are essential for giving practices non-claim-based payment to invest in people and systems. What is the optimal amount for these payments to facilitate transformation and can we ensure that health plans set payments at that level?
- How do we best support rural physicians, nurse practitioners and hospitals? Can we combine funding streams from Medicare, Medicaid and commercial payers to provide the financial stability that will support rural providers?
• We are intentionally starting with integrating behavioral health into primary care and helping primary care practices adapt to new payment and delivery models. We intend to build from that basis to incorporate specialty and hospital care into broader ACOs—but what are the first steps along that path?

These issues and others related to them, demand attention from policymakers, patients and industry stakeholders to realize our vision for health system transformation. One of our first steps will be to create a formal process for exploring these questions. That could be an official initiative established by legislation, an executive order of the Governor, or a less formal multi-stakeholder process; regardless, Colorado has successful precedents for both approaches.

Policy and Regulatory Changes Needed to Carry Out These Strategies
(Pending)

Federal Waiver or State Plan Amendments Needed To Enable Key Transformation Strategies

Coming from HCPF
Figure 8: Delivery and Payment Innovations in Colorado

Payment and Delivery Innovations in Colorado

Databases and Health Information Exchange

New Payment Models
- Bundled Payments
  - CMS Acute Care Episode Demonstration - Exempla St. Joseph
  - CMS Bundled Payments for Care Improvement - Exempla Lutheran, Penrose St. Francis, University Hospital
  - PROMETHEUS Payment for Chronic Conditions - C. Springs/Alamosa

Global Payments
- Medicaid ACC/ACO Region 1 Global Payment Demo
- Rocky Mt Health Plan SHAPE Demo
- Denver Health Medicaid/Choice
- Humana (Medicare Only)
- United Healthcare (Medicare Only)

Shared Savings
- Medicare Shared Savings Program - Physician Health Partners
- CMS Acute Care Episode Demonstration
- CMS Bundled Payments for Care Improvement
- Medicaid Accountable Care Collaborative
- Shared Savings
- Comprehensive Primary Care Initiative
- CO Choice Health Plans/San Luis Valley HMO
- Aetna PCMH
- Anthem Patient Centered Primary Care Program
- Centura Colorado Accountable Care
- Cigna Collaborative Accountable Care
- Colorado Access
- United Healthcare
- Humana (Medicare only)
- Health Incentives Payment Pilot/PROMETHEUS

Payment and Delivery Innovations in Colorado

Delivery Redesign
- More than 120 co-located practices
- Advancing Care Together - CU11 sites
- Project Bloom
- Rocky Mt Health Plan SHAPE Demo
- COMPASS - Kaiser Permanente
- Integrating Primary Care and Wellness
- Consultation Liaison in Mental & Behavioral Health
- Care of Mental, Phys. & Subst. Use Syndromes
- Promoting Resources for Integrated Care & Recovery - Mental Health Center Denver/Denver Health

Integrated Phys/Behavioral Health
- TIPPING Point - SE Mental Health Services
- 21st Century Care - Denver Health
- AspirePointe Integrated Care Program
- CO Psychiatric Access & Consultation for Kids - Colorado Behavioral Healthcare Council
- Mediac ACC/ACO Reg. I Global Payment Demo
- Jefferson Center for Mental Health Union Square Health Home
- CO Comm. Treatment Centers/Feinstein Institute
- Sustainable High Utilization Team Model - Metro Community Provider Network/partners

Long-Term Care
- HCAP Dual Eligible Pilot* - waiver request pending
- South Denver Care Continuum - Christian Living Communities

Public Health
- Winnable Battles - CDPhE
- CO Prevention Alliance

Care Transitions/Readmissions
- Healthy Transitions Colorado
- Accountable Care Collaborative/ACCOs
- Sustainable High Utilization Team Model - Metro Community Provider Network
- Collaborative Accountable Care
- TIPPING Point - SE Mental Health Services
- Eagle County Community Paramedic
- 21st Century Care - Denver Health
- Home Healthcare Collaborative - CO Center for Nursing Excellence
- South Denver Care Continuum - Christian Living Communities
- Long-Term Care Quality Initiative - CO Health Care Association
- Reducing Hospitalization/ED Visits - CO Health Care Association
- Improving Communication & Readmission - CO Rural Health Center
- Family Caregiver Protocols - UC Denver
- FQHC Advanced Primary Care Practice Demo - CO Community Health Network

Patient-Centered Medical Home
- Medicaid Accountable Care Collaborative/ACCOs
- Comprehensive Primary Care Initiative
- TIPPING Point - SE Mental Health Services
- Safety Net Medical Home Initiative
- 21st Century Care - Denver Health
- FQHC Advanced Primary Care Practice Demo - CO Community Health Network
- Centura Colorado Accountable Care

CIVHC
CENTER FOR IMPROVING VALUE IN HEALTH CARE

Last updated October 2015. Access the complete CO Payment Reform and Delivery System Innovation Inventory at www.civhc.org.
CHAPTER 3: THE COLORADO FRAMEWORK: INTEGRATING BEHAVIORAL HEALTH AND PRIMARY CARE

Executive Summary

The goal of Colorado’s Innovation Plan is to connect 80 percent of Coloradans with coordinated systems of care that give them access to comprehensive, integrated primary and behavioral health care. In order to achieve this goal, we intend to implement a statewide framework for integrated behavioral health (BH) that will be supported and sustained by new payment models. Our approach is grounded in a robust literature base, and will lead to comprehensive health system transformation by improving the patient experience, enhancing population health, and enhancing cost-effective care in the primary care setting.

Practices working within the Colorado framework for integration will receive coaching and support to create tailored models that work for their specific communities and populations. These practices will develop the capacity to provide comprehensive integrated primary and behavioral health care with a goal of positively affecting the following domains:

- Timely access to behavioral health care
- Screening, identification and effective treatment for behavioral health issues
- Identification and treatment of co-morbid behavioral and physical health disorders
- Provider and practice capacity to provide more comprehensive whole-person care
- Provider and staff satisfaction
- Patient satisfaction
- Quality of care
- Cost savings

One of the most significant barriers to sustaining integrated care is the way these services are currently reimbursed. The Colorado approach will provide a payment reform trajectory that better supports integration, builds off ongoing efforts in the state, and can align both public and private payers in order to stimulate broad-based provider participation.
Colorado is using its resources to leverage its robust care coordination foundation to connect physical health care services, behavioral health services and public health for Coloradans statewide. This work will ensure the preponderance of care will be delivered under an integrated, multi-payer model for the majority of the state’s population in five years. Our focus on behavioral health integration in primary care is just a starting point for a more comprehensively integrated health system that includes physical and behavioral health, public health, oral health and long-term services and support.

**What do we mean by “integrated care”?**

The Colorado Framework defines integrated behavioral health care (that is, models of care that incorporate mental health, behavioral health, and substance use treatment—jointly referred to as behavioral health throughout the rest of this chapter) as:

> The care that results from a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population. This care may address mental health, substance abuse conditions, health behaviors (including their contribution to chronic medical illnesses), life stressors and crises, stress-related physical symptoms, ineffective patterns of health care utilization.52

Integrated care models occur along a continuum from coordination to co-location to fully integrated care, the end goal. As practices move along the continuum of integration the goal is to embed a behavioral health provider into primary care to better address the patients’ needs in a timely fashion. When patients with these problems are cared for in primary care they can often be managed before the problems become chronic or more severe. These behavioral health services do not focus solely on emotional health but also the health behaviors of the patient and the impact of psychosocial factors on patient management of chronic conditions. Primary care behavioral health interventions are brief and targeted with a focus on improving the patient’s functioning. The Framework focuses on a primary care-based approach to integrated care because that is the way most Coloradans will experience it. However, we also want to enable so-
called “bidirectional” approaches that bring primary care into a behavioral health setting. This model of integrated care is critically important for Coloradans with severe and persistent mental illness whose health home is a community mental health center, not a primary care practice.

Opportunities and Innovations: Integrating Behavioral Health and Primary Care

Serving a need

Primary care is the largest platform of healthcare delivery in the country, and more mental health and substance use conditions are seen in primary care than in any other health care setting. In the general population, the need for psychosocial services in primary care can be as high as 70 percent. Depression and anxiety disorders are the most common mental health conditions in primary care, often complicating other medical conditions and significantly increasing the cost of care. Unfortunately, mental health services have been identified as the most difficult subspecialty for primary care physicians to access. Attempts to refer externally to the specialty care system have generally resulted in low rates of patient response, resulting in low treatment initiation and completion rates, and limited communication and care coordination. As a result, an estimated 50-90% of mental health care is delivered within primary care where providers have limited training and resources for the provision of such care.

Furthermore, patients in primary care frequently present with co-occurring behavioral health and chronic medical conditions; these are among the most challenging and most expensive patients to treat. These patients report significantly more impaired functioning and worse health status, as well as higher levels of distress as the number of medical comorbidities increases. Heart disease, diabetes, chronic lung disease, dialysis, cancer, chronic pain, sleep disorders, stroke and arthritis are the most frequently cited disorders associated with co-occurring psychological issues. Opportunities to find ways to best care for this large subset of the patients routinely seen in primary care remains one of the most vexing challenges and promising opportunities.

The evidence base for integration

Multiple systematic reviews have demonstrated the effectiveness of integrating behavioral health service delivery into the primary care setting. In 2008, the Agency for Healthcare Research
and Quality (AHRQ) released a systematic review examining models of integrated care in the United States.\textsuperscript{65} Butler et al. included randomized controlled trials and high quality quasi-experimental design studies, which in total equaled 33 trials (26 on depression care, four examining anxiety disorders, one somatization disorder, one attention deficit and hyperactivity disorder, and one depression and alcohol disorder).\textsuperscript{65} Thirteen case reviews were also included within the review in order to help the reader make the connection between the research and practice of integrated care. All reviews of the evidence conclude that integrating mental health into primary care is beneficial and can help address some of the most important problems in healthcare, such as poor outcomes and high costs associated with patients who have a behavioral health condition or a chronic medical condition with behavioral health contributing factors.

**Building on Colorado’s existing base of integrated care initiatives**

Currently there are numerous efforts underway in Colorado to integrate behavioral health and primary care, including a number of grant-funded pilot projects testing various approaches to integrating care. In addition, many safety net providers are partnering with each other and with private providers to provide integrated care in their clinics. Two pilot programs in western Colorado, one specific to Medicaid and one covering Medicaid and commercial members—both directed by Rocky Mountain Health Plans—are using global payment to support integrated care. Figure 1 below illustrates both the number and distribution of efforts around Colorado to integrate care. (Please see the Delivery System Design and Payment Methods Chapter and the Inventory of Payment and Delivery Innovations in the Appendix for more information.)
Many Colorado stakeholders have been actively engaged in determining how to spread integrated care in the state. In 2011, the Colorado Health Foundation and the Collaborative Family Healthcare Association partnered to launch the Promoting Integrated Care Sustainability (PICS) project. An advisory board of integrated care stakeholders—including primary care and behavioral health care providers, health plans, state agencies, elected officials and policy experts—convened to identify and analyze financial barriers to delivering integrated care services in Colorado. A number of recommendations emerged from this effort, most short-term fixes focused on changes to Medicaid. The PICS recommendation that is arguably most important, and most challenging to implement, called for evaluating the viability of global funding strategies to sustain integration.53

Building on Colorado’s efforts to enhance primary care

It is important to note that behavioral health integration is a complementary addition to ongoing efforts in Colorado to enhance primary care. Our approach builds upon and is complementary to the Patient-Centered Medical Home (PCMH) model of significant redesign of primary care, which emphasizes the need for primary care to be more coordinated, team-based, and connected to other health care providers and systems of care. Behavioral health integration is a key aspect

53 INSERT CITE TO PICS REPORT
of PCMH function, particularly in achieving “whole person care,” coordination of care, teamwork, being comprehensive, reducing the experience of fragmentation, and controlling costs. Many primary care practices in Colorado have begun the transformative work of becoming a patient centered medical home. In 2011 (latest numbers available), 567 physicians of the 3,000-3,500 in Colorado (16-19 percent) had achieved PCMH recognition from NCQA. Assuming four physicians per practice and 2,000 patients per physician, there are roughly 141 practices and 1,134,000 Coloradans being seen in PCMHs. In addition, 73 practices around the state are participating in the Comprehensive Primary Care Initiative under the aegis of the Center for Medicare and Medicaid Innovation. Eight commercial payers as well as Colorado Medicaid are providing care coordination payments to practices on top of fee-for-service (FFS) to support the initiative.

Challenges

- **Reimbursement:** While Colorado has made substantial efforts to improve the coordination of care and integrate behavioral health into primary care, barriers impede progress. The most significant barrier for taking models of integration to scale in Colorado has been financial: many Colorado innovators have been forced to abandon full scale integration efforts once grant funding runs out because the prevailing FFS reimbursement system cannot sustain integration.

- **Siloed delivery of physical and behavioral health:** Most payers in Colorado administer and pay for behavioral health care benefits separately from physical health care. Medicaid “carves out” its mental health/substance use benefit to behavioral health organizations (BHOs) that are different in both their geographic coverage and administration from the Regional Care Coordination Organizations (RCCOs) that coordinate physical health benefits for many Medicaid recipients.

- **Differing billing requirements:** Behavioral health providers attempting to work in primary care settings within the Medicaid program are forced to operate by rules and regulations that often make it difficult for the behavioral health provider to be reimbursed for their services.

---

54 Figures and estimates provided by HealthTeamWorks, Oct. 18 and 28, 2013.
• **Integrated vs. traditional behavioral health care**: Integrated behavioral health care interventions differ from traditional behavioral health services in service delivery and time spent. Genuine integrated care is often brief in nature and delivered in high volume, with emphasis on a team based approach to care delivery and less on the single contribution of an individual provider. Working towards a new payment mechanism for integrated healthcare requires us to fundamentally rethink what services we are delivering in primary care and how a global budget can support said services. In short, payments for integrated behavioral health should be made in a manner that is consistent with payments for comprehensive primary care as a whole (i.e., on a non-volume, non-encounter, risk adjusted basis).

**Our Approach: The Colorado Framework for Integrating Primary Care and Behavioral Health**

The specific model of behavioral health integration that Colorado is proposing is adapted from the recently published *Lexicon for Behavioral Health and Primary Care Integration* by CJ Peek and the Agency for Healthcare Research and Quality (AHRQ) Academy for Integration Behavioral Health and Primary Care’s National Integration Academy Council (see Appendix).55 The Colorado framework outlines the key elements of integration identified in the Lexicon as well as stages of integration. In addition, this framework allows communities and practices to adapt the model to meet the needs of the families and community being served by presenting scopes of integration that practices may focus on. The process towards integrated care will be different for each clinic depending on its level of implementation of foundational practice transformation elements, electronic health record capacity, community resources, the needs of the patient population, and the clinic’s ability to integrate behavioral health services into the practice. Practices working within the Colorado framework for integration will create tailored models that work for their population.

**The stages of integration**

55 ADD CITE
The Lexicon outlines three basic stages along the path to full integration between behavioral health and primary care. Recognizing that achieving integration may take time, require the building of relationships, and modification of administrative and operational functions, these three basic categories are all steps that organizations and practices can take towards achieving integrated care. The three categories—coordinated, co-located, and integrated—represent the physical location as well as level of collaboration between the behavioral health provider and the primary care team. While the goal is to have fully integrated practices, these categories provide a pathway that can help practices assess their current capacity and develop goals for movement along the continuum of integration. Table 1 below explains the continuum of these categories.

Table 1: Continuum of Integrated Care

<table>
<thead>
<tr>
<th>Coordinated</th>
<th>Co-located</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Behavioral health (BH) and medical clinicians spend little time with each other and have different office systems.</td>
<td>- BH and medical clinicians in same building; may spend some but not all of their time in the same space.</td>
<td>- BH and medical clinicians share the same provider room, spending all or most of their time seeing patients in that shared space, often the same exam room with warm hand-offs.</td>
</tr>
<tr>
<td>- Usually a referral-based system. Patient has to negotiate separate practices.</td>
<td>- Patient usually has to move from primary care to behavioral health space.</td>
<td>- Shared care plans, clinical documentation, billing procedures.</td>
</tr>
<tr>
<td>- May only communicate sporadically. Some protocols and shared workflows may be in place for referral and exchange of information; care may become better coordinated as they move to more systematically coordinated relationship.</td>
<td>- Regular communication and coordination, usually via separate systems and workflows but with care plans coordinated to a significant extent.</td>
<td>- Clinical workflow, role clarity, and regular communication to ensure effective communication and coordination.</td>
</tr>
</tbody>
</table>

The ultimate goal for a practice is to achieve fully integrated care by having a behavioral health provider (BHP) onsite and working as a member of the practice team. However, the Colorado Framework recognizes that not every practice will immediately have the capacity for this. Therefore, practices may initially have a coordinated or a co-located relationship with a BHP.
while working towards more robust integration. These will generally be considered transition steps, as the limitations within coordinated and co-located relationships are such that they may not enable practices to fully maximize the patient experience, population health or cost-effective care.

In the fully-realized integrated care model, the BHP is on site. This is critical because it allows both the primary care providers and the patients to access the BHP when the services are most needed and in the site that is usually most acceptable for the patient. When a BHP is on site, this allows for more regular communication and close collaboration between providers to facilitate complete whole-person care. With a fully integrated practice, BHPs are integrated into the practice workflow and provide care in the primary care setting; however, even within the domain of full integration, practices have the flexibility to choose whether they will hire a BHP themselves or contract with a local behavioral health agency.

The care provided by an integrated BHP generally includes: 1) brief, action-oriented interventions with “warm handoffs” of patients from the primary care providers during the course of a single visit; 2) team-based follow-up and care management if needed; 3) an occasional time-limited course of more traditional counseling; and 4) consultation or referral with close coordination of care for more serious cases or those that don’t respond to primary care behavioral treatment.

**Scopes of Integration**

Practices will be at different stages of readiness to integrate behavioral health and may have varying levels of capacity. They will also have very different behavioral health needs in their patient population and may need to focus on developing the capacity to care for certain types of BH presentations in order to provide the best care to their patient panel. Therefore, Colorado has identified two scopes (see Figure 2 below) based on patient behavioral health needs to help practices decide what role functions, protocols and work plans they should develop. It is important to note that identifying the needs of the patient population in the practice served is crucial in determining the best scope of integration for a practice.
Figure 10: Scopes of Integration

Scope One

Mental health and substance use conditions commonly presenting in primary care

e.g. anxiety, depression, post-traumatic stress disorder (PTSD), attention-deficit/hyperactivity disorder (ADHD), tobacco dependence, risky drinking or drug use.

Scope Two

BH contributors to common medical conditions and Mental Health/Substance Use conditions deeply intertwined with chronic illness

e.g. depression in an adult with poorly regulated diabetes, asthma, stress-linked physical symptoms or symptoms that have no medical explanation (e.g., headaches, stomach aches, pain, or fatigue)

- **Scope One**: Practices choosing to focus on Scope One will provide comprehensive primary care that includes the capacity to identify and treat patients with mental health (MH) and unhealthy substance use conditions commonly encountered in primary care that can be understood and treated more or less independently of other health conditions. This does not include providing behavioral health care for patients with serious mental illness (SMI) or specialty mental health services such as intensive outpatient treatment or specialized services.

- **Scope Two**: Practices in Scope Two will provide the comprehensive primary care outlined in Scope One and also have the capacity to identify and treat behavioral health contributors to chronic medical conditions as well as MH/SA conditions that are deeply intertwined with medical conditions. Scope Two practices will also need to provide support to patients who need to make health behavior changes to manage chronic illnesses or prevent medical conditions, and encourage health-promoting or prevention behaviors such as realistic goal-setting, stress management, exercise, good nutrition, and appropriate preventive services (e.g., breast cancer screening, immunizations, etc.).
Scope Two identifies functions and capacity that are markers of full integration, not all practices or organizations may be able to or need to get there to meet the needs of their population.

Our current thinking is that the scopes described above are cumulative; meaning, each scope builds clinically on the one before it so that practices have, at a minimum, the capacity to meet the basic mental health and substance use needs of the patient population. Practices that want to address the patient presentations outlined in Scope Two must first demonstrate that they are providing the services necessary to achieve Scope One. This decision was made based on input from stakeholders and experts on integrated care. We will continue to engage practices and other stakeholders as we refine the model, to ensure that the cumulative approach makes the most sense for practices.

The Key Elements of Integration

Three essential elements of integration are required to carry out the functions described in the scopes above. These elements may look different depending on the practice’s level of collaboration and physical location of the BHP. Fully integrated practices will have successfully implemented the three essential elements, while practices still working with coordinated or co-located systems may not be able to fully implement all aspects of the elements. The elements are illustrated in Figure 3 below.

Figure 11: Key Elements of Integrated Practice
Teams -- Multidisciplinary team tailored to the needs of each patient and situation, with shared operations, workflow and culture and with each team member trained to participate in the integrated model.

Practice teams must work together to provide whole-person, patient-centered care to the patient population to improve a range of physical and behavioral outcomes. By employing a team-based approach, practices will likely achieve outcomes that would be difficult to achieve by single providers. The team should include an appropriate number of staff members who possess the necessary behavioral health and primary care expertise, skills and training to carry out the required functions/roles to address the needs of their particular population. Ideally, a qualified BHP should be integrated into the practice team in order to provide direct patient care, supervise BH services provided by other team members, and fulfill the overall necessary BH functions. Practices will use the scopes of integration to determine the necessary team functions. The patient and the family should be engaged as a crucial component of the team with shared decision-making support and self-management resources. The required roles/functions of the team are detailed in Table 2 below by scope of integration.

Table 2: How Teams Operate within the Two Scopes of Integrated Care

<table>
<thead>
<tr>
<th>Roles/Functions Required by the Integrated Practice Team</th>
<th>Scope One: Foundational</th>
<th>Scope Two: Expanded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification. screening, assessment, and intervention for common MH/SA conditions (e.g. ADHD, depression, PTSD or anxiety in an otherwise healthy adolescent or adult)</td>
<td>Identification, screening, assessment, and intervention for behavioral health factors in common chronic illnesses (e.g. depression and/or disease-related distress in cardiovascular disease or diabetes)</td>
<td></td>
</tr>
<tr>
<td>MH/SA treatments</td>
<td>Capacity to team with chronic illness care coordinators, PCPs and utilize information tools such as registries</td>
<td>Advanced BH and self-management support interventions</td>
</tr>
<tr>
<td>Behavioral activation/self-management interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health behavior change interventions to manage or prevent MH/SA conditions and alter unhealthy lifestyles</td>
<td>Patient education / coaching in managing BH factors in chronic care</td>
<td></td>
</tr>
<tr>
<td>Improved access to psychopharmacology assessments / treatment either onsite or offsite with close collaboration between providers</td>
<td>Health behavior change interventions to alter unhealthy lifestyles and manage chronic illnesses, or prevent other medical conditions</td>
<td></td>
</tr>
<tr>
<td>Follow-up care for identified MH/SA needs, monitoring of outcomes and care processes</td>
<td>Follow-up care for identified BH needs, monitoring of outcomes and care processes for chronic care</td>
<td></td>
</tr>
<tr>
<td>Timely adjustment of care and coordination</td>
<td>Timely adjustment of care and coordination</td>
<td></td>
</tr>
<tr>
<td>Social support and family interventions for MH/SA conditions, including connections to community resources.</td>
<td>Social / family support to include BH factors in chronic care or consultation with other staff</td>
<td></td>
</tr>
<tr>
<td>Crisis intervention and effective connection to offsite MH/SA specialists</td>
<td>Ability to address patterns of ineffective healthcare utilization such as overuse, misuse, underuse, or ineffective use</td>
<td></td>
</tr>
<tr>
<td>Ability to address patterns of ineffective healthcare utilization such as overuse, misuse, underuse, or ineffective use</td>
<td>Identify complex or high risk/high cost patients with BH conditions or contributing factors to chronic illnesses needing care management or specialty care, with referral when necessary</td>
<td></td>
</tr>
</tbody>
</table>

Practices that have not formed functional multidisciplinary care teams are generally not ready for integrated behavioral health and will need to do foundational work in this area while developing a relationship with a behavioral health provider. Practices that are moving along the continuum of integration, but still within the realm of coordinated or co-located care will need to determine what role functions they have the capacity to mobilize for their population, and may develop a plan for moving forward on the continuum and developing the capacity to provide for all of the foundational functions outlined in scope one.

- **Shared patients and mission:** Common patient panel for medical and behavioral health providers; entire team is responsible for total (behavioral and physical) health outcomes.

Team members must take shared responsibility for the care of their patients, have the same shared mission and be accountable for total health outcomes including both behavioral and physical outcomes. Taking shared responsibility for patients will require that the team coordinate all care including screening, assessment, treatment and follow-up/monitoring treatment response and adjusting treatment as needed. Having shared
responsibility for total health outcomes should encourage each team member to actively collaborate throughout the care process to ensure high quality care for the patient.

- **Systems to support integration:** Patient identification/ attribution, patient engagement, shared care plans and medical records, systematic follow-up and adjustment of treatment approaches as necessary.

Comprehensive, population-based care cannot be achieved without systems in place to ensure the following:

- Systematic identification of patients with BH needs who could benefit from integrated treatment
- Patient and family engagement in their care and treatment decisions
- Care plans that include all aspects of the patient’s health (e.g. biological, behavioral, social, and cultural), are shared between the patient, family, BHP and PCP
- Shared health record that includes the medical and BH record
- Appropriate treatment/follow-up and adjustment of care to ensure patient progress toward treatment goals.

Several experts have highlighted that the last component, follow-up and adjustment of care, is the most crucial and also the one most often not carried out. The practice transformation plan described later in this chapter explains the process for helping practices develop these systematic clinical approaches necessary for success. Practices will also need to develop competencies that enable the successful adaptation of these key elements of integration.

**Competencies Supporting the Key Elements of Integration**

As mentioned previously, Colorado’s framework for integration builds upon other initiatives in the state, such PCMH, that aim to enable comprehensive primary care. Many of Colorado’s primary care practices have had at least some exposure to the core PCMH principles and have already begun work to develop some of the foundational competencies of comprehensive primary care. While it is not necessary for a practice to achieve formal PCMH recognition in
order to implement the key elements of integration, practices will need to implement certain elements of the PCMH and develop other BH integration competencies. The competencies necessary for comprehensive primary care and BH integration are described in Table 3 below:

**Table 3: Competencies to Support Integration**

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>ACTION STEPS</th>
</tr>
</thead>
</table>
| **Leadership and Practice Engagement** | • The concepts of comprehensive primary care and behavioral health are understood and actively supported by practice leaders.  
• Practice leaders support innovation, are willing to take risks and have occasional failures in order to improve.  
• A culture of shared leadership has been created, with everyone sharing responsibility for improvement in the practice.  
• The practice has a shared vision for practice transformation that everyone understands and support.  
• Opportunities are provided for all staff members to be involved in practice change and improvement processes. |
| **Quality Improvement Process** | • There is a QI team that meets regularly.  
• The QI team uses QI tools effectively – AIMS, process mapping, PDSA.  
• The QI team has a sustainable, reflective QI process that deals effectively with challenges and conflict.  
• Quality measures and other data are used as a central area of focus for the practice's improvement activities. |
| **Data Capacity**            | • The practice has an ongoing, reliable system for empanelment and panel management within our data systems and practice processes.  
• Clean and accurate quality measurement data are available for targeted conditions.  
• Workflows for maintaining accurate registry data have been reliably implemented. |
| **Population Management**    | • Registry data are used to identify specified populations of patients.  
• The practice has a patient recall system designed and implemented to bring in patients for needed care.  
• The practice uses a standardized method or algorithm for |
identifying its high risk patients.

- The practice provides care management services for patients identified as being high risk or needing additional assistance, community resources, and/or contact between visits.

### Patient Centeredness

- A system has been implemented for identifying and monitoring patient needs for support in health behavior change and managing their chronic conditions.
- A system has been implemented for assisting patients with developing goals and action plans for health behavior change and chronic disease management.
- Personalized care plans are developed collaboratively with patients and families.
- Care plans and action plans are regularly reviewed to monitor patient progress in accomplishing their goals and adjusted when appropriate.
- Patients and families are provided resources to help them engage in the management of their health between office visits.
- Patients can reliably access their personal clinician or a care team member within defined and acceptable time periods.

### Team-based Care

- Care teams have been designated and hold regular team meetings (can be everyone in very small practices).
- Team members have defined roles that make optimal use of their training and skill sets.
- Protocols and standing orders have been implemented to better distribute workload throughout the team.
- The practice team has received training in integrated care and continuing education about integration and evidence-based practice is routinely provided.
- Team huddles are used to discuss patient load for the day and to plan for patient visits.

### Coordination of Care

- Local referral sources and community resources are identified and share with patients.
- A structured system is in place for assuring appropriate follow-up and care planning for patients undergoing transitions of care.
- When referrals are made to specialists or community resources, key information is communicated ahead of the
visit and appropriate follow-up is achieved.

| Behavioral Health Integration | • Practice has a shared vision for behavioral health integration that everyone understands.  
• A system has been implemented to screen for patient behavioral health issues.  
• A behavioral health professional has been fully integrated into patient care in our practice.  
• Protocols and work flows have been implemented for warm-handoffs and standardized follow up with our behavioral health provider.  
• Patient medical records are accessible to both behavioral and physical health providers.  
• Personalized patient care plans are shared between behavioral health and primary care clinicians. |

How We Will Achieve this Goal: Practice Transformation Plans

The Colorado Framework of integrated care can only be successful with extensive transformation on the part of the practices. Accordingly, Colorado will provide practice transformation support to help practices develop the necessary competencies (listed above) to implement the elements of integration and give them access to needed resources and support. Our comprehensive plan includes practice facilitation, data and IT support and resources, and learning collaboratives.

Supporting Practice Transformation: The Colorado Health Extension System

Colorado has several experienced organizations (HealthTeamWorks, Rocky Mountain Health Plans and the University of Colorado Family Practice Residency Program) that already provide such support, but for the Colorado Framework to be successful, these groups and other resources must be connected within a statewide infrastructure.

We propose to use the statewide Colorado Health Extension System to fill this critical role. The Extension System is modeled after the highly successful agricultural extension service, with a central hub of collaborative organizations providing a variety of practice support services, linked with the health sciences center and public health organizations. This hub provides organization and resources for health extension agents hired and deployed at the community level. Through
ongoing relationships with primary care practices, behavioral health systems and providers, other health care providers, community agencies, and public health officers and with the connection to the central hub of services, the extension agents provide technical assistance to help practices in the implementation of practice transformation including behavioral integration. Extension agents and the extension services will focus on helping practices develop the competencies listed above as well as the key elements of integration.

Key practice transformation support to be provided through the Extension System includes:

- Practice education, through on-site coaching, learning collaboratives, online modules, etc.
- Leadership development, including consultation with clinician and management leaders, perhaps sometimes with participation from community leaders.
- Links to practice facilitation. Practices that already have a relationship with a practice facilitator or coach will be able to maintain that; the Extension System will connect practices without such a relationship with appropriate resources. The Extension System will provide training and resources to facilitators, share best practices, and evaluate their performance.
- Engagement with the behavioral health community, to help practices understand the resources available in their community and determine the integration strategy that works best for them (e.g., hiring a BHP as an employee, or contracting with a community mental health center or private behavioral health group). Similarly, the Extension System will serve as a bridge between community and private behavioral health providers and primary care practices. In addition, the Extension System can connect BHPs with training resources to understand the very different clinical model of behavioral health provision in a primary care setting.
- Practice preparation for new business and payment models, including contracting with behavioral health groups (as appropriate) and developing the information, financial and governance systems necessary to manage care and costs within prospective payment systems.
- Learning communities, including regular regional learning collaboratives, webinars and conference calls, and cross-practice consultations and/or visits.
- Data extraction and management – technical support in extracting and analyzing registry and EHR data.
• Patient engagement, including assistance in establishing patient advisory groups.
• Linkage to community health workers, a critical part of enabling practices’ efforts to support their patients outside the practice walls.
• Community engagement, including connections to community and public health agencies for patient self-management support and convening stakeholders to support greater coordination among primary care practices, behavioral providers, other health care providers, local public health officers, community agencies, and others to improve community health.

(Please see the “Public Health” chapter for additional description of the Extension System’s role in promoting community health.)

Practice Transformation Process

The preceding section describes the necessary components and structure of a statewide practice transformation effort. This section outlines the process of working with practices to accomplish the necessary transformation; the process is illustrated in Figure 4. A more detailed description of the process may be found in the “Practice Transformation” chapter in the Appendix.

Practice Readiness Assessment

1. **Step One:** Assess practice readiness (demographics, EHR/data reporting status, PCMH implementation, quality improvement experience). This assessment will be used to help stage practices according to their projected initial readiness to implement behavioral health integration. Practices that appear to be highly ready for behavioral health integration will be prioritized to receive the second stage of the assessment.

2. **Step Two:** Interview by the local extension agent and completion of the Comprehensive Primary Care Practice Monitor (see Appendix). The Monitor assesses key elements of practice transformation listed above for both comprehensive primary care and for behavioral health integration itself.
   a. Based on the information gathered from the two-stage assessment, practices will then be categorized as:
      i. High readiness for behavioral health integration
      ii. Low to moderate readiness
iii. Very low readiness or not willing to proceed at this time.

3. Step Three: Practice transformation assistance will then proceed according to these categories.
Figure 12: Practice Transformation Support

**Practice Assessment**
1. Online practice information form
2. Prioritize practices for more in-depth assessment
3. Interview and complete Practice Monitor

**High Readiness to Implement BHI**
- Preparation:
  - Shared vision for BHI
  - Necessary data for BHI
  - Connection with possible BHI partners

**Moderate to Low Readiness**
- Implementation:
  - Focused BHI practice facilitation
  - Community engagement activities
  - Data assistance
  - Practice facilitation
  - Ongoing monitoring of progress
  - Incentives to participate and implement model

**Very Low Readiness and/or Unwilling**
- Ongoing relationship: re-assess and involve when willing
  - Medical home & BHI education
  - Data assistance
Payment Models to Support and Sustain Comprehensive Primary Care with Integrated Behavioral Health

As outlined above, one of the most substantial barriers to effective integration is the FFS payment model that predominates in Colorado. The health care system responds to financial incentives, and in order to make lasting changes to our delivery models we must simultaneously and fundamentally change the way we pay for health care services—shifting from paying for volume to paying for value.

That shift cannot occur overnight. It is important for payers and providers to move deliberately and collaboratively toward the payment systems that will support truly coordinated or integrated care. As highlighted earlier, both commercial payers and Medicaid have already begun this progression through the use of care coordination payments and shared savings incentives. These approaches still incorporate a component of FFS while beginning to lay the groundwork for prospective payments.

The State Innovation Model provides Colorado an opportunity to further develop sustainable payment models that can support integrated primary care. This section will identify our payment model trajectory to transform how we pay for care. Whether a small single physician practice, or an integrated care delivery system, several foundational components can help move providers and payers along the trajectory to quality care delivery paid for with value-based payment models. Our proposed transition path to new payment models reflects and builds upon current movement in both Medicaid and commercial insurance.

Trajectory for Payment Reform

The graphic below depicts steps along the payment reform continuum in Colorado and provides an outline for transitioning to accountable care within the overall Colorado Innovation Plan and Model Design. This path reflects movement already underway in the Colorado market: for example, the Comprehensive Primary Care Initiative, Medicaid Accountable Care Collaborative and proprietary models for commercial payers are already implementing care coordination payments and creating opportunities for shared savings.
We recognize that not all providers are at the same level of readiness and we cannot “flip a switch” and shift to prospective, value-based payments immediately. However, unless the fundamental payment structure is changed, the way care is delivered cannot change in a sustainable manner. For this reason, the goal of Colorado’s Innovation Plan and Model Design is to move as many providers and payers along the continuum towards prospective risk-adjusted monthly/annual budgets as can handle the responsibility and shared risk.

**Figure 13: Payment Model Trajectory**

This trajectory reflects the realization that provider entities will need support in order to move along the payment continuum without jeopardizing patients’ access to care or providers’ solvency. They must have both sufficient time and technical assistance to put in place the administrative and clinical systems and assemble the financial reserves that are necessary to successfully accept risk. Most critically, before provider entities are allowed to accept downside risk, they must gain “training wheels” experience in managing to budgets.
The following sections break down the phases of this “glide path” to new payments to provide more detail and context on how they might look in practice. After the initial observation phase—in which practices learn to manage to budget and develop the capacity to utilize data for quality and cost measurement—practices are ready to move toward new payment models. This begins with shared savings, moves to limited risk corridors, and from there advances to prospective PMPM payments for comprehensive primary care. Much like the Medicare Shared Savings and Pioneer ACO programs, Colorado envisions a multi-year (e.g., three-year) timeframe for movement along the payment model trajectory once practices have completed the observation phase.

Stakeholder input will be necessary to determine the specific timeframe for each phase along the continuum and the potential requirements to advance to the next stage.

**Phase 1: Observation Phase – FFS + Care Coordination Payments while providers transform their practices and learn how to track total cost of care budgets**

Our trajectory begins with an observation phase, during which time the behavioral health provider is connected to the team, the practice transformation necessary based on practice needs is initiated, and the practice and payer groups have an opportunity to establish actual versus projected costs as well as identify performance and quality measures that will be tied to the shared savings. This observation phase also provides an opportunity for providers and payers to build lasting relationships based on data sharing and communication.

- A care coordination payment will be included during this phase. This payment (in addition to their standard FFS reimbursements) will pay for the infrastructure needed to enable care coordination — costs that are not reimbursable under the FFS model. This payment does not cover the cost of the behavioral health services.
- The primary care team with a behavioral health provider will be established and the practice transformation path will be initiated. This will include practice facilitation as well as access to practice transformation support services.
- Data analytic capacity will be built to ensure practices have the capacity to understand and utilize data to inform quality improvement and cost.
• Agreement on risk adjustment and total cost of care methodology as well as determination of the mechanism of payment for the behavioral health services will occur.

• Evaluation of actual versus projected costs will occur at the end of the phase with agreement on shared savings arrangement for the next phase.

Aligning incentives so that providers are willing to participate but do not get stuck in the observation phase is essential. There are administrative complexities that will need to be negotiated between practices and payers to allow movement and avoid unnecessary work that will not lead to triple aim outcomes (opening codes, spending a lot of time on FFS reimbursement etc.).

It is essential that payer and provider entities work together closely enough during the observation period to have some trust that they are entering into a covenant, and not simply a contract. If at the end of the observation period there is no significant gain in trust among the participants, the likelihood of progression to increasing levels of risk is small, and no timeline will ensure success absent this relationship.

**Phase 2: Shared Savings**

Once a practice is undergoing the transformation necessary to provide integrated behavioral health, and is learning to provide care within a budget by tracking actual costs to budgeted costs, it is positioned to move along the payment continuum to a shared savings model.

• Practices receive a percentage of net savings resulting from their efforts to reduce health spending for a defined population based on total cost of care.

• Predetermined and agreed upon quality measures will need to be met prior to participating in any shared savings.

• The care coordination payment continues to play an important role in supporting practices during their transformation. This payment helps practices develop workflows that are not based on patient encounters and allows a practice to evaluate how best to provide quality-driven patient-centered care. Whether payments increase, decrease, or remain unchanged year to year depends on the proximal capital needs and the ongoing operational ones.
• Shared savings arrangements do not place providers at risk but places an emphasis on quality improvement and cost reduction.

• While shared savings are an important step for many providers and payers, it is important to continue to move along the continuum. Almost always, these arrangements are still based in a fee-for-service structure. Accordingly, this approach should be thought of as a means to an end, and not an end in itself.

**Phase 3: Shared Savings and Risk/Limited Risk Corridors**

Only after a practice has demonstrated success in tracking and managing to budgets in order to qualify for “upside” risk (i.e., shared savings opportunities), can it be expected to move to a model with the potential for “downside” risk (i.e., shared losses). Other factors influence a practice’s capacity to do this, including size, sophistication and ability to withstand a withhold to create a risk pool. Most importantly, practices must be able to understand the expected cost of care for their population and be able to predict whether they can provide that care within the pre-determined budget. Often, the practices or organizations at this level of sophistication will need to perform their own actuarial analyses to determine their capacity before entering into any risk-bearing relationships. Practices engaged in risk-sharing arrangements will need to have access to and understand the cost of care outside the walls of primary care and understand how the care they deliver can help offset the cost of this care.

A “risk corridor” arrangement establishes parameters for when payers and providers share gains and losses, and the relative

<table>
<thead>
<tr>
<th>Shared Savings Methodology includes the following components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A total cost of care benchmark with risk adjustment for the patient population</td>
</tr>
<tr>
<td>• Provider payment incentives to improve care quality and lower total cost of care</td>
</tr>
<tr>
<td>• A performance period that tests the change</td>
</tr>
<tr>
<td>• An evaluation to determine program cost savings during the performance period compared to the benchmark cost of care and to identify improvements in care quality</td>
</tr>
<tr>
<td>• Shared savings policies including savings thresholds, minimum savings rates and population identification as well as methodologies for determining and distributing shared savings</td>
</tr>
<tr>
<td>• Determination of any potential excluded costs, for example, an out of area emergency</td>
</tr>
</tbody>
</table>
proportion each bears. For such contracts to be successful, it is essential to set quality and cost performance benchmarks that fairly reflect the relative health status of the practice’s patients and historical cost trends. It is also critical to distinguish between clinical risk and insurance risk. Effective risk-sharing payment strategies hold the provider accountable for the services provided to patients. This is clinical risk. The payer, meanwhile, is responsible for the risk associated with things over which the provider has no control, such as the health status of the patients who come to them. This is insurance risk.

- Risk corridors must identify the potential for sharing and risk based on actual versus projected total cost of care. Practices will need to understand what the expected cost of care is for the population and be able to predict whether they can provide that care within the pre-determined budget.
- The care coordination payment continues to play an important role in supporting practices during their transformation. Within the limited risk corridor phase, the care coordination is built into the budget.

**Phase 4: Prospective PMPM Payment for Comprehensive Primary Care with Integrated Behavioral Health with Shared Savings/Risk**

Fully integrated primary care practices with the capacity to provide care based on scopes one and

<table>
<thead>
<tr>
<th>Risk Sharing Methodology includes the following components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A total cost of care benchmark with risk adjustment for the patient population</td>
</tr>
<tr>
<td>- Provider payment incentives to improve care quality and lower total cost of care</td>
</tr>
<tr>
<td>- A performance period that tests the change</td>
</tr>
<tr>
<td>- An evaluation to determine program cost savings during the performance period compared to the benchmark cost of care and to identify improvements in care quality</td>
</tr>
<tr>
<td>- Risk-sharing policies including risk corridors, minimum savings rates and population identification as well as methodologies for determining and distributing shared savings and recouping losses</td>
</tr>
<tr>
<td>- Determination of any potential excluded costs, if applicable</td>
</tr>
</tbody>
</table>

two of the Colorado Framework may be ready and willing to accept a monthly prospective
payment for the total care of their patient population within the primary care setting. This transformative payment model allows providers greater flexibility to deliver the best combination of services to their patients, but also incorporates greater accountability for quality and value-based care.

Unlike capitation contracts in the 1990s, this payment is tied to quality measures and incorporates the care coordination payment into the budget determination. In addition, risk adjustment of the patient population allows for a more accurate prediction of the total cost of care of the population.

Evaluation of total cost of care of a population to determine the bases for an annual payment for comprehensive primary care is a complex endeavor. The tool utilized for risk adjustment as well as a clear understanding of services that are included as well as those that are not, including any lab work, specialty care, hospital care, as well as services such as transplant and long term services and support need to be determined and agreed upon.

In this framework, we are not talking about holding providers accountable for costs incurred outside the walls of the primary care practice. As Colorado’s health care delivery system moves toward more coordinated systems of care and ACOs, it will become more feasible to transition providers into global payment arrangements that reflect the total cost of care across the patient care spectrum. That is a goal for Colorado’s overall State Health Innovation Plan. However, this section is focused on getting integrated practices to the point of accepting prospective payments tied to the care they provide within their own setting.

- The payment is adjusted based on the health (e.g. co-morbidities and severity of illness) of a risk-adjusted patient. Annual budgets are designed to cover the overall cost of care provided to a patient within the practice setting regardless of the number of services provided.
- The care coordination payment is included in the budget and prospective payment
- As with the risk-sharing arrangement, the practice or organization will need to be able to accept a withhold and risk corridors will be developed.
• To ensure quality, safety, efficiency, and patient-centered care, a proportion of the comprehensive payment will be performance/outcomes-based and paid dependent upon achieving valued outcomes.

• Determination of the quality incentive payment will require consensus goals and use of validated process and outcome measures agreed upon by payers and the providers.40

• In order to mitigate potential risk on the part of the provider organization, practices must set up stop loss agreements with payers to ensure that costs for “outlier” patients (i.e., a patient whose care needs and costs are unexpectedly high as a result of unforeseen factors) are covered.

Key Components Necessary for Payment Transformation

Building on the initiatives highlighted in the delivery and payment overview chapter and leveraging the work that has already been done are essential to assist practices and payers as they move along the payment trajectory. The following components are key domains for continued discussion around payment reform.

• Shared quality measures
• Risk-adjusted payments
• Data analytics to support quality and cost measurement and support practice transformation
• Health information technology/data exchange
• Provider and payer flexibility

Each of these is described in more detail below.

Shared quality measures

Colorado Innovation Plan and Model Design will leverage the work that has been done with meaningful use within the state as well as the multi-payer alignment around measures for CPC. Reducing the reporting burden for providers by streamlining the “universe” of required measures that need to be reported is essential for broad stakeholder buy-in. We propose to start with a
common set of required measures to which payers can then add others from within an agreed-upon universe that are tied to shared savings or other incentive payments.

Over time, we will migrate to outcome measures vs. process measures. This must parallel movement along the payment continuum and the assumption of financial responsibility; as the latter becomes more focused on outcomes, so should the former.

Determining both benchmarks and targets for each measure will require input and consensus from providers and payers, supported by input from the state’s HIEs, data analysts and patient advocates. The goal is to identify core measures of integration, patient satisfaction and experience of care, and quality improvement. The “Evaluation” portion of this chapter identifies the specific measures under consideration.

**Risk adjustment**

“Risk adjustment” is the process of adjusting payments to minimize the provider’s exposure to insurance risk. Some patients are considered riskier than others because they are more expensive to insure. For instance, they may be older or have a chronic medical condition. Adjusting for risk means that providers with sicker patients receive larger budgets to manage care. Appropriate risk adjustment is critical to ensure that providers have adequate resources to care for high-risk patients and that patients get the care they need.

With the great variation in the populations served by primary care practices, risk adjustment is critical for a fair and equitable payment system. Payers currently use their own, often proprietary methods for risk adjusting populations. Aligning risk adjustment methodologies is essential to success.

**Data analytics to support quality and cost measurement, including total cost of care evaluation**

A key component of the SIM practice transformation support focuses on the data capacity needs of practices and payers as they move along the payment continuum. The data necessary for this work is often difficult for practices to access and effectively use and assistance with data extraction and analysis will be needed.
Developing capacity to gather and utilize data for quality and reporting purposes will be crucial to successful implementation of the clinical model as well as movement along the payment continuum. Timely data is essential for monitoring a patient panel’s indicators over time, and tracking the cost of care provided to those patients against budgets. Without such data, providers cannot be held accountable for hitting quality or cost targets.

During the observation period, practices will be given support to develop this capacity as well as an opportunity to submit baseline data for analysis, as explained in the “Practice Transformation” section earlier in this chapter. Some practices, mostly larger ones, will prefer to do this analysis themselves, but the vast majority will likely rely on prepared reporting packages from some central analytic unit, such as Colorado’s All Payer Claims Database (APCD).

In addition to risk adjustment of the provider panel, evaluation of total cost of care is also essential to success in outcomes-based payment models. Providers must have regular access to their own claims data and actuarial/technical support to help them analyze the total cost of care for their patients. These data reports must be aggregated across all payers, rather than simply provided as discrete reports from individual payers, in order to give providers a complete picture of their patient panels. This approach also reduces the number of errors in the reports due to small sample sizes, which historically are frustrating for providers, because of their sometimes conflicting conclusions. The APCD is already developing aggregated claims reports for providers to support process improvement and transition to new payments; it will be an essential tool for the success of this the Innovation Plan and Model Design.

**Health information technology/data exchange**

Electronic health records (EHRs) and data registries are essential to creating high-performing primary care practices. The “early adopter” practices for Colorado’s Integrated Care model are likely to be those (such as practices participating in the Comprehensive Primary Care Initiative) that have already achieved at least Stage 1 Meaningful Use designation of their use of EHRs and ability to transfer some records. For our integrated care model to be successful—let alone develop the coordinated systems of care envisioned in our larger Innovation Plan—we must accelerate the movement of all providers along the Meaningful Use continuum. Further, we must
expand connectivity and interoperability using our state’s HIEs. (These issues are discussed in greater detail in the HIT/HIE chapter.)

Allowing flexibility

We cannot require payers to reimburse providers in a given way. While we want to move all payers toward outcomes-based payments, we need to acknowledge the constraints of multi-state payers that may not be able to shift to outcomes-based payments as quickly as single-state, Colorado-based payers. We can, however, identify key areas for alignment. For example, providers may be willing to accept being paid in slightly different ways as long as they are being measured using the same benchmarks and targets.

Evaluation Plan

The Colorado Framework for Integrating Behavioral Health and Primary Care provides the content framework for our evaluation. Since the goal of the Colorado SIM proposal is to connect 80% of the people of Colorado to coordinated systems of care that give them access to comprehensive, integrated primary and behavioral health care, the evaluation will assess the number of practices that meet the definition of integration. The precise operational definition of an integrated practice will still need to be developed but will be aligned with framework.

To organize our evaluation, we will apply the Reach Effectiveness Adoption Implementation Maintenance (RE-AIM) framework, a model for the planning, implementation, evaluation, and reporting of translational research as practice (http://www.re-aim.org/index.html). This will help us identify the elements of implementation that are important to fidelity, generalizability and sustainability and allow practices to achieve the expected outcomes.

There is an opportunity to learn much from the implementation of the Colorado Framework about the associations between components of the Framework and important outcomes of health care summarized by the Triple Aim. We will measure characteristics of participating practices and organizations, which aspects of integration are used and how reliably, and a broad, balanced set of quality, experience of care, and financial outcomes to maximize the potential learning from this effort.
We will also be sure to keep in mind the burden that measurement adds to the primary care practice. We will do our best to address the important aspects of evaluation described above primarily through measures already being collected by these organizations. (Glasgow & Riley, 2013). Additional requests for data will be made as little as possible, and only as necessary for critical evaluations. Our intent is to make the data from such requests useful both to those who will be collecting the data as well as those who are evaluating the program implementation.

**Measuring BH Integration**

The primary and ultimate outcome to be measured in the evaluation of implementation of the Colorado Framework is the percent of primary care practices that are integrated. In order to report on this outcome, we will develop an operational definition of this based on the key elements of integration outlined by the Lexicon and the Colorado Framework. Additional stakeholder feedback will be necessary to determine the best measure of integration. Furthermore, we will evaluate the degree to which practices have integrated BHPs and BH services into their practice to determine where they fall on the continuum of integration (i.e. coordinated, co-located, and fully integrated). We will use this measure to group practices and compare practice-level outcomes and will involve stakeholders in the development of measurement criteria.

Below are a few options that have been considered to operationally define integration:

- Does the practice have an established relationship with a BHP and if so, what type of relationship (i.e. does the practice refer patients to an offsite BHP, is BHP in the same building as the medical clinic but in a separate space, or the BHP and medical staff share the same space and work as a team) A certain amount of behavioral health provider time per FTE of primary care provider in the practice.
- A combination of an onsite behavioral health provider with other elements such as shared care plan, shared record, shared population
- Measure functional elements related to communication and coordination of care such as shared EHR data or meaningful use

**EVALUATION OF THE COLORADO INTEGRATED CARE MODEL**
This proposal offers the opportunity to learn a great deal about the implementation of behavioral health integration and its impact on health care value. Practices in Colorado will vary in which components of integration they are able to implement and where they are along the continuum of integration. This variation will allow the evaluation to make comparisons across practices to answer two important questions:

1. What components of integration have been implemented, and with what degree of reliability and adaptation of the model
2. What impact has occurred on important clinical, financial and experience of care outcomes for targeted populations?

Because this is an evaluation of a real life implementation process in primary care practices, it will be important to consider the characteristics of practices as we evaluate the success of implementation and its impact.

1. ‘What works for whom?’ and
2. ‘In which contexts do particular programs work or not work?’

Differences in components of integration to be implemented in different practices as well as differences in pace of implementation make it important to be able to measure key processes repeatedly and outcomes over time and to use statistical methods that allow the identification of statistically significant trends over time. Simple before and after measures or measures that attempt to compare across sites will be limited in their ability to capture the complexity of implementation. Currently, there are a limited number of available instruments to measure the degree of integration at the practice level and we also want to minimize the data collection burden on participants. Therefore, our approach to measuring the elements of integration and outcomes will largely consist of choosing one or more common conditions or populations in the two possible scopes of integrated care and then measuring to what extent integrated care is being delivered to patients in these populations.

A mixed methods approach that includes qualitative aspects of evaluation such as focus groups, progress notes from practice facilitators assisting the practices on their transformation process, and key informant interviews will provide added richness to the quantitative evaluation. This
approach will also help to better understand observed differences in program adoption, implementation and maintenance.

We will also evaluate the impact of integration on Triple Aim outcomes. Clinical outcome and process measures will be chosen based on the target populations for integrated care and will align with measures being collected for other purposes. The clinical measures being used in the SHAPE project (described in the table below) will be the first set of measures we will consider using to assess the impact of BH integration on health outcomes. Measures of patient function will also be included to evaluate the impact of integrated care. The outcome measures chosen will include age appropriate measures for pediatric populations as well as adults. We will evaluate health outcomes at multiple levels including the following:

- Individual patient clinical improvements due to integrated behavioral health care (may include self-care)
- Individual functional improvements due to integrated behavioral health care
- Aggregate clinical outcomes for the panel of patients who receive integrated behavioral health care
- Aggregate population health (for population denominator(s) defined by the practice)

Table 4: Measures and Methodologies for Evaluation

<table>
<thead>
<tr>
<th>Measure</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes: Low Density Lipoprotein (LDL) Management and Control</td>
<td>• Percentage of patients 18-75 with diabetes whose most recent LDL-C level during the measurement year is &lt; 100 mg/dL</td>
</tr>
<tr>
<td>CAD (ICD9=410.xx, 411.xx, 412.xx, 413.xx, 414.xx)</td>
<td></td>
</tr>
<tr>
<td>Hypertension: Controlling high blood pressure</td>
<td>• Percentage of patients 18-75 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (&lt;140/90mm/Hg) during the measurement year</td>
</tr>
<tr>
<td>(ICD9=401.xx, 402.xx, 403.xx, 404.xx, 405.xx)</td>
<td></td>
</tr>
<tr>
<td>Major Depressive Disorder: (ICD9=311.xx, 296.2, 296.3)</td>
<td>• Percentage of patients aged 12 and older screened for clinical depression on the date of the encounter using an age</td>
</tr>
<tr>
<td>Measure</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PHQ−−9 or equivalent measure to show change</td>
<td>appropriate standardized depression screening tool AND, if positive, a follow-up plan is documented on the date of the positive</td>
</tr>
<tr>
<td></td>
<td>• Of the patients with depression, percentage of patients 18-75 with an improved PHQ-9 score</td>
</tr>
<tr>
<td>Obesity(BMI≥30): Adult BMI Assessment</td>
<td>• Percentage of patients aged 18 and older with a calculated BMI in the past six months or during the current reporting period documented in the medical record</td>
</tr>
<tr>
<td></td>
<td>• AND if the most recent BMI is outside of normal parameters, a follow-up plan is documented within the past six months or during the current reporting period</td>
</tr>
<tr>
<td>Comprehensive diabetes care: HbA1c poorly controlled (&gt;9.0%)</td>
<td>• Percentage of patients 18-75 years of age with diabetes whose most recent HbA1c level during the measurement year is &gt;9.0%</td>
</tr>
<tr>
<td></td>
<td>• Percentage of diabetics that had a change in A1c</td>
</tr>
<tr>
<td>General anxiety disorder: (ICD9=293.84, 300.00, 300.02) –</td>
<td>• Percentage of patients 18-75 screened annually for general anxiety disorder using the GAD-7 or equivalent</td>
</tr>
<tr>
<td>GAD-7 or equivalent measure to show change</td>
<td>• AND of those patients w GAD, percentage of patients with an improved GAD-7 score</td>
</tr>
<tr>
<td>Substance abuse disorder: (ICD9=291.x, 305.0x, 303.x) –</td>
<td>• Percentage of patients 18-75 screened annually for substance abuse using the AUDIT or equivalent</td>
</tr>
<tr>
<td>AUDIT or equivalent measure to show change</td>
<td>• Of the patients with a substance abuse disorder, percentage of patients with improved AUDIT scores.</td>
</tr>
<tr>
<td>Tobacco Use Assessment and Cessation Intervention</td>
<td>• Percentage of patients 18-75 who were asked about tobacco use</td>
</tr>
<tr>
<td></td>
<td>• Percentage of patients who answered “yes” and received cessation intervention</td>
</tr>
</tbody>
</table>
Furthermore, we will examine financial outcomes related to the Colorado Framework and the associated payment reform. The evaluation will examine the cost of implementing the model, the total cost of care for the population and potential cost savings for integrated practices and the state. While costs will likely rise at the onset of the new model, we anticipate that the cost savings from integration (including decreased emergency department utilization and improved clinical outcomes) will save the Colorado health care system XXX dollars annually. The evaluation plan will also include quality of care measures that will assess patient experience of care and provider satisfaction measures. The measures outlined below follow the most recent guidance of the full and complete use of the RE-AIM model. This list of measures is not meant to be exhaustive but rather illustrative of the evaluation plan.

1. Measures at the patient level (denominator for all measures would be members of target population)

   a. Reach

      i. Percent and characteristics (or representativeness) of patients who are offered integrated services
      ii. Percent and characteristics (or representativeness) of patients who actually receive integrated services
      iii. Percent and characteristics (or representativeness) of patients with a shared care plan that includes physical and behavioral aspects of care
      iv. Percent and characteristics (or representativeness) of patients with evidence of communication between physical and behavioral health clinicians
      v. Percent and characteristics (or representativeness) of patients who receive specified services that might include screening, treatment initiation, periodic follow up and treatment adjustment as needed.

   b. Effectiveness

      i. Percent and characteristics (or representativeness) of patients who achieve both BH and medical clinical targets
      ii. Percent and characteristics (or representativeness) of patients who report high level of satisfaction with integrated services
iii. Percent and characteristics (or representativeness) of patients who report improved functional status and/or quality of life

iv. Percent and characteristics (or representativeness) of patients who have decrease or no increase in overall health care costs over time in integrated practices

2. Measures at the practice level
   a. Adoption
      i. Percent and characteristics (or representativeness) of practices that have onsite behavioral health clinician, type of clinician, FTE/FTE of primary care provider or /1000 patients
      ii. Percent and characteristics (or representativeness) of providers that use integrated services (‘use’ has to be defined)
   b. Implementation
      i. Percent of patients who receive intended services
      ii. Description of modifications made to model during implementation
      iii. Cost of implementation (broadly captured – time, money, other resources)
   c. Maintenance
      i. Percent of patients who maintain clinical improvement over time or who achieve or avoid a longer term outcome
      ii. Percent of practices that continue to have integrated services over time
      iii. Description of modifications to made to model to address sustainability
      iv. Description of business model for sustainability

Table 5: Measures Matrix – RE-AIM and CO Framework

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>Reach</th>
<th>Effectiveness</th>
<th>Adoption</th>
<th>Implementation</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated clinician</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Shared panel</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Shared record</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Shared workflows</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Patient ID</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Patient</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>engagement</td>
<td>Follow up</td>
<td>Clinical Outcomes</td>
<td>Satisfaction Outcomes</td>
<td>Financial Outcomes</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Clinical Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 4: COLORADO’S HEALTH CARE WORKFORCE: BUILDING THE CAPACITY TO SUPPORT OUR GOALS

Executive Summary

Colorado must build a health care workforce with the capacity, training, efficiency and effectiveness to support the aim of providing 80 percent of all Coloradans with access to comprehensive care that integrates physical and behavioral health by 2019.

Our strategy to reach this goal is to develop a statewide roadmap that recognizes the wide range of issues, including training, licensure, scope of practice, recruitment and retention. The roadmap will recognize the need for local decision-making and innovation combined with statewide support, financial sustainability, a shared vision and an ongoing culture of collaboration.56

The strategic roadmap is framed around five critical areas:

- Building on Colorado’s base of information and data to aid decision-making.
- Creating a statewide systems-level plan of workforce training.
- Strengthening Colorado’s health care workforce pipeline.
- Addressing policy barriers related to workforce innovation.
- Leveraging local technology, innovation and leadership.

Colorado faces challenges in transforming its health care workforce. While the overall size of the workforce is appropriate by many measures, rural and frontier regions face ongoing shortages of both primary care and behavioral health providers. In addition, Colorado has a documented deficit of providers in specific behavioral health specialty areas.

Opportunities abound, however, to make a successful transformation. Colorado has a strong and committed academic system, a culture of collaboration on innovative health care solutions and a

56 This chapter examines primary care and behavioral workforce trends and needs from the standpoint of successfully executing the Colorado Model for integrated primary care and behavioral health.
provider and workforce community ready and willing to do the hard work. All of the pieces are in place to create the health care workforce of the future in Colorado.

**Current Status of Colorado’s Health Care Workforce**

**Primary Care**

Assessing the status of Colorado’s primary care capacity reveals a mixed set of trends. Based on several statewide statistics, Colorado’s primary care workforce could be considered appropriate for our population and at least on par, if not more robust, than the nation as a whole. However, the macro view masks significant variations across the state. Many rural, frontier and underserved urban regions in Colorado experience entrenched provider shortages. Further, the ability to readily access needed health care varies by region as well as by insurance type.

Overall, Colorado has a healthy proportion of physicians, including primary care physicians, for its population. Colorado had 229 active physicians for each 100,000 residents in 2010, slightly above the national rate of 220 physicians per 100,000 people. And with 92.3 active primary care physicians per 100,000 people, Colorado’s rate was again slightly higher than the national rate of 90.5 per 100,000. In fact, Colorado saw a small net increase in the numbers of practicing primary care providers between 2007 and 2011.

In addition, by a number of measures, Coloradans have good access to health care. More than four of five Colorado residents (81.2 percent) have a personal doctor or health care provider, nearly 10 percentage points higher than the national rate of 71.7 percent. And 85.3 percent of Coloradans say that they can get medical care when needed - again, higher than the national rate.

Finally, Colorado has a robust safety net serving our vulnerable populations (see Map 1). Nine federally-qualified health center (FQHC) clinic sites are available for each 100,000 residents with incomes at or below 200 percent of the federal poverty level (FPL). This is better than the national rate of six clinics for each 100,000 low-income people. Colorado FQHCs serve more than one of four residents (25.7 percent) in this income bracket compared to about one of six (15.5 percent) nationally.
However, these positive indicators mask some worrisome trends. The percentage of physicians delivering primary care declined to 28.7 percent in 2011 from 30.6 percent in 2007. And more than a third (35 percent) of Colorado’s rural physicians are 55 or older, with plans to retire in the coming decade. While these statewide trends mirror developments around the country, we must consider their implications for our primary care-based model of care.

Regional workforce variations across Colorado are important to understand. Population-to-provider ratios range from 9,119 residents for each primary care provider in a county near Denver to just 556 residents per primary care physician in a rural county in western Colorado.

Regional variations are even more evident when comparing the population-to-full time equivalent (FTE) primary care provider ratio among the state’s 21 Health Statistics Regions (see Map 2). A lower ratio (fewer people per full-time primary care provider) suggests greater...
availability of primary care, while a higher ratio (more people per full-time primary care provider) suggests a more limited care capacity. Regions shown on the map with the highest ratios - and thus the least primary care capacity – could be a particular focus in workforce development efforts.

Figure 15: Ratio of Primary Care Physician Full Time Equivalents (FTE) to Population by Colorado Health Statistics Region, 2013

Meanwhile, of Colorado’s 64 counties, 56 are either fully or partially designated as primary care health provider shortage areas (HPSAs). Although most of Colorado’s population lives in metropolitan areas (as discussed in the “Background” chapter), these health professional shortages are cause for concern. Colorado’s rural areas are home to one sixth of the state’s population, but just one tenth of the state’s physicians.

Another measure of workforce adequacy is whether Coloradans have available care when it is needed. Nine of 10 insured Coloradans, no matter whether they have public or private insurance,
indicate they have a usual source of care. But among uninsured Coloradans, the rate falls to about 57 percent.

Of course, health coverage does not always equal access to health care. This problem is particularly acute for Medicaid clients. The 2011 Colorado Health Access Survey found that approximately 24.6 percent of Medicaid enrollees—more than 156,000 Coloradans—were unable to get an appointment as soon as one was needed, compared to 14.3 percent of those who are commercially insured (see Table 1). In addition, 23.3 percent of Medicaid enrollees reported being told by a doctor’s office or clinic they did not accept their insurance – almost five times as often as the commercially insured (5.5 percent). These problems are common to Medicaid programs nationwide and are not easy to solve. However, we must acknowledge them and seek solutions in order to achieve our innovation goal.

Table 6: Barriers to Accessing Care, Colorado, 2011

<table>
<thead>
<tr>
<th></th>
<th>Commercially Insured</th>
<th>Medicaid</th>
<th>Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to get an appointment at doctor’s office or clinic as soon as needed</td>
<td>14.3%</td>
<td>24.6%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Doctor’s office or clinic wouldn’t accept your health insurance</td>
<td>5.5%</td>
<td>23.3%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Doctor’s office or clinic weren’t accepting new patients</td>
<td>6.0%</td>
<td>20.7%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

Source: 2011 Colorado Health Access Survey

Behavioral Health

A 2011 study of Colorado’s behavioral health workforce found that while Colorado has a relatively good—and increasing—supply of mental health practitioners and certified addiction counselors, there are shortages of psychiatrists and other prescribers as well as specialists in the care of children, seniors, rural residents, minorities and non-English speakers. (The study notes that the current measures of mental health providers are not comprehensive, with data unavailable from some counties, an indication of the challenges in collecting this information.)
The number of behavioral health providers per 100,000 residents climbed from 231 to 281 between 2007 and 2011, a per-capita increase of 22.4 percent (see Table 2). Drilling down to some specifics: the number of mental health and Substance Abuse Disorder (SUD) providers increased by 35 percent; licensed professional counselors grew by 30.1 percent; and the number of licensed addictions counselors or certified addictions counselors grew by 29.4 percent.

At the same time, while the total number of psychiatrists grew, their numbers per capita declined by 4 percent. In addition, the researchers found a general consensus that the need for certified peer-support specialists and family advocates far outstrips the available supply.

**Table 7: Changes in the Number of Behavioral Health Providers, Relative to the Colorado Population, 2003 to 2010**

<table>
<thead>
<tr>
<th>Types of Providers</th>
<th>2003</th>
<th>2010</th>
<th>Change in Number</th>
<th>Change in Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrist</td>
<td>713</td>
<td>753</td>
<td>5.60%</td>
<td>-4.00%</td>
</tr>
<tr>
<td>Licensed Psychologist</td>
<td>1,812</td>
<td>2,056</td>
<td>13.50%</td>
<td>3.20%</td>
</tr>
<tr>
<td>Licensed Clinical Social Worker</td>
<td>2,656</td>
<td>3,849</td>
<td>44.90%</td>
<td>32.00%</td>
</tr>
<tr>
<td>Licensed Marriage &amp; Family Therapist</td>
<td>476</td>
<td>554</td>
<td>16.40%</td>
<td>5.90%</td>
</tr>
<tr>
<td>Licensed Professional Counselor</td>
<td>2,704</td>
<td>3,868</td>
<td>43.00%</td>
<td>30.10%</td>
</tr>
<tr>
<td>Licensed/Certified Addiction Counselor</td>
<td>2,205</td>
<td>3,137</td>
<td>42.30%</td>
<td>29.40%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,566</strong></td>
<td><strong>14,217</strong></td>
<td><strong>34.60%</strong></td>
<td><strong>22.40%</strong></td>
</tr>
</tbody>
</table>

Source: Advancing Colorado Mental Health Care - 2011 Status Update

The same study shows that the regional differentiation in Colorado’s primary care workforce capacity extends to behavioral health professionals. The ratio of population to mental health providers ranges from a low of 556:1 in Ouray County to a high of 25,530:1 in Montezuma County. The average state population-to-provider ratio is 1,807:1. The regional differences are especially pronounced for mental health providers with higher education and training. The population centers of Denver and Colorado Springs are home to a disproportionate number of these professionals, including 82 percent of the state’s practicing psychiatrists, 86 percent of child psychiatrists, nearly all psychiatrists specializing in SUD treatment (95 percent), and all geriatrics specialists (100 percent). To put these numbers in context, these two metropolitan areas represent 58 percent of the Colorado population.

In light of these discrepancies, it is not surprising that 50 of Colorado’s 64 counties are either fully or partially designated as Mental Health Professional Shortage Areas (MHPSAs), indicating
a shortage of psychiatrists, the most highly trained and expensive behavioral health professionals.\textsuperscript{11} To expand integrated care in Colorado, the workforce will need to be broader than doctoral-level psychiatrists and psychologists.

Meanwhile, there are a number of ways to measure whether Coloradans have access to behavioral health services when they need them. Using the National Institutes of Health formula that about one of four Americans have a mental health diagnosis, we can estimate that roughly 1.3 million of Colorado’s 2013 population of approximately 5.2 million would benefit from mental health services.\textsuperscript{10} When Substance Use Disorders (SUDs) are also considered, about three of 10 Coloradans most likely need some level of treatment – or more than 1.5 million people, according to the report.\textsuperscript{8}

**Challenges**

Both the primary care and behavioral health workforces in Colorado present challenges to achieving Colorado’s health care innovation goal. The strategies outlined later in this chapter are designed to address these challenges.

- The workforce in place today, even in densely populated areas, may not be sufficient in the future. And, based on the trends discussed in the previous section, it may be more challenging to add primary care physicians than other health care workers.
- While Colorado has fairly robust capacity in primary care and behavioral health in its most populous urban regions, the balance of the state often suffers from shortages, long wait times and prohibitive commutes for care. These issues must be addressed in order to achieve health equity and to support integrated care models statewide. This is most likely to happen through creative innovations in the delivery system.
- Children require specialized mental health interventions, but our behavioral health workforce lacks sufficient numbers of professionals with this expertise. A survey of school-based health centers conducted by the Colorado Health Institute in 2013 found that there is a need to expand and improve the provision of behavioral health services in Colorado schools. Key informants identified a shortage of trained behavioral health workforce, lack of bilingual behavioral health providers, a demand for services that is exceeding capacity and a lack of administrative staff.
• Transforming today’s primary care and behavioral health workforce into a workforce adequate for the integrated care model of the future requires fundamental change. Integrated care requires a different set of skills, knowledge and attitudes than the skill set required to work in traditional models. Most primary and behavioral health providers are not trained to provide integrated, team-based care and may not have the correct competencies. Today’s providers will need training and ongoing support to successfully work in a system of integrated care that truly addresses the patient’s needs.

• Training tomorrow’s workforce to operate successfully in integrated, team-based care settings requires further attention to the education, training and residency approaches in Colorado. While progress is underway, more needs to be one. For example, the Department of Family Medicine at the University of Colorado School of Medicine (CUSOM) has a strong integrated care focus in its training and clinical programs (see “Opportunities and Innovations” below), that agenda is not necessarily completely shared by other departments within the school nor at other schools. And, while all family medicine residencies in Colorado are required to maintain a behavioral scientist on staff, there is no requirement that they teach or practice integrated care. Similarly, behavioral health training programs could expand their own focus on teaching and practicing integrated care. And while a number of programs—such as the Interdisciplinary Rural Training and Service Program (IRTS) program at the School of Medicine—aim to bridge disciplines in their pre-residency curriculum, behavioral health is not yet fully integrated into these efforts.

Opportunities and Innovations

Colorado also has a number of opportunities to build the best possible health care workforce. With a history of engaging in innovation both inside and outside of the formal health care sector, there is a great deal of expertise, energy and support available to implement new ideas.

• Colorado is continually assessing workforce concerns and developing projects to enhance the provider pipeline. More than 50 workforce initiatives were underway as of 2010, with programmatic focuses ranging from undergraduates to grade-schoolers. For example, the Colorado Area Health Education Center (AHEC) offers a statewide undergraduate summer program designed to introduce students to health profession
careers as well as health career exploration programs for kindergarten through eighth-graders. Additional work focuses on consultation, such as telemedicine and health extension services.

- Efforts to prepare the health professionals of tomorrow take a front row seat in CUSOM’s Dept. of Family Medicine. Starting from a philosophy that “we must not simply prepare Family Physicians for practice, but must prepare the primary care workforce,” the Department is taking many steps to train students and residents in integrated care, including:
  
  o Adding a half-time psychologist to teach all medical students during their third-year ambulatory/rural clerkship about the necessity of integrating behavioral healthcare into the PCMH, and equipping them to help their preceptor sites move in this direction.
  
  o Requiring all family medicine residencies to include a behavioral health professional on staff.
  
  o Hosting a primary care psychology internship and addition medicine fellowship, both of which operate in an integrated fashion.
  
  o Making joint hires with the University’s Depression Center, to join the resources of those departments.

- The state has taken steps to provide incentives for building Colorado’s workforce in underserved areas. In 2005 CUSOM established a “rural track” to increase the number of physicians practicing in rural Colorado. The state legislature in 2010 passed HB 10-1138, the Colorado Health Service Corps Act, which provides new incentives for health care professionals to practice in underserved rural and urban communities by establishing the Colorado Health Service Corps. The program provides financial incentives to eligible health care professionals who provide primary care services in medically underserved areas. In 2013, the legislature increased funding for the Commission on Family Medicine to support residencies in rural and underserved areas of the State.58

57 Quotes and information taken from email correspondence with Frank deGruy III, MD, MSFM, Chair-Dept. of Family Medicine, Oct. 22-23, 2013.

58 It is important to note, however, the limited nature of both these funding opportunities as well as the numerous restrictions placed on potential candidates.
Colorado’s legislature has expanded, within limits, the state’s ability to collect information about certain health care professionals’ specialties, practice location and other pertinent information. HB 12-1052, passed in 2012, authorizes the state’s Division of Registrations and Office of Primary Care to request such data from primary care physicians, advanced practice nurses and pharmacists when they renew their licenses. The legislation’s goal is to create a better picture of workforce distribution for critical types of providers, particularly in rural areas.

Colorado has a strong foundation of integrated care delivery on which to build, and experience in helping clinicians transition to these models. Integrated care models being tested and implemented statewide in both primary care and behavioral health settings (as described in the “Payment and Delivery Design” chapter) throughout Colorado serve as a starting point and offer valuable lessons for workforce development. In addition, we have deployed practice facilitators and coaches through multiple grant-supported projects and are in the process of forming a Health Extension System (described in the “Practice Transformation” chapter) to connect practices with practice transformation support.

Colorado benefits from a robust academic training environment, with two medical schools, a school of public health, two physician assistant programs, seven doctoral psychology programs and four schools offering Master’s of Social Work degrees. There are numerous additional community, bachelor’s degree, and post-graduate programs in nursing and other professions that add to the capacity of the primary care team across the state.

We can get started now on Colorado’s workforce pipeline. While physicians, psychiatrists and psychologists require at least a decade to train, much of the primary care and behavioral health workforce could be trained in three to four years, enabling us to establish strong pipelines.

Colorado is an attractive place to live, contributing to successful recruitment efforts. The scenic amenities, a commitment to healthy communities, an active lifestyle and a supportive health care environment are strong recruitment tools for the health care workforce. And people who grow up in Colorado often want to find opportunities to stay.
Goal for Colorado’s Health Care Workforce

- Build a workforce that is adequate in capacity, training, efficiency and effectiveness to support the aim of providing 80 percent of all Coloradans with access to comprehensive care that integrates physical and behavioral health by 2019.

Strategies for Achieving Our Goal

Reaching this goal will require transforming Colorado’s primary care and behavioral health workforces, building new competencies, changing workplace interactions, adding professionals to address the behavioral health needs of patients, and increasing capacity in underserved rural, frontier and urban regions of the state. New payment models that provide incentives for providers to collaborate and integrate their services will be essential.

Through the Innovation Planning process, we will develop a statewide roadmap that recognizes the wide range of workforce issues, including training, licensure, scope of practice, recruitment and retention, provides for necessary flexibility, and recognizes the need for local decision-making and innovation combined with statewide support, a shared vision and an ongoing culture of collaboration.

A group of nearly 50 expert stakeholders representing behavioral and physical health providers, state government, practice transition specialists, patient representatives, academic institutions and philanthropic organizations met to focus on a number of issues surrounding the integration of care. In particular, the group focused on workforce innovation, and helped to arrive at Colorado’s strategy.

The group reached consensus on a number of strategies, including these:

- **Increase Colorado’s base of workforce data to aid decision-making.** We have a good idea of the number and distribution of health care professionals in our state. But we need additional details to refine our understanding of the gaps that remain to be filled in order to successfully implement our integrated care model on a broad scale. Key elements include:
  - Gathering data on the readiness level of Colorado’s practicing behavioral health workforce to be trained to work in an integrated primary care setting. This could be accomplished by a survey fielded through statewide professional membership
organizations. These data would inform the scope and level of training efforts undertaken across the state, and especially help to target the efforts.

- Developing a research-based assessment of the behavioral health workforce based on appropriate panel size-to-provider models. For example, the Department of Veteran’s Affairs has worked with integrated behavioral and primary care models extensively. It recommends one social worker for approximately every five primary care panels of 1,200 patients.\(^\text{16}\) This ratio of one behavioral health provider for every four or five primary care providers is echoed elsewhere, both nationally and in Colorado (e.g., Aspen Pointe in Colorado Springs). Taking a slightly different tack, Salud Family Health Centers (a federally-qualified health center in metro Denver) has developed a pyramid staffing model to provide integrated care, with bachelor’s degree-level case managers creating the foundation, a smaller number of master’s degree-level mental health professionals, and an even smaller number of doctoral degree-level mental health professionals (see sidebar for details). Models such as these will help to advance Colorado’s workforce planning, including building to the highest level of licensure and scope of practice and being smart about layering on higher-paid behavioral health staff based on practice populations.

  - Assessing the workforce needed for both clinical needs and non-clinical needs, such as IT, administration and billing, discharge planning and health navigator services that may be needed to support the system.

  - Concentrating workforce needs assessments on the Interstate 25 corridor between Fort Collins and Colorado Springs in order to reach the most populous areas, which will support the goal of reaching 80 percent of the population with integrated care, while developing strategies that address needs in less populated areas.

- **Strengthen Colorado’s health care workforce pipeline.** Recruitment and retention will continue to be a major focus, as most of Colorado’s counties remain Health Professional Shortage Areas both for primary care and behavioral health.

  - We must continually evaluate our recruitment and retention efforts, adjusting them when necessary and using data to target our resources. At the same time, we should seek out additional methods for effectively serving rural and frontier
populations, building on current recruitment and retention efforts such as those highlighted in the previous section.

Salud Family Health Centers has more than 15 years of experience providing integrating care to its clients. Dr. Tillman Farley, Salud’s medical services director, is recognized nationally as an expert in providing integrated care.

Salud currently has 20 behavioral health providers and approximately 60 medical providers across its system of nine clinics and a mobile care unit. This translates to a ratio of one behavioral health provider for each three primary care providers.

Salud is rethinking its original conceptualization of the role of behavioral health providers, moving from a singular definition for any level of training to a more stratified definition, with providers with different levels of training providing different services. The aim will be to have each staff person work to the top of their ability and license.

- Case managers would coordinate care, communicate with other agencies and help patients meet their basic needs
- Master’s degree-level professionals would work with patients who have less complicated care needs or more straightforward interventions, as well as complete psychosocial and mental health screenings
- Doctoral-level professionals would work with patients with complicated needs to complete diagnostic assessments, psychological and cognitive assessments, and provide interventions for patients who are not responding well with other providers

These providers would also oversee all of the behavioral health staff in the clinic, and help with evaluations, research and quality improvement.

- As we pursue these efforts, it will be critical to focus on master’s degree level licensed providers, such as licensed social workers and licensed professional counselors. These types of behavioral health professionals are most likely to fill the pipeline necessary to integrate behavioral health into primary care. They will also provide the majority of the competencies necessary to identify, assess and treat the most common behavioral health needs in a primary care setting. Table 8 at the end of this chapter illustrates the competencies that will be required for behavioral health providers to work in an integrated care environment. This information will be useful in planning for the most effective and yet cost-efficient teams. Note that doctoral level psychologists and psychiatrists will need to remain
engaged in specialized mental health practices as well as joining primary care teams in clinics that have identified significant numbers of patients displaying both acute physical and mental diagnoses

- **Provide ongoing leadership** by supporting practice transformation with leadership at the state level as well as assistance for individual practices by:
  - Developing a plan for change management before, during and after the innovation roll-out that will engage health administrators, providers and educators.
  - Launching a state-wide “Get One” Integrated Care Campaign to educate, coach and share tools for on-boarding at least one behavioral health specialist in primary care practices.
  - Providing team training and cultural transformation coaches.

- **Address policy barriers related to workforce innovation.** Current licensing, credentialing, record keeping, disclosure requirements and other standards pose challenges to collaboration among specialties and increase administrative cost.
  - A comprehensive review of current Colorado health professional practice acts, statutes regarding provider credentialing and related issues will help to clarify the changes necessary. (Please see “Removing Legal Barriers to Integrated Care” chapter for more discussion of this issue and related recommendations.)

- **Leverage local technology, innovation and leadership.** For example, many Colorado providers and communities are expanding their use of patient navigators and community health workers. It is important that we have a standardized curriculum and approach to certification and credentialing of these important members of the workforce.
  - **A Case Study: The Community Health Worker – Role in Integrated Primary Care – TO BE INSERTED BY RMHP**

**Evaluation Plan**

The ability to meet Colorado’s workforce needs of today and tomorrow depends not only on executing the plan articulated in this chapter but on the ability to measure our progress in real time. As we develop the roadmap moving forward, we will set specific milestones that cover the following areas:
• Are we effectively measuring our current baseline? Colorado will have new data sources (e.g., the licensure database being compiled by the State) that will allow us to better understand the number and location of primary care providers in Colorado. This will allow us to measure our progress in terms of providing clinical support to all areas of the state, and especially to rural, frontier and underserved urban areas.

• Are we anticipating future need? As significant as it is to understand today’s need, planning for future need is even more important. The impact of the Affordable Care Act on the numbers of insured Coloradans combined with new, integrated models of care will change the numbers and composition of primary care teams. We will model and project future need and base our analysis on them. Our goal will be based on that model and we will in turn quantify our progress toward that goal.

Meanwhile, stakeholder involvement will continue to help qualify and quantify our progress. We can imagine a group like the one gathered for the innovation model work providing an annual report on our progress toward having enough trained clinicians to make our vision a reality.

The health care provider workgroup had several recommendations around evaluation, ranging from overall evaluation of the project to tracking how many primary care practices offer integrated behavioral health care to the adequacy of the size of the workforce. Recommendations from the group included:

• Design and implement evaluation systems in order to assess whether behavioral health integration increases efficiency, produces better health outcomes, and lowers costs. Evaluation should be an ongoing process.

• Outline the data necessary for integrated care program evaluation and assess if or how the data can be captured from existing sources.
Table 8: Integrated Care: Examples of Team Functions and Team Members

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Team Function</th>
<th>Personnel Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage/Screening for Mental Health/Substance Abuse Conditions</td>
<td>• Identify patients with mental health/substance abuse conditions and associated adverse health behaviors using methods such as screening tools, medical record/history</td>
<td>Non-medical staff, medical assistant, nurse, behavioral health provider. Only behavioral health providers, psychiatrists, trained primary care providers may diagnose mental health/substance abuse conditions. Substance abuse counselors may diagnose substance abuse SA conditions. Non-medical staff may administer screening tool. But behavioral health provider, psychiatrist or primary care provider must determine appropriate level of care.</td>
</tr>
<tr>
<td></td>
<td>• Determine appropriate level of behavioral health care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Connect patients with appropriate treatment resources and engage them in integrated services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Diagnose mental health/substance abuse conditions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Identify complex patients who need specialty services</td>
<td></td>
</tr>
<tr>
<td>Triage/Screening For Behavioral Health Factors In Chronic Illnesses And Other Medical Conditions, Such As Headaches, Stomach Aches, Pain, Fatigue.</td>
<td>• Identify patients with chronic illnesses that have contributing behavioral health factors using screening tools, medical history</td>
<td>Non-medical staff, medical assistant, nurse, behavioral health provider. Only behavioral health providers, psychiatrists, trained primary care providers may diagnose mental health/substance abuse conditions. Substance abuse counselors may diagnose substance abuse SA conditions. Non-medical staff may administer screening tool. But behavioral health provider, psychiatrist or primary care provider must determine appropriate level of care. Additional training in</td>
</tr>
</tbody>
</table>
## Complexity Assessment

- Identify patients with complex behavioral health needs. Determine if care is appropriate in primary care setting or if patient needs to be referred for specialty care
- Identify range of psychosocial barriers to care
- Provide additional support to patients with complex needs
- Link patients to appropriate specialty care

*Behavioral health provider, psychiatrist or primary care provider. Non-medical staff may assist with linking patients to specialty services. Care manager may provide support to patients with complex needs.*

*Additional training in behavioral medicine likely needed to assess patients with complex behavioral health and chronic illness conditions.*

## Behavioral Activation/Self-Management

- Improve patient-centered outcomes
- Increase activity and prevent avoidance behaviors
- Help patient take part in positive activities to change behavior
- Promote health behavior change, wellness activities, prevention
- Encourage patient engagement in care

*Clinic nurse, behavioral health provider, care coordinator, trained medical assistant, all supported by treating practitioners.*

## Psychological Support

- Increase patient’s ability to adhere to treatment
- Increase healthy behaviors
- Decrease impairment
- Teach coping skills, problem solving

*Behavioral health providers, substance abuse counselors, psychiatric nurses, trained medical nurses, treating primary care providers, psychiatrists.*

## Brief, Focused Mental Health/Substance Abuse Interventions

- Perform mental health functional assessment
- Apply primary care interventions to reduce symptoms and impairment, reduce disability, augment performance or function

*Behavioral health provider, substance abuse counselor for substance abuse interventions, primary care providers and psychiatrists with additional training.*

## Psychopharmacology Assessments/Treatment

- Reduce symptoms, reduce disability, augment performance or function

*Psychiatrists, primary care and specialty medical physicians,*
<table>
<thead>
<tr>
<th></th>
<th>function</th>
<th>nurse practitioners, physician assistants with supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complex Behavioral Health Condition Medical Interventions</strong></td>
<td>• Reduce symptoms and impairment; reduce disability, augment performance or function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Treatment resistant—non-responders to straightforward care</td>
<td>Behavioral health providers, psychiatrists. Psychiatric nurse practitioners, psychiatric clinical nurse specialists and psychiatric physician assistants with psychiatrist or behavioral health provider supervision.</td>
</tr>
<tr>
<td></td>
<td>• Acute interventions and referrals for severe or psychotic—Serious and Persistent Mental Illness, psychotic/suicidal depression, severe eating disorders, chronic disease</td>
<td></td>
</tr>
<tr>
<td>Follow-Up Care</td>
<td>• Track patient symptoms and/or functional status</td>
<td>All treating practitioners with assistance by support staff.</td>
</tr>
<tr>
<td></td>
<td>• Document clinical improvement, health stabilization, impairment reduction or control</td>
<td>Add integrated care managers for the most ill or complicated patients.</td>
</tr>
<tr>
<td>Measure Outcomes to Adjust Care</td>
<td>• Document improvement in clinical, functional, fiscal, quality of life outcomes</td>
<td>All practitioners and non-medical personnel; changing care generally initiated by medical or behavioral health professionals</td>
</tr>
<tr>
<td></td>
<td>• Change assistance or intervention when outcomes not achieved, especially in high cost-high need patients</td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>• Intervene at family level</td>
<td>Nurses, care coordinators, community health workers, promotoras, health educators, behavioral health professionals, substance abuse counselors</td>
</tr>
<tr>
<td></td>
<td>• Assist with access to community resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Assist with medically-related financial issues</td>
<td></td>
</tr>
<tr>
<td>Crisis Intervention</td>
<td>• Perform crisis assessment or intervention</td>
<td>Behavioral health provider, psychiatrist or physician</td>
</tr>
<tr>
<td></td>
<td>• Place patients on mental health hold when necessary</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 5: HEALTH INFORMATION TECHNOLOGY AND HEALTH INFORMATION EXCHANGE

Executive Summary

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. Health system integration can only be achieved when providers share critical patient information, such as medical history and medication lists, to better coordinate patient care. This integration, including the integration of behavioral health into primary care, will require a robust and fully compatible HIE to support the data and outcomes necessary for the success of the new integrated system of care.

Key HIT challenges include differing and incompatible electronic health record (EHR) systems among hospital systems and practices, and between state agencies; different EHRs, different consent requirements and data capture ability for physical and behavioral health care settings; and misperceptions about the limits on information-sharing posed by current state and federal privacy laws.

To advance HIT/HIE in Colorado and move the state towards integrated care, we will:

1. Promote adoption of Health IT tools in an integrated care delivery setting
2. Leverage statewide HIE to promote the integrated care delivery model
3. Increase communication, outreach, and education efforts
4. Promote and align state agency HIT efforts
5. Evaluate State and federal level privacy policies, standardized consent forms, and data use agreements
6. Connect public health to the statewide HIE for enhanced population health reporting and evaluation
7. Target outreach to rural and frontier communities to ensure statewide access and interoperability.

59 Colorado Regional Health Information Organization, State Designated Entity. “State Medicaid Health Information Technology Plan (SMHP) June 2012.
Current State

Through federal and regional grant funds and leveraging earlier strategic planning efforts, Colorado state agencies and non-state agency partners have implemented sustainable programs promoting health information exchange (HIE) and improving care coordination among Colorado providers and hospitals through use of health information technology (HIT). 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.\textsuperscript{60} Health system integration can only be achieved when providers share critical patient information, such as medical history and medication lists, to better coordinate patient care. This integration, including the integration of behavioral health into primary care, will require a robust and fully compatible HIE to support the data and outcomes necessary for the success of the new integrated system.

Colorado has robust HIE with the state designated entity, Colorado Regional Health Information Organization (CORHIO), Quality Health Network (QHN), and numerous community HIE-type programs with focused information exchange between organizations. The Colorado communities and health care initiatives that are using HIE to promote integration and quality improvement include the following (a detailed summary of the programs can be found in the Appendix):

- Northern Colorado Health Alliance
- Avista Integrated Physician Network
- The Children’s Hospital, PedsConnect
- CareEverywhere
- Health TeamWorks
- Colorado Associated Community Health Information Exchange (CACHIE)
- The Colorado Hospital Association’s patient safety initiative
- The Colorado Telehealth Network (CTN)
- The Colorado Foundation for Medical Care

As of September 2013, 95 percent of Colorado hospitals with more than 100 beds have connected or signed agreements to connect with Colorado’s two main HIEs. More than 1500

\textsuperscript{60} Colorado Regional Health Information Organization, State Designated Entity. “State Medicaid Health Information Technology Plan (SMHP) June 2012.
ambulatory providers, 120 long-term, post-acute care facilities, 18 behavioral health organizations, three payers, national and regional labs, and interfaces between local and state public health agencies are live or in development with statewide HIE. Colorado HIEs have records for almost 3 million unique patients, the second largest HIE patient population in the nation.

In 2012, almost 28 percent of the eligible providers in Colorado had achieved meaningful use of their electronic health records (EHRs) as defined by the federal HITECH Act (see Glossary in the appendix for an explanation of meaningful use) and were receiving incentive payments from the EHR Incentive Program.61 With the support of the Colorado Regional Extension Center and the Medicaid EHR Incentive Program, Colorado aims to improve that number to 39 percent of eligible Colorado providers by the end of 2013. In addition, Colorado has the third highest acute care hospital EHR adoption rate at 68.3 percent (compared to the national hospital EHR adoption rate average of 44.4 percent). Colorado’s extensive HIE capabilities reduce redundant testing, improve timely and accurate care, increase access to health information across organizations and services types, provider real-time health information for transitions of care, and aggregate clinical and administrative data for analytics and reporting.

State agency collaboration with HIT / HIE initiatives

State agencies collecting health information need to plan for interoperability with statewide HIE in order to reap the benefits of health information from external sources and share health information across care delivery settings. CORHIO, as the State Designated Entity, is collaborating with multiple state agencies to inform and advise on various HIT initiatives across state agencies and nongovernmental partners (see Table 1).

<table>
<thead>
<tr>
<th>Agency</th>
<th>Summary</th>
</tr>
</thead>
</table>
| Department of Corrections (DOC) | • Investigating integrated EHR replacing Encounters and Pharmacy systems improving inmate care delivery care delivery (physical and behavioral health) documentation  
  ○ Encounter System |

61 CORHIO Meaningful Use Acceleration Program, April 2013.
| Department of Human Services (DHS) | • Colorado Client Information Sharing System (CCISS) interoperability  
  • Replacement for EHR and Pharmacy systems |
| Office of Information Technology (OIT) | • Network Bandwidth Capacity Improvements  
  • Colorado Information Marketplace |
| OIT - Colorado Benefits Management System (CBMS) | • Enterprise Service Bus  
  • CBMS Program Eligibility and Application Kit (PEAK)  
  • CBMS Intelligent Data Entry (IDE) or CBMS Web  
  • CHP+ Enrollment Spans Migration |
| Office of Behavioral Health (OBH) | • Colorado Data Integration Initiative  
  • Ongoing request for proposals for Crisis Stabilization Services, Mobile Crisis Services, Crisis Residential / Respite Services |
| Health Care Policy and Finance (HCPF) | • Pursuing 90-10 Federal financial participation (FFP) matching funds for programs advancing Meaningful Use and a Medicaid Agency Data Strategy solution  
  o Develop core HIE infrastructure and interface development  
  o Improve public health information reporting  
  o Support Medicaid provider education creating a path to HIE  
  o Support state data infrastructure and interoperability strategy  
  o Improved Medicaid population health analytics  
  o Patient/client identity management  
  o Statewide provider directory  
  o Health information services integration  
 • Medicaid Management Information System (MMIS) Medicaid Information Technology Architecture (MITA) (second self-assessment 2013)  
 • Accountable Care Collaborative  
 • Statewide Data Analytics Contractor (SDAC)  
 • Eligibility modernization systems interfaces  
 • Colorado Health Care Affordability Act (HCAA, hospital provider fee)  
 • Network Bandwidth Capacity Improvements for Health Care Affordability Act |
Coordinating with other statewide HIT initiatives to accelerate adoption of HIT

Colorado has many health initiatives working towards enhanced data capture and information exchange to in order to improve care, reduce costs and improve health outcomes. Collaboration on these initiatives is critical to reduce duplication and create alignment. In 2009, an Advisory Committee created the State Health Information Technology plan for the state, a roadmap for strategy coordination. The next steps in HIT coordination involve maintaining the alignment of both historic strategic plans and current state health initiatives while taking into account recent technological advances and ongoing innovative community programs.

Colorado state agencies are experiencing the same challenges that private health care systems and providers are encountering including slow adoption of HIT tools, ongoing reliance on paper and faxes, multiple incompatible systems and lack of interoperability. The State is actively working on interoperability (see Table 1) and has multiple, active HIT programs to increase the scope of health information data capture, analysis and the overall utilization of health information. The table below lists state agencies with active health information projects and examples of discrete data that can be leveraged for improved integration and care alignment.

---

62 HCPF has statutory authority over the APCD and has delegated administration to the Center for Improving Value in Health Care
<table>
<thead>
<tr>
<th>Agency</th>
<th>Health information data</th>
</tr>
</thead>
</table>
| Department of Corrections          | • Physical, behavioral health care delivery information  
• Prescriptions  
• Referrals/authorizations via third party administrators (TPA)  
• Inmate management  
• Demographics                                                                                                                                 |
| Department of Human Services       | • Youth Corrections – inmate management, transfer, release  
• Physical/behavioral health care delivery information  
• Medications  
• Case management                                                                                                                                 |
| Office of Information Technology   | • Patient identifiers  
• Eligibility information  
• Demographics                                                                                                                                                                                                     |
| Office of Information Technology   | • Enterprise Service Bus  
• Eligibility/enrollment/demographic                                                                                                                                                                                  |
| Office of Information Technology   |                                                                                                                                                                                                                       |
| Office of Information Technology - |                                                                                                                                                                                                                       |
| Colorado Benefits Management       | System                                                                                                                                                                                                                |
| Office of Behavioral Health (OBH)  | • Colorado Client Assessment Record (CCAR)/Drug and Alcohol Coordinated Data System (DACODS) - sharing and release may be restricted per federal privacy policy                                                                 |
| Health Care Policy and Finance (HCPF) | • Medicaid administrative claims data  
• Statewide Data Analytics Contractor (SDAC)  
• Eligibility/enrollment/demographics  
• Medicare/commercial claims data (through the All Payer Claims Database)                                                                                                                                         |
| Department of Public Health and   | • Vital statistics (patient demographics)  
• Registries (immunizations, notifiable conditions, cancer case registry, etc.)  
• Behavioral Risk Factor Surveillance Survey (BRFSS)  
• Colorado Child Health Survey (CCHS)  
• Colorado Health Access Survey (CHAS)                                                                                                                                                                              |
| Environment (CDPHE)               |                                                                                                                                                                                                                       |
| Department of Regulatory Agencies  | • Provider licensing/enumeration  
• Controlled prescriptions  
• Patient identifiers                                                                                                                                                                                               |
| (DORA)                             |                                                                                                                                                                                                                       |
| Department of Education CORHIO/QHN | • Provider identifiers  
• Master patient index  
• Labs, radiology, transcriptions                                                                                                                                                                                       |
An example of the efforts outlined above is HCPF’s strategy to leverage the data gathered as a result of the “Meaningful Use” criteria, the Children’s Health Insurance Reauthorization Act (CHIPRA) child health quality measures and the Accountable Care Collaborative (ACC) care coordination goals. This data is currently gathered by different organizations such as the AV, Statewide Data Analytics Contractor (SDAC) and through the statewide HIE, HCPF is developing a plan to integrate and consolidate it, making it easily accessible to support the state in developing health care policy, enhancing care coordination, and evaluating benefit plans. The state’s use of clinical data to make policy and program decisions will result in improved health outcomes and more efficient use of benefit dollars.

**Rural access to HIT/HIE**

Colorado is primarily a rural state with twenty percent of the population living on 80 percent of Colorado’s land. These rural counties do not have the health care access common in to the 80 percent of Colorado’s population living in urban Front Range communities. CORHIO and QHNs’ community and virtual health record can share health information across organizations and facilitate rural and small providers’ access to patient records supporting integrated care, no matter where the patient is within the state.

**Challenges**

To get a clear sense of the challenges to expanded HIT/HIE in Colorado, CORHIO conducted almost 20 interviews with subject matter experts, state agency contacts, leaders from the Regional Care Coordination Organizations (RCCO) and Behavioral Health Organizations (BHO), other state HIE leaders and CORHIO’s own advisors. While there are a wide range of issues facing the development of HIE/HIT in Colorado, we also asked stakeholders about the specific integration of primary care and behavioral health (See Model chapter). Through these interviews, three primary concerns emerged:

1. Need for universal adoption of advanced and integrated HIT tools for standardized data capture across settings of care in near-real time for all potential data uses (clinical care, care management, administrative reporting, risk stratification).
2. Need for bi-directional interoperability with statewide HIE for private and public health information capture and sharing.

3. Uniform and robust interoperability with state HIT/HIE efforts and improved data exchange.

**HIT tools**

The specific challenges providers, hospitals, and state agencies face with current HIT tools include:

- Colorado providers and hospitals have not uniformly adopted a complete suite of HIT tools, including EHRs, clinical decision support, analytics, and standardized data sets that support interoperability with statewide HIE. Depending on their sophistication and financial abilities, providers may not have adopted full EHRs or may be using older systems that do not connect with the HIE.

- Many EHRs are insufficient to capture data for both physical and behavioral health. This creates an environment that supports the adoption of separate behavioral health and physical health EHRs with limited compatibility.

- Primary care and mental health care is provided in multiple settings including schools, local public health agencies, primary care offices, mental health community centers, and substance abuse facilities, each with different consent requirements and data capture capabilities.

- As noted earlier in this section, state agencies capturing health data are experiencing similar issues as providers and facilities trying to capture physical, behavioral health, case management, and analytics in one system. Many agencies use two or more systems and abundant paper communication, documentation and scanning to capture health care delivery provided within state agencies.

**HIE adoption and needs**

- EHR readiness varies across vendors and practices, contributing to longer, more complicated integration implementations. Not all vendors EHRs are easily integrated with existing
infrastructure and practices with non-compatible systems face a longer and more expensive integration process

- There is a need for increased interoperability with state entities, including public health, MMIS, and other agencies capturing health information, such as Department of Corrections, Department of Human Services, public health agencies (local and state), and agencies with imperative health data (e.g., provider id, patient identification).

- Additional HIE infrastructure and tools must be developed to reach the next phase of information exchange supporting improved health outcomes. Recommendations include, Alerts/notifications for ER visits and hospital admissions, robust analytics of aggregated claims and clinical health information, and bidirectional interfaces between private health care providers and state agencies.

- Patients, families and caregivers must be actively engaged in improving health care and must have access to information from the EHR.

- There is wide misunderstanding of federal and state privacy policies regarding sharing behavioral health information across organizations and statewide HIE, demonstrating a need for robust education and training on consent requirements and potentially the development of a standard consent model for all care locations. In addition, technical capabilities and operational processes must be developed to support the recommended consent model.

State Program and Agency Collaboration

- RCCOs and their primary care medical providers (PCMPs) are at different stages of HIT adoption with differing solutions for physical and behavioral health EHR needs.

- HCPF would like to aggregate clinical and administrative data among its internal databases and RCCO and BHO partners to improve reports and reporting timeframes for payers, providers, patients and policy development.

- The challenges highlighted above regarding privacy policies and consent models are of particular concern to state government, as they create barriers for HCPF and other agencies at the organizational and operational levels.

Challenges to implementing the Colorado Framework for Integrated Care
• **Data Capture:** Data capture is often cumbersome and labor intensive, and many data elements and collection processes are not standardized, repeatable or automated. Manual and duplicative data entry for required reporting are commonplace across state and community-based health care programs, disrupting workflows and increasing opportunities for error. In addition to cumbersome data entry, patient reported information is often on paper questionnaires, which are scanned into the EHR as PDFs. Scanned documents cannot be used for reporting purposes.

• **Data Capture for Mental Health Information:** Data capture for mental health and substance abuse information can be cumbersome if the clinical EHR is not capable of appropriately capturing or securing mental health information. Physical health EHRs may not have the minimum privacy controls or the flexibility to capture sensitive mental health and substance abuse information. Alternatively, the behavioral health EHRs may provide the additional privacy controls and functionality needed for overall behavioral health treatment, but may not meet the minimum data specifications of physical health EHRs. This split forces many providers to acquire separate EHRs for physical and behavioral health. The separation of specialty mental health services information systems and physical health services IT perpetuates the segregation of care for the patient.

EHR adoption by behavioral health providers is a necessary first step in using HIT to integrate behavioral health and primary care, but there are few financial incentives to adopt behavioral health EHRs (notably, they are not eligible for meaningful use incentives), which are critical for smaller practices that may lack the resources to implement and maintain an EHR system.

• **Analytics:** Data analytics must be integrated within the care delivery tool for access during a patient encounter for discussion and to monitor clinical information. Easily configurable reports at clinician, care team, department and organization levels could provide immediate feedback on data such as lab results and medications.

---

63 C-SHIMS document
64 Roundable discussion see next footnote
Need for Clinical Decision Support (CDS) tools in EHRs: Integrated care requires the use of electronic screening tools in primary care settings to identify a behavioral health risk and to track progress and outcomes.\textsuperscript{65} Alignment and utility of CDS is critical in an integrated delivery setting to facilitate care coordination and “warm handoffs.”

Opportunities and Innovations

Several entities in Colorado are working closely with CORHIO, QHN and providers to accelerate adoption of HIT and expand HIE capacity.

- Colorado Telehealth Network (CTN), funded by grants from the Federal Communications Commission, connects rural and urban providers for specialty telehealth consults; it also provides HIT support to rural practices and hospitals. CTN plays a critical role in facilitating communication for providers and coordination of care for patients in rural Colorado.

- The Colorado All Payer Claims Database (APCD) is a secure, statutorily-enabled database that collects health insurance claims information from Colorado’s private and public health insurance payers. The APCD provides public reports on its website (currently, aggregated spending and utilization comparisons by geography; in 2014, facility and practice price and quality comparisons) and also makes detailed custom reports available to providers for performance improvement purposes.

- All the nonprofit entities in Colorado that store, use and analyze health data—CORHIO, QHN, CIVHC (as APCD administrator) and Colorado Health Institute (as the state’s nonpartisan health data analyst)—have joined together as the Federation of Health Information Technology Organizations (FeHITO). FeHITO serves as a forum to align efforts, identify synergies and generate joint initiatives to speed the use of health data for performance improvement and cost containment.

\textsuperscript{65} ONC Roundtable report
Colorado-based health plans such Rocky Mountain Health Plans (RMHP) and Colorado Access are working closely with their HIE partners to support care improvement and cost containment goals. RMHP has a long history of interoperability with QHN and has made information exchange a strategic priority. Colorado Access is working with CORHIO to receive lab results, ADT feeds, and eligibility-based routing information.

### Reaching rural areas, small practices and behavioral health providers

**Expand interoperability with statewide HIE through collaboration with all RCCOs:** RCCOs have an opportunity to increase the ability of uninsured and underinsured patients with access to high quality, evidence-based care, many of whom live in rural communities across the state. Many of the providers that work with the RCCOs serve rural populations and may not have the resources or motivation to adopt HIT/HIE solutions into their practice. By collaborating with CORHIO and QHN as HIEs, the RCCOs will facilitate data sharing, increase EHR incentive program awareness, and create a path to interoperability with statewide HIE. HIE is an essential component needed to support care coordination for RCCO patients throughout the region, and the full integration of behavioral health information is a key component to the success of this program.

**Expand telehealth offerings and infrastructure:** Expand telehealth utilizing the existing, fully-operational, statewide health care broadband infrastructure. This expansion will improve the adoption of EHRs and help achieve Colorado’s Meaningful Use goals in rural counties. The Colorado Telehealth Initiative is a 5-point plan to advance rapid diffusion of telehealth access throughout both rural and metropolitan Colorado. Plan components are:

1. Statewide video telehealth network platform built on the existing, statewide, dedicated health care network (CTN),
2. Telehealth resource center
3. Telehealth promotion (to advance necessary legislative and regulatory changes in support of reimbursement, credentialing and permissions)
4. Telehealth advisory committee, and
5. Telehealth outcomes monitoring and evaluation program.

Colorado’s telehealth initiative is especially pertinent in rural areas as a solution to provide an accessible mental health professional to hard to reach or sparsely populated areas. With telehealth, the care team will have access to mental health providers that may not be geographically present, enabling access to mental health services otherwise unavailable. Telehealth lets mental health care teams provide services when and where they are needed.
• HCPF has contracted with CORHIO to reestablish an HIT Planning Committee to facilitate a public/private partnership with state and non-state entities to identify HIT initiatives throughout the state. This collaborative will facilitate the development of new ideas, standards, and recommendations.

Goals for HIT/HIE Transformation

Overall goal

• Spur robust and uniform adoption of EHRs and connectivity with HIEs to support Colorado’s goal of providing access to coordinated systems of care that integrate physical and behavioral health and connect the clinical care delivery system with the public health system.

Targets

By emphasizing adoption and use of HIT tools and EHRs in all care settings, advancing interoperability with HIE, and establishing and increasing data exchange with and among state agencies, including public health, health information will be truly interoperable regardless of care setting or type, while respecting privacy laws.

HIT tools

• 100 percent of Colorado providers and hospitals adopting, implementing and upgrading a suite of integrated HIT tools within their EHR and workflows, including clinical decision support, analytics, and standardized data sets supporting interoperability with statewide HIE.
• The adopted EHRs integrate physical health and behavioral health information capture, as well as electronic consent capture, integration with portals and PHRs for secure patient communication, and capability for triggers, alerts, and notifications of patient ER visits, hospital admissions, or critical lab values.
• Robust implementation of telehealth video conferencing to support mental health professional availability for primary care visits in small, rural communities.
• EHR solution and/or HIE interoperability to capture primary care and mental health care occurring any setting, including school settings, local public health agencies, primary care physicians, mental health community centers, and substance abuse facilities with a common consent model and standardized data capture and exchange.

• Vigorous patient engagement with PHRs aggregating disparate provider portals, secure messaging, patient reported information, consent management, and ability to see clinical and utilization information.

• State agency EHR solution for capturing physical, behavioral health, case management health data in an integrated system with supporting analytics and interagency interoperability and reduced paper charts and scanning solutions.

**Health Information Exchange adoption and needs**

• 100 percent certified EHR adoption by providers, CAHs, hospitals and state agencies with secure, widespread exchange of continuity of care documents (CCD), ADT feeds, labs, radiology reports, transcriptions, and other data types from any setting of care

• Colorado state standards for public health reporting and expectations for EHR development by EHR vendors to meet Colorado data requirements for public health reporting and statewide HIE integration.

• Curriculum and ongoing communication on federal and state privacy laws at the state, organization, care team, and patient levels. Privacy and HIT curriculum taught at medical schools, nursing schools, and community college RHIT/RHIA programs to universally communicate privacy requirements in Colorado.

• Create statewide consent model and form to capture consent for release of information for mental health, substance abuse, and sensitive information at varying levels of consent captured electronically in EHRs, exchanged with statewide HIE, and accessible to other providers.

• Expand technical capabilities to support consent model and electronic capture of consent at the organization or via PHR/portal.

• Create bidirectional interoperability with state entities, identify systems of records for provider identification and patient identification.
• Real time public health reporting with discreet, normalized data including chronic disease and behavioral health informing population health programs.

• Advanced HIE infrastructure and tools supporting improved health outcomes. Recommendations include: alerts/notifications for ER visits and hospital admissions, robust analytics of aggregated claims and clinical health information, bidirectional interfaces with private health care providers and state agencies, and consumer engagement tools.

• Active consumer engagement including the patient, family, and care givers in improving health care.

• Integrated care and data exchange across any care setting.

*State HIT initiatives*

• All RCCOs requiring EHR adoption and interoperability with statewide HIE.

• Aggregated clinical and administrative data (physical and behavioral health) with near-real time reporting with standard and custom reports available for payers, providers, patients, and policy recommendations. For providers, data would be available through EHR.

• State level integrated EHR solution at agencies capturing health data and/or case information.

• Update MMIS to include encounter level information.

• A state level consent model and form simplifying consent barriers.

• Prevalent mental health data sharing across any setting of care.

*Public health*

• Minimize duplication and redundant work by using the HIE to collect and aggregate data at a single point to gain a clear picture of the public’s health.

• Build public health into the HIT infrastructure to allow public health agencies to have direct access to the population health indicators that guide the development of interventions and preventative efforts.

*Rural outreach*

• Improve access to high quality data for population health monitoring
• Increase access to specialists and behavioral health care

**Strategies for Achieving Our Goal**

The strategy to enable the integrated health care can be broken down into seven distinct pieces:

- Promoting the adoption of HIT tools into integrated care settings
- Leveraging statewide HIE to promote the integrated care delivery model and create coordinated systems of care
- Communication, outreach, and education
- Promoting and aligning state agency HIT efforts
- State level policy revisions (privacy policy, standardized consent forms, and data use agreements)
- Integrating public health into HIE
- Specific outreach to rural communities

Table 11 below outlines our approach to each strategy listed above.

**Table 11: Strategies and Recommendations for Achieving Them**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Promote adoption of HIT tools in an integrated care delivery setting | • Promote adoption of advanced EHRs to adequately capture physical and mental health information in one EHR that meet data standards, privacy controls, and enable treatment of the whole person within one EHR system.  
  o Identify opportunities to financially support practices for universal adoption of compatible EHRs  
  o Educate providers and practices on the differing consent requirements of an integrated EHR  
  • Identify additional HIT tools to support providers in varied care settings with varying EHR adoption, including:  
    o Direct secure messaging  
    o Clinical Decisions Services (CDS) screening and treatment options  
    o Use of telehealth technologies to serve rural and small communities |
| Leverage statewide HIE to promote the integrated care delivery model | Develop a consent model for behavioral health information exchange regardless of care setting type (e.g., primary care with mental health provider, mental health center, substance abuse treatment facility, inpatient, or psychiatric hospital).  
- Support 100 percent participation in statewide HIE to bring together disparate medical records at point-of-care.  
  - Identify opportunities to financially support practice participation.  
- Use de-identified medical records from the HIE to aggregate clinical and administrative data for population interventions and expanded analytic capabilities.  
- Enable consumer access to treatment data (personal health records) available within the HIE.  
- Develop capabilities for alerts and notifications for ER visits or hospital admissions through HIE |
| Communication, Outreach, and Education | Develop training curricula for all levels of the care delivery team, medical schools, nursing programs, and state agencies and partner organizations that address the following:  
  - Privacy policies  
  - Proper handling of behavioral health data (i.e., substance abuse data and consent to disclose and re-disclose data).  
  - HIT functionality and HIE capabilities  
  - Integration of HIT/HIE into workflow for transitions of care, patient engagement, and cross organization communication  
- Develop a consumer engagement strategy, using clear language, educating patients on treatment and privacy decisions. |
| Promote and align state agency HIT efforts | Evaluate potential of centralized state integrated EHR to advance capture physical and mental health information in one system that meets data standards, privacy controls and enables treatment of the whole person. |
- Evaluate the need for a central EHR solution for local public health agencies for data capture and interoperability with HIE.
  - Potential uses of this centralized solution are: care delivery at LPHAs, school clinics data capture, immunization clinics, and secure behavioral health data capture.
  - Assess scalability for other uses of central EHR
- Advance interoperability with statewide HIE and product offerings to improve health care for state managed populations.
- Identify additional HIT and HIE tools to support state agencies
- Share aggregated clinical and administrative health information collected through HIE with RCCOs, PCMHs for more effective population health management and monitoring of statewide health goals
- Increase interoperability with public health by connecting public health to the statewide HIE infrastructure.
  - Share physical and behavioral health information with state and local public health agencies for more accurate population health reporting.

| State and federal level revisions (privacy policy, standardized consent forms, and data use agreements) | Support revisions to public policy to address barriers to information sharing, including advocating for a revision to restrictive federal substance use treatment program regulations.
- Develop framework for statewide consent form for sharing behavioral health information and supporting statewide HIE consent models for sharing health information regardless of care setting type. |
|---|---|
| Public health integration | Integrate public health (both local and state) into the HIE through infrastructure development
- Increase data capture and interoperability with statewide HIE to facilitate data exchange with public health without increased administrative burden |
| Rural outreach | Support expansion and HIE interoperability in rural and frontier areas
- Continue to invest in telehealth to improve functionality of rural practices and aid in reaching Meaningful Use standards. |

Cost allocation plan or methodology for any planned IT system solutions/builds funded in part by CMS or any other federal agency
Colorado received multiple HITECH grants to advance HIT and establish critical HIE infrastructure in the state. Colorado’s Innovation Plan will build upon the technical infrastructure, participants, stakeholders, and best practices developed through these grants. Additional funding to expand the HIT and HIE capabilities across the state is being pursued to expand health information sharing while supporting state and federal objectives to improve costs, patient care and outcomes. HCPF is pursuing 90-10 FFP HITECH and MMIS matching funds to support interoperability between state agencies and statewide HIE, as well as advancing adoption of EHRs and attestation to meaningful use for Medicaid providers. Below is a list of awarded grants and the recipient organizations that have established the foundation for HIT in Colorado. Each grant program will be leveraged to facilitate advancement of HIT and HIE to create a network of information sharing capabilities.

**Table 12: HIE/HIT Grant Awards**

<table>
<thead>
<tr>
<th>Grant Name</th>
<th>Recipient</th>
<th>Total Grant Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunication Grant (FCC)</td>
<td>Colorado Telehealth Network and the Colorado Behavioral Healthcare Council</td>
<td>Researching</td>
</tr>
<tr>
<td>Health Center Integrated Services Development Initiative (ARRA/HRSA)</td>
<td>Associated Community Health Information Exchange (CACHIE)</td>
<td>Researching</td>
</tr>
<tr>
<td>Broadband infrastructure grants</td>
<td>Colorado Broadband Data and Development Program – Governor’s Office of Information Technology/Nunn Telephone Company/Peetz Co-operative Telephone Company/Wiggins Telephone Association</td>
<td>Researching</td>
</tr>
<tr>
<td>State HIE Cooperative (ARRA/HITECH)</td>
<td>CORHIO</td>
<td>$10.8 million</td>
</tr>
<tr>
<td>BEACON (ARRA/HITECH)</td>
<td>Quality Health Network (QHN)</td>
<td>$11.8 million</td>
</tr>
<tr>
<td>Regional Extension Center (ARRA/HITECH)</td>
<td>CORHIO</td>
<td>$12.5 million</td>
</tr>
<tr>
<td>Long Term and Post-Acute Care IT Challenge Grant</td>
<td>CORHIO</td>
<td>$1.7 million</td>
</tr>
<tr>
<td>Community College Consortia (ARRA/HITECH)</td>
<td>Multiple (Pueblo Community College is lead)</td>
<td>$625,000</td>
</tr>
<tr>
<td>Grant Name</td>
<td>Recipient</td>
<td>Total Grant Amount</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>University Based Training (ARRA/HITECH)</td>
<td>University of Colorado Denver School of Nursing</td>
<td>$2.6 million</td>
</tr>
</tbody>
</table>

See Table 13 for a visual of the path to full HIT/HIE integration.
Table 13: The Path to Full HIE/HIT Integration

<table>
<thead>
<tr>
<th>PRIMARY CARE SETTINGS</th>
<th>Near Term</th>
<th>Mid Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of HIT Tools</td>
<td>• Advocate robust EHR adoption, implementation, and meaningful use</td>
<td>• Support advanced EHR systems with configurable user roles or privacy control</td>
<td>• Use Decision Support Tools for treatment recommendations, best practices, and patient education</td>
</tr>
<tr>
<td></td>
<td>• Require clinical EHRs to have sensitive notes capability for integrated mental health services within primary care</td>
<td>• Discreet data capture, electronic ordering (lab, rad, pharmacy)</td>
<td>• Internal EHR dashboard and reports at organizational level, department, care delivery team, provider, registry, and patient level</td>
</tr>
<tr>
<td></td>
<td>• Use of telehealth, as appropriate for practice size or geographic location</td>
<td>• Use of Patient Health Records for patient engagement in treatment</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>• Integrating mental health evaluations and best practices into Primary Care setting</td>
<td>• Incorporating Decision Support Tools in workflow</td>
<td>• Benefits of Dashboards and Reports</td>
</tr>
<tr>
<td></td>
<td>• Use of HIT tools</td>
<td>• Secure messaging with patient workflow</td>
<td>• Incorporation of analytics for treatments decision</td>
</tr>
<tr>
<td></td>
<td>• Privacy policies</td>
<td>• Ongoing Best practices training</td>
<td>• Risk Stratification outreach and care coordination</td>
</tr>
<tr>
<td></td>
<td>• Administrative workflow modification</td>
<td>• Ongoing privacy training</td>
<td>• Ongoing privacy training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ongoing EHR tools training</td>
<td>• Ongoing EHR tools training</td>
</tr>
<tr>
<td>Interoperability</td>
<td>• Access to Community Health Record via statewide HIEs</td>
<td>• Share CCDs with mental and physical health information with statewide HIE</td>
<td>• Implement EHR triggers and Alert notification to care team of ER visit or hospital admissions</td>
</tr>
<tr>
<td>Path to Interoperability</td>
<td>• Begin integration with statewide HIE</td>
<td>• Personal Health Records across provider portals</td>
<td>• EHR Integration with PDMP with expanded access by additional levels of the care team</td>
</tr>
<tr>
<td></td>
<td>• Use of HISP capabilities for MU Transitions of Care, View/Download/Transmit, and secure messaging objectives</td>
<td>• Plan for EHR triggers and alert notifications</td>
<td></td>
</tr>
</tbody>
</table>
### Statewide Health Information Exchange

<table>
<thead>
<tr>
<th></th>
<th>Near Term</th>
<th>Mid Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of HIT Tools</strong></td>
<td>• Increased CCD exchange with ambulatory provider EHRs</td>
<td>• Technical platform to support consent model</td>
<td>• Interoperability with State agencies</td>
</tr>
<tr>
<td></td>
<td>• Consent model for mental health, substance abuse, and sensitive health information exchange in all settings of care</td>
<td>• Consumer engagement with provider supported Personnel Health Records</td>
<td>• Alerts to EHRs</td>
</tr>
<tr>
<td></td>
<td>• Eligibility based routing</td>
<td>• Aggregated clinical and administrative health information</td>
<td>• Robust quality measure, community, payer, provider, and policy informing reporting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ongoing Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
<td>• Privacy policy education</td>
<td><strong>Consumers</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Developing HIE capabilities</td>
<td>• Provider supported Personal Health Records for use</td>
<td><strong>Organizations</strong></td>
</tr>
<tr>
<td></td>
<td>• Privacy policy education</td>
<td>• Secure messaging with providers</td>
<td>• State interoperability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Developing HIE capabilities</td>
</tr>
<tr>
<td><strong>Interoperability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Path to Interoperability</strong></td>
<td>• Continue connecting RCCOs to statewide HIE</td>
<td>• Share clinical data with State agencies</td>
<td>• Share BH information with public health</td>
</tr>
<tr>
<td></td>
<td>• Increased public health reporting through HIE to public health</td>
<td>• Aggregated clinical and administrative information for analytics</td>
<td>• Bidirectional health information sharing with state agencies</td>
</tr>
<tr>
<td></td>
<td>• Develop analytics capabilities</td>
<td></td>
<td>• Aggregated information sharing among community service partners</td>
</tr>
<tr>
<td></td>
<td>• Provider Directory Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Patient Identity Resolution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Communication**

- **Organizations**
  - Privacy policy education
  - Developing HIE capabilities

- **Consumers**
  - Privacy policy education

**Interoperability**

- **Organizations**
  - State interoperability
  - Developing HIE capabilities
## STATE AGENCY AND PARTNER ORGANIZATIONS

<table>
<thead>
<tr>
<th></th>
<th>Near Term</th>
<th>Mid Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of HIT Tools</strong></td>
<td>• Increased usage of HIT tools among state agencies</td>
<td>• Integration with Prescription Drug Management Program with EHRs</td>
<td>• EHR Integration with Prescription Drug Management Program with expanded access by additional levels of the care team</td>
</tr>
<tr>
<td></td>
<td>• Use of EHRs at local public health agencies</td>
<td>• Implement SDAC/BIDM analytics strategy</td>
<td></td>
</tr>
<tr>
<td><strong>Privacy Policy and HIT/HIE</strong></td>
<td>• At medical, nursing, and HIT programs in Colorado</td>
<td>• At medical, nursing, and HIT programs in Colorado</td>
<td>• At medical, nursing, and HIT programs in Colorado</td>
</tr>
<tr>
<td></td>
<td>• State agencies</td>
<td>• State agencies</td>
<td>• State agencies</td>
</tr>
<tr>
<td></td>
<td>• Partner organizations</td>
<td>• Partner organizations</td>
<td>• Partner organizations</td>
</tr>
<tr>
<td><strong>Ongoing Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interoperability</strong></td>
<td>• Plan strategy for aggregated clinical and administrative health information (SDAC/BIDM)</td>
<td>• Interoperability with statewide HIE for state EHRs: DoC, CDHS, OBH, PDMP</td>
<td>• Robust interoperability across primary care, hospitals, statewide HIE, state agencies, and partner organizations</td>
</tr>
<tr>
<td></td>
<td>• Continue public health reporting from EHRs through HIE to public health</td>
<td>• Increased public health reporting through HIE to public health</td>
<td>• Analytics with clinical and administrative information across payers, physical and behavioral health at a payer, organization, provider, and patient levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provider and Patient ID resolution</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 6: PUBLIC HEALTH

Executive Summary

Colorado’s Innovation Plan aims to create coordinated systems of care that will connect the disparate elements of the continuum in a patient-centered system that links direct care delivery with public health and community resources. In order to leverage the potential population-based, prevention impact that the public health system can bring to the rest of the care delivery system, we must do more to link public health with clinical care and the payment models that support it. Key components that will facilitate the integration of public health with the health care delivery system include:

- **CONNECTIONS**—building connections between public health and direct care including resource sharing, goal-setting and community collaboration using a Health Extension Service. Population health goals can only be met with input from the population. Public health has clear connections to the community as a result of required community health assessment and planning, as well as its population focus. Clinical care providers have direct access to influencing health at the individual level. The two sectors must collaborate to improve population health.

- **DATA SHARING**—connecting public health to Health Information Exchange (HIE) statewide. Determining public health priorities requires data about the overall health and health care provision of the population. Currently, the public health system controls population-based data and clinical care controls data about health care provision. By connecting with HIE, public health agencies can use these multiple levels of data to create a more comprehensive picture of health across communities to aid in more robust health priority setting.

- **FUNDING AND PAYMENT**—developing mechanisms for reimbursement in new payment models. Public health relies on government funding and grants to support ongoing work. With additional sustainable sources of funding, public health will be able to invest in more long term prevention initiatives to improve the health of the public.
Current State of the Public Health Delivery System

Public health services in Colorado are provided through the Colorado Department of Public Health and Environment (CDPHE) and 54 local public health agencies (LPHAs) that operate separately and independently from the state agency. Both state and local public health provision is governed by the Colorado Public Health Act of 2008 (C.R.S. 25-1-501 et seq) and other statutes and rules codified at the state level which direct the State Board of Health to establish core public health services and minimum quality standards for public health agencies. In addition to governmental public health, Colorado has numerous community-based organizations that work in the public health and prevention arenas. Partnerships among public health agencies, community-based organizations, safety net providers and other organizations are growing increasingly important as Colorado takes more of a “social determinants of health” approach to health improvement.

Public health frameworks

Public health professionals use the 10 Essential Public Health Services (Figure 16) as a framework to describe the functions of public health. CDPHE and local public health agencies coordinate or support the provision of the 10 Essential Public Health Services in different ways and at different levels, throughout the state.

Figure 16: Core functions of public health and the 10 essential services

The delivery and prioritization of the 10 Essential Public Health Services is shaped by two conceptual frameworks: the socio-ecological model (Figure 17) and the Health Impact Pyramid (Figure 18). Given limited resources, prioritizing among strategies and across the range of available public health strategies is essential.

**Figure 17: The Socio-Ecological Model**

![The Socio-Ecological Model](image1.png)

Source: The Future of the Public’s Health in the 21st Century (2002) Board on Health Promotion and Disease Prevention (HPDP) Institute of Medicine (IOM)

**Figure 18: Health Impact Pyramid**

![Health Impact Pyramid](image2.png)

These concepts remind public health professionals that, although potential services range across a broad spectrum, the greatest needs and the most efficient use of resources often reside in the broad, foundational elements of social environments. Strategies that set the conditions for healthy choices, behaviors, and environments have a broad impact on population health. These population health strategies effectively improve health and reduce burdens on and costs by the health care system.

As services become more targeted at the individual level, public health plays multiple roles in assuring the provision of services to those most in need and in encouraging changes to the health system that seek to orient public health and clinical settings towards addressing the upstream sources of illness and injury. Evidence suggests that population health strategies can and must be delivered in coordination with client level services for maximum health impact. By examining interventions in the context of these conceptual frameworks, public health and its partners can ensure the provision of complementary strategies that address the root causes of health issues while also assuring health care delivery to patients in need.

**Structure and function of CDPHE**

CDPHE, as the state-level public health entity, is responsible for aligning priorities and resources to improve and sustain public health and environmental quality. The department is unique among its national counterparts in its structure as both the human public health and environmental public health agency in the state. CDPHE assures communicable disease prevention and control, health promotion and disease management, licensure for hospitals, nursing homes, and other health facilities as well as emergency medical services and preparedness. The environmental component of the agency oversees all water quality, food, and product safety as well as hazardous and solid waste.

Decades of public health work have demonstrated that the factors which affect health arise at various levels within the community and society and involve the physical environment, social and economic conditions, and individual behaviors and choices. CDPHE seeks to work across these different levels in order to target initiatives that ensure health and wellness for the general population.
In providing the 10 Essential Services and working to make Colorado the healthiest state, CDPHE is focusing on 10 Winnable Battles, key public health and environmental issues where progress can be made in five years. These broad topic areas are being customized by regions, counties and cities based on local priorities and needs. The Winnable Battles are:

- Clean air
- Clean water
- Infectious disease prevention
- Injury prevention
- Mental health and substance abuse
- Obesity
- Oral health
- Safe food
- Tobacco
- Unintended pregnancy

Six of the ten Winnable Battles are based in the Prevention Services Division (PSD) and are especially germane to Colorado’s vision of integrating public health with primary care and behavioral health services.

Structure and function of LPHAs

Local public health agencies have the responsibility and authority to provide public health services to their communities across Colorado. State law requires that each of the 64 counties either maintain a public health agency or participate in a district (multi-county) health department. Most LPHAs exist as a department within a single county, and four district agencies serve a combined total of 17 counties. LPHAs can also be non-profit agencies contracting with a county, combined health and human services agencies, or a multi-county arrangement without the formal district distinction. In many cases, especially in rural areas, multiple LPHA jurisdictions are served by one regional behavioral health center.

Colorado LPHAs required by state law to provide, or assure the provision of, the following core public health services:\(^67:\)

---

• Assessment, planning, and communication
• Vital records and statistics
• Communicable disease prevention, investigation and control
• Prevention and population health promotion
• Emergency preparedness and response
• Environmental health
• Administration and governance

While these are the minimum core services, most public health agencies perform additional, community-focused activities and initiatives. In terms of activities and initiatives, Colorado LPHAs mirror some of the national trends. The 2010 National Association of County and City Health Officials Profile of Local Public Health Departments shows the following activities as the most commonly provided by Colorado LPHAs—making them a critical component of the health care delivery system, particularly in underserved areas:

• Child immunization provision
• Adult immunization provision
• Communicable/infectious disease surveillance
• Tuberculosis screening
• Population-based nutrition services
• Tobacco prevention
• High blood pressure screening
• Tuberculosis treatment
• Maternal/child health home visits
• Environmental health surveillance

As either a primary or “safety net” provider, LPHAs may offer direct services such as:

• Services for children with special health needs (including care coordination, pediatric clinics and development of medical homes)
• Immunizations
• Family planning services
• Nutritional support for women and children
• Nurse home visitor programs
• Disease screening and treatment (e.g., tuberculosis)
• Chronic disease self-management
• Oral health services
Most LPHA funding comes from federal funds that flow through CDPHE and local funds, supplemented by state funds. Many of the state and federal flow-through funds come to LPHAs through competitive grant programs. Most LPHAs do not have a robust capacity to bill public or private payers for their work (although some LPHAs are now billing health plans for immunizations and other limited services) and frequently must tailor their service provision to the restrictions and requirements that accompany grant funding. When LPHAs are well connected to insurance payment and funding mechanisms to adequately support their direct services, they will be able to use grants and local funding to focus on population-based prevention work beyond their current scope.

All LPHAs are in some phase of the state-required community health assessment and planning process, and many have worked with their community to select a few key health priorities that community member and leaders see as most important to tackle. The priorities selected by communities align with Colorado’s 10 Winnable Battles in a way that allows state and local leaders to determine statewide interest, as well as needed support and potential system changes. The diagram below shows the Winnable Battles that have been selected by LPHAs.

**Figure 19: Winnable Battles Selected by LPHAs**

![Diagram showing Winnable Battles](image-url)
Note that many LPHAs and communities have independently decided to prioritize mental health and substance abuse in their communities. Among the communities that are focused on mental health and substance abuse, some of the more common interventions include increasing, ensuring or promoting the following areas: media, social marketing, and influencing perceptions (such as perceived risk); treatment and receipt of care; early detection, screening, referral; primary prevention and social support; collaborative, integrative care and treatment for co-occurring disorders; and data collection/surveillance and evaluation.

**Information exchange between public health and clinical delivery systems**

Both state and local public health departments have limited connectivity to Colorado’s HIE networks. Though much of the state’s population data is compiled and analyzed by these departments, there is little communication between public health entities and health facilities. The lack of communication means we are missing opportunities for more robust surveillance that could enable more carefully tailored population health strategies.

Both CDPHE and LPHAs monitor a wide variety of physical and behavioral health indicators and risk factors. Data is captured through reports from hospitals and clinicians, death certificates and public surveys. The initial focus for public health data transmission included electronic newborn screening orders and results delivery, electronic submissions of immunizations to the state registry (CIIS) from provider electronic health records (EHRs), and electronic submission of reportable conditions to the state registry (CEDRs).

However, there is currently little electronic information exchange between public health and clinical care delivery systems. This makes it challenging to directly connect the rich information in these public health databases with clinicians and health care facilities to inform their intervention strategies and help them meet Meaningful Use criteria. From the other side, it is also challenging to link clinical records into public health databases. For example, there are no standards for data extraction from EHRs, so data coming from clinicians varies from one system to another. Other complications: behavioral health providers have different EHR capabilities than physical health providers, privacy and release-of-information policies required for sensitive information, and misunderstanding around the requirements of the privacy laws.
CDPHE is working with Colorado’s HIEs (Colorado Regional Health Information Organization, or CORHIO, and Quality Health Network, or QHN, described in more detail in the “HIT/HIE” chapter) and some local public health agencies to begin connecting these disparate components. CORHIO and CDPHE have identified providers and hospitals to begin pilots reporting public health data from statewide clinical records services. These projects will facilitate electronic reporting of communicable diseases, cancer cases, and immunization records to CDPHE.

Community-based organizations

We know that community-based organizations are critically important in improving population health, especially in connecting with underserved communities. Examples include:

- The Chronic Care Collaborative brings together 28 member organizations representing the one in four Coloradans who are living with chronic disease.
- The Center for African American Health provides culturally-sensitive disease prevention and management programs to African-Americans in the Denver area.

Integration of public health and clinical care delivery should include full engagement with community-based organizations in finding and implementing solutions.

Workforce

The public health workforce in Colorado is evolving as much as the system itself. Prior to the establishment of the Colorado School of Public Health (CSPH) at the University of Colorado, accredited in 2010, the Rocky Mountain region lacked a comprehensive school of public health. The new school is offering degree-granting and professional development opportunities for professionals in the workforce and developing newly trained professionals. In addition, two undergraduate programs in public health have also opened in the state.

While we know that these programs will increase future numbers of public health professionals, the current public health workforce is difficult to enumerate. This is not just a Colorado issue. A
recent American Public Health Association issue brief\(^{68}\) stated “Due to its diversity and range of settings, and the absence of funding for enumeration efforts, the exact size and composition of the public health workforce remain uncertain.”

To assist with estimating the current public health workforce, we can gain some limited information from the profiles complied by the National Association of County and City Health (NACCHO) and Association of State and Territorial Health Officials (ASTHO), and state level data collection. In 2011, more than 2,700 people were employed in Colorado local public health agencies across every Colorado county. Approximately 22 percent of the workers are public health nurses, 26 percent are administrative and clerical staff, 17 percent are environmental health professionals and 6 percent are health educators—including many who are trained and skilled in theories of behavior change and interventions to change behavior at the individual, family, community and policy levels.\(^{69}\) CDPHE employs more than 1,200 full-time equivalents.\(^{70}\)

In addition to the evolving workforce in governmental public health, we are seeing increasing use of community health workers, patient navigators and other individuals who can provide tailored assistance to patients. In late 2011, The Colorado Trust convened the Community Health Workers/Patient Navigator (CHW/PN) Workgroup to begin working to define the roles of community health workers and patient navigators, establish core competencies and licensing requirements, and identify reimbursement methods and sustainable funding for these health workers. According to a recent survey from that group:\(^{71}\)

- Fewer than 25 percent of CHW/PNs work in public health settings; most are in non-clinical community settings.
- More than 70 percent of CHW/PNs see their primary role as a link between clinical services and community resources for patients.

---

\(^{68}\) The Affordable Care Act’s Public Health Workforce Provisions: Opportunities and Challenges. American Public Health Association, 2011

\(^{69}\) National Association of County and City Health Officials National Profile of Local Health Departments, 2010

\(^{70}\) Association of State and Territorial Health Officials Profile of State Public Health (2010).

\(^{71}\) Add cite from workgroup
• Fewer than 20 percent of CHW/PNs are reimbursed through public or private insurance or other permanent funding source. Most are grant funded or volunteers.
• 40 percent of CHW/PNs have had no formal training in their role.

The CHW/PN Workgroup has worked over the past year to develop a set of competencies that takes into account the roles that CHW/PNs have been filling and how they are being used within existing health systems and LPHAs (see Appendix). Establishing core competencies is the first step towards developing a consistent training curriculum for CHW/PNs.

Community colleges have already started offering formal CHW and PN training. It is unclear whether these programs cover the competencies the group at The Colorado Trust have identified or if they will lead to funded and reimbursable positions after completion of the program.

**Challenges**

Over several months, stakeholders from across the state came together in a series of facilitated meetings to explore how to better connect public health and clinical care. Several challenges emerged from these discussions:

• Public health in Colorado is disconnected from clinical care. While LPHAs are critical for creating effective interventions tailored to the local community, communication between public health and clinical health has to be improved. Effective coordination of services will remain a challenge until public health and clinical care systems have the time, resources and clear purpose to work together to advance population health goals.
• Public health needs access to the patient-level data that informs population-level interventions. There is a lot of data available across the state, but the data is provided through dozens of different databases and sources. Clinical data in EHRs and patient registries is not in a form that can be of use to LPHAs or anyone focused on improving population health. In order to take full advantage of the data available, public health must be integrated into the state HIE. Along with clinicians, hospitals, and laboratories, public health must become part of the larger data exchange in order to be able to track the effectiveness of interventions and programs on an ongoing basis.
We need reimbursement that reflects both the current and future roles of public health and payment that aligns with the work being done. State funding supports much of the surveillance and prevention efforts of CDPHE. Some of these funds flow through to LPHAs, but not in sufficient quantities to support expanded efforts. If public health is going to become more active in achieving a healthy population, there must be ongoing funding for the services provided.

Opportunities and Innovations

Colorado’s emphasis on local priority-setting versus a uniform statewide approach supports an environment that encourages local innovations. These innovations act like pilot programs, allowing us to see the effectiveness of a certain approach on local priorities. Many local initiatives have the potential to help transform health care delivery statewide. In addition to program-level work, Colorado is also involved in public health systems and services research that can help investigate, inform and guide how these innovations are implemented. We can’t describe every program in the state, but there are several strong examples that demonstrate the power of local collaboration and innovation to transform population health and care delivery.

Community/regional health improvement collaboratives

- **Northwest Colorado Community Health Partnership (NCCHP) Community Care Team (CCT):** Each member of the CCT (e.g., local public health agency, federally qualified health center, community mental health center, community service provider, etc.) encounters clients at different stages on the care continuum and can assist or refer them to the appropriate team member. Key elements include:
  - Integrated behavioral health and primary care in federally qualified health center and private primary care practices, using resources from community mental health center and Northwest Colorado Visiting Nurse Association.
  - Care coordination services for Medicaid clients, providing both primary and behavioral health care coordination.
  - Outreach and prevention, specifically focused on tobacco cessation, cardiovascular health, and patient navigation.
• **North Colorado Health Alliance (NCHA):** Established in 2002, NCHA is a community joint venture that brings together public and private health care providers (primary care, behavioral health, hospital, etc.) with the local public health agency, county commissioners, paramedics and community service providers. Its goal is a healthy population with 100 percent access to high quality care at an affordable reduced cost, with a special emphasis on the underserved. Key initiatives include:
  - Make Today Count! Community health campaign.
  - Project LAUNCH, a SAMHSA grant program, to promote the physical and mental wellness of young children birth to age eight.
  - Care management for two Medicaid Regional Care Coordination Organizations.

• **Mental Health First Aid (MHFA):** MHFA is an evidence-based training program to help citizens identify mental health and substance abuse problems, connect individuals to care, and safely de-escalate crisis situations, when needed. MHFA helps to prevent the onset and reduce the progression of mental health and substance use disorders while promoting acceptance, dignity and social inclusion of people experiencing behavioral health problems. Key accomplishments include:
  - In conjunction with the Colorado Behavioral Healthcare Council (CBHC), MHFA has trained a statewide network of 230 instructors who have certified nearly 10,000 Coloradans as Mental Health First Aiders to date.
  - CBHC is partnering with the Colorado Office of Behavioral Health to build up the infrastructure and implementation supports to take MHFA to scale statewide.

• **Practice-Based Public Health System Research/Multi-state investigation of primary care and public health integration:** The Colorado Public Health Practice-Based Research Network, housed at the Colorado Association of Local Public Health Officials, is part of a new public health services and systems research project funded by the Robert Wood Johnson Foundation. The goal is to examine variation in the degree of primary care and public health coordination across local jurisdictions, identify factors that may contribute to or impede it and assess whether increased coordination leads to better health outcomes. Colorado joins Minnesota, Wisconsin and Washington in this project that will produce publishable findings as well as practical tools for local communities.
Federally-funded initiatives

Colorado communities also benefit from numerous federal public health programming investments (see Appendix for a selected list of current federal grant-funded programs in the public health arena). In 2009, CDPHE reported that 46 percent of its funding is from federal sources. Approximately 30 percent of the total, statewide funding for LPHs comes from federal sources (direct or pass-through). Colorado has a history of leveraging federal dollars into state and local investments, including:

- **CDC Communities Putting Prevention to Work (CPPW)/Peak Wellness Program (Tri-County Health Dept.):** This program blends multiple screening programs supported by diverse state and federal funding sources into a comprehensive wellness package for low-income, uninsured, and under-insured women ages 40-64 in three metro Denver counties.

- **Colorado Oral Health Surveillance System (COHSS)** monitors the burden of oral disease among Coloradans by collecting, analyzing, and disseminating data to inform and support oral health decision-makers in Colorado.

- **National Public Health Improvement Initiative (NPHII)** funding has been used to support local public health agencies with data collection and technical assistance for community health assessments. This work has fed into the creation of a statewide health assessment that will be used for the next public health improvement plan for the state. The funding has also been used to support a number of quality improvement efforts.

Public-private partnerships

- **The Colorado Prevention Alliance (CPA)**—a collaboration among state and local health agencies, Medicaid, private health insurers, providers and purchasers—has created a forum to work together toward population health goals such as smoking cessation, immunization and diabetes prevention.

- **Immunization services** – With the regulation change in the use of the Vaccines for Children 317 funds, Colorado was a pilot site to develop alternative payment systems for local public health agencies. Initial tracking estimated that 20 percent of immunization patients had some type of private insurance coverage. Multiple local public health
agencies were successful in contracting with private payers, using a state-developed contract template.

Performance and Evaluation

CDPHE maintains the Colorado Health Indicators for the state. The current set of indicators were selected through a collaborative process among public health professionals in 2011 and include county, regional and state level data on a variety of health, environmental and social topics. They are used in Colorado’s Health Assessment and Planning System (CHAPS), a standard process created to help local public health agencies meet assessment and planning requirements from the Public Health Act of 2008. These indicators are organized based on the Health Equity Model (see Figure 20), which takes into account a wide range of factors that influence health.

Figure 20: Health Equity Model
The Health Equity Model is a framework through which we can conceptualize a variety of interventions at the policy, community and individual levels. CDPHE and LPHA use of the Health Equity Model sets the stage for these interventions to have an impact on the root causes of poor health.

The Colorado Health Indicators also align with Colorado’s 10 Winnable Battles that were listed at the beginning of this chapter. Colorado’s 10 Winnable Battles are public health and environmental priorities with large-scale impact on health and the environment, and with known, effective strategies to address them. By measuring the health outcomes, environmental improvement and other strategies associated with each Winnable Battle, we will know where progress has been made and where more needs to be done. See Appendix for a table illustrating specific measures and targets for the Winnable Battles.

LPHAs also work within the Winnable Battle framework, selecting the individual measures that are most critical for their area in order to align with the state priorities (see Figure 4 earlier in this chapter) It is important to note that LPHAs and community-led health improvement initiatives (such as those described earlier in this document) focus on the population health priorities and metrics that make most sense for their communities and on which they believe they can deliver short-term results. This approach allows communities to target efforts and resources on locally important issues while still contributing to the overall goals of the state.

In addition to the Colorado Health Indicators and Winnable Battles, the state’s public health entities are responsible for the ongoing data reporting and monitoring of many national surveillance programs run through agencies like the Centers for Disease Control and Prevention. Some of these surveillance system measures also contribute to the state evaluation metrics.

Our Goal

- Facilitate the creation of coordinated systems of care through a statewide infrastructure that supports and coordinates community-driven solutions to population health needs within a framework of common statewide goals and metrics.
This goal is designed to support the broad goal of Colorado’s Innovation Plan as well as the integrated care model. Recognizing that “most efforts to integrate care delivery and improvement in primary care and public health are locally led and defined, and there are very few examples of successful integration on a larger scale,” we propose to build on the strong foundation of community-driven initiatives around the state that already exist to promote population health.\(^72\)

At the same time, though, we must ensure that every community in our state is pulling in the same direction and has access to resources to support its efforts.

As it framed its goals and strategies, the Public Health Workgroup for the Innovation Plan decided to ground its thinking in a population-based health framework where solutions to health problems are directed toward changing systems, policies and environments in order to alter norms and behaviors for the entire population. Evidence-based or evidence-informed practices and programs are used as much as possible; primary prevention (i.e., preventing health issues in susceptible populations) is given priority. Partnering with community organizations is also essential in assessment, planning, and implementation.

Population health in the context of integrated care can be envisioned as a continuum of care progressing from a clinic-based coordination model to a comprehensive, prevention-focused model that goes beyond clinical care to keep the population healthy.\(^73\)

**Figure 21: Continuum from Clinic-Based Treatment to Community-Based Prevention**


\(^73\) Adapted from information provided by National Governors Association, July 9, 2013.
How we’ll reach our goal

In order to create a system of truly integrated public health, health care and behavioral health, we have to establish the system to support it. The obstacles identified by the workgroup are far from the only things that need to happen in public health across Colorado, but they were common themes that can be addressed to move us down the path towards an integrated, supported approach to population health. As potential solutions to these issues, stakeholders identified programs and solutions already on the ground or in development that could be scaled and used as a starting point for public health innovation in Colorado.

- Deploy a “Health Extension System” to connect community health and private practice

Colorado has begun to develop a “Health Extension System” (HES) that can support and broaden the work of community/regional health alliances by bringing additional resources to the community, fostering linkages with new/different participants and coordinating local and state health improvement initiatives. The HES originates in the concept of a Primary Care Extension Service funded through Section 5405 of the Patient Protection and Affordable Care Act. However, Colorado’s approach to extension is broader than the original vision in PPACA, which was focused on connecting primary care practices with resources to become medical homes. While supporting primary care transformation is still a key component (and that function of the HES is described in the “Colorado Framework” chapter and in the Appendix), the organizations developing Colorado’s approach (including the University of Colorado, Center for Improving Value in Health Care, HealthTeamWorks, CDPHE and others) have identified a need to link primary care practices more closely with community health improvement efforts, and an opportunity to link those community initiatives with additional statewide resources (e.g., from universities, CDPHE, etc.). The HES can be thought of as a connector that helps align existing services and directs organizations to resources available outside their area.

The HES would not supplant existing coordinating organizations such as the Network of Community Health Alliances or the Colorado Association of Local Public Health Officials. Rather, it would be a statewide hub to connect these organizations, and the groups they serve,
with additional resources, and help them to inform statewide research and planning outside their existing spheres.

For example, the Extension System could:

- Connect primary care practices with community health improvement efforts as part of practice transformation support and advancing a shared vision of population health.
- Train primary care practices on how to use community health workers and collaborate effectively with community service providers, local public health agencies and other organizations.
- Bolster local health alliances by linking them with private primary care practices and statewide resources such as the Colorado Clinical Translational Science Institute, an NIH-funded initiative that connects community organizations with university- and hospital-sponsored research to accelerate improvements in population health.
- Help LPHAs and local hospitals execute their community health improvement plans by connecting them with primary care practices and university resources.
- Link communities with resources/common curriculum for training community health workers, and best practices for deploying these workers for primary prevention initiatives.
- Establish common measures to assess both the impact of interventions (“did it work?”) and their structure (“why did it work?”) to identify strategies that can be exported to other communities.
- Act as a resource center for providers and community organizations seeking partners and resources, fielding requests and facilitating linkages.

With the support and resources coming from the HES, LPHAs would be better equipped to coordinate with other local care providers to create solutions to the community’s identified health priorities and contribute to the overall health of the state.

- Connect public health with the clinical and behavioral HIT systems

Successfully integrating public the structure of public health into the clinical delivery system will depend on communication and coordination between the different elements of the
system – data collection and evaluation are critical to demonstrating the opportunities, challenges and overall success of the system. For example, the connections between clinical care and public health planning and service delivery will enable:

- Using epidemiological data to identify care priorities and target health promotion/disease prevention efforts at a clinical level.
- Adding chronic mental illness to epidemiological reporting to develop a better understanding of the population dealing with chronic mental illness and how they interact with the clinical care and behavioral health delivery system.
- Incorporating behavioral health priorities and outcomes targets into public health planning for more comprehensive, whole person approaches to population health.

In order to integrate public health into the clinical delivery system, public health must also link into the HIE. Currently, several statewide public health surveys are collected by CDPHE and shared with LPHAs (i.e., the ARIES program tracking data on alcohol and drug abuse within HIV populations, the Colorado Immunization Information System that provides consolidated immunization information). These programs are designed to support public health initiatives, and are not typically designed to be reported back to physical and behavioral health providers. Likewise, there are data collection requirements that feed essential outcomes data back to clinicians through the EMR, but are not shared or exported to the state or local public health agencies. The benefits of integrating public health into the HIE include:

- Connecting population health records to clinical data systems to support evaluation, surveillance and priority setting at a community level as well as statewide.
- Interconnecting all health data systems in order to provide whole person care.
  CORHIO has already been working with CDPHE to build interoperability for public health data transmission and collection important to the meeting Meaningful Use requirements and serving overall population health.
- Working with communities and regional alliances to create interoperability and the health information infrastructure to support the integration of physical, mental, behavioral and public health. This is already being developed by the Public Health
Information Exchange Steering Committee (PH HIE), in coordination with CORHIO and QHN.

- **Incorporate public health into outcomes-based reimbursement models**

Currently, public health receives much of its funding through unsustainable, project-based grants. Even when public health is able to bill insurers for specific services, the reimbursement for service provision in a public health setting is substantially lower than the reimbursement would be in a traditional care delivery setting.

In order to effectively coordinate public health agencies and clinical care, and advance population health goals, we must expand the use of outcomes-based reimbursement mechanisms that enable the public health system to become a part of accountable care organizations (ACOs) and to contract directly with private payers. As the focus of the health care system moves toward prevention and population health, public health agencies are ideally positioned to help both Medicaid and commercial health plans meet these goals in a high-quality, cost-effective fashion. But LPHAs should not be expected to provide these services solely through their existing government and grant funding sources. Rather, as Medicaid and commercial payers develop clinical ACOs in partnership with hospitals and primary care providers, they should explore ways to bring LPHAs into those contracts for preventive care services. In addition, expanded use of and reimbursement for community health workers will help Colorado achieve its population health goals.

- **Enhance and modernize the public health workforce**

In order to be successful in our integration efforts, we need the workforce to support the new infrastructure. Colorado must create a comprehensive health care workforce development and training strategy in that includes both “supply” (i.e., academic institutions) and “demand” (i.e., communities, clinics, hospitals) perspectives by mapping the supply against population health priorities and community health needs to estimate anticipated workforce needs. While there have been several high-quality studies of the existing workforce in Colorado, those studies have focused on the traditional health service provider workforce of doctors, nurses, and medical assistants, not on the needs of the public health workforce.
There are, however, many existing sources of data around the state that can contribute to the public health mapping process:

- Department of Regulatory Agencies database of licensed professionals
- The Colorado Health Institute’s workforce maps
- Profile of Local Health Departments from the National Association of County and City Health Officials (NACCHO)
- CDPHE and CALPHO data collection on the structure, function and staffing of local public health agencies
- The Colorado Community Health Worker/Patient Navigation Survey, supported by The Colorado Trust.

Each of these databases contains critical information for determining Colorado’s existing public health workforce and its distribution, but they are housed in different locations, making it very difficult to paint a comprehensive picture of Colorado’s needs. By combining the available databases, we will be able to evaluate exactly what kinds of health care and public health workers are needed and where the need is most severe. In addition, Colorado should participate in national efforts in defining and enumerating the public health workforce and quantifying workforce needs, with focused resources, this can be accomplished through the Colorado Public Health Practice-Based Research Network.

*The Role of Community Health Workers and Patient Navigators:* We know we have a shortage of non-professional public health staff that could be an affordable way to meet many population health needs, including providing educational services and basic community-public health connections. Accordingly, the development and promotion of community health workers and patient navigators is critical to the successful integration of public health into physical and behavioral health. These community health workers will be able to:

- Bridge the gap between clinical and population health.
- Focus on community resources and transitional care so physicians can focus more exclusively on direct care provision.
• Decrease costs by allowing us to designate appropriate work force to appropriate tasks.

As noted earlier in this report, Colorado has a growing number of community health workers and patient navigators, but the competencies of these positions have not yet been defined in a concrete way that will allow these roles to be built into the public health infrastructure. The efforts of Colorado Trust’s CHW/PN Workgroup to establish core competencies and licensing requirements, and identify reimbursement methods and sustainable funding, will be critical. Once these competencies are accepted and a certification program is developed, these new staff positions can become an integral part of the health care workforce. Their focus on community relationships and navigation will free up the time and expertise of our public health and health care professionals, allowing them to more efficiently spend their time on activities that truly require their extensive training and expertise.

Policy and Regulatory Changes Needed

Please see the chapter “Removing Legal Barriers to Integrated Care.”

Evaluation

Earlier this year, representatives from CDPHE, the Department of Health Care Policy and Financing (HCPF) and the Department of Human Services (DHS) joined forces to examine the current evaluation measures used by the three departments. Many of the measures used internally by these groups and publically throughout the state are duplicative or not in clear alignment with the rest of the state. This group created a Tri-agency Collaborative Data Set designed to ensure a highly effective, efficient, and elegant service system infrastructure to further integrated health care service and improve behavioral health care in the State of Colorado.

This data set will combine the Governor’s State of Health Goals, the Colorado Winnable Battles and essential measures from each of the departments and place them in a framework that emphasizes the social determinants of health. The determinants of health are those resources necessary for achieving good health, such as access to safe food, water, and housing. Underlying
these factors is the need for quality education and jobs that pay a living wage. Poverty is a strong predictor of ill health. Health behaviors also play a role in determining health outcomes.

Colorado will be using the Social Genome Model from The Brookings Institution’s Center on Children and Families. The initial model structured around social mobility over the life cycle and has identified key goals at each stage across the developmental continuum that contribute to attainment of “ensuring that as many individuals as possible are middle class by middle age.” (Brookings Institute; The Social Genome Project: Mapping Pathways to the Middle Class; April 2013)

Utilizing the Social Genome Model as a framework for social mobility and collectively reporting on aligned measures on a statewide basis will allow for enhanced information for policy and decision making, and analysis for interventions impacting population health.
CHAPTER 7: PATIENT EXPERIENCE

Executive Summary

The patient experience of health care services in Colorado varies based on one’s health insurance coverage, ability to pay for needed care, age, health care needs and location. Many Coloradans have adequate access to affordable care from health care providers they trust and that are providing high quality, comprehensive care. Coloradans with chronic conditions or unique health care needs report greater challenges successfully accessing needed health care services. Coloradans want more respectful interactions with the health care system, better information sharing and coordination of care, and transparency about costs and billing.

The ideal patient experience for Coloradans is: convenient, respectful and timely interactions with the health care provider that leads to appropriate treatment and access to needed health care services when a Coloradan is sick, needs routine preventive care, or needs advice about health; supported by an health care system infrastructure that allows for the appropriate sharing of clinical information between patients and health care providers involved in the patient’s care and pricing and billing systems that enable transparency on cost.

Priorities for Action

The roadmap of recommendations for achieving the ideal patient experiences includes six key recommendations:

1. Ensure consistent access to needed care for patients.
2. Improve basic customer service and administrative structures in all parts of the health care system to ensure respectful encounters with patients.
3. Build more accessible clinical sites that allow for convenient access, full engagement of patients in their care, integration of behavioral health care services and easier access to needed specialty services.
4. Change policies that are barriers to an improved patient experience including confusion and misinformation about patient privacy and structural barriers that don’t allow health care providers to collaborate or work together as a team.
5. Create a system that rewards health care providers for providing high quality health care that improves patients’ lives and follows clinical guidelines.
6. Create full transparency of health information and costs for health care.

The Current Patient Experience in Colorado

The experience of patients accessing health care services in Colorado is variable based on one’s health insurance coverage, ability to pay for needed care, age, health care needs and location. Many Colorado patients describe a high quality experience with health care – they have stable insurance coverage, an established relationship with a health care provider and when they need intensive services, they have high quality support and care coordination. However, some Coloradans experience many challenges with the health care system including episodic health insurance coverage and care from unknown providers or from providers who they don’t perceive to be fully engaged in their care. Some patients in Colorado struggle to navigate the complexity of the health care system and many do all that they can to simply avoid interacting with the system at all.

These different patient experiences in Colorado are captured in various health care surveys and reports and by patients themselves. The Colorado Health Access Survey is an extensive survey of health care coverage, access and utilization in Colorado. In 2011, over 1.7 million Coloradans reported that they did not believe that the current health care system is meeting the needs of their family. On the positive side, this means that more than two-thirds of Coloradans, or over 3.4 million Coloradans, do believe that the health care system is meeting the needs of their family. However, in addition to reflecting their own experiences, the Colorado Health Access Survey also asked, “Generally speaking, do you believe the current health care system is meeting the needs of most Coloradans?” Nearly 3.1 million Coloradans disagreed or strongly disagreed with this statement indicating that while some Coloradans are not experiencing challenges with the health care system themselves, they recognize that others in the state are not getting their health

---

74 The patient experience in Colorado was evaluated through data and research analysis, key informant interviews with twelve health care experts, reviews of patient stories, focus groups with twenty-three demographically representative Coloradans, and a structured conversation with representatives from nine voluntary chronic disease organizations.
care needs adequately met. Additional data from the Colorado Health Access Survey shows significant variation in health status among Coloradans of different racial and ethnic groups and among Coloradans with different levels of educational attainment and income.

Figure 22. Health Status by Race, Education and Income

Access to health care

Access to needed health care services is a key component of the patient experience. In 2011, the Commonwealth Fund ranked Colorado 40th in the nation in terms of access to care and 41st among the states for equity. For low-income populations, the Commonwealth Fund ranks

---

77 Commonwealth Fund State Scorecard on Health Systems Performance, 2009 [www.commonwealthfund.org](http://www.commonwealthfund.org)
Colorado 47th in the nation for access and affordability. In 2011, approximately 12 percent of Coloradans did not have a usual source of care, a place where they usually go when they are sick or need health advice. In addition, an estimated 829,000 Coloradans did not have health insurance and an additional 675,000 Coloradans were underinsured. Utilization of emergency department services are another metric used to measure access to care. The 2011 Colorado Health Access Survey estimated that over a quarter of Coloradans, 28 percent, visited an emergency department in the year prior to the survey. Coloradans who report they do not have a usual source of care were more likely to have sought care from an emergency department. Additionally, a majority of people who visited an emergency department reported that they were unable to get an appointment at doctor’s office or clinic as soon as one was needed or that they needed one outside the normal operating hours of the office or clinic.

Patients in Colorado with consistent coverage and high quality relationships with providers describe being “very satisfied with care” in Colorado. Many say they enjoy trusting relationships with providers who work with them to manage health conditions and maximize their health. However, some Coloradans are frustrated by trying to access health care services because of things such as limits on the providers they can see based on their insurance network, long wait lists for care, short visits, expense, failure to coordinate care, and non-transparent billing systems. These barriers can be difficult to overcome and often lead to a frustrated patient wondering if the care they receive is worth the headache. For patients without consistent insurance coverage or who do not have strong relationships with providers, their negative experiences can discourage them from seeking care, following health care provider instructions, or addressing serious health care needs.

“\textit{I think that our health care system, in a lot of places, because it’s so massive, that personal connection and the humanity of it gets lost really easily. Even when I did have health insurance... I would put off seeing the doctor because more often than not it was a really sterile experience and dehumanizing. I am a short and}

\begin{thebibliography}{9}
\bibitem{78} Commonwealth Fund State Scorecard Low-Income, 2013 \url{www.commonwealthfund.org}
\bibitem{79} Colorado Health Access Survey, Overview of Coloradans’ Health Care Coverage, Access and Utilization, Prepared for The Colorado Trust by the Colorado Health Institute, 2011.
\bibitem{80} Colorado Health Access Survey, An Examination of Emergency Department Use in Colorado, Prepared for The Colorado Trust by the Colorado Health Institute, 2012.
\end{thebibliography}
curvy woman and I get really tired of going to the doctor time and being asked if I’m trying to lose weight. If you don’t have a relationship with your doctor in a way where they can understand and appreciate what your personal goals are, you’ll be asked the same and asinine questions every single time. And it will make you hate going to doctor. It will make you hate getting things taken care of that need to get taken care of. That sterilized health care that assumes that every single person has the exact same needs and that their health care looks the same is totally false.”—Colorado Patient, Alamosa, CO

Because of frustrations with accessing traditional health care services, some Coloradans are maximizing their health by seeking resources outside of the health care system. Coloradans regularly report that they seek out alternative medicine treatments like chiropractic care, acupuncture, and massage therapy. They identify other providers like massage therapists, wellness counselors and personal trainers as their trusted source for health care advice. Coloradans who do not have significant health care needs are also using clinics located in grocery stores and pharmacies as easier places to access care. One Colorado patient shared, “I avoid my primary care provider. I don’t have time to sit in the office. I go to the clinics in the store or the urgent care. I can just go and they are clean and nice.” Both Coloradans and health care experts in Colorado stress the importance of a usual source of care or medical home for children given their unique developmental and health care needs.

For patients with high health care needs, accessing needed health care services can be particularly frustrating because of the complexities of their needs and the fragmentation of the health care system. Patients with complex chronic diseases in Colorado often struggle to get timely and appropriate diagnosis, or may have wide variation in treatment options based on the provider caring for them. Patients with complex chronic diseases also often struggle with getting accurate and consistent information about what treatments or pharmaceuticals are covered by their insurance plan and coordinating care between their primary care and specialty providers. One health care expert noted the irony that, “the patient [with a chronic disease] has to have the energy and wherewithal to make sure they are coordinating.”
Many Coloradans with complex chronic diseases are not getting adequate behavioral health support. Many report that community support groups and voluntary health organizations play a critical part in providing behavioral health support, however, as one patient noted, “I have never been asked a single question about my mental status even though I have a chronic disease where 50% of the people have depression.”

Quality of health care

Colorado ranks 28th nationally from the Commonwealth Fund for prevention and treatment indicators, however many Coloradans still do not get all recommended care. For example, 43.9 percent of adult diabetics in Colorado received the recommended preventive care while 85.2 percent of surgical patients received appropriate care to prevent complications and 78.6 percent of Colorado children received the recommended doses of five key vaccines. Additional health care quality data from Office of Health Equity at the Colorado Department of Public Health and Environment shows differences in access to screenings and mortality rates among ethnically and racially diverse Coloradans.81

Health care experts interviewed in Colorado have identified the lack of understandable and consistent quality data as a major barrier for patients to be able to assess quality in their health care experience. They also noted that many patients are hesitant to interview their providers or challenge them with questions about the quality of the care they are getting and may be reluctant to leave a practice and find another provider.

In focus group conversations with a demographically representative sample of Coloradans, many participants struggled to link evidence-based quality metrics with their personal assessment of quality health care. When asked what they would look for to assess quality for a health care provider, focus group participants said, “personality, class rank in medical school, whether they had been reprimanded or sued, the provider’s age, the turnover of their front office staff, practice utilization of mid-level providers, time limits for patient visits.”

---

Coloradans with chronic diseases are particularly impacted by the delivery of sub-standard care. An accurate and timely diagnosis of a chronic disease is critical to ensure needed treatments are started as soon as possible and to ensure eligibility for medications or treatment protocols. Inconsistent treatment approaches in different areas of the state can lead to variations in treatment for people with the same disease. In addition, an accurate diagnosis of a mental illness or a development disability can impact the availability of certain supports and benefits for patients and families.

Patient’s perceptions of quality care vary by race and ethnicity in Colorado. In a recent survey conducted by the Center for African American Health in Colorado, the majority of survey respondents felt that African Americans receive lower quality health care compared to white Coloradans. For example, 63 percent of respondents disagreed with the statement, “Doctors treat African-American and white patients the same.” 82

In addition, access and quality of health care services can be impacted by language barriers. Roughly 17 percent of Coloradans speak a language other than English in their home, and 7 percent of Colorado’s population (nearly 328,000 individuals over the age of 5) are considered “limited English proficient (LEP).” After English, Spanish is the most common language spoken at home in Colorado, followed by Vietnamese, German, French, Chinese, African languages, Korean, Russian and Arabic. 83

**Cost and affordability**

Data from multiple sources describe the impact of high health care costs in Colorado. Among uninsured Coloradans, 85 percent say that “costs are too high” is one of the reasons they do not have health insurance. Additional data from the Colorado Health Access Survey shows that 20 percent of uninsured Coloradans said they were unable to pay anything for health insurance. Of those that could pay something, 10 percent said they were able and willing to pay, at most,

---


83 Health Equity and Language Access, The Colorado Trust, 2013
between $1 and $25 per month. Health care experts in Colorado who follow health insurance coverage closely expressed concerns about trends toward high deductible and high co-pay health insurance products since they put people at significant risk for high health care expenditures.

Cost is also a barrier to accessing needed health care. According to an analysis done by the Urban Institute, 45 percent of uninsured adults aged 19-64 report having unmet health needs due to cost. In comparison, 11 percent of adults with insurance have unmet health needs due to cost. Additionally, nonelderly adults without health insurance were about half as likely to have had routine check-ups and dental visits compared to adults with insurance.

When asked to use one word to describe health care, “expensive” was the word chosen by many consumers. In addition to overall costs, consumers and health care experts identified the lack of transparency around costs as a major issue with our current health care system. “In today’s world, it is crazy not to know how much something is going to cost.” They cited the lack of ability to shop and compare prices for health care services as a barrier, as well as the complete lack of transparency in the billing processes after care has been delivered. Some also shared stories of getting different answers about the procedure or visit costs they would be responsible for depending on whether they asked staff at the hospital, their provider or their insurer.

**Patient engagement and provider relationships**

The treatment of a patient during a health care interaction and their engagement in decisions about their care is an important aspect of the patient experience. Research about the link between the patient experience and involvement in their care consistently finds a connection between the patient experience, quality of care and health outcomes.

Health care consumers in Colorado and health care experts agree that the way the patient is treated, respected, and engaged in decisions about their health is critical to the patient experience. One aspect of the patient experience is simply respect and customer service. “They

---

86 Health Affairs Article, Others, Hibbard Activating Consumers to Improve Quality and Outcomes, Judith Hibbard and Bill Mahony, University of Oregon, 2008
need to be nicer. Period.” Health care experts and low-income Coloradans also have concerns about the differential in respect and customer service for those enrolled in Medicaid or who are low-income compared to non-Medicaid, higher income Coloradans.

Beyond improved customer services, patients consistently expressed an interest in having their knowledge about their own bodies and health conditions honored as equal to the medical knowledge of health care providers. One Coloradans said simply, “no one knows my body better than me.” Coloradans also recognized the role and responsibility as a patient for being an equal partner in health care decisions and health improvement efforts noting, “If you don’t care about yourself, you can’t expect other to do so.”

In addition to having their knowledge about their own bodies honored, health care experts and Colorado patients cited the distraction or seeming lack of interest of providers as another challenge for a high quality patient experience.

“In growing up, I had a pediatrician that I had from the time that I was a baby until I turned 18. He was always so kind and caring and he looked at our whole family. That’s what I would hope for every child, that they had a medical home. When it came time for me to get a doctor as an adult, I looked for those same qualities. It took a while. It took me about three times before I found the physician that made me feel the same way my pediatrician did. These first two were very impersonal. They had a clipboard, they asked me these questions, but they never really did look up at me. And I’m not sure I want people touching me who won’t look up at me. I wonder if these people really care about my health, or are they just trying to get through the list of people that they need to see? I felt like I was quantity versus quality.” – Colorado Patient, Denver, CO

For patients that may identify a specialist as their main health care provider, the task of coordinating information or getting coordinated care from both their specialist and primary care provider fell squarely on the patient.
Integrated care

Integrated physical and behavioral health care is a relatively unfamiliar concept for many health care consumers in Colorado. Consistent with published articles on patient’s understanding of integrated care,\(^\text{87}\) once focus group participants learned about the concept of integration, they were supportive of the concept and wanted a greater focus on access to behavioral health services. Many in Colorado are supportive of the approach because they believe stigma around mental illness can be a barrier for people seeking care and an integrated care model could play a role in reducing stigma. Additionally, some people noted the intersection between mental and physical health issues especially around issues such as menopause or depression.

Data from the Colorado Health Report card shows variation in poor mental health days among Coloradans with different income levels. In Colorado, 31.9 percent of adults with incomes below $10,000 compared to 8.1 percent among adults with incomes over $75,000 report poor mental health eight days or more during the past month.\(^\text{88}\) Additional data from the Colorado Department of Public Health and Environment Office of Health Equity shows that Hispanic and African Americans have worse mental health indicators compared to all other Coloradans.\(^\text{89}\)

Patients who have experienced integrated care are pleased with the approach:

“Everybody is coordinating so nicely. They all seem to talk to together so you know that everybody knows. It has been much easier knowing that everything is coordinated. It’s kind of like a football team, you’ve got your team and they all know what’s going on. This is not a single player, they all coordinate. It’s just fabulous! I wouldn’t hesitate to go back if I felt myself in that situation again. There might be a tendency of some people to be too embarrassed to go back and talk but I certainly would not. This integrated physical and mental health thing is really pretty good.” –Integrated Care Practice Patient, Grand Junction, CO

---


\(^\text{89}\) Health Disparities Data Sheets, Office of Health Equity, Colorado Department of Health and Environment, 2009.
Some concerns raised about integration include the changing disease classifications for developmental disabilities or persistent mental illness. Diagnosis changes the path of care. “There are continuously changing definitions in the mental health field. A broken arm is plainly a broken arm, but a kid on the autism spectrum...you have kids who are functioning and kids you can’t speak.” Another concern raised was about which care provider is the primary contact for the patient in an emergency or during a mental health crisis. Coloradans did not express concerns about sharing personal health information between providers but did make it clear they did not want to share any health information, physical or behavioral, with employers.

**Challenges**

Health care experts and Colorado patients have identified many key barriers to changing health care and creating a better patient experience.

**Complexity**

- Health care is “fragmented” and “frustrating and confusing.”
- The complexities of the system make it difficult for patients and providers to create optimal experiences of care, coordinate care easily, and accomplish their goals within the system.
- We need improvements in clinical practice, technology to support better clinical practice and payment that rewards high quality clinical practice to create a functioning system.

**Competing interests and profit**

- The health care system is not designed to optimize the patient experience and the patient’s engagement in their care.
- There are competing interests between providers, health care systems, health plans and patients.
- The fee-for-service focus on quantity over quality helps enforce profit as a primary goal of medicine and is both a major issue impacting the current patient experience and a huge barrier to change. As one focus group participant summed up, “As long as medicine in this country is a for profit business, we will continue to have the highest health care costs in the world.”
Power and control

- Those in control are unwilling to share power. Examples include providers who are hesitant to share electronic health records with patients and providers, and health care systems that are hesitant to improve transparency around quality and billing procedures.

- Some perceive that insurance companies are exerting too much control over medical decisions. As one focus group participant said, “I don’t like my medical care being controlled by a business major at the insurance company.”

Variability in needs

- Coloradan’s experiences with health care vary greatly by their health insurance coverage, ability to afford care, age, health status, race and ethnicity, location and personal preferences.

- Must recognize and adequately support patients in Colorado with diverse health needs.

Structural barriers between physical and mental health

- Differences in privacy protections, different billing systems and requirements, different phone numbers at insurance companies for questions or pre-authorizations between physical health and behavioral health benefits are major barriers to parity and integration.

- There are concerns about having enough behavioral health providers to meet the needs of an integrated system since behavioral health services are hard to get now with limited provider availability and long wait times.

Opportunities and Innovations

Colorado has a number of innovations underway to understand and improve the patient experience and test models of integrated care. These innovations are being implemented through a variety of partnerships which vary in size and location including: hospitals, school based health centers, private practices, and government funded clinics. Across these innovations, aspects that may influence the patient experience include patient involvement in decision making, provider interactions, navigation of the system, and patient perceptions of their care experience.

The Center for Improving Value in Health Care has compiled the Colorado Payment Reform and Delivery System Redesign Inventory which includes information on the integrated care models
and pilots taking place across the state (see Appendix _). A few examples from this inventory, in addition to other notable current programs, have been highlighted below to illustrate the current status of innovations and testing of integrated health models in relation to the patient experience.

- **Patient Centered Medical Home:** In 2009, the Colorado Multipayer Patient-Centered Medical Home Pilot (PCMH) launched to transform 74 Colorado medical practices. This pilot added patients to the quality improvement teams within the practices, created Patient Advisory Councils, developed patient education materials, and surveyed 200 patients per practice every six months. Example questions from the patient survey are:
  
  At this office, do people listen and respond to what you have to say in a way that is respectful and courteous? Does your doctor or health care team explain things in a way that is easy to understand? Do you feel that our practice and your specialist(s) communicate with each other about important information regarding your care?  

- **Medicaid Medical Home and Accountable Care Collaborative:** In 2007, Colorado passed legislation defining a medical home for children enrolled in Medicaid. At the end of 2012, 214 practices, representing 904 physicians were designated as medical homes including 97 percent of all Pediatricians and 48 percent of Family Medicine providers. Medicaid has also created the Accountable Care Collaborative which includes a primary care medical provider, care coordination and medical management, as well as assistance accessing needed specialty services and community resources.

- **Safety Net Medical Home:** Federally qualified health centers (FQHC) in Colorado participate in the national Safety Net Medical Home Initiative. The participating clinics evaluate their performance based on the National Committee on Quality Assurance’s Patient Centered Medical Home standards. One of the key ‘change concepts’ of this program is Patient Centered Interactions which includes an expanded role in patient decision making, culturally appropriate communication, and patients providing feedback on their healthcare experience to be used for quality improvement.

- **High Health Care Utilizers:** “Hot-spotting” initiatives are continuing to grow within the state of Colorado to identify and work with the highest utilizers of our health care system. Two specific initiatives in Colorado, Bridges to Care in Aurora, Colorado and 21st

---

90 Final Primary Care Medical Home Survey, Health TeamWorks, 2010.
Century Care in Denver, Colorado have a specific focus on supporting the physical and behavioral health needs of patients with complex health care, behavioral health and social needs. Colorado is also participating in an effort led by the National Governors Association to improve coordinated and targeted services for “super-utilizers.”

- Advancing Care Together: Advancing Care Together (ACT) is piloting eleven programs in Colorado to “discover practical ways to integrate care for people whose health problems and health care needs span physical, emotional and behavioral domains”. These pilot programs will give insight into the effective models of integrated care. Three pilots that have specific activities focused on the patient experience include:
  - The Axis Health System is working to develop a personal health profile including the patient’s personal health goals that will be used by all providers within their collaborative.
  - Denver Health is currently working to improve behavioral health related challenges often encountered during integration. The pilot program plans to identify preferred treatment approaches among their adult patient population in order to minimize future care related challenges.
  - Plan de Salud de Valle, Inc is focusing on their OB patients, to better understand the patient experience of a certain population within integrated health.  

- The Jefferson Center for Mental Health has pursued bi-directional integration, bringing mental health services into the medical setting and making physical health services available in the mental health center offices. Some examples of their integrated programs include Healthcare Homes Without Walls where a physician’s assistant from the community FQHC provides primary care services at three Jefferson Center outpatient offices and a clinical specialist from the center offers substance abuse treatment and case management. As part of the effort to integrate behavioral health services into the physical health setting, three behavioral health professionals from Jefferson Center work as part of the care team at the FQHC locations across the community.

- The Nurse-Family Partnership is another innovative approach to providing community based behavioral and physical health services to mothers in Colorado. Nurse home visitation is delivered by 19 different agencies including public health departments,

---

91 Advancing Care Together. [www.advancingcaretogether.org](http://www.advancingcaretogether.org)
community health centers, community nursing agencies and hospital systems in 59 of Colorado’s 64 counties.

- Engaged Benefit Design is a newly structured health care benefit plan focusing on providing resources to patients and providers to make decisions based on medical evidence in addition to patient values. The initiative uses a set of evidence-based tools, called a Patient Decision Aid, to help a patient consider their personal values and make informed decisions.

Other integrated pilot programs are developing integrated care models which are targeted at specific patient populations. These programs work to alleviate population specific points of conflict within the patient experience.

- The Asian Pacific Development Center focuses on the cultural influences of a patient’s experience within an integrated care system. The group focuses on “blending Eastern, Western and Pacific Islander traditions” within an integrated care system.

- The PATH program is a federal grant to assist homeless persons with mental health care needs by providing an integrated health care option for the homeless population within their community. The health care services are offered through a collaborating mental health care center and community health center. The services are offered at housing and supportive services locations where the patient population already receives many of its services.

- Silver Key and AspenPointe Care have collaborated to bring accessible behavioral healthcare to the elder adult population. The collaboration hopes to “…address the barrier of stigma in the older adult population to access behavioral health care” by integrating behavioral health into locations where this population seeks other types of services.

- Right Start for Infant Mental Health is an outpatient program at the Mental Health Center of Denver that is designed to deliver evidence-based programming that support the parent-child relationship to heal mental health symptoms in young children. It includes extensive case management and supports for young families.
The Adams County Middle Schools and High Schools provide integrated health care options within their school based health centers. The services are coordinated with the school calendar, and located within the school which eliminates many barriers that this patient population tends to experience.

Evaluation and Measures

Health care providers and systems of care in Colorado use a range of surveys and tools to evaluate the patient experience including the nationally recognized Healthcare Effectiveness Data and Information Set (HEDIS) and the Consumer Assessment of Healthcare Providers and Systems (CAHPS).

The state of Colorado uses the CAHPS to evaluate both adult and child experiences with Medicaid coverage. This year, in partnership with the Colorado Health Institute, HCPF will also use the CAHPS survey to provide patient satisfaction measures for the Accountable Care Collaborative. A current Medicaid pilot is using the Patient Activation Model to measure patient engagement as part of their patient experience analysis.

Many hospitals in Colorado use the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey of patients to measure items including provider communications, responsiveness about staff, pain management and cleanliness.

In addition to these nationally recognized surveys, the State has created the Hospital Report Card which includes standardized quality and clinical outcome measures for health care providers and hospitals in the state and the Colorado PCMH Pilot developed its own patient satisfaction survey. Many health care experts agree that more work needs to be done to fully understand the patient experience across the entire health care system as well as during point in time health care experiences.

Our Goal

Our goal is to create the ideal patient experience for Coloradans. This experience will be convenient and respectful with timely interactions with the health care provider leading to
appropriate treatment and access to needed health care services. This access will include routine preventive care, advice about health when needed and will be supported by an health care system infrastructure that allows for the appropriate sharing of clinical information between patients and health care providers. Finally, patients will be informed of the costs and coverage of their care through pricing and billing systems that enable cost transparency.

Priorities for Action

The biggest opportunities to improve the patient experience in the current health care system include:

- **Ensure consistent access to care for patients.** Coloradans recognize that not everyone in the state has equal access to care and that everyone is at risk of having a life changing event that leaves them with gap in coverage or care. Efforts should focus on ensuring access to basic health care services and creating protections in the system to support people’s health during challenging times so they still have access to needed coverage, including primary and specialty care.

- **Improve basic customer service and administrative structures in all parts of the health care system to ensure respectful encounters with patients.** Help health care providers in Colorado embrace the concepts of patient- and family-centered care, spend more concentrated time with patients during clinical encounters, and value patients’ knowledge of their own bodies in the conversation about their health and health care choices. Pursue improvements in customer service from all different positions within the health care system including front desk staff, financial services staff, clinical technicians, nurses, doctors, administrators, and health insurance company staff.

- **Build more accessible clinical sites that allow for convenient access, full engagement of patients in their care, integration of behavioral health care services and easier access to needed specialty services.** Build a health care system that honors where patients are most comfortable getting their health care needs met and embraces full patient (or family member or care giver) engagement in their health care. Increase the length of time for visits with primary care providers for patients with complex health questions or medical needs while at the same time make routine or quick evaluation services more convenient for patients.
• Change policies that are barriers to an improved patient experience including confusion and misinformation about patient privacy and structural barriers that don’t allow health care providers to collaborate or work together as a team. Some health care experts have suggested that the Ten Rules for Redesign outlined by the Institute of Medicine in their landmark report, Crossing the Quality Chasm, should be the guide for all changes made to improve the patient experience:

Ten Rules for Redesign

1. Care is based on a continuous healing relationship
2. Care is customized according to patient needs and values
3. The patient is the source of control
4. Knowledge is shared and information flows freely
5. Decision making is evidence-based
6. Safety is a system property
7. Transparency is necessary
8. Needs are anticipated
9. Waste is continuously decreased
10. Cooperation among clinicians is a priority.  

• Create a system that rewards health care providers for providing high quality health care that improves patients’ lives and follows clinical guidelines. Ensure a standard level of care and basic clinical competency in health care encounters to ensure patients in every Colorado community get appropriate preventive care and when needed, an accurate diagnosis and evidence-based treatment. Align payment structures to support clinical quality and also pay for services that support patient success such as care coordination and case management.

• Create full transparency of health information and costs for health care. Improve information flow so that timely and accurate information is available to patients and providers at the point of care and available to patients at all times so they can keep track of their medical history. Define and make available meaningful quality information for patients

92 Crossing the Quality Chasm: A New Health System for the 21st Century, Institute of Medicine, March 2001
to use to evaluate their care and their health care experiences overall. Pursue explicit transparency in cost and billing procedures from all health care providers.

The essence of the ideal patient experience was eloquently described by a physician in Basalt, CO:

“The model that we would like to see evolve...is that the physician has enough time to spend with the patient, to ask enough, or the right, questions, not be pressured time-wise to get answers, to allow the patients to present their story the way they need to present it to us, and then we are able to communicate with them in a more relaxed, patient-centered interaction. The model that we have currently, that is a fee-for-service model, ends up having the medical practice on what we refer to as ‘the hamster wheel’ or ‘the treadmill’. Where we’re just pressured all day long to stay working very high paced, seeing a lot of patients, not having enough time to focus on the patient’s needs at that moment has been shown to be ineffective. So if we can transform to a model that we are able to see patients a little bit slower and be able to be a little bit more patient centered, we can prep the individuals a little bit better to be open to more medical care and services...The patients know immediately when they’re pressured and that tends to close down the conversation. It’s not a safe environment for patients to communicate. It’s not really a safe environment for us to communicate because we needed to be in the next room ten minutes ago.”

Policy and Regulatory Changes Needed
(pending)
CHAPTER 8: LEGAL BARRIERS TO INTEGRATED CARE

(pending)
CHAPTER 9: EVALUATING COLORADO’S STATE HEALTH INNOVATION PLAN

Colorado’s State innovation plan highlights the state-wide efforts to achieve the Triple Aim in Colorado. This plan will change as milestones are achieved and as we learn from experiences and implementation. Prior to the implementation of the SHIP, and specifically the model, we will work with evaluation consultants to develop a comprehensive plan that will track progress throughout the implementation period. Colorado’s evaluation plan will be based on the state’s driver diagram to ensure progress aligns with the state’s goals and aims. The state will employ a multi-level strategy to evaluate the extent to which the state innovation plan and delivery model is implemented, which variants of basic model seem especially successful and efficient, its effect on health care spending, and its impact on health care quality and population health. To assess the full impact of the state innovation plan, we will use data from multiple sources including providers and practices, patients, payers, community organizations and key stakeholders.

Figure 23: The Innovation Plan Driver Diagram:

- **Aim**
  - By 2019, 80% of Coloradans will have access to a home for comprehensive health care that includes integrated BH that provides cost-effective care for the whole person and focuses on prevention, enhancing patient experience of care and improving health outcomes for the entire population.

- **Primary Drivers**
  - Transform the delivery of behavioral health and primary care
  - Pay for value, not volume
  - Engage community support and resources

- **Secondary Drivers**
  - Develop adequate workforce
  - Increase data collection and sharing
  - Support practice redesign
  - Test payment models
  - Increase data collection and sharing
  - Include a variety of payers and providers
  - Apply public health programs and expertise
  - Align work with partners (DOA, DOC, DHS, DORA, DOE, DOI)
Evaluating the Delivery Model

Colorado’s model to integrate behavioral health into primary care will be evaluated using a mixed methods approach based on the RE-AIM framework (please see delivery model chapter for more detail). The evaluation will include measures of integration to assess the degree to which the model and the key elements of integration are implemented. The model evaluation will also examine the impact of the model on important clinical, financial, and experience of care outcomes.

As much as possible, the outcome measures will align with existing measures for current initiatives in the state, including ACC and CPC Initiative measures. With the CPC Initiative’s emphasis on CMS’s Adult Medicaid Core Measures, there is already widespread agreement on this as an initial set of common measures. In addition, the CPC initiative utilizes patient and family as well as provider satisfaction data to evaluate quality of care. A similar methodology will be reviewed for SIM.

A set of clinical measures (shown in the table below) that has been developed for the SHAPE project, is currently being considered for the model evaluation. The state will work with stakeholders to review the SHAPE minimal data set, which builds on ACC and CPC measures and adds three behavioral health measures. The combination of process and outcome measures included in the SHAPE minimal data set can be used not only at the practice level for continuous quality improvement, but also as tools for evaluating health care quality and population health.

Table 24: SHAPE Minimal Data Set

<table>
<thead>
<tr>
<th>Measure</th>
<th>Citation</th>
<th>Steward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes: Low Density Lipoprotein (LDL) Management and Control.</td>
<td>NQF #0064</td>
<td>NCQA</td>
</tr>
<tr>
<td>Controlling high blood pressure</td>
<td>NQF #0018</td>
<td>NCQA</td>
</tr>
<tr>
<td>Preventive Care and Screening: Screening for Clinical Depression and Follow-up Plan</td>
<td>NQF #0418</td>
<td>CMS</td>
</tr>
<tr>
<td>Adult BMI Assessment</td>
<td>NQF #0421</td>
<td>NCQA</td>
</tr>
<tr>
<td>Comprehensive diabetes care - HbA1c poorly controlled (&gt;9.0%)</td>
<td>NQF #0059</td>
<td>NCQA</td>
</tr>
<tr>
<td>General anxiety disorder (ICD9=293.84, 300.00, 300.02) - GAD-7</td>
<td></td>
<td>SHAPE</td>
</tr>
</tbody>
</table>
or equivalent to show change.

- Percentage of patients 18-75 screened annually for general anxiety disorder using the GAD-7 or equivalent.
- AND of those patients with GAD, percentage of patients with an improved GAD-7 score

Substance abuse disorder (ICD9=291.x, 305.0x, 303.x) - AUDIT or equivalent to show change.

- Percentage of patients 18-75 screened annually for substance abuse using the AUDIT or equivalent.
- Of the patients w substance abuse disorder, percentage of patients w an improved AUDIT score.

Tobacco Use Assessment and Tobacco Cessation Intervention | NQF #0028 | AMA-PCPI

Patient, caregiver, and provider surveys will be used to assess satisfaction and quality of care. Site surveys are an important component of the evaluation and may be facilitated by the health extension service. In addition, based on the recommendations of the evaluation team, we will facilitate focus groups to identify the patient experience with integrated behavioral health and to foster dialog and feedback throughout the program. The surveys as well as the focus groups will allow an in-depth analysis of individuals’ experience with access to care and identify gaps and opportunities for improvement.

The evaluation of the model will also include a plan to evaluate spending and determine the extent to which cost-savings and cost offsets are achieved. As behavioral health is integrated into the primary care setting it is necessary to evaluate the additional costs incurred as investments in health and build in the potential for cost savings in the middle to long term.

**Existing and Potential Sources for Data**

The following table identifies current existing data sources that are being utilized in Colorado. As the evaluation plan for the model is developed these sources of data may be useful in capturing the three components of the triple aim.

**Table 25: Current data sources in Colorado**

<table>
<thead>
<tr>
<th>Clinical and Population Data Sources</th>
<th>Claims Data Sources</th>
<th>Survey Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice level quality measures—process</td>
<td>APCD</td>
<td>CAHPS</td>
</tr>
</tbody>
</table>
and outcome – from registries and HIE

<table>
<thead>
<tr>
<th>HEDIS</th>
<th>SDAC</th>
<th>PAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDPHE-Disease surveillance databases</td>
<td>HEDIS</td>
<td>CHAS</td>
</tr>
<tr>
<td>LPHA’s</td>
<td>Medicare Administrative Claims Data</td>
<td>BRFSS</td>
</tr>
</tbody>
</table>

The Colorado Department of Public Health and Environment, HCPF, and the Colorado Department of Human Services is creating a Tri-agency Collaborative Data Set that would ensure a highly effective, efficient, and elegant service system infrastructure to further integrated health care service and improve behavioral health care in the State of Colorado. This data set will combine the Governor’s State of Health Goals, the Colorado Winnable Battles and essential measures from each of the three departments and place them in a framework that emphasizes the social determinants of health. This will align the measures with the state’s goals to minimize duplication and streamline the evaluation of public health across the state. These measures will complement the clinical measures highlighted above and further align the evaluation throughout the continuum of health and well-being for the state. These measures will be publically reported on an annual base with the potential for quarterly reporting on some measures.

In addition to the above-mentioned measures, the evaluation of the state innovation plan will include focus groups of consumers and stakeholders to evaluate the impact of the plan components that are not measured in the delivery model focus groups. This may include focus groups of HIE stakeholders, public health and community organization representatives, different workforce groups or other entities identified as levers or key components in the state plan. Ensuring that all populations benefit from the state innovation plan and that health disparities are reduced, not exacerbated is crucial to success.

As outlined above, the goal is to minimize the administrative burden for providers, payers and public agencies while aligning measures that are used for the evaluation. The evaluation contractor will work with stakeholder groups to minimize the need for new data collection procedures. At this point there is no plan to modify existing data or add new procedures, other that the addition of the behavioral health measures listed in the SHAPE minimal data set.

The evaluation plan will provide two core functions: it will evaluate the impact of our interventions, and it will provide continuous feedback to foster improvement. The health
extension service as well as the exiting RCCO infrastructure will provide a platform for feedback and learning. An entity such as a University-based evaluation team will possess the necessary expertise and operational capacity to develop and facilitate a statewide evaluation plan.
CHAPTER 10: MANAGING THE INNOVATION PLAN

This State Health Innovation Plan is an extension of the goal and metrics found in the Governor’s State of Health Report. This Plan seeks to build a comprehensive and person-centered statewide system that works to deliver the best care at the best value, and helps Coloradans achieve the best health possible. Specifically it is addressed in the State of Health under Improving Health System Integration & Quality: Support Better Behavioral Health through Integration. In developing this State Health Innovation Plan, stakeholders made careful choices about how to balance competing priorities in order to best accomplish its charge. The State of Health and this Plan is a declaration of our administration’s commitment to making Colorado the healthiest state and therefore the Plan will be owned and managed by the administration with continued input of stakeholders and partners as we seek to implement Colorado’s reform model.

# # #