



Colorado Commission on Affordable Health Care

2017 Final Report

June 30, 2017

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Letter from the Chairman

June 30, 2017

Governor John Hickenlooper
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Senator Jim Smallwood
Chairman, Senate Committee on Health and
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Representative Jonathan Singer
Chairman, House Committee on Public
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Gov. Hickenlooper, Senator Smallwood, and Representatives Ginal and Singer,

On behalf of the Commission on Affordable Health Care I am pleased to present you with our third and final report. This report builds on the Commission's November 2015 and November 2016 reports, which explored the major cost drivers within the health care system, and includes specific recommendations regarding these cost drivers. These comprehensive set of reports are intended to help policy makers assess the areas most in need of further study and possible intervention.

The Commission spent three years exploring potential strategies to confront rising health care costs in Colorado. In doing so we heard from local officials, providers, community and business leaders, hospital administrators, and insurers throughout the state. We also explored what some other states have been doing. Therefore, this report lays out a series of avenues for consideration and potential action.

Addressing the rising cost of health care is a complex matter — and one of great interest to many throughout the state. We urge you and your colleagues in the General Assembly to neither rush to judgement when attributing cause for the rising costs, nor in developing legislative solutions. Every facet of our health care system is connected. Pulling on one string to attempt to reduce the overall cost can create unintended market reactions, possibly making matters worse.

This report highlights the need for accurate data to base recommendations on, and the challenge of having solid analytics that can help define the impact of any future actions.

Some of the trends the Commission explored may require actions that go beyond the authority of the Centennial State. Therefore, the Commission is making a few recommendations for a consolidated, continuous, and thoughtful interaction with our congressional delegation in order to request federal action to address such broader matters. These areas are also identified in the report.

On the other hand, Colorado does have the ability to impact many of the issues identified in our report, and we have suggested regulatory and market approaches to address these areas. Examples of areas of particular note include: issues related to rural health care costs; the value of preschool education for children within the Medicaid population; and the problem of substance abuse in Colorado.

It should be noted that each of our recommendations received the prescribed minimum two-thirds majority among the Commissioners.

These recommendations are the culmination of three years of work and start on page seven. There are areas that we were unable to tackle due to time limitations. These areas for future review and analysis are identified on page 63.

Respectfully submitted on behalf of the Commission.

A handwritten signature in black ink, appearing to read "W. Lindsay III", with a small flourish at the end.

William N. Lindsay III
Chairman, Colorado Commission on Affordable Health Care

Commission members

Elisabeth Arenales of Denver, from an organization representing consumers and understands consumers with chronic medical conditions

Jeffrey J. Cain, M.D., FAAFP, of Denver, a health care provider who is not employed by a hospital and who is a physician recommended by a statewide society or association

Rebecca Cordes of Denver, representing large, self-insured Colorado businesses

Greg D'Argonne of Littleton, with expertise in health care payment and delivery

Steve ErkenBrack of Grand Junction, representing carriers offering health plans in the state

Ira Gorman, PT, PhD, of Evergreen, a health care provider who is not employed by a hospital and is not a physician

Linda Gorman of Greenwood Village, a health care economist

Bill Lindsay (*Chair/Planning Committee Chair*) of Denver, representing licensed health insurance producers

Marcy Morrison of Manitou Springs, from an organization representing consumers

Dorothy Perry, PhD, of Pueblo, with expertise in public health and the provision of health care to populations with low incomes and significant health care needs

Cindy Sovine-Miller (*Vice-Chair*) of Lakewood, representing small Colorado businesses

Christopher Tholen of Centennial, representing hospitals and recommended by a statewide association of hospitals

Legislative Charge — Senate Bill 14-187

The Mission of the Commission is to ensure that Coloradans have access to affordable health care in Colorado.

The Commission shall focus its recommendations on evidence-based cost-control, access, and quality improvement initiatives and the cost-effective expenditure of limited state moneys to improve the health of the state's population.

Powers and Duties of the Commission:

- Identify, examine, and report on cost drivers for Colorado businesses, individuals, Medicaid, and the uninsured.
- Data analysis on evidence based initiatives designed to reduce health care costs while maintaining or improving access to and quality of care.
- Analyze the impact of increased availability of information.
- Review, analyze, and seek public input on state regulations impacting delivery and payment system innovations.
- Analyze impact of out-of-pocket costs and high-deductible plans.
- Examine access to care and its impact on health costs.
- Review reports and studies for potential information.
- Report outcomes of the 208 Commission

Ex officio Commission members

Susan Birch, MBA, BSN, RN, Executive Director, Colorado Department of Health Care Policy and Financing

Alicia Caldwell, Deputy Executive Director Strategic Communications and Legislative Affairs, Colorado Department of Human Services

Marguerite Salazar, Commissioner of Insurance, Colorado Department of Regulatory Agencies

Jay Want, M.D., representing the Colorado All Payer Claims Database

Larry Wolk, M.D., MPH, Executive Director, Colorado Department of Public Health and Environment

Legislative Charge (continued)

Collect and review data including:

- Rate Review Process Data from DOI
- Payment information from HCPF
- The impact of Medicaid expansion
- Evaluate the impact of a Global Medicaid Waiver
- Review information on pricing transparency: Adequacy, composition, and distribution of physician and health care networks; Drug Formularies; Co-Insurance, copayments, and deductibles; and Health plan availability
- Make recommendations entities that should continue to study health cost drivers
- Make recommendations to the Congressional delegation about needed changes in federal law

Recommendations

2016 – 2017

Health Care Workforce (2016 Report, p.45)



- Support and allow people to have meaningful access to primary care and specialty care services. Including but not limited to:
 - Encourage where possible statutory and regulatory changes to enable health care professionals to practice at the top of their scope of practice.
 - Work with CDPHE, community colleges, and others to improve the supply and practice of nonprofessional individuals such as community health workers and other community members that can support efficient and cost effective community based delivery models.
- Direct and support CDPHE to align state efforts, data sets, and assess community needs to assess workforce needs on-going.
- Request that the executive branch and legislature work in conjunction with the Commission on Family Medicine to make revisions to HRSA and CMS concerning the federal Graduate Medical Education (GME) programs rules and regulations.
 - Seek additional slots in training programs in areas of CO workforce need.
 - Seek flexibility in GME requirements, especially in primary care, rural, and underserved training programs.
- Investigate pathways to assist health care professionals seeking rapid entrance to the CO workforce and for those that are foreign trained.
- Promote and support health care providers practicing in identified rural and underserved areas by increasing funding, eligibility, and policies including financial incentives (e.g., increase payment, reduce debt load) for those willing to serve in these areas including but not limited to the National and Colorado Health Services Corps.

Direct Primary Care (2017 Report, p.55)



- Study efforts currently underway by the state of Colorado for state employees and dependents with Paladina and publish the results in a report to the General Assembly and the Division of Insurance.
 - Request that the Division of Insurance study the Direct Primary Care model to identify barriers that may exist in today's laws that might prohibit insurers from building this approach into their product offerings. Encourage the Colorado congressional delegation to support a change in federal law that would allow Health Savings Account (HSA) funds to be used to pay for a direct primary care membership.
-
- The Division of Insurance and CDPHE should study any impacts on workforce availability under this model.
 - HCPF should explore the concept of offering the Direct Primary Care model as an option in Medicaid and study the feasibility of creating a pilot to test its cost effectiveness and the results on quality.

Free Standing EDs (2017 Report, p.43)



- CDPHE should be directed to study the impact of Free Standing Emergency Rooms (EDs) in terms of both cost and quality and report their findings to the General Assembly.
- Direct CDPHE to develop standards for all Free Standing EDs that set forth licensing requirements for staffing, capabilities and equipment that are the same as the equivalent level of the Federal Government's "Conditions of Participation", and other regulatory guidance, for Hospital based Emergency Rooms.
- Direct CDPHE to develop standards that Urgent Care Centers must meet in order to be licensed as an "Urgent Care Center" in Colorado.

Payment Reform (2016 Report, p.30)



- Support ongoing efforts to develop common quality metrics across payers. Direct payers to use these to drive value-based payment models and enhance public reporting of provider performance on quality and costs.
- Encourage experimentation with new forms of pricing and payment including but not limited to:
 - Use of reference pricing for all payers
 - Warrantied payment for services
 - Bundled Payments, including voluntary program for:
 - State employees: Hips and knees, back surgery and congestive heart failure
 - Pre-Medicare state retirees: Continue for hip and knee replacements, pilot for back surgery and congestive heart failure
 - Medicaid: Chronic illness such as diabetes, asthma, or heart failure
 - Consumer-directed care and payment approaches
- Study the potential for equalizing payments in rural communities across all payers.
- Create a pilot for state employees to adopt and test Value Based Insurance Design (VBID) approach to benefit design (e.g., high value services with low or no copay, lower value services with higher copays, etc.)
- Enhance primary care payment using value-based models like the primary care medical home (PCMH) and integrated care models, and include adequate funding to fully implement these systems.
- Enhance per member per month (PMPM) payment in Medicaid through the RCCO's for high need, high cost complex patients. Core components for success include:
 - Strengthened hospital partnerships for real time referrals and bedside enrollment
 - Behavioral health therapist as part of the team
 - Access to data: claims data, cost and utilization, and pre/post assessment for PH/BH capabilities within one EMR

Pharmaceuticals (2016 Report, p.23 and 2017 Report, p.33)



- Promote active discussion and problem solving with the legislature, executive branch, and congressional delegation. These conversations should include:
 - Allow Medicare to negotiate prices
 - Allow drug importation from other countries
 - Adjust the length of patents and criteria by which patents are renewed
 - Address the length of exclusivity
 - Evaluate rules and timeframes to bring a drug to market, including reducing the length of the FDA's evaluation process
- Study the feasibility of a reinsurance program for specialty drugs
- Evaluate the feasibility of a multi-state compact for the purchase of non-specialty drugs.
- Consider ways to increase transparency of the price of pharmaceuticals.
- Require bio-similar drugs be classified as generics and thus increase their availability and reduce costs to the consumer/payer.

Areas for further study

- Enhancing generic equivalent substitutions.
- Curbing opportunistic pricing behaviors by pharmaceutical companies, or pharmacy benefit managers (e.g., limiting price increases of "x percent" per year) to address market failures and overly aggressive pricing practices for drugs that are under patent or where market shortages exist.

Rural Issues (2017 Report, p.21)



- Continue to pursue efforts with the APCD, state agencies, providers, and carriers that allow for more complete provider claims data, specifically the referring provider, a provider's service locations, facilities, and specialties within the state.
- Data should be made public so providers may better understand how their rates compare to those of other providers.
- Support voluntary opportunities for providers in each region to come together and be given their data (in total, and then some key performance metrics for each facility), to identify areas of utilization that can be addressed to reduce health care spending in the region.

Social Determinants of Health (2016 Report, p.37 and 2017 Report, p.50)



- Reduce silos within state agencies so Medicaid patients can receive the support needed to address their specific needs or condition (e.g. housing, job training, and/or placement)
- Adopt payment structures in Medicaid, such as braided or bundled funding, that address clients' social determinants of health.
 - More meaningfully align state agencies on health and health care potentially through a single Health Authority with purview over all health insurance, Medicaid, and public health
 - Pilot braided funding models for high utilizers for housing (Massachusetts showed savings)
 - Expand Medicaid ACC medical home model to braid in funding for social services, including supportive housing and employment
- Create a pilot to identify urban, low-income patients with asthma from ZIP codes with high Emergency Department (ED) visits or hospitalizations due to asthma and offer enhanced care including case management and home visits.
- Provide financial support to measure the actuarial return on investment for public health.
- Provide access to quality preschool for Medicaid children.
- Develop a statewide screening, referral, care coordination strategy and infrastructure, and a statewide navigation system to connect

	caregivers, families, and providers to referrals for health and mental health resources.
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Substance Use Disorders (2017 Report, p.38)



- Offer comprehensive substance use disorder treatment including:
 - Detox (with a medical component/medically monitored)
 - Comprehensive assessments
 - Intensive outpatient treatment
 - Lab work
 - Residential treatment where appropriate
 - Medication assisted treatment (including induction therapy)
- Medicaid should apply for a waiver, potentially including an 1115 waiver, or submit a state plan amendment to expand access to evidence based treatment to ensure that Colorado may offer a continuum of care.
- Support and promote the creation of a multi-payer pilot to provide changes in the covered treatments for substance disorder treatment, as listed above. This pilot should track results and report back to the General Assembly and the Division of Insurance.
- Increase monitoring and enforcement of mental health and substance use parity requirements, including substance use disorder treatment, in Medicaid and the private market.

Areas for Further Study

- Providing additional workforce development incentives in areas where demonstrated shortages exist, such as behavioral health. These would include loan repayment incentives.
- Increasing reimbursement for inpatient behavioral health services as a way to incent the creation of more beds.

Transparency (2016 Report, p.18 and 2017 Report, p.47)



- Support consumers making informed choices by compiling and reporting existing price, quality, and clinical outcome metrics on publicly-facing website(s).
 - Ensure that the website(s) provides various tiers of timely information based on different consumers' understanding of price and quality data.
 - Ensure the results of the pilot are published after two years to demonstrate usage, changes in behavior, and savings. This pilot would provide proof of concept for the commercial market.
-
- Create a state employee pilot using transparency tools to inform employees of the state of cost and quality metrics related to specific elective procedures.
 - Promote more transparent and publicly available data with a focus primarily on facilities, pharmaceuticals, and providers' prices.
 - Data that is made available for consumers and providers should be timely, accessible, consumer-friendly, actionable, and regularly updated.
 - Support a statewide total cost of care initiative (payments) to get an understanding of costs relative to other states.
 - Explore the potential for financial incentives to motivate consumers to use decision aids.
 - Analysis is necessary to understand and make more transparent the main contributors to overhead costs (e.g., administrative and capital costs for all relevant providers) that affect the cost of providing care to Medicaid enrollees.
 - The legislature should authorize funds to analyze and identify potential opportunities/recommendations to reduce overhead costs (or incent lower overhead costs) associated with all providers.

Transparency related to end-of-life decisions (2017 Report, p.58)



- End-of-Life Care discussions with patients need to be based upon the data that supports various options/choices that patients have to make.
- There should be an assessment of various tools that might be deployed within the state to educate patients on their options and the implications of decisions they will make. There appear to be multiple vendors available to work with patients.
- There should be a voluntary “online registry” where patients can save their “Advanced Directives” and “Medical Powers of Attorney.” Such a registry would create more accountability for caregivers to follow the advance directive.
- Physicians trained in Colorado should have as part of their course curriculum training how to effectively present to patients and their families their options regarding end-of-life care.

Other Topics: Balanced billing & adequate networks (2017 Report, p.63)



Areas for Further Study

- Protecting consumers from balance billing while ensuring network adequacy.
- Consider developing a broad, reference-based pricing structure for all insurers for use in out-of-network payment evaluations.

Introduction

Health care costs are placing an increased strain on Colorado households, employers, and governments. The growth and expected increases of Colorado's health care costs has profound implications for the state's economy. High health care costs translate into high insurance premiums that can impose strains to family budgets, business costs, and state coffers. It is essential that the state find strategies to, at a minimum, stabilize health care costs and ultimately confront the root causes of this trend.

Colorado policymakers created the Colorado Commission on Affordable Health Care (Commission) to identify the causes of rising health care costs, and explore and make recommendations about how the state might use its authority and policy levers to confront the principal drivers of health spending and cost in Colorado (See Appendix A for charge and deliverables).

There are no simple solutions. The drivers of health care cost growth are complex and multi-faceted. Just as no single factor is responsible for our high and rising health care costs, no single policy solution will be adequate to meet this challenge.

Improving efficiency and reducing costs in health care in Colorado will require extraordinary public leadership, political courage, and a commitment from the public and private sectors. Leaders from all sectors will need to collaboratively advocate for systemic changes in order to ensure that health care remains affordable for all Coloradans.

Nevertheless, the Commission recognizes that Colorado has made important strides towards improving health insurance coverage and controlling costs. For example, the proportion of residents who lack insurance has reached historic lows in Colorado (6.7 percent did not have insurance as of 2015, a decrease from a high of 15.8 percent in 2011). And the total amount of health care spending in Colorado is at or below national averages. For those with private insurance (e.g., people who obtain insurance through their employer), spending per enrollee is approximately two percent lower than the national average. Medicaid and Medicare spending per enrollee is about 15 to 17 percent below the national average.¹

Defining Cost, Price, and Spending

Health care cost, price, and spending are often interchangeable terms but are distinct concepts with distinct meanings. While much of the data analysis focuses on spending, and the public or purchaser is concerned with price, the work of the Commission has focused primarily on cost.

The Commission operated using these definitions:

- **Cost:** The resources it takes for health care suppliers to produce goods or services, including labor, equipment, facilities, and administration.
- **Price:** The amount received by health care suppliers in exchange for their goods or services. In a free market economy, the price is determined by the interaction between the demand of buyers and the supply of sellers. When prices are higher than suppliers' costs, profits are generated; when prices are lower than suppliers' costs, losses occur. However, in some health care programs like Medicare and Medicaid, the government sets prices. When prices are set above what the free market would otherwise establish, supply often exceeds demand and surpluses occur. When prices are set below the market price, shortages occur.
- **Spending:** The price of goods or services multiplied by the quantity purchased. This means that both price and quantity impact total spending.

Shared Framework and Approach

Numerous commissions, task forces, and blue ribbon panels have attempted to tackle issues surrounding health care in Colorado and across the nation. Although those entities have made important progress, our Commission was focused on health care costs — for individuals, families, large and small businesses, and public agencies. This focus not only ensures that the Commission's work is not duplicative of earlier efforts, but also zeroes in on this critical issue for Coloradans.

The Commission created the following framework to identify and prioritize recommendations.

Level Setting

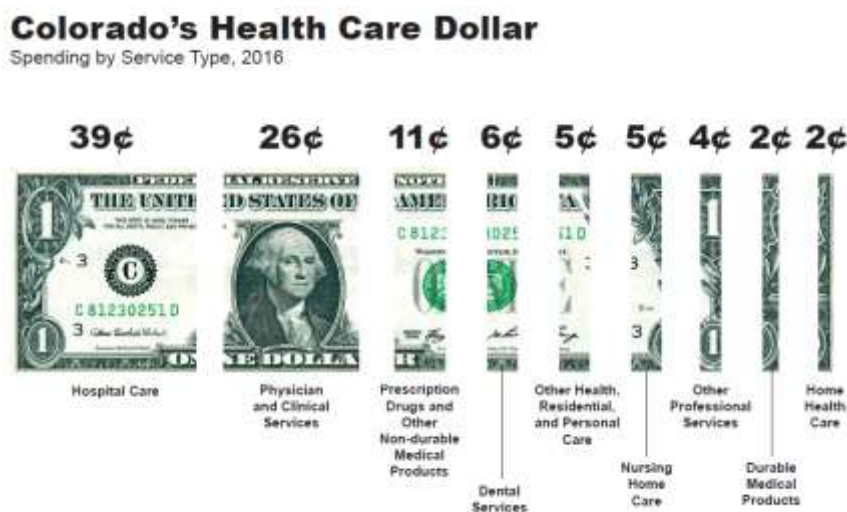
The Commission's [November 2015 report](#) to the Legislature provided an overview of the drivers of health care spending growth in Colorado. Our focus was to address items driving cost now and in the future, which are actionable, that impact public and private markets, and can be evaluated or measured.

The Commission's analysis sets a useful baseline for the Commission's work and directs the focus on where Colorado could address health care costs and maximize value. The Commission used these analyses to address the principal drivers of cost in Colorado's health care market.

According to official U.S. estimates, spending on health care reached \$2.9 trillion in 2014, amounting to more than 17 percent of the U.S. economy and more than \$9,110 per person.² Health spending has grown faster than the economy for decades, resulting in growth of the health care share of national economic output (gross domestic product (GDP)) from about 7 percent in 1970 to approximately 18 percent today.

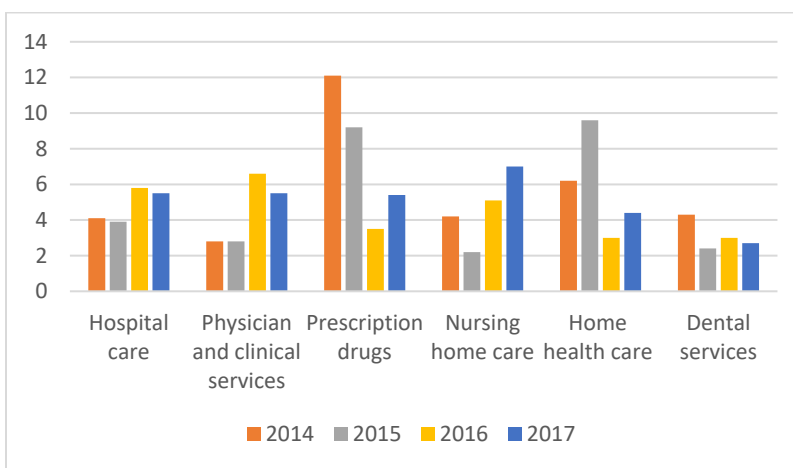
In Colorado, the greatest share of spending is devoted to hospital care, which accounted for 39 cents of each dollar of the state's health care expenditures in 2016. Physician and clinical services rank second and prescription drugs rank third. These three categories comprise approximately three-quarters of total expenditures³ (see Figure 1; a similar figure was presented in the Commission's 2016 report, but this figure is based on more recent data and an updated methodology).

Figure 1.



Spending for different types of services grew, but at uneven rates. Home health care grew most rapidly among the major categories at 7.3 percent, while dental services grew by 6.4 percent. Nursing home care grew the slowest among major categories at 3.2 percent. For the preceding 12-month period ending July 2015, prescription drugs showed the highest growth among the major categories at 8.5 percent (see Figure 2).

Figure 2. Health Spending Year-over-Year Growth for Selected Categories, United States



Source: Altarum Institute, *Spending Briefings (January 2015-May 2017)*, <http://altarum.org/our-work/cshs-health-sector-economic-indicators-briefs>

The big picture has not changed. Spending on health care is growing faster than the economy as a whole. Thus, a greater share of personal and governmental budgets is being devoted to health spending. In both Colorado and the nation, the rate of growth in health spending is expected to increase substantially over the coming years.

The Commission's [November 2016 report](https://www.colorado.gov/pacific/cocostcommission/reports-general-assembly) (<https://www.colorado.gov/pacific/cocostcommission/reports-general-assembly>) to the Legislature provided a series of potential avenues for action as well as input from listening sessions in communities across the state. This report builds on those inputs and recommendations.

Market Advisory Committee

The Commission convened an advisory committee as required in its legislative charge in December of 2016 to gain some perspective on the question of whether there are steps Colorado can take to reduce the cost of health care. The focus of the committee was on markets — are Colorado’s health care markets functioning as they should and why or why not.

The charge of the Market Advisory Committee (Committee) was to discuss the important role that both market forces (and competition) and regulations play in controlling the cost of health care and identifying the role that market forces and regulations have on principal drivers of health care costs.

The members of the Committee:

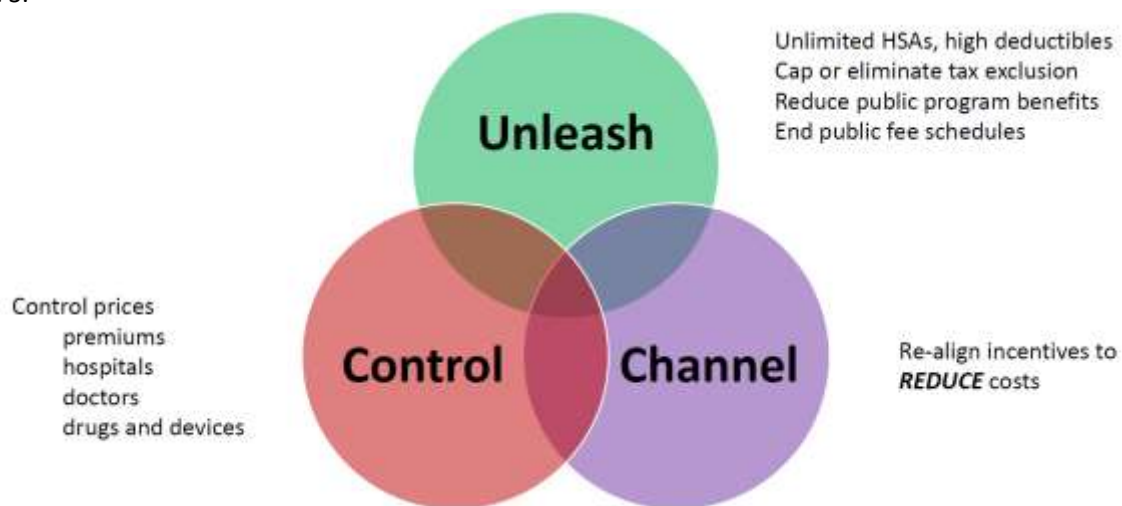
- Elisabeth Arenales, Co-chair of Committee and Commission member
- Bill Lindsay, Co-chair of Advisory Committee and Chair of the Commission
- Jandel Allen-Davis, MD, Kaiser Permanente Colorado
- Mark Earnest, MD, University of Colorado School of Medicine
- Susan Hicks, HCA Sky Ridge Medical Center
- Deb Judy, CCHI
- John Kurath, Warner Pacific Insurance Services
- Bob Ladenburger, retired SCL Health
- Donna Marshall, Colorado Business Group on Health
- Carol Plock, Health District of Northern Larimer County
- Mike Ramseier, Anthem
- Kathryn Trauger, City of Glenwood Springs and Community Builders
- Barbara Yondorf, Yondorf & Associates
- Joan Henneberry, Health Management Associates, *Facilitator of Committee*

The Committee identified five key topic areas for discussion:

- Pharmaceutical
- Substance use disorders and mental illness
- Balancing billing and networks
- Consolidation of hospitals/role of nonprofit hospitals
- Rural issues of plan design and networks

The Committee discussed the theories of reducing costs with market forces in a model designed by Len Nichols, Director, Center for Health Policy Research and Ethics George Mason University (see Figure 3).

Figure 3.



Source: Len Nichols, George Mason University, Health Care Cost Control: Facts, Feelings, Theories, Evidence and Choices for Colorado, December 28, 2016

This discussion led the Committee to focus discussion on the topic areas to answer:

- When should the market be allowed to work unfettered by regulation?
- When should regulatory approaches be used?
- What goals should these regulations have to ensure that goals are met?
- Can market forces be used in conjunction with regulations to impact change?
- How should regulations be viewed in the context of added and/or avoided costs?
- How can such costs and/or savings be quantified?

The Committee met five times from December 2016 to February 2017 and presented recommendations to the Commission in March 2017. A summary of these recommendations can be found in Appendix B. These recommendations were considered by the Commission and informed the final recommendations found starting on page seven.

Topics

The Commission developed additional recommendations in eight areas: free-standing emergency departments, transparency in data and at end of life, pharmaceuticals, social determinants of health, substance use disorders and mental health, direct primary care, and rural health care. The report examines each of the eight areas in detail. A full listing of the recommendations of the Commission can be found on page seven.

Rural Health Care Costs

The Commission focused significant attention on the issue of rural health care costs. When the Commission held several statewide meetings in the summer of 2016, stakeholders frequently voiced their concerns about the high cost of health care in rural communities.

What's the problem? Higher health care costs mean higher health insurance premiums for everyone. Insurance premiums in rural communities are often markedly higher than in urban areas of Colorado. The contrast is particularly apparent for those who buy insurance on the individual market. As shown in Figure 4, residents in the western half of Colorado, the eastern plains, and the San Luis Valley face premiums that are sometimes twice as high as those living in the Denver metro region. And areas with the highest individual market premiums are also where residents are more likely to rely on the individual market for health insurance. Note that the map in Figure 4 defines geographic regions based on the Health Statistics Regions (HSRs) developed by the Colorado Department of Public Health and Environment.

Figure 4.

Sample Insurance Rates for Second-Lowest Cost Silver Plan for a 27-Year-Old, Sold on Connect for Health Colorado, 2017



Source: Connect for Health Colorado

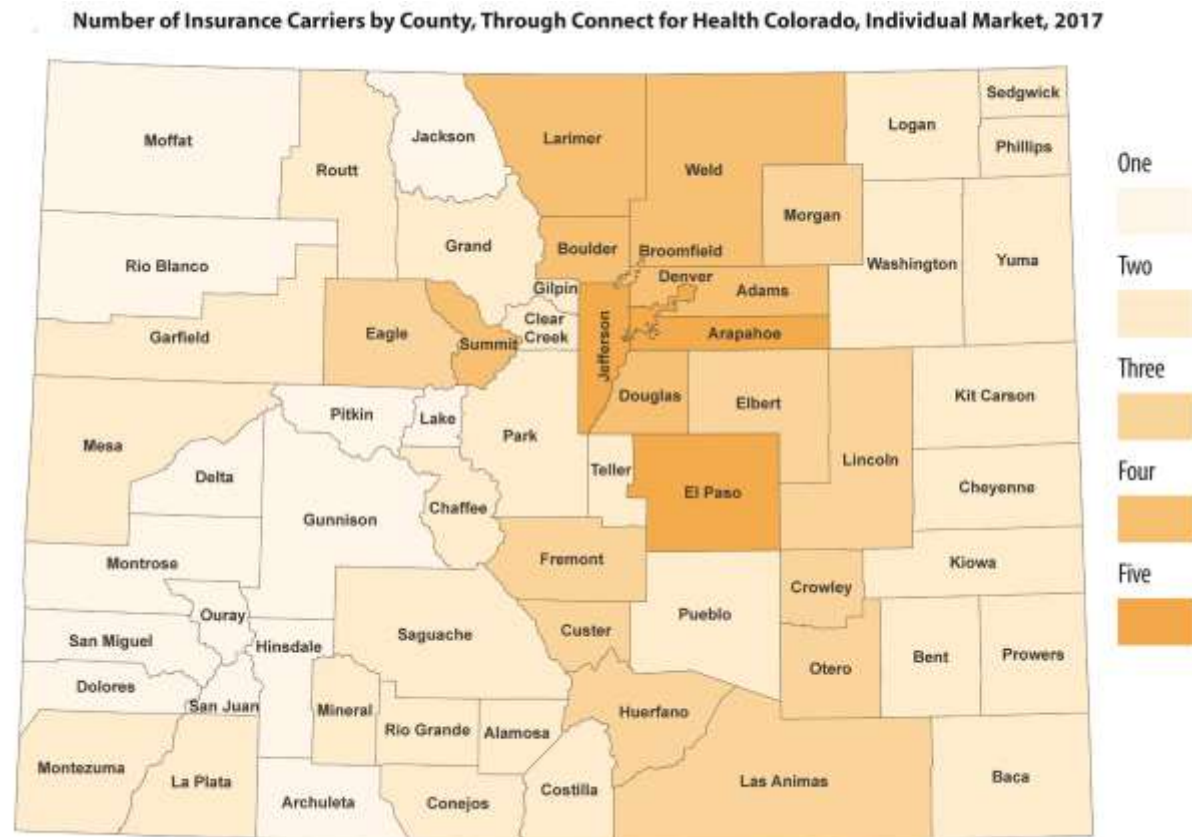
High insurance premiums reflect high levels of spending on health care services. Data show that large differences in health care spending exist across the state, which raises questions about why such differences exist and what options exist to address those differences. One analysis has shown that differences in health care spending are sometimes driven by differences in the unit price (e.g., dollars per procedure) and/or differences in utilization (e.g., the number of procedures). For example, the figure below shows that for certain types of outpatient services (e.g., outpatient surgery and other outpatient), the unit price is far higher in the western part of the state (“Region 9”). In other instances, high total spending on outpatient services appears to be due primarily to higher utilization rates (e.g., advanced imaging, imaging, and lab/pathology).⁴

High Level	Category	2015								
		Total Cost per Member per Year			Units per 1,000 Members per Year			Cost per Unit		
		All	Region	County	All	Region	County	All	Region	County
		Regions	Rating Area 9- West	Denver	Regions	Rating Area 9-West	Denver	Regions	Rating Area 9-West	Denver
OP	Emergency Room	\$387	\$376	\$327	164.3	157.2	155.9	\$2,354	\$2,389	\$2,094
OP	Outpatient Surgery	\$445	\$921	\$329	97.9	131.3	84.4	\$4,547	\$7,016	\$3,900
OP	Observation	\$16	\$34	\$8	7.0	9.3	3.6	\$2,293	\$3,665	\$2,261
OP	Advanced Imaging	\$46	\$177	\$27	21.9	67.4	16.0	\$2,082	\$2,630	\$1,695
OP	Imaging	\$79	\$189	\$66	123.3	266.2	96.8	\$641	\$709	\$678
OP	Lab/Pathology	\$78	\$257	\$67	119.4	416.8	108.1	\$656	\$618	\$621
OP	Therapy (PT/OT/ST)	\$21	\$50	\$17	45.4	70.5	40.6	\$457	\$704	\$414
OP	DME/Prosthetics/Supplies (OP)	\$2	\$0	\$2	0.8	1.2	0.6	\$2,689	\$262	\$3,446
OP	Mental Health Outpatient	\$7	\$3	\$9	9.0	1.3	17.2	\$809	\$1,968	\$546
OP	Other Outpatient	\$129	\$255	\$108	101.6	92.6	157.7	\$1,265	\$2,751	\$682
OP Total	Total	\$1,210	\$2,262	\$960	690.5	1,213.9	681.0	\$1,752	\$1,863	\$1,409

How does the problem contribute to spending? The Commission examined data on potential causes of high health care costs in rural communities. It became apparent that rural communities differ in many ways, which suggests that multiple approaches will be needed to address this very complex problem.⁵ Reducing the total spending on health care could help reduce the high price of insurance premiums that rural communities often face.

One potential factor is the presence of fewer insurance carriers on the individual market, which could reduce the level of market competition that could be expected to drive down insurance premiums. Figure 5 shows that many rural areas have only one or two carriers that offer plans on the individual market. However, Summit County has high insurance premiums, but it has three carriers, the same number as in several Front Range counties with lower premiums. This suggests that competition among carriers is not the only factor associated with high insurance premiums.

Figure 5.



Source: Connect for Health Colorado

Division of Insurance Analysis of Cost Drivers

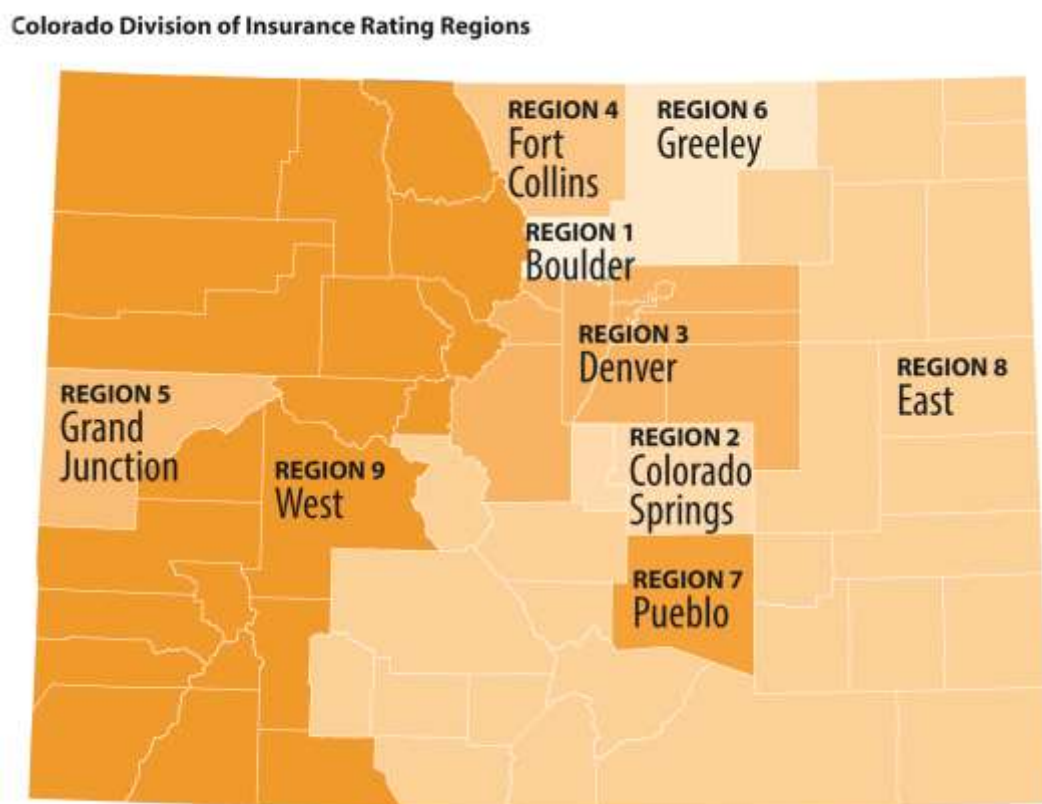
As part of its deliberations, the Commission examined work that the Colorado Division of Insurance (DOI) has conducted on health insurance premiums. In 2016, the DOI submitted to the General Assembly a study of the impacts of converting the state to a single geographic rating system.⁶ One element of this study was an analysis of health care cost drivers. The analysis, conducted by the actuarial firm Lewis & Ellis, Inc., used data from Colorado's All Payers Claims Database (APCD), which is administered by the Center for Improving Value in Health Care (CIVHC).

The study examined the total health care costs of Coloradans. This includes medical and pharmacy benefits that insurance companies reimburse to health care providers plus the cost sharing paid by consumers in the form of deductibles, copayments, and coinsurance. This analysis of health care costs does *not* directly include premiums for health insurance coverage (though such premiums do reflect to a large degree the cost of reimbursing health care providers for their services). Additionally, the analysis examined commercial insurance plans

only (i.e., it does not include health care cost of people enrolled in public insurance programs such as Medicaid and Medicare), and it excludes the health care costs of self-insured employers (i.e., companies that insure themselves, rather than purchasing insurance from a third party and pooling their risks with a broader population).

An important aspect of the study was a geographic breakdown of these costs. The study analyzed costs across Colorado's nine insurance rating regions, including seven areas around the urban centers of Denver, Boulder, Fort Collins, Colorado Springs, Grand Junction, Greeley, and Pueblo, as well as two rural areas (West and East regions). Figure 6 shows these DOI regions.

Figure 6.



One of the findings from the DOI study was that residents in the West region have the highest health care costs in the state: \$6,258 per person in 2015. This amount is about \$1,000 higher than the state average and about \$1,800 higher than the lowest cost region (Boulder area). The cost in the East region was higher than the state average, but lower than the Grand Junction and Greeley regions.

The DOI study also found that the higher cost in the West region was primarily related to the higher expenditures for outpatient services. Closer examination of the data reveal different reasons for the higher total cost of outpatient services. For some categories of outpatient services, the utilization (i.e., the number procedures) was much higher than the state average, even as the unit price (i.e., the price per procedure) was relatively similar to the state average.

The Commission sought to build upon the DOI analysis and examine this issue in greater depth. The Commission asked Lewis & Ellis, Inc., the actuarial firm that conducted the technical analysis in the DOI report, to conduct more detailed analysis of the APCD. This technical analysis can be found on the [Commission web site](https://www.colorado.gov/cocostcommission). (<https://www.colorado.gov/cocostcommission>).

The Commission sought to focus the analysis in several ways due to time and budget constraints:

- Adopt the same general approach as used in the DOI analysis.
- Focus on outpatient costs, which were identified in the DOI study as a primary driver of higher health care costs in the West region. Categories of outpatient costs include outpatient surgery, advanced imaging, imaging, lab/pathology, and other outpatient services.
- Analyze the data at the geographic level of Health Statistics Regions (HSRs), rather than at the broader level of DOI Regions (there are 21 HSRs and nine DOI regions).
- Examine the level of competition among carriers and facilities providing outpatient services.
- Investigate the medical diagnoses associated with outpatient services.
- Assess the likelihood of low-value utilization.

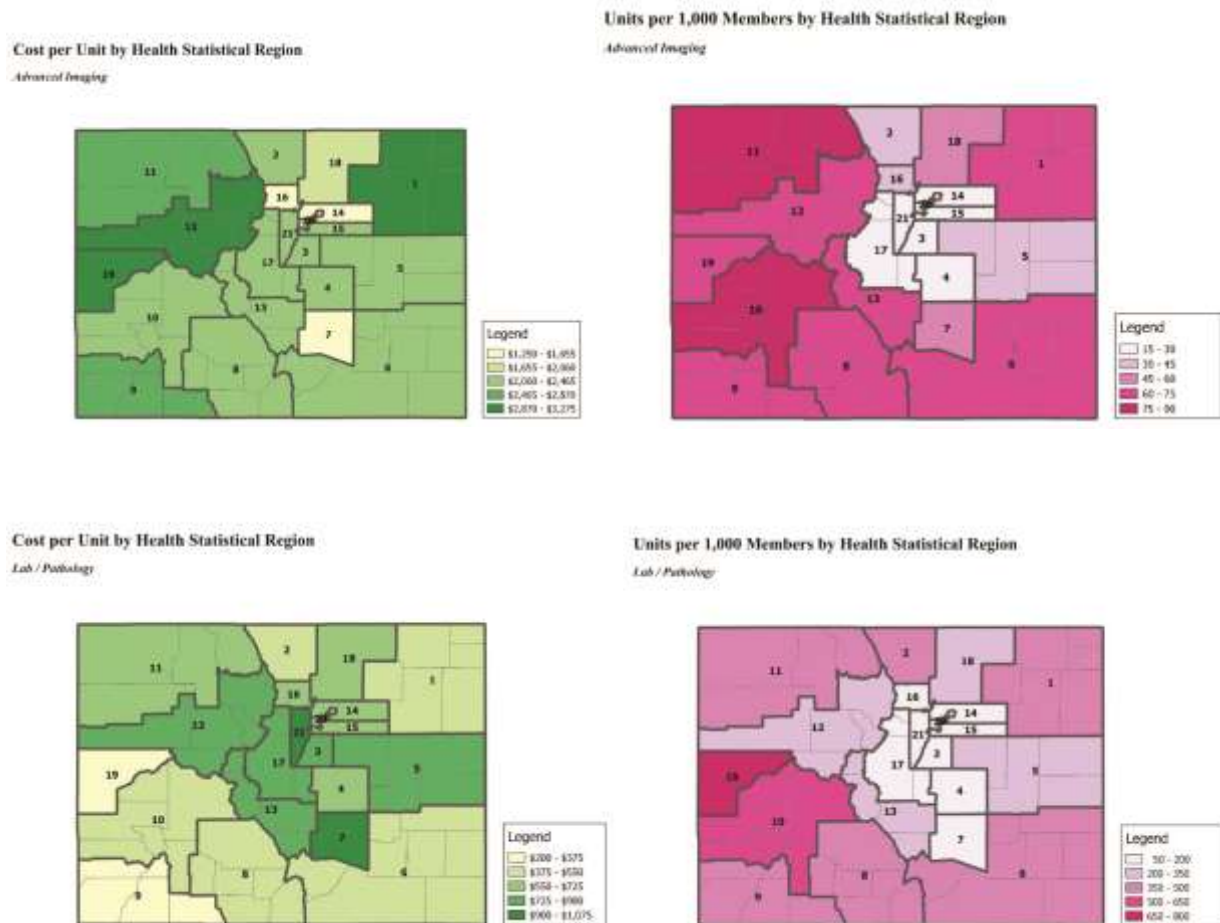
This report only summarizes high level findings from this analysis, and the Commission invites readers to examine more carefully the wealth of information presented to the Commission.⁷

Significant Geographic Variation in Utilization and Unit Costs

The analysis examined costs at the HSR level, which allows for a more detailed view of geographic variation. Within the West Region, there is substantial variation in both unit costs and utilization rates. To illustrate, Figures seven through ten show unit cost and utilization for advanced imaging and lab/pathology. The analysis suggests that different factors contribute to higher costs in different parts of the West region, and multiple strategies are likely needed to successfully address the problem.

Figures 7, 8, 9, and 10

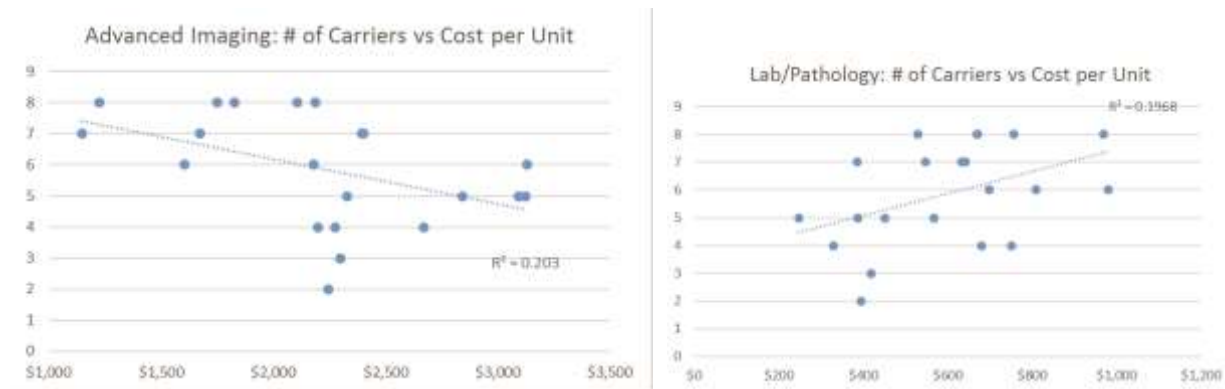
(Lewis & Ellis Analysis, <https://www.colorado.gov/pacific/sites/default/files/Colorado%20Cost%20Commission-%20Key%20Results%20-%20May%208th.pdf>)



The analysis explored the extent to which unit costs may be related to the number of insurance carriers. The number of carriers could affect the competitive landscape among insurers, health care providers, and consumers.

The analysis of the various types of outpatient services revealed that there was no consistent relationship between the number of carriers in an HSR and unit price. For example, HSRs with more carriers also tended to have lower unit costs for advanced imaging, but the opposite was true for lab/pathology services. This is illustrated in Figures 11 and 12.

Figures 11 and 12.



Conventional wisdom suggests that more competition should reduce prices. However, there is a complex set of competitive interactions among insurance carriers, providers, and consumers that determine the unit price of medical procedures.

The relationship between the number of facilities and utilization was not consistent

The analysis sought to examine the extent to which the supply of health care providers may explain the variation in unit price and utilization. Unfortunately, data on individual providers or the referral patterns among providers could not be reliably assessed in this analysis. Instead, the analysis examined the association between the number of facilities providing different types of outpatient services and unit price and utilization. No consistent relationship was observed.

High utilization levels are generally observed across medical diagnoses

The DOI study found that the West region had particularly high utilization levels for the advanced imaging, imaging, and lab/pathology categories. One potential explanation for this is that the West region includes many residents who enjoy physical activities like mountain biking and skiing, and these sports could increase the likelihood of injuries like broken bones and sprained joints.

However, this hypothesis was not borne out in the analysis. Utilization of advanced imaging, imaging, and lab/pathology was higher than the state average for most medical diagnoses, not just those likely connected to injuries. For example, advanced imaging for injury-related diagnoses was substantially higher in the West region, but advanced imaging was also used at higher rates for most other types of medical conditions such as cancer and respiratory diseases.

These data suggest that injuries associated with active lifestyles are not the only reason for higher utilization in the West region. Practice patterns in the region result in higher utilization across a wide variety of medical diagnoses.

Low-value services

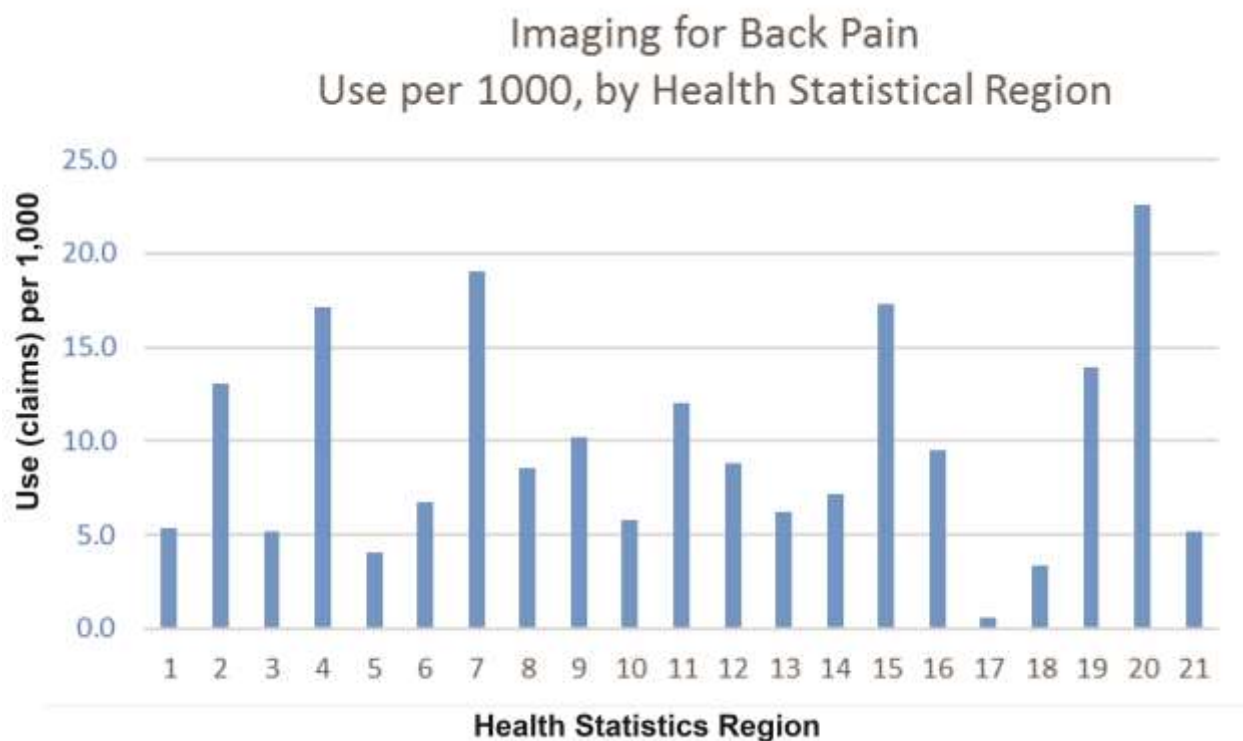
The Commission sought to understand whether high utilization rates may be explained by practice patterns that lead to the overuse of low-value health care services. Low-value services are those which could be wasteful or medically inappropriate and may represent opportunities to reduce health care spending that provides little or no health benefit to patients.

Distinguishing inappropriate from appropriate health care is challenging and typically requires clinical data, which is absent from the APCD. Nevertheless, methods are evolving to use claims data to help gauge the use of low-value care. One approach is to focus on specific types of health care that are widely considered to have low value. An example of a low-value service is the use of imaging for low back pain.⁸

The analysis measured the utilization of imaging for low back pain and found that there is substantial variability across HSRs, as shown in Figure 13. The highest utilization of this low-value service occurs in HSRs 4, 7, 15, and 20, which cover Colorado Springs, Pueblo, Denver, and Arapahoe Counties. Meanwhile, HSRs 9, 10, 11, and 12, which cover much of the West region, have noticeably lower utilization of low back pain imaging.

This analysis focused on only one type of low-value service, and as a result it is difficult to make a general conclusion about the influence of inappropriate care in driving up health care costs. Nevertheless, these results suggest that opportunities exist across the state to reduce the use of low-value services.

Figure 13.



Many factors may contribute to the high health care costs in rural communities, including the health status of rural residents; the complex market interactions among insurance carriers, providers, and consumers; and differences in the practice patterns of health care providers. Moreover, it is apparent that there are substantial geographic differences across these factors. This suggests that multiple strategies will need to be adopted to address the unique challenges that exist across Colorado.

Recommendations

- The APCD should continue to pursue efforts with state agencies, providers, and carriers that allow for more complete provider claims data specifically the referring provider, a provider's service locations, facilities, and specialties within the state.
- Data should be made public so that providers may better understand how their rates compare to those of other providers.
- Support voluntary opportunities for providers in each region to come together and be given their data (in total, and then some key performance metrics for each facility), to identify areas of utilization that can be addressed to reduce health care spending in the region.

Telehealth

As discussed in the Commission's 2016 Report, rural communities often face challenges in having an adequate workforce of health care professionals, such as primary care and specialty physicians, mental and behavioral providers, and nurses. The lack of an adequate health care workforce can create problems with access to care and can increase health care costs if rural residents forgo care by a primary care physician, which could lead to worsening (and possibly more expensive) health conditions or greater reliance on expensive emergency care.

The Commission discussed the potential for telehealth to help address workforce issues. In many respects, Colorado is well positioned (compared to other states) to take advantage of innovations in telehealth. The state has adopted several policies that foster the use of telehealth, as described in further detail below.

Telehealth is the use of technology to facilitate the delivery of health care, often to distant locations. The term is broadly defined and can include e-consults, supervision of mid-level or non-professional providers and patients monitoring their health at home, but also patient-provider interactions such as live video psychotherapy counseling sessions conducted remotely, triaging in primary and urgent care settings, and others including tele-rehabilitation.

Not all telehealth is created equal in terms of costs and benefits. Telehealth's impact on health care quality and cost depends on several factors:

- Which telehealth service is used — for example, live video or remote monitoring.
- Which patient population or clinical indication is using the service — for example, patients with chronic disease or acutely ill patients in the intensive care unit.
- How it's reimbursed — telehealth's return on investment for fee-for-service payments is different than value-based reimbursement.

The Agency for Healthcare Research and Quality (AHRQ) surveyed the body of telehealth literature in 2016.⁹ The report focused on 58 systematic reviews published since 2006. The study looked for areas where the evidence on telehealth was strong enough to inform decisions.

AHRQ identified several areas of telehealth with strong research suggesting they “work” and should be adopted into policy and regulation. The most consistent benefit was reported when telehealth was used for:

- Remote patient monitoring in patients with chronic conditions such as cardiovascular and respiratory disease,
- Communication and counseling for patients with chronic conditions, and
- Psychotherapy (though these results were less consistent).

The study also identified gaps in the research. Additional study was needed to assess effectiveness of telehealth in the ICU, surgery, burn care, specialty consults, and maternal and child health. And significant research gaps were identified for telehealth's effectiveness in triage for urgent and primary care and its impact on cost and utilization. Of the 32 systematic reviews looking at telehealth's impact on cost and utilization, seven (22 percent) found no benefit or increases in cost or utilization.

Impact on Costs

Health Affairs published a study in March 2017 illustrating how telehealth increased utilization and costs in direct-to-consumer live video telehealth for acute respiratory illnesses.¹⁰ Out of 300,000 claims analyzed, 88 percent represented new utilization. Telehealth did not replace visits to other providers — it increased the number of visits. Annual spending for acute respiratory illness increased by \$45 per user.

But other studies have demonstrated potential savings, particularly in programs delivering tele-behavioral health care. Wyoming's Medicaid pediatric care, nursing homes in New York and Vermont, and Georgia's use of tele-behavioral health care in correctional facilities all provide examples of direct savings due to telehealth services.^{11,12}

Depending on the payment model and where savings are accrued, telehealth can create "soft cost" financial savings. For example, telehealth can reduce costs borne by patients and providers in terms of transportation, lost wages, and inefficient use of provider time. Consumers travel less often to their health care provider and lose fewer working hours. Facilities can make the most of their expensive specialists' time by offering services via telehealth to more patients over long distances.¹³

Telehealth is not new in Colorado. The state is well positioned to deliver this type of care. In 2015, Colorado adopted House Bill 15-1029. The law expanded coverage for telehealth by requiring health insurers to reimburse for telehealth services at the same level as in-person services, in urban as well as rural areas. Previously, Colorado law only required reimbursement for telehealth services provided to patients in rural areas.

In 2016, Colorado passed House Bill 16-1047 and in 2017 passed House Bill 17-1057. Colorado joined the ranks of states participating in interstate provider licensure compacts to increase the use of telehealth across state lines. And in 2017, the legislature passed House Bill 17-1094 to clarify reimbursement rules for health benefit plans. For example, insurance plans cannot restrict reimbursement based on the type of technology or application used to deliver telehealth. The service must include an audio-visual component, so care delivered via text, phone or email for instance, is not covered.

Beyond traditional telehealth services, similar technologies are increasing access to care in Colorado and nationwide. A provider education platform called Extension of Community Health Outcomes (ECHO) is being used in Colorado to increase the number of Medication-Assisted Treatment (MAT) providers in rural primary care environments. Multiple insurers and facilities also offer nurse phone lines to provide care for non-emergent issues without expensive trips to the emergency room.¹⁴

State and federal efforts are underway to address barriers to telehealth adoption. For example, the Colorado Telehealth Network channels federal grants and subsidies throughout the state to provide broadband telemedicine links where providers cannot afford an expensive upgrade.¹⁵ Additionally, the Health Care Connect Fund of the Federal Communications Commission brings in \$400 million annually to the state to cover broadband connectivity.¹⁶

Pharmaceuticals

What's the problem? Drug pricing remains unchecked and as such continues to increase costs for consumers and payers alike.

How does the problem contribute to spending? The national market for drugs and federal regulations leave states with little leverage to control spending.

The pharmaceutical industry continues to innovate and discover new therapies that extend lives and improve health, yet the sharply increasing cost of prescription drugs is causing mounting pressure among consumers and payers. The federal government projects that total expenditures for health care will increase an average of 5.6 percent per year through 2025, but expenditures for drugs will increase more rapidly at 6.3 percent.¹⁷ In a position paper published in 2016, the American College of Physicians noted that comprehensive efforts are needed to address the rising burden of pharmaceutical spending:

Through collaboration and innovation, stakeholders have the ability to effect change by supporting transparency in how drugs are priced, developing and piloting novel approaches to evaluate and pay for drugs through evidence-based practices that reward advancements in the medical field, assuring access to needed prescription medications by not placing disproportionate economic burden on patients, encouraging informed patient participation in their health care decision making, and ensuring a truly competitive marketplace.¹⁸

The Commission's 2016 Report included several recommendations on pharmaceuticals.¹⁹ Since then, the Commission has continued to study and discuss this topic and has adopted additional recommendations and identified topics that warrant further study.

Increasing Transparency

High prices for prescription drugs generate significant controversy among consumers and policymakers. New groundbreaking drugs often come at a steep price, and many observe that high prices reflect the large and risky investments the pharmaceutical industry makes to discover, test, and develop effective and innovative treatments. Yet for some consumers, the high prices still seem out of proportion. In addition, recent sharp price hikes for certain drugs, including some that have been on the market for years (such as Epi-Pen), have confused and angered consumers and policy makers.²⁰

Numerous states have considered policies that would require increased transparency into pharmaceutical prices.^{21,22} In 2016, Vermont approved legislation that authorizes the state to identify 15 prescription drugs with substantial price increases. The manufacturers of those drugs are required to submit information on why prices rose and that information will be available to the public.²³

In Colorado, the legislature has considered several bills on transparency in pharmaceutical pricing. In 2017, House Bill 17-1318 proposed requirements for health insurers to submit to the state information regarding pharmaceutical costs (including net costs after negotiated rebates and discounts), which the state Division of Insurance would use for an annual report on trends in pharmaceutical costs. In 2016, House Bill 16-1102 proposed requirements for drug manufacturers to provide the Colorado Commission on Affordable Health Care information on research and development costs; clinical trials and regulatory costs; costs for materials, manufacturing, and administration attributable to the drug; acquisition costs including patents and licensing costs; and marketing and advertising costs. Both bills failed.

Reimportation

The price of drugs sold in the United States are sometimes higher than the prices available to buyers in other countries.²⁴ This has struck many consumers as unfair. Some consumers have looked to pharmacies in other countries to purchase drugs, but federal rules restrict the importation of prescription drugs. The U.S. Food and Drug Administration (FDA) discourages consumers from this practice, stating that drugs obtained from foreign pharmacies are not subject to the FDA oversight and regulation, and those drugs may pose a health risk because they could be poorly manufactured or counterfeit.

Despite those restrictions, the FDA does not generally object to individuals who import drugs from abroad under certain circumstances, such as drugs that treat serious conditions for which there are no FDA-approved drugs sold in the United States.²⁵ This policy does not help consumers who currently buy an FDA-approved drug in the United States but want to purchase similar drugs from other countries at lower prices.

In 2013, Maine became the first state to sanction the foreign purchase of mail-order drugs when the state legislature removed the state licensing requirement for accredited pharmacies in Canada, the United Kingdom, New Zealand, and Australia. This gave consumers the option to fill prescriptions from pharmacies located in those countries.²⁶ A federal court struck down Maine's law in 2015, finding that federal law superseded state policy in regulating foreign commerce.²⁷ At the federal level, Congress continues to debate the importation of pharmaceuticals.²⁸

The Commission's 2016 Report recommended "an on-going, focused conversation between the legislature, executive branch, and congressional delegation to promote active discussion and problem solving," including the possibility of allowing drug importation from other countries.

Biosimilars

As described in the Commission's 2016 Report, the recent increases in drug spending are driven primarily by the rising price of specialty drugs.²⁹ Specialty drugs are used to treat complex and

chronic conditions such as cancer, cystic fibrosis, and multiple sclerosis. They often require special handling such as refrigeration and monitoring. Specialty drugs are being used with increasing frequency and are increasing in price faster than traditional drugs. As a result, specialty drugs are of particular concern because they are responsible for large part of drug spending. In 2014, specialty drugs accounted for less than one percent of all prescriptions, yet they accounted for 32 percent of total drug expenditures.³⁰

Many specialty drugs are part of a class of pharmaceuticals known as biologics. Biologics are drugs that are manufactured in a living system, such as animal cells and microorganisms. This contrasts with conventional drugs, which are manufactured by combining specific chemical ingredients. Examples of brand name biologics include Humira (used for rheumatoid arthritis), Lantus (used for diabetes), and Avastin (used for several types of cancer).

Because biologics are often very expensive, there is interest in increasing the availability of and use of “biosimilars.” Biosimilars are sometimes thought of as generic versions of biologics and thus may offer less expensive drug alternatives. However, biosimilars are regulated by the FDA in a different manner than generic versions of conventional drugs.³¹ Biosimilars are versions of the original biologic but, because of the complex and unique biological production process, they are not identical and are subject to a more stringent regulatory and clinical testing process by the FDA than for generics for conventional drugs.

A drug that has been designated by the FDA as a biosimilar can be prescribed by a health care provider by writing the specific name of the biosimilar product on the prescription. The FDA also has the authority to designate a biosimilar as “interchangeable” if it is judged to be similar enough to the original biologic that it can be considered interchangeable. The FDA allows a pharmacist to substitute an interchangeable biosimilar for the original biologic without any action by the prescribing health professional.³² This is akin to how pharmacists are allowed to dispense a generic conventional drug even if the prescription is for a brand-name drug (subject to certain conditions). However, the FDA has not yet designated any biosimilars as interchangeable.³³

More than half of the states have passed laws related to the use of biologics and the substitution of biosimilars, according to the National Conference of State Legislatures.³⁴ In Colorado, the legislature passed a bill in 2015 clarifying that pharmacists may substitute an interchangeable biologic product for the prescribed biologic without prior approval of the prescribing health professional (subject to certain conditions). However, the pharmacist must tell the prescribing health professional the specific product that was dispensed.

The use of biosimilars have the potential to reduce spending on pharmaceuticals. The price difference between the original biologic and its corresponding biosimilar is likely to be less than the price break observed for generics of conventional drugs, due in part to the more complex

manufacturing and approval process for biosimilars.³⁵ According to the Generic Pharmaceutical Association, nearly 50 biosimilars are in development, which could create a more competitive market for biologic drugs in the next few years. Nationally, substitution of biosimilars could result in projected savings of \$44 billion to \$250 billion over 10 years.³⁶

Enhancing Generic Equivalent Substitutions

Generic drugs are less expensive than their brand-name counterparts and the use of generics has long been seen as a way to curb health care spending.³⁷ Generics account for 89 percent of all prescriptions dispensed in the United States but only 27 percent of drug spending. The use of generics resulted in \$227 billion in savings in 2015.³⁸

All states have adopted policies that encourage the use of generics as a substitute for their brand-name counterparts. In most states — including Colorado — if a health care professional has prescribed a brand-name drug and has not specified that a pharmacy must “dispense as written,” a pharmacist has the discretion to dispense a generic. However, 13 states take a more aggressive approach and require pharmacists to dispense generics when available (subject to “dispense as written” exceptions).³⁹ In 2010, the Colorado Legislature considered a bill that would have required health care professionals that wanted pharmacies to dispense a brand-name drug instead of a generic to state that the brand-name drug is medically necessary. That bill was not passed.⁴⁰

Over the last several years, large increases in the price of certain pharmaceuticals have captured the attention of consumers and policy makers. Examples include controversies surrounding price hikes for the Epi-Pen; insulin used by diabetics; and the antidote for opioid overdoses, Naloxone.⁴¹ To some, the price hikes represent unfair, opportunistic actions by drug manufacturers that seek to maximize their profits at the expense of patients and insurance companies who have few or no other options but to pay the higher prices. On the other hand, drug manufacturers may be making business decisions that allow them to pay for the high costs of drug development. At the heart of the debate is the challenge of knowing what constitutes unfair opportunistic behaviors and what are reasonable business decisions in the context of high-risk and high-cost drug research and development.

Several alternatives have been proposed to address opportunistic behaviors. Increasing transparency in pricing decisions is one approach, which was described earlier in this report. Another approach is to require drug manufacturers to devote a minimum percentage of their revenue to research and development.⁴² Such a policy is intended to address the possibility or perception that drug companies engage in opportunistic behaviors to boost profits rather than to pay for or invest in research and development. This approach shares some similarities to requirements imposed on insurance companies to devote at least 80 or 85 percent of their premium revenue to cover health care costs instead of profits or administrative overhead (i.e., medical loss ratio requirements). In addition, Maryland is considering a measure that would

allow the attorney general to take court action against drug manufacturers that engage in price gouging, which could force manufacturers to reverse steep price hikes.⁴³

Recommendations

- Colorado should consider ways to increase transparency of the price of pharmaceuticals. A potential strategy for accomplishing this would be through a multi-state compact so that the cost of such analysis would be distributed broadly across states and the likelihood of success would be increased through the pooling of resources across multiple purchasers.
- As was recommended in our November 2016 report, the General Assembly and the governor should strongly encourage our Congressional representatives to secure authority for Colorado to engage in drug re-importation, and to facilitate state access to drug pricing information for consumers and payers. This is a matter of great significance since our observation is that one state alone cannot affect these types of changes.
- Colorado should require that bio-similar drugs be classified as generics and thus increase their availability and reduce costs to the consumer/payer.

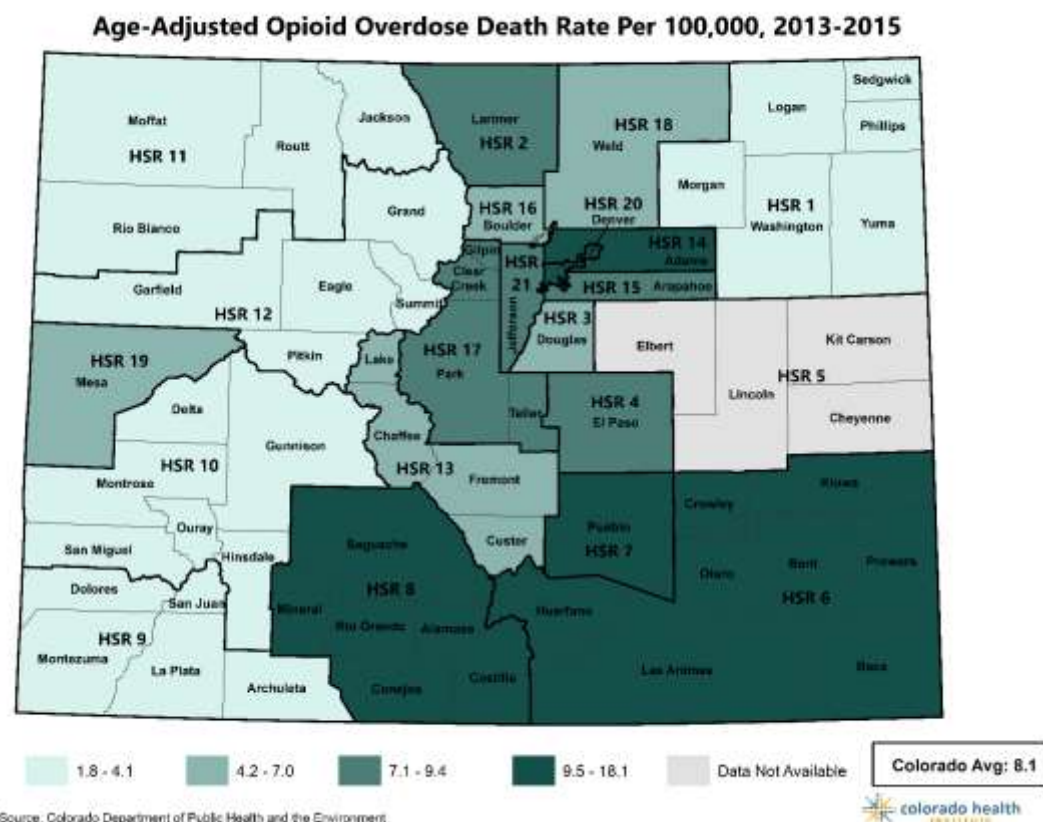
Other areas for further study

- Enhancing generic equivalent substitutions.
- Curbing opportunistic pricing behaviors by pharmaceutical companies, or pharmacy benefit managers (e.g., limiting price increases of “x percent” per year) to address market failures and apparent overly aggressive pricing practices for drugs that are under patent or where market shortages exist.

Substance Use Disorder and Mental Health

What's the problem? The state has an increasing problem with substance use disorders. Colorado's drug overdose death rate per 100,000 increased by 68 percent from 2002 to 2014. The increase has been widespread with overdose rates increasing in every region of the state. Opioid-related deaths (prescription painkillers and heroin) have driven this increase. From 1999 to 2014, opioid-related deaths increased by 325 percent compared to a 66 percent increase involving non-opioid related deaths (see Figure 14).⁴⁴

Figure 14.



Source: Colorado Department of Public Health and Environment, Vital Statistics.

In order to effectively address substance abuse challenges, it is often useful or necessary to also consider mental health. People who abuse drugs are often diagnosed with mental health disorders and vice versa.⁴⁵ As an example of the mental health challenges in Colorado, the state consistently ranks in the top ten for states with high suicide rates.⁴⁶ In 2015, 1,093 Coloradans took their own lives, and in 2013 one of five Coloradans cited a lifetime diagnosis of a depressive disorder.⁴⁷ Access to mental health care remains spotty, with nine percent of all

Coloradans citing that they had an unmet mental health need in 2015.⁴⁸ The Commission chose to focus on substance use disorder needs rather than address the full spectrum of mental health issues given time and resource constraints. The state has also increased attention on mental health, through the State Innovation Model, which is an initiative to enhance the integration of behavioral health and primary care as well as efforts in integration through the Accountable Care Collaborative.

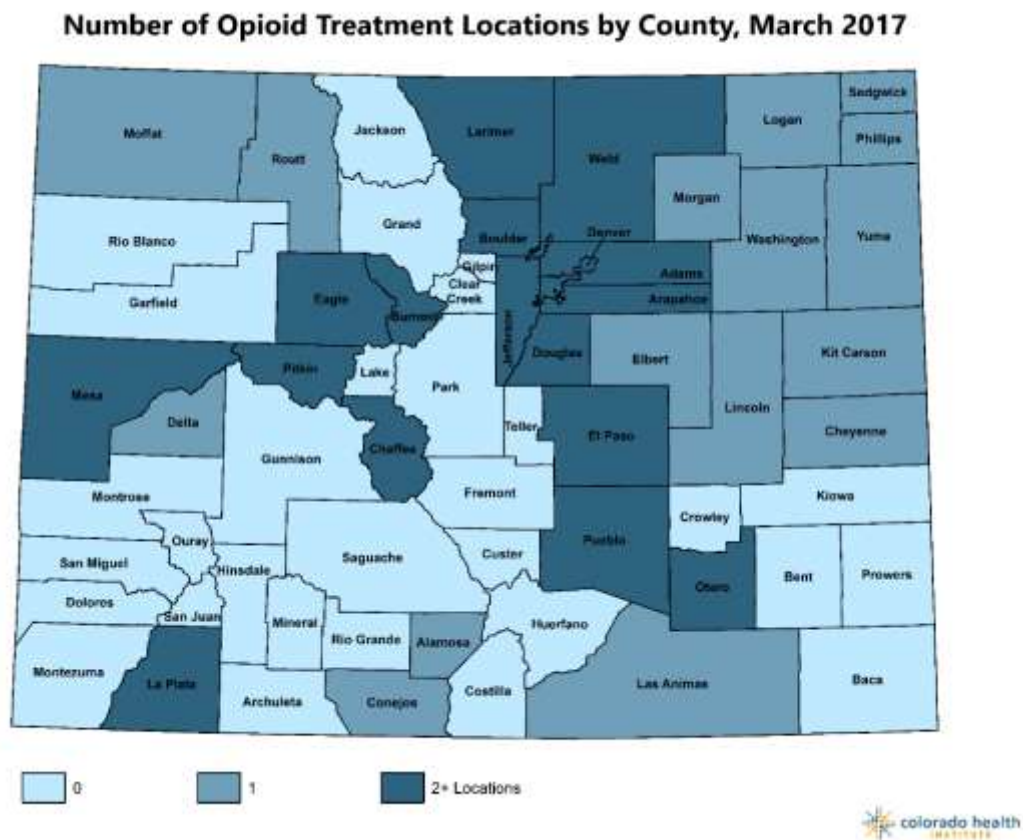
How does the problem contribute to spending? The burden of substance use to the United States — including costs related to crime, lost work productivity, and health care — is estimated to be around \$700 billion a year.⁴⁹ This amount covers tobacco, alcohol, and illicit drugs. Substance abuse associated with prescription opioid abuse, an area of concern for Colorado, imposes a burden estimated to be around \$78.5 billion per year in the United States.⁵⁰ Mental health problems, which are often associated with substance abuse disorders, also impose costs on our health care system. One Canadian study found that patients with high mental health costs incur thirty percent more costs than other high-cost patients.⁵¹

Research has found drug abuse treatment to be cost-effective. The National Institutes of Health found that \$1 spent on treatment returns as much as \$7 in reduced drug-related crime, criminal justice costs and theft. When health-related savings are added, total savings from treatment exceed costs by 12 to 1.⁵²

Clearly, treatment shows potential for savings. However, Colorado does not have an adequate supply of providers and services. According to the 2015 National Survey on Drug Use and Health, only 15.7 percent of Coloradans who needed substance use treatment received services.⁵³ There are a number of reasons for this gap in treatment, including stigma and a lack of providers. A recent report from Keystone Policy Center found that only twelve counties in the state have access to detox, residential treatment, outpatient services, and methadone clinics. Six counties have no access to any of these services and the remaining counties have access to at least one.⁵⁴

The regional gap is even more pronounced when it comes to medication-assisted treatment for opioid abuse. Medication-assisted treatment refers to treatment of an opioid addiction with a combination of medication and psychosocial support services such as counseling. Figure 15 displays the number of opioid treatment locations by county in March of 2017.⁵⁵ These locations include methadone clinics plus providers who are currently certified to treat with buprenorphine — one of the more frequently used types of medication-assisted treatment for opioid use disorder. Rural counties, particularly those in the southwestern part of the state, are less likely to have access to opioid treatment than counties along the Front Range.

Figure 15.



The Commission identified several potential recommendations to improve Colorado’s behavioral health system and lower costs.

Inpatient Beds

Colorado has 3,388 beds designated to provide evaluation and treatment for people on a mental health hold.⁵⁶ These include beds found in hospitals, residential child care facilities, crisis stabilization units, and acute treatment units.⁵⁷ The majority of Colorado counties — 49 out of 64 — do not have inpatient beds. When it comes to state hospital beds specifically, Colorado ranks 34th out of 50 — 10 per 100,000 in 2016.⁵⁸

Increased payment could be a potential solution to boosting the number of inpatient beds. Psychiatric services are reimbursed at a lower level than physical health services and increased payment might be one way to encourage the expansion of beds.

Continuum of Care

Providing access and insurance coverage across a continuum of care for substance use disorders and mental health problems may improve the health of Coloradans and lead to cost savings in the long-run. This continuum would include comprehensive assessment, medically-monitored detox, intensive outpatient care, lab work, residential treatment, medication-assisted treatment, and other evidence-based savings. Currently, there are gaps in this continuum with support services and inpatient treatment for Medicaid clients as notable exclusions from coverage. Colorado's legislature passed a bill in the 2017 legislative session requiring the Department of Health Care Policy and Financing to study the feasibility of adding inpatient treatment as a benefit.

The Commission encouraged consideration of a Medicaid 1115 waiver or a state plan amendment to expand addiction treatment options. In 2015, the Centers for Medicare and Medicaid Services (CMS) released guidance encouraging states to leverage Section 1115 of the Social Security Act to test innovative state policy and delivery system reforms designed to ensure a continuum of care for people with substance use disorders.⁵⁹ California was the first state to take advantage of this guidance. For counties who choose to opt-in to the pilot, the waiver includes an evidence-based benefit design covering the full continuum of care along with meeting other specifications.⁶⁰ It is too early to evaluate the impact of this program on quality and costs. To expand the continuum beyond Medicaid, the second option for payment was through a multi-payer pilot initiative with foundation support for tracking outcomes.

Integration

The integration of primary care with mental and substance use disorder health care remains an area of great attention in Colorado. Colorado received \$65 million from the Centers for Medicare and Medicaid Services in December of 2014 to integrate practices and test alternative payment models. While integration is underway at 100 practices,⁶¹ the Commission noted the importance of developing and supporting payment methodologies that incentivize integration.

Parity

The final area addressed by the Commission was the importance of ensuring parity of physical and behavioral health services. While parity is generally the law, the Commission believes there is much work to be done before the promise of consistent access to behavioral health services is fulfilled. As background, both the Affordable Care Act and the Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) require insurers to offer mental health and substance use disorder benefits that are comparable to their coverage for general medical and surgical care. MHPAEA originally applied to group health plans and group health insurance coverage and was amended by the ACA to also apply to individual health insurance coverage.⁶² Medicaid managed care plans are subject to similar requirements as are Medicaid alternative benefit plans (which cover the Medicaid expansion population) and CHIP programs. In addition, HHS

has “strongly encouraged” states to apply parity to Medicaid Fee-for-Service (FFS) plans, and Colorado Medicaid is in the process of conducting its parity analysis.

Recommendation

- Colorado should offer comprehensive substance use disorder treatment including:
 - Detox (with a medical component or medically monitored)
 - Comprehensive assessments
 - Intensive outpatient treatment
 - Lab work
 - Residential treatment where appropriate
 - Medication assisted treatment (including induction therapy)
- Medicaid should apply for a waiver, potentially including an 1115 waiver, or submit a state plan amendment to expand access to evidence-based treatment to ensure that Colorado may offer a continuum of care.
- Colorado should support and promote the creation of a multi-payer pilot to provide changes in the covered treatments for substance disorder treatment, as listed above. This pilot should track results and report back to the General Assembly and the Division of Insurance.
- Colorado should increase monitoring and enforcement of behavioral health parity requirements, including substance use disorder treatment, in Medicaid and the private market.

Other Areas for Further Study

- Providing additional workforce development incentives in areas where demonstrated shortages exist, such as behavioral health. These would include loan repayment incentives.
- Increasing reimbursement for inpatient behavioral health services as a way to incent the creation of more beds.

Free-Standing Emergency Departments

What's the problem? Free-standing emergency departments (FSEDs) are facilities that offer round-the-clock emergency care in a location not attached to a hospital. The growth of free-standing emergency departments has raised concerns about the impact of these new facilities on health care costs, access, and quality of care.

How does the problem contribute to spending? Care is more expensive in emergency departments, including FSEDs, than in urgent care clinics or other settings. Some consumers have been surprised by the high bills they received after visiting FSEDs.

Colorado has experienced a rapid growth in FSEDs over the past five years, with 40 facilities licensed as of August 2016.⁶³ Colorado ranks among the top three states for prevalence of FSEDs. In fact, Colorado, Texas, and Ohio account for almost two-thirds of all FSEDs in the nation.⁶⁴ Legislators attempted in 2014, 2016, and 2017 to place tighter regulations on FSEDs, but so far no bill has passed.

There are three ownership categories for FSEDs — hospital-owned, hospital-affiliated, and independent.

- Hospital-owned FSEDs: These operate as an “off-campus” emergency department of a parent hospital.
- Hospital-affiliated FSEDs: These are independently owned but have a relationship with a health system and use the health system’s brand.
- Independent FSEDs: These are not owned by a hospital system or affiliated with one.

One criticism of FSEDs is that not all of them accept public insurance. Hospital-affiliated FSEDs may or may not be able to bill for Medicare and Medicaid, depending on whether they have completed a certification process with the federal Centers for Medicare and Medicaid Services. The Colorado Hospital Association states that hospital-affiliated FSEDs nevertheless accept patients who are insured through Medicare and Medicaid, though anecdotal information from the Colorado Department of Public Health and Environment (CDPHE) indicates that there have been instances in which patients have been turned away from FSEDs.⁶⁵ A facility’s Medicare Conditions of Participation (COP) dictate whether Medicare will pay for care in a FSED. The Conditions of Participation outline the requirements health care organizations must meet in order to begin participating in the Medicare and Medicaid programs.

Laws and Regulations

Two regulatory considerations color the debate over FSEDs — the federal Emergency Medical Treatment and Labor Act (EMTALA) and state licensing.

EMTALA requires that emergency departments medically screen all people who come to the emergency department and provide stabilizing care to anyone with a medical emergency. In addition, EMTALA forbids emergency departments from screening for a patient's ability to pay before delivering needed health services. EMTALA violations carry large fines.

EMTALA applies to hospital-owned FSEDs but not to hospital-affiliated or independent FSEDs. However, the CDPHE enforces EMTALA "look alike" rules that apply to all three types of FSEDs in Colorado.

FSEDs in Colorado are licensed as Community Clinics with Emergency Care (CECs). This license requires that facilities must medically screen individuals before asking about their insurance status or method of payment.

Colorado imposes relatively modest requirements for staffing and level of service at FSEDs compared to other states.⁶⁶ The lower level of required services has led to some concern that people who go to an FSED with a serious condition may not receive the same level of care provided by traditional emergency departments that are attached to hospitals. CDPHE data supports this concern.⁶⁷ During the 12 months ending in June 2016, approximately 1,100 patients were transferred from FSEDs to Level I-III trauma centers. In some instances, those patients were not transported to the closest appropriate trauma center in a timely manner, as required by regulation in Colorado. Nevertheless, it is uncertain whether these instances led to poorer health outcomes, as it is possible that patients with serious trauma could have been stabilized more quickly at a nearby FSED than going to a trauma center at a traditional hospital.

There is enormous variation across states in how FSEDs are regulated. For example, a recent study documented various state licensing requirements, hospital affiliation requirements, geographic restrictions (such as minimum distances from a hospital), staffing requirements, certificates of need, and other factors.⁶⁸ The study also found that states requiring a certificate of need to build FSEDs have fewer of these facilities per capita than states that do not require the certificate. FSEDs in Colorado are not subject to geographic restrictions and are not required to obtain certificates of need.⁶⁹

The state legislature has made three attempts to regulate FSEDs, including imposing licensing requirements beyond the current CEC license, improving price transparency for consumers, and curbing the growth of FSEDs. None so far have succeeded.

CIVHC Analysis

Seven of the top 10 reasons patients visited a FSED were for non-life-threatening events, according to data from the Center for Improving Value in Health Care (CIVHC).⁷⁰ At emergency departments connected to hospitals, just three of 10 visits were for conditions that were not

life-threatening. This difference suggests that patients are using FSEDs for treatment of conditions that could be handled in a cheaper urgent care setting or a physician's office.

The CIVHC analysis also found that the costs of treating non-life-threatening conditions (such as sprained ankles, bronchitis, urinary tract infection (UTI), sore throat and others) are higher in FSEDs than in urgent care centers (See Figure 16). That analysis suggests that had these patients sought treatment in urgent care facilities instead of FSEDs, health care spending would have been lower. However, it is difficult to conclude all of those patients definitively should not have gone to an urgent care center instead of an FSED. For example, a patient may have wanted to go to an urgent care center, but none were open. Moreover, consumers have expressed confusion regarding the differences between FSEDs and urgent care centers, including the cost and level of services they provide. It should be noted that urgent care facilities are not subject to licensing requirements like FSEDs, as there is no regulatory body for urgent care facilities in Colorado.⁷¹

Figure 16.



Facility fees account for much of the added costs. These are fees charged by hospitals that own physician clinics or outpatient clinics, and they are in addition to the charge for the physician. Hospital-owned and hospital-affiliated FSEDs can charge a facility fee, which increases costs to patients and insurers. Facility fees at FSEDs are the same as fees at emergency departments attached to a hospital. Critics say FSEDs should not be able to charge facility fees because they lack the support and infrastructure of a full hospital.

Recommendations

The current regulatory environment is in need of improvement relative to the creation of Free-standing emergency departments. Therefore, the Commission proposes the following:

- That CDPHE be directed to study the impact of FSEDs in terms of both cost and quality and to report their findings to the General Assembly.
- That CDPHE be directed to develop standards for all FSEDs that set forth licensing requirements for staffing, capabilities, and equipment that are the same as the equivalent level of the federal government’s “Conditions of Participation,” and other regulatory guidance, for hospital based emergency rooms.
- That CDPHE be directed to develop standards that Urgent Care Centers must meet to be licensed as an “Urgent Care Center” in Colorado.

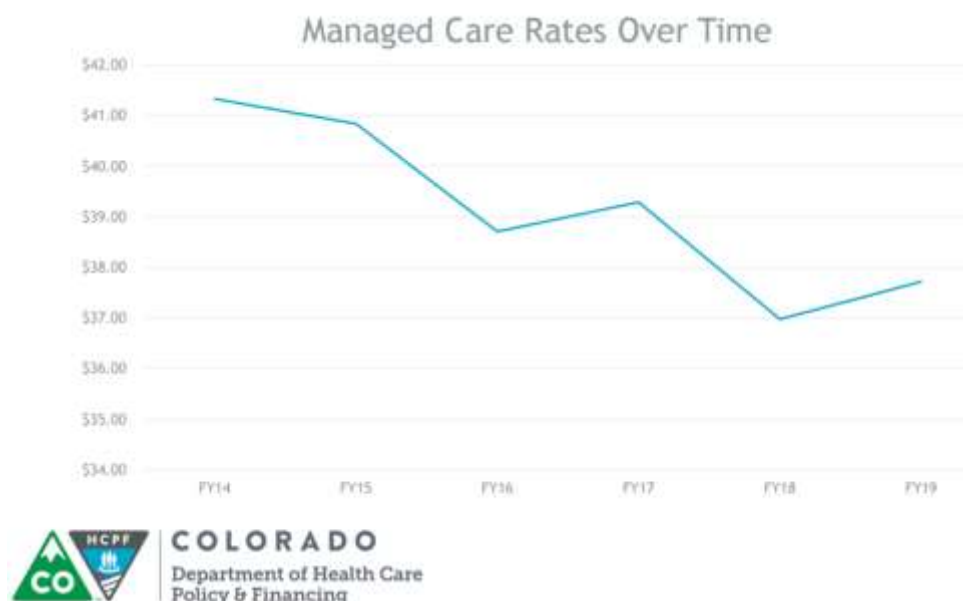
Transparency

As described in the Commission’s 2016 Report, consumers can make better, more cost-effective decisions about health care spending when they know the cost and quality of health care services. In addition, public reporting of health care quality data can alter the behavior of health care providers. The 2016 Report includes several recommendations to improve transparency.

Since then, the Commission considered additional aspects of transparency that could help address the rising cost of health care. The Commission discussed the status of efforts by Colorado’s Department of Health Care Policy and Financing (HCPF, the state’s Medicaid agency) to increase the transparency of Medicaid spending. In Colorado, Medicaid provides health coverage for about one-quarter of its residents and has an annual budget of approximately \$9.1 billion (fiscal year 2016-2017).

One example of HCPF’s efforts to analyze and enhance the transparency of the costs and quality of Medicaid providers is the development of “report cards.”⁷² The goal of this effort is to identify the variation in costs, processes, and outcomes among providers to improve the quality of care and control Medicaid costs. For instance, HCPF has developed report cards for federally qualified health centers (FQHCs). Additionally, HCPF is analyzing the payments for Medicaid Managed Care programs. Data presented to the Commission indicate that the per-member-per-month costs for managed care has been declining (even as health care spending has generally grown over time), as shown in Figure 17.⁷³

Figure 17.

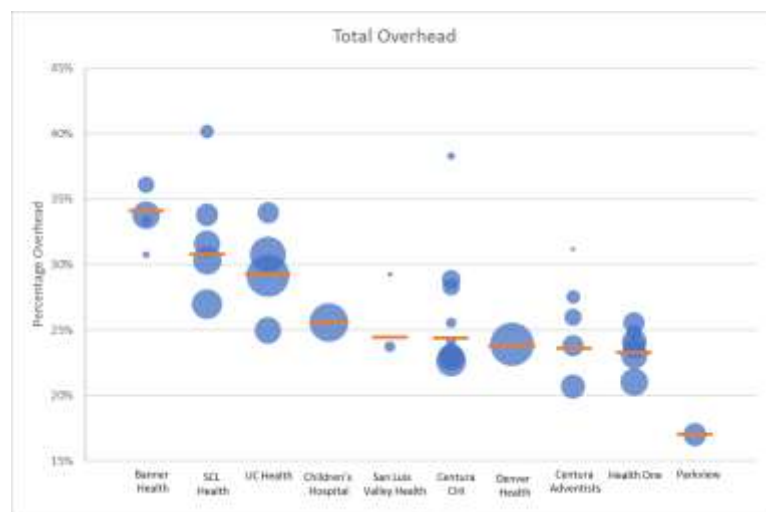


Another example of HCPF’s efforts is its analysis of the role that “overhead costs” plays in the state’s Medicaid spending.^{74,75} Overhead is a general category of costs that includes administrative costs (e.g., payroll, general administrative, billing and accounting, etc.) and capital costs (e.g., property, plant, and equipment; depreciation; insurance, etc.). Transparency and limits in overhead costs gained prominence with the passage of the Affordable Care Act (ACA), which imposes requirements regarding the medical loss ratio (MLR) for insurance carriers. The MLR provisions required insurance carriers to spend at least 80 or 85 percent of their premium income on health care claims and quality improvement, while the remaining could be directed towards profits and overhead items such as administration and marketing. Insurance carriers are also required to publicly report MLR-related data.⁷⁶

Overhead costs are a necessary component of spending, as they cover functions that are needed to provide care to patients. HCPF itself incurs overhead costs, and so do the providers, facilities, and organizations that contract with HCPF, such as hospitals, FQHCs, and Medicaid managed care organizations.

Nevertheless, overhead costs may represent an area where opportunities exist to reduce costs. For example, HCPF has been analyzing publicly available data for hospitals in Colorado (2008-2014 Medicare Cost Reports), and its preliminary findings indicate substantial variation in the level of overhead spending. Figure 18 shows the overhead spending of several hospital systems as a percentage of their total costs.⁷⁷ This figure shows data points for the overhead at individual hospitals, where the size of the bubble corresponds to the size of the hospitals (as measured by total costs). The yellow bar shows the average for each hospital system.

Figure 18.



The underlying reasons for the variation in overhead costs are not readily apparent in the publicly available data. It is possible that some overhead could represent spending that could be curtailed and improve the economic performance and/or quality of hospital care, yet it is also possible that cutting overhead in some circumstances could harm the quality of care or not be cost-effective.

HCPF's preliminary efforts suggests that an analysis of overhead costs could provide valuable information that could help streamline Medicaid. However, its efforts also underscore the transparency challenges that exist to obtain, analyze, and interpret the cost structures of the variety of providers who serve Colorado's Medicaid population. These challenges were recognized by the Colorado legislature, which recently considered a measure (HB17-1236) that would require hospitals to submit financial and operational data to HCPF. The legislature did not approve this bill.

Recommendations

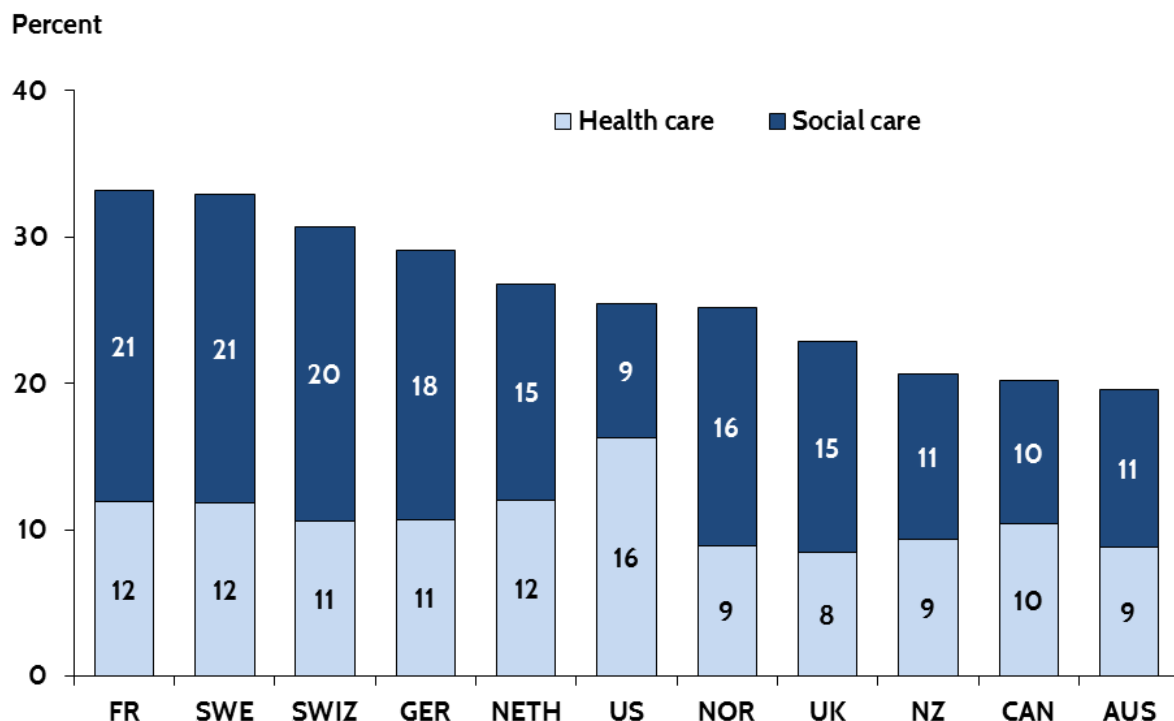
- Analysis is necessary to understand and make more transparent the main contributors to overhead costs (e.g., administrative and capital costs for all relevant providers) that affect the cost of providing care to Medicaid enrollees.
- The legislature should authorize funds to analyze and identify potential opportunities/recommendations to reduce overhead costs (or incent lower overhead costs) associated with nonprofit providers.

Social Determinants of Health

What's the problem? Social determinants of health — which encompass social, behavioral, and environmental influences on one's health and include socioeconomic factors such as education and income as well as of where a person lives — greatly influence overall health and chronic disease. These issues often cannot be addressed purely with health care.

According to the Commonwealth Fund, the United States devotes a relatively small share of its economy to social services designed to address social determinants.⁷⁸

Figure 19. Health and Social Care Spending As a Percentage of GDP



Notes: GDP refers to gross domestic product.

Source: E. H. Bradley and L. A. Taylor, *The American Health Care Paradox: Why Spending More Is Getting Us Less*, Public Affairs, 2013.

This is even though it is now well understood that approximately 60 percent of health is the result of social, environmental and behavioral factors, 20 percent the result of genetics and just 20 percent the result of health care.⁷⁹

Thus, while much of the Commission's work has focused on reducing the cost of acute care, the biggest return on investment in reducing health care costs and improving health lies in addressing the social determinants of health.

How does the problem contribute to spending? The literature on the social determinants of health reflects decades of studies that have linked adverse social, economic, and environmental conditions with poor health (Braveman et al., 2010; Freedman, Grafova, & Rogowski, 2011; Myers et al., 2014). The challenge has been to link this known relationship with strategies that result in demonstrated cost savings.⁸⁰

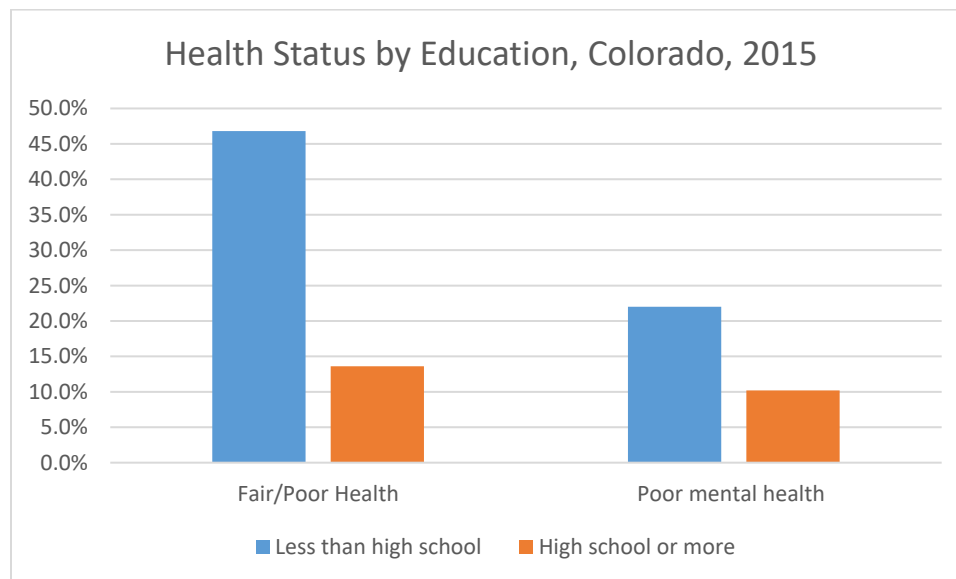
The Commission has included specific recommendations in its reports where the potential for savings is substantial. As an example, the Commission made a recommendation related to strategies to reduce childhood asthma in its November report. Data show that every dollar invested in reducing childhood asthma can save between \$1.33 and \$1.46 and asthma prevention programs may result in \$5,166 per child in savings in reduced hospital costs.⁸¹

The challenge with making investments in social determinants is two-fold: first it requires a commitment to up-front investment and short, medium and long-term strategies. Some investments pay off fairly quickly, for example one study found that using Medicaid dollars for supportive housing saves as much as 12 percent in Medicaid expenditures.⁸² Some investments take longer. As an example, Colorado and then the federal government recognized in the early 2000s that it was worthwhile to invest in the now well-established and well-recognized nurse family partnership program which has demonstrated long term improvements in the lives of first time low-income mothers and their children including through fewer childhood injuries, increased maternal employment, and improved school readiness. The second challenge with making investments in improving social determinants of health is that, while the connection between social conditions and health is clear and there is an increasing body of literature demonstrating return on investment, there is still much work to be done to quantify and document real cost savings. Expectations for the pace and scope of change are often too high. The Commission has included specific recommendations in this report and its previous reports where the potential for return on investment is substantial but recognizes that more precise studies across a range of strategies are needed in order to measure the complex links between various social determinants and cost savings.

Universal Preschool

Education and health are closely linked. Data from the 2015 Colorado Health Access Survey, displayed in Figure 20, finds that among those with less than a high school diploma, 46.8 percent rated their general health as fair or poor. This compares to only 13.6 percent with a high school education or higher. Similar trends exist for mental health, with those lacking a high school diploma twice as likely to say that their mental health was poor eight or more days in the previous 30 days than those who have a high school diploma.

Figure 20.



Source: 2015 Colorado Health Access Survey

There is substantial literature specifically on the impacts of preschool on education and health, including several long-term randomized controlled trials (RCT).

The Abecedarian (ABC) Project is a landmark study. The ABC Project conducted a randomized control trial at a preschool program in North Carolina. The treatment group (about 60 at-risk children) received intensive preschool programming from infancy to the start of kindergarten during the 1970s. Preschool programming was intensive with up to 10 hours of instruction per day, 50 weeks per year. A unique aspect of the ABC Project is that the program's impacts were measured over a very long time period through adolescence and adulthood. Benefits of the ABC Project include improved education attainment, greater income for participants at age 30, improved health in adulthood, and benefits outweighed costs 3-to-1.⁸³

Studies of the ABC Project suggest that access to universal preschool in Colorado could improve the social determinants of health and, in the long run, reduce health care costs. However, the ABC Project is unique in terms of the intensity and cost of the programming. The impacts of universal preschool in Colorado are likely to be positive, but the magnitude and scope of the effects are difficult to predict with certainty.

Another key study of preschool outcomes is the Head Start Impact Study. The study is an RCT of 2,600 three- and four-year-olds who enrolled in Head Start in 2002. Subjects received an average of 24 to 28 hours per week of care through Head Start and were followed up with through third grade. Standardized test scores improved modestly, but the positive effects did not extend beyond the kindergarten year.⁸⁴ Other non-RCT studies have found positive impacts like improved high school graduation and college attendance rates.

The Commission discussed state budget constraints and the difficulty of funding universal preschool access. Given its limited resources, Colorado could consider starting with low-income children enrolled in Medicaid, as the benefits of quality preschool programs could be greatest for this population.

Comprehensive Screening, Referral and Care Strategy

Childhood — in particular, the first eight years of life — is a critical time for development. This period is important for kids to get on track in school, learn how to appropriately interact with peers, and form meaningful relationships. Challenges that arise during this time have the potential to impact lifelong development.

In particular, adverse childhood experiences (ACEs) are stressful or traumatic events that have been associated with poorer outcomes later in life. These events include emotional, physical or sexual abuse; household mental illness or substance abuse; household domestic violence; parental divorce; or an incarcerated household member. A pioneering study on ACEs, conducted by Kaiser Permanente and the Centers for Disease Control and Prevention in the early 1990s, found that higher ACE scores were associated with increased risk for chronic conditions such as depression, COPD, obesity, and smoking.⁸⁵

Data from Colorado show similar trends. The 2014 Behavioral Risk Factor Surveillance System (BRFSS) asked a modified series of ACE questions. Results from an analysis of these results found that fifteen percent of all Coloradans had a high ACE score, defined as four or more of the eight ACEs. High ACE scores were associated with current smoking, obesity, disability, depression, asthma, and low health-related quality of life indicators.⁸⁶

There is evidence that adverse childhood experiences can lead to development delays and are associated with higher health care costs as adults. Studies have linked ACEs to a range of adverse health outcomes in adulthood, such as depression, cardiovascular disease, and diabetes, among others. Studies have also shown the relationship between ACEs and increased health care utilization among adults. Despite this existing evidence base, few studies directly address health care costs among adults reporting ACEs.⁸⁷

One systematic review found four studies that evaluated medical costs of adult women who experienced maltreatment when they were children.⁸⁸ One study found medical costs were 36 percent higher for women who experienced both physical and sexual abuse (compared to those who had no history of abuse). Another study found marginally higher costs among women who experienced any type of abuse as children, though when mental health costs were excluded there was no statistically significant effect. Two studies were based on self-reported medical costs and found higher costs among women who reported physical and sexual abuse as children.

Child maltreatment costs in general are estimated to have an average lifetime cost per victim of \$210,012 (in 2010 dollars). Of this cost, \$43,178 comes from child and adult medical costs.⁸⁹

These events are costly, but screening, referral and care has the potential to improve health through early intervention and make sure children are on the track for a healthy adulthood despite the challenges they face early in life. A coordinated strategy should allow parents and caregivers to easily navigate the system from screening through care to ensure that all children get the help they need.

Recommendations

- Colorado should provide access to quality preschool for Medicaid children.
- Colorado should develop a statewide screening, referral, care coordination strategy, and infrastructure and a statewide navigation system to connect caregivers, families, and providers to referral and mental health resources.

Direct Primary Care

What's the problem? There is a growing shortage of primary care and family doctors.

How does the problem contribute to spending? Physician shortages may reduce access and drive up costs. Direct Primary Care (DPC) has the potential to reduce costs and improve quality.

DPC is an alternative payment model for physicians to provide services to their patients. Its popularity is growing, particularly in Colorado, which is home to almost 10 percent of the DPC practices in the nation.⁹⁰ DPC is not considered insurance.

Providers who adopt the DPC model contract directly with patients and do not bill health insurance carriers. Physicians charge patients a monthly, quarterly, or annual fee that covers all primary care services, often including clinical, lab, consultative, coordination, and care management.⁹¹

State and federal regulations restrict DPC clinics in the populations they serve and the way consumers pay for services. For example, physicians participating in a DPC arrangement can continue seeing Medicare and Medicaid clients only if these insurance programs do not already cover the services included under the retainer. To get around these rules, some practices treat some of their patients in the DPC model and other patients using a traditional model. These are known as “split practices.” Others opt out of public insurance entirely to contract privately with those patients.⁹²

Secondly, Internal Revenue Service rules prohibit patients from using Health Savings Accounts (HSAs) to purchase care via DPC. Federal legislation is under consideration to remove this restriction, at least for Medicare beneficiaries.⁹³

Impacts on costs and quality

DPC has the potential to reduce costs and improve quality. DPC incorporates a payment model that is an alternative to the traditional fee-for-service model. This alternative shifts incentives for providers, which proponents believe can benefit physicians and their patients. Patient panels are smaller, so physicians can spend more time with each patient. Physicians also cite lower administrative costs and fewer obstacles than traditional insurer contracts.⁹⁴

Patients can benefit as well. Many DPC practices offer patient-centered services like house calls, same-day appointments, and 24-hour direct physician access.⁹⁵ Longer visits may mean better patient satisfaction.⁹⁶ And, especially in areas of the country with rising insurance premiums, DPC models can offer a less expensive alternative.⁹⁷

Beyond reduced costs to the consumer, some models have demonstrated savings in total health care spending as well. Qliance is one corporate model based in Seattle, Washington.

Compared with traditional practices, Qliance reported claims that were 20 percent less than claims from comparable non-Qliance patients. It attributed the savings to a more than a 50 percent reduction in utilization of specialty care such as emergency department visits, specialist visits, advance radiologic testing, and surgeries.⁹⁸

Qliance and other pilot programs have used DPC as a delivery model for Medicaid patients. These programs are small but have shown potential in terms of quality outcomes and cost-effectiveness.⁹⁹ Additional study is necessary to determine whether this model would succeed in Colorado.

However, significant questions remain on how this model affects costs, utilization, and access to care. In general, the research on DPC is thin, which raises questions about its long-term effects and potential unintended consequences. Additional study is necessary to evaluate current DPC practices, barriers to adoption, and impacts on the primary care workforce and vulnerable Coloradans. For example, it's unclear whether DPC will draw away primary care physicians from traditional insurance arrangements, creating new areas of shortage.¹⁰⁰ And because this model supports smaller patient panels, more physicians are required to see the same number of people.¹⁰¹

Evidence suggests that providers using DPC's "retainer" model care for fewer African-American, Hispanic, or Medicaid patients.¹⁰² Colorado's Medicaid population is disproportionately non-white and low-income.¹⁰³ Medicare beneficiaries may also be impacted, since most clinics opt out due to federal law.¹⁰⁴ If physicians move away from traditional insurance models, populations using public insurance may be left facing a two-tiered system of care, with less access for those who use Medicaid and Medicare.

DPC is an emerging delivery model that would benefit from additional research to truly understand what are the long-term effects and impacts on access to care. Currently there are numerous initiatives around the country generating data that would be useful for further analysis of the DPC model.

Recommendations

- Study the efforts currently underway by Colorado for state employees and dependents with Paladina Health and publish the results in a report to the General Assembly and the Division of Insurance.
- Request that the Division of Insurance study the Direct Primary Care model to identify barriers that may exist in today's laws that might prohibit insurers from building this approach into their product offerings.
- Encourage the Colorado congressional delegation to support a change in federal law that would allow HSA funds to be used to pay for a direct primary care membership.

- The Division of Insurance and the CDPHE should study any impacts on workforce availability under this model.
- HCPF should explore the concept of offering the Direct Primary Care model as an option in Medicaid and study the feasibility of creating a pilot to test its cost effectiveness and the results on quality.

Transparency related to End-of-Life Care

What's the problem? The U.S. medical system was built to treat anything that might be treatable, at any stage of life — even near the end, when there is no hope of a cure, and when the patient, if fully informed, might prefer quality time and relative normalcy to all-out intervention.

How does the problem contribute to spending? By focusing on patient-centeredness—designing care around patient's preferences—we can improve the quality of care and ideally make care more affordable. Unwanted treatment seems especially common near the end of life. End-of-life care and advance care planning hold potential for patients to make sure the care they receive in their final days aligns with their wishes.

End-of-life care refers to the health care provided to someone in the time leading up to death. Advance care planning is the process by which someone learns about options for their end-of-life care, makes a decision about these options and shares the decision with family and physicians.¹⁰⁵ Better planning and more information about end-of-life decision making can lead to better quality of life and can make a positive financial impact on the health system.

Expenditures for Medicare enrollees during their last year of life account for approximately 25 percent of spending for all Medicare beneficiaries over the age of 65.¹⁰⁶ Colorado ranks in the middle of the pack for end-of-life spending. The 2012-2014 Dartmouth Atlas, which provides data on spending on the last two years of life, shows that Colorado is 23rd highest, with a per-person total over two years of \$62,427 compared to the U.S. average of \$69,289.

A major theme in both areas is the need for increased transparency around options for end-of-life care. From the patient perspective, there are two needs: More education on end-of-life options, and a clear way for patients' wishes to be documented and easily accessed when needed.

Providers

In 2016, Medicare began reimbursing doctors for having end-of-life conversations with patients or their families, but providers don't necessarily have the training to have productive conversations.

Nationally, 68 percent of physicians report not being trained to discuss end-of-life care.¹⁰⁷ In Colorado, a survey showed nearly half of practices (42.7 percent) do not have guidelines related to advanced care planning (ACP) documentation.¹⁰⁸

Patients and their Families

The Commission noted that patients and their families often are not aware of the options they have at the end of life. Advancing technologies enable medical providers to use more life-saving

treatments for people at the end of life, yet some people may opt for palliative care instead of more aggressive procedures. These discussions often involve complex medical and ethical considerations and take place during stressful and acute circumstances. Several structured communication tools have been developed to assist patients with end-of-life decision-making.¹⁰⁹ The Commission considered the potential merits of these tools.

There are video-based communication tools that showed patients realistic scenarios of aggressive end-of-life treatments including CPR and intubation.¹¹⁰ One study of this method examined 150 patients in a hospital and compared two groups: one that viewed video simulations of CPR and intubation and a control group that did not view the videos.¹¹¹ The participants in the intervention group and control group had similar preferences for CPR and intubation prior to the study. But the group that watched the video was:

- More likely to state that they wished to forgo CPR and intubation.
- More likely to put in an order to withhold CPR and intubation.
- Less likely to receive medical care that was not aligned with their stated wishes.

There is mixed evidence on the impacts of various types of structured communication tools on end-of-life decision-making.

Advance Directives

Advance directives are a way for patients to clearly express their wishes for health care at the end of life. These directives may include living wills, medical durable powers of attorney, do-not-resuscitate orders, Physician Orders for Life-Sustaining Treatment (known in Colorado as Medical Orders for Scope of Treatment (MOST)) and CPR directives.

In Colorado, the MOST form was standardized in 2010. When presented with a MOST, health care providers must:

- Follow the orders as written, or
- Obtain consent from patient or authorized decision maker to change the orders, or
- Promptly and safely transfer the patient to a provider who will follow the orders.¹¹²

Empirical evidence suggests that the use of advanced care directives influence end-of-life care and health care spending. A 2011 observational study found that advance care directives that included provisions to limit end-of-life care were generally associated with lower levels of Medicare spending, lower probability of dying in a hospital, and a higher probability of hospice care.¹¹³

In Colorado, 33 percent of adults report having an advance directive. While most of these people have discussed their advance directive with family or friends, fewer than one third of

them have had a discussion about their advance directive with a health care provider.¹¹⁴ If the medical provider is not aware that a patient has an advance directive, or if an advance directive is not readily accessible in a time of need, the advance directive might not be implemented.

One potential solution is a virtual registry. Colorado lawmakers have considered, but not approved, legislation to create a statewide advance directive registry maintained by CDPHE.¹¹⁵ Such registries exist in 10 other states: Arizona, California, Idaho, Louisiana, Maryland, Montana, Nevada, North Carolina, and Vermont.¹¹⁶

Recommendations

- End-of-life care discussions with patients need to be based upon the data that supports various options/choices that patients have to make. This is an example where transparency should play a significant role.
- There should be an assessment of various tools that might be deployed within the state to educate patients on their options and the implications of decisions they will make. There appear to be multiple vendors available to perform this exposure to patients.
- There should be a voluntary on-line registry where patients can save their advance directives and medical powers of attorney. Such a registry would make access to these documents more effective for caregivers.
- Physicians trained in our state should have as part of their course curriculum training how to effectively present to patients and their families their choices or options regarding end-of-life care.

The Affordable Care Act and its impact on Colorado's Health Care Costs

At the request of numerous parties, the Commission considered the impact of the Affordable Care Act (ACA) on health care costs in Colorado. The complexity of this analysis makes a summary explanation difficult, but certain fundamental conclusions can be articulated.

The Affordable Care Act had many goals, among those was the desire to reform how health insurance operates in the private market, and thus to make coverage more available to the population. Arguably, this goal was achieved. More people have coverage than ever before. As an aside, the ACA also provided millions of dollars to the state from the Prevention and Public Health Fund, funding programs to prevent diabetes, heart disease, stroke, tobacco use, and cancer.

There are several factors that contribute to health care cost increases. The Affordable Care Act, however, did little to directly address the underlying cost drivers that contribute to increased rates for private insurance coverage. Commission data shows that costs are increasing at variable rates across Colorado. As an example, approved increases in the Colorado individual insurance market for 2017 average 20 percent, with significant variation across the state, from a high of a 42 percent increase over last year's rates in Alamosa to a low of 17 percent in Arapahoe and Douglas Counties.¹¹⁷

These increases are attributed by the Commissioner of Insurance to continuing increases in health-care costs charged by hospitals, primary-care providers, pharmaceutical companies, medical-device firms and other providers. The rising cost of health care can be attributed to an increase in utilization of services, regulatory changes attributed to ACA, and rising cost of care including pharmaceutical costs. CIVHC data shows that rates for the same procedures and services vary substantially between communities, for example the cost of a knee replacement can vary by as much as \$27,500 across Colorado.¹¹⁸

Although the number of uninsured decreased, most of that reduction was affected by the expansion of Medicaid which does not fully cover the cost of the care being rendered. Today, in Colorado, those covered by Medicaid have increased substantially. This coverage is important, yet the expansion in the Medicaid population added to the concerns that providers have had with reimbursement levels. Some health care providers were forced to potentially increase the cost of coverage for those with commercial insurance to offset the inadequate reimbursement from government under Medicaid or limit the number of Medicaid patients they see.

The recent Colorado Indigent Care Program (CICP) analysis by HCPF for the Commission demonstrated that Medicaid rates are not nearly as inadequate as has been assumed, yet they remain well below the current rate for commercial insurance, and that is of concern for

insurance companies and all providers. Contributing to this challenge is the fact that those who enrolled under the new, guaranteed issue insurance (i.e., insurance free from medical underwriting, increased rates for those with chronic conditions, and the use of pre-existing condition limitations) were generally older and sicker than anticipated. For various reasons, not nearly as many young, healthy Coloradans as expected enrolled in commercial insurance. In fact, many chose to pay the penalties under the law. In addition, many individuals under the age of 26 secured insurance through their parents' plans which skewed who participated in the marketplace. The result being inadequate rates to support the claim costs for those who did enroll. This phenomenon was most severe in the less urban areas where the population distribution tilts to the older and lower income versus the urban settings where the young have concentrated.

Finally, the failure by the federal government to honor risk corridor payments payable to insurance companies that enrolled a disproportionate number of high cost insureds meant that affected companies had to increase rates to make up their losses. The ACA was structured to share the burden of these losses across insurance companies, but Congress disallowed these payments.

So, what is the solution? The Affordable Care Act has been helpful to many in being able to obtain needed coverage. It has set different standards for insurers to operate within, such as protecting consumers with pre-existing conditions, and it has increased protections for those who are now covered. Each of those changes was very positive. However, the ACA has also put a spot light on the areas of the law that need to be improved, and areas such as cost reduction, that have not yet been addressed.

As the Trump Administration and the Congress debate the future of the ACA and its potential repeal, replacement, and/or reform, we urge federal lawmakers to learn from both the achievements and shortfalls that emerged from the implementation of the ACA. Like any other major piece of legislation, the ACA needs corrections for it to fully attain its intended purpose. It is our hope that the areas of the law needing attention will get it.

Other Topics

The Commission discussed several other important topics but were unable to arrive at consensus on recommendations because of time constraints, and lack of available data and evidence of the topics in relation to costs of health care. A discussion of these issues follow.

Balance billing and adequate networks

The practice of balance billing refers to a physician's ability to bill the patient for an outstanding balance after the insurance company submits its portion of the bill. Out-of-network physicians, not bound by contractual, in-network rate agreements, have the ability to bill patients for the entire remaining balance.

The Commission discussed balance billing and the role of networks, as they have garnered more attention in recent years. Insurance carriers are turning to narrower provider networks in an effort to hold down insurance costs, and more consumers are feeling the effects of balance billing.¹¹⁹ A national survey in 2015 found that about one-third of consumers with private health insurance received a surprise medical bill.¹²⁰ According to a 2011 analysis, eight percent of consumers used out-of-network services, most frequently emergency services, and of those, about 40 percent went out-of-network involuntarily.¹²¹

Colorado is one of several states with laws intended to curb balance billing to protect consumers.¹²² For example, when patients visit an in-network facility but are treated by a non-network health care professional, insurance plans are required to pay the non-network provider's billed charge (or some other amount agreed upon by the provider).

However, such "hold harmless" provisions are not a perfect failsafe for consumers, who sometimes do not know that they can pass the bill to their insurance carrier.

Other states have adopted alternative approaches to address balance billing. For example, California, Florida, and New York stipulate that insurance carriers may pay out-of-network providers an amount that is referenced against "reasonable and customary" or "usual and customary" payment rates. These states use varying approaches for defining charges that satisfy these criteria.¹²³ Consumer advocacy groups have called for additional disclosures and notices to help protect patients from the sticker shock that can come from balance billing.

The Colorado General Assembly has considered several possible changes to laws pertaining to balance billing. Bills in 2015 (Senate Bill 15-259) and 2017 (Senate Bill 17-206) both attempted to minimize the burden of balance billing on patients; both bills failed.

Other Areas for Further Study:

- Protecting consumers from balance billing while ensuring network adequacy.
- Consider developing a broad, reference-based pricing structure for all insurers, for use in out-of-network payment evaluations.

Social Investments

According to the Commonwealth Fund, the United States devotes a relatively small share of its economy to social services, such as housing assistance, employment programs, disability benefits, and food security (see the social determinants section on page 50 for more detail).

While much of the work of the Commission has been focused on reducing the cost of acute care, it is critical that we point out that perhaps a significant return on investment in reducing health care costs lies in addressing social conditions, environment and behavior. The challenge has been to link this known relationship with strategies that result in demonstrated cost savings.

The Commission has included specific recommendations in this report related to social determinants where the potential for a return on investment is substantial. The recommendations are by no means comprehensive, but the Commission hopes they will help to support a larger conversation on this topic. It will be important to quantify the returns over time and recommend the state establish methods to document outcomes. It will also be important to recognize that certain strategies require up front investments that may not be paid back in a year's time. The Commission believes this is an important focus to reduce health care costs in Colorado.

Next Steps

One of the questions included in Senate Bill 14-187 and a requirement for the Commission was “To make recommendations about other public or private entities that should continue to study health care cost drivers in Colorado (25-46-104, (2)(o)).” In addition, the Commission has received several requests from legislators asking if the role of the Commission on Affordable Health Care should be extended so the General Assembly and Governor could continue to benefit from the knowledge and expertise the Commission has gleaned during its service.

To address these similar requests, the Commission would like to offer the following thoughts.

1. The Colorado Department of Health Care Policy and Financing and the Colorado Division of Insurance have dedicated and experienced staff, with a high degree of expertise, which can be relied on for thoughtful policy analysis and study. However, neither has all of the internal expertise and/ or capacity that may be needed for future policy deliberations. For this reason, we have observed the need for the use of outside consultants, especially in the areas of data collection and analysis. This added expertise will require extensive, dedicated funding.
2. The Center for Improving Value in Health Care (CIVHC) has access to substantial data which can be useful in informing policy decisions. However, the “All Payer Claims Data Base” is still evolving. The data sets are not as current as would be desired (e.g., using 2014 data to inform decisions in 2016). Also, the fact that self-insured employer data is not available is a major limitation in enabling this resource to meet its potential. The CIVHC data also generally comes at a cost.

That said, CIVHC’s data was very useful to the Commission and others as we sought to provide input on cost drivers and areas in need of attention.

3. This state is blessed to have a number of private entities whose staff have deep levels of experience in the area of health care delivery and finance, and expertise in public policy matters related to health care. Certainly the consultants selected by the Commission (the Keystone Policy Center and the Colorado Health Institute) are examples of such organizations, but there are others as well.

In the legislative charge, we have been asked to consider whether a future commission is appropriate, we urge your consideration of the following points:

- The challenge with operating a commission like the Commission on Affordable Health Care is that, to be responsible in the analysis and recommendation phases of its work, the Commission had to be willing to operate in a manner that ensures discipline and rigor in relying only on established data, studies by credible and balanced sources, and

doing so in a non-partisan and non-ideological manner. Doing so ensures that subsequent recommendations will be defensible, and balanced, with the ultimate goal of “doing no harm.”

- The challenge of bringing applicable expertise looms especially large in the field of health care since the market is very dynamic, and the related questions constantly evolving.
- When considering areas for future focus we suggest there is also the need to assess the role of regulation versus that of market forces have in creating change that achieves the appropriate outcome. The cost and other impacts of adding more rules and regulations can be significant and must be evaluated in terms of their outcomes.
- Of particular importance in these deliberations is the realization that many of the facets of health care delivery and financing are represented by substantial financial entities that employ people, and create commerce within the state. Therefore, one must be responsible in assessing areas for change in order to minimize unintended impacts on the state’s economy. That is not to say that change is impossible. Rather, this point underlines the challenges in getting consensus around specific areas for change and the need to be thoughtful.
- State-based endeavors must consider the various factors that impact the many components of health care cost. Many of the major drivers or “levers” that might be adjusted currently reside at the federal level, and beyond the control of a state. An example is pharmaceutical cost. The pharmaceutical industry is highly regulated at the federal level and none of the resulting policies or regulations can be directly impacted by the states. This fact does not restrict states from doing fact finding, analysis, and proposing changes, but any such change would have to be affected at the federal level. Other examples include most of the aspects of Medicaid and all of Medicare, which in total represent over fifty-percent of total health care spending in the state, and their low levels of reimbursement result in cost shifting to private insurance companies.

There are three major components of any effective commission. Each of these are problematic in today’s (2017) environment of state fiscal policy.

- The first is the need for significant data analytics. Our experience is that often the necessary baseline data does not exist or it is difficult and time consuming to obtain.
- Next, to be effective, a commission needs a dedicated, experienced, and professional staff whose principle responsibility is to support the Commission. The Blue Ribbon Commission on Health Care Reform had such a staff because adequate funding was

provided by the various Colorado “conversion” foundations. The Commission on Affordable Health Care also had staff that fit the professional profile listed here, but research time was limited by the availability of funding.

- A continued focus on community engagement. The statewide meetings were an effective tool for the Commission but an opportunity and the resources to engage more meaningfully would be important.

We are pleased to have had this opportunity to serve the state and want to emphasize that nothing included here is intended to reflect on the work of the Commission, or any Commissioner. They have all been proud to serve and feel confident that our deliberations and recommendations will be of value in the years to come.

The Commission on Affordable Health Care, 2017

Glossary

Access to Care. The ability to obtain needed health care. Factors affecting access to care include insurance, affordability, capacity of the health care workforce and provider location.

Accountable Care Collaborative (ACC). Colorado's signature effort to transform the delivery of primary health care to clients insured by Medicaid. Launched by the Colorado Department of Health Care Policy and Financing (HCPF) in mid-2012, it is separated into seven Regional Care Collaborative Organizations (RCCOs), which provide administrative support. Primary Care Medical Providers (PCMPs) serve as patient medical homes and coordinate care, earning extra payments by meeting performance targets.

All-Payer Claims Database (APCD). A secure database that includes insurance claims data from commercial health insurance plans, Medicare and Medicaid in Colorado. Designed to increase transparency, it was created by the state legislature and is managed by the Center for Improving Value in Health Care.

Bundled Payment. A single payment to a provider or group of providers for all services associated with a health condition, such as diabetes, or an event, such as a heart attack, or a medical procedure, such as hip replacement. Providers receive a share of any savings if the cost is lower than the payment, but lose money if the cost is higher than the payment. Most bundled care episodes have a reasonably well-defined beginning and end. For chronic conditions, a bundled payment covers all treatment over a certain period of time such as 12 months.

Capitation. A financial arrangement between a health insurer and a provider or group of providers in which providers agree to offer a range of services to each covered enrollee in exchange for a fixed per member per month (PMPM) payment. The providers are at financial risk for care that exceeds the monthly payments, but keep the savings if the cost of care is below the monthly payments. Capitated payments are typically adjusted for the risk or severity of patients' conditions. They are often combined with quality metrics to prevent rationing of health care services.

Care Coordination. Efforts to better coordinate the care of patients, including facilitating communication between health care providers, assisting patients with creating self-directed care plans and providing education and self-care techniques.

Chronic Care Management. The coordination of health care and support services to reduce costs and improve the health of patients with chronic conditions, such as diabetes and asthma. These initiatives focus on evidence-based interventions and education to improve patients' self-management skills.

Coinsurance. A method of cost-sharing in which an insured person pays a defined percentage of his or her medical costs after meeting the deductible.

Colorado State Innovation Model (SIM). A proposal for government funding to transform health care delivery in Colorado by providing access to integrated primary care and behavioral health services in coordinated community systems. It is designed to reach 80 percent of residents by 2019.

Comprehensive Primary Care Initiative (CPCI). This initiative fosters collaboration between public and private health care payers to strengthen primary care. Medicare works with commercial and state health insurance plans and offers bonus payments to primary care doctors who better coordinate care for their patients. Colorado, one of seven states or regions nationally that is participating in CPCI, has 73 primary care practices, 335 providers, nine payers and about 41,000 Medicare beneficiaries involved in CPCI.

Consumer-Directed Attendant Supportive Services (CDASS). A Medicaid optional benefit that allows long-term care consumers to hire and supervise personal care attendants who deliver a defined set of services. CDASS allows enrollees to directly purchase and manage the services they need.

Cost Sharing. The portion of health care expenses paid by an insured individual, usually a copayment (the amount charged for a service such as an office visit or a prescription) and a deductible (the dollar amount that must be paid before insurance coverage begins).

Copayment. The amount charged to the covered individual for a service such as an office visit or a prescription under an insurance plan.

Deductible. The dollar amount that must be paid by the covered individual before insurance coverage begins. Some services, such as preventive care, are not subject to the deductible.

Electronic Medical Record (EMR). An individual medical and treatment record that has been digitized and stored electronically by a provider. The records contain information about a patient's care and are shared by all providers involved in his or her treatment.

Evidence-Based Medicine. The use of empirical, clinical evidence to inform treatment decisions in order to improve health outcomes.

Fee-for-Service (FFS). A payment method in which an insurer reimburses a physician or hospital for each service provided according to a fee schedule.

Formulary. A list of prescription drugs covered by a health insurance plan. It is also called a drug list.

Free-Standing Emergency Department (FSED). A facility that is structurally separate from a hospital and provides a range of care, from routine to emergency. There are two types: A hospital outpatient department owned and operated by a medical center or hospital system or independent centers owned by individuals or groups. The independent centers do not accept public insurance such as Medicaid or Medicare.

Global Payments. Global payments are the same thing as capitation. (Please see capitation.)

Health Disparity. A difference in health status that is closely linked with factors such as race/ethnicity, religion, socioeconomic status, gender, mental health, sexual orientation, geographic location or disabilities. People negatively affected by health disparities may experience greater social and economic obstacles to health.

Health Insurance Exchange. Also called Health Insurance Marketplace. An online marketplace created by the ACA that allows consumers to comparison shop for health insurance. The tax credits and cost-sharing support contained in the law are available only when plans are purchased through the marketplace. Colorado is one of 16 states and the District of Columbia to create state-based marketplaces. There are 27 federally facilitated marketplaces and seven partnerships. Colorado's marketplace is called Connect for Health Colorado.

Health Insurance Portability and Accountability Act (HIPAA). Law passed by Congress in 1996 to provide health insurance coverage and patient privacy protections. The privacy rules require confidentiality of medical records and other health information provided to health plans, doctors and hospitals. HIPAA also protects health insurance coverage for workers and their families when they change or lose their jobs.

Integrated Care. A patient-centered approach to health care provided by a multidisciplinary team of clinicians. This care may address physical health, oral health, mental health, substance use disorders, health behaviors and more.

Medicaid. The state-federal program created in 1965 to provide government health insurance to those with low incomes who fall within eligibility categories. States had the option to expand eligibility under the Affordable Care Act beginning in 2014. Colorado's legislature approved the expansion and more than 1 million Coloradans are now enrolled. The Colorado Department of Health Care Policy and Financing (HCPF) oversees the Medicaid program. Medicaid Waivers. Vehicles that states can use to test new ways to deliver and pay for health care services in the Medicaid program. Waiver requests must be approved by the secretary of Health and Human Services. States can use waivers to implement home- and community- based

services programs and managed care. Arkansas is using a waiver to provide premium assistance for Medicaid clients to buy private insurance on the state health insurance exchange.

Medical Home. An increasingly popular model of primary care that is team-based, often in the office of the primary care physician, and coordinated across the care system, including specialty care, hospitals, home health care and community supports. The team oversees all of a patient's health care needs, with a focus on preventive care.

Premium. Amount paid to an insurance company for providing health care coverage for benefits specified in a policy.

Premium Subsidy. Publicly financed assistance to help those with low incomes purchase insurance through a health insurance marketplace, a provision of the Affordable Care Act. The subsidy is calculated based on a sliding scale according to household income. Also known as an advanced premium tax credit.

Preventive Care. Health care that emphasizes the early detection and treatment of diseases. Prevention is intended to keep people healthier, reducing health care costs.

Primary Care. Medical care provided by physicians and other health professionals such as advanced practice nurses, physician assistants and certified nurse midwives. It is geared toward prevention, early intervention and continuous care for basic health care services. Primary care includes pediatrics, general, internal and family medicine and obstetrics and gynecology.

Provider. A general term that refers to a professional who provides a health service such as a physician, doctor or therapist. Also sometimes refers to a facility that provides care such as a hospital.

Provider Payment Rates. The total payment a provider, hospital or community health center receives for medical services to a patient. Compensation rates are based on illness category and the type of service administered.

Purchasing Pool. Purchasers, such as small firms and individuals, who join together to leverage their bargaining power when purchasing health insurance. Purchasing pools have the advantage of spreading risk across a greater number of individuals.

Social Determinants of Health. Personal, social, economic, environmental and other circumstances that contribute to a person's health.

Appendix A – Legislative Charge of the Commission

Duties of the Commission	Work of the Commission
Identify, examine and report on: <ul style="list-style-type: none"> • Principle health care cost drivers for Colorado businesses and their employees • Individuals who purchase their own health insurance • Colorado's Medicaid Program and • Uninsured based on data driven, evidence based analysis 	Analysis of health care cost drivers for Colorado, included in the first report provided to the General Assembly, November 2015 https://www.colorado.gov/pacific/sites/default/files/111315%20CCAHC%20report_0.pdf
Conduct analysis of and collect data analysis on evidence based initiatives designed to reduce health care costs while maintaining or improving access to and quality of care	Within each of the topic areas, the Commission reviewed evidence-based initiatives to reduce health care costs
Analyze the impact of increased availability of information on: <ul style="list-style-type: none"> • Health care pricing • Cost • Quality of provider • Payer • Purchaser • Consumer behavior 	Related to the topic of transparency, the Commission reviewed the increased availability of data and information related to cost and pricing and its impacts on providers, payers and consumer behavior
Review, analyze and seek public input on state regulations impacting delivery and payment system innovations	The Commission reviewed the topic of delivery and payment reform and made corresponding recommendations in the second report provided to the General Assembly, November 2016 https://www.colorado.gov/pacific/sites/default/files/Cost%20Commission%20November%202016%20report%20-%20Final.pdf
Analyze impact of out-of-pocket costs and high deductible plans have on: <ul style="list-style-type: none"> • Patient Spending • Uncompensated Care • Outcomes • Access to Care 	
Examine access to care and its impact on health costs including: <ul style="list-style-type: none"> • Adequacy, composition and distribution of Colorado's health care workforce 	The Commission reviewed the topic of workforce and its impact on cost, quality and access, and made corresponding recommendations in the second report provided to the General Assembly, November 2016 https://www.colorado.gov/pacific/sites/default/files/Cost%20Commission%20November%202016%20report%20-%20Final.pdf
Review reports and studies for potential recommendations: <ul style="list-style-type: none"> • Blue Ribbon Commission for Health Care Reform • Accountable Care Collaborative • Colorado Foundation for Medical Care • Colorado's State Health Innovation Plan 	Analysis of Blue Ribbon Commission for Health Reform recommendations, included in the first report provided to the General Assembly, November 2015

	https://www.colorado.gov/pacific/sites/default/files/111315%20CCAHC%20report_0.pdf Additionally the Commission had presentations related to the Accountable Care Collaborative and the Colorado's State Health Innovation Plan
Report outcomes of the implementation of 208 Commission recommendations and the impact of these on health care costs, access to care, and quality of care	Analysis of Blue Ribbon Commission for Health Reform recommendations and implementation of, included in the first report provided to the General Assembly, November 2015 https://www.colorado.gov/pacific/sites/default/files/111315%20CCAHC%20report_0.pdf
Collect data related to: <ul style="list-style-type: none"> • Rate review data from DOI • Payment information from HCPF 	The Commission had presentations related to rates from the Commission of Insurance as well as the Budget Director related to costs and payment which included an actuarial analysis of costs using CIVHC data
Review the impact of Medicaid Expansion on: <ul style="list-style-type: none"> • Health care costs • Access to care • Commercial insurance 	ACA statement
Evaluate the impact of a Global Medicaid Waiver on: <ul style="list-style-type: none"> • Health care costs • Access to care • Quality of care 	
Review publicly available information on the following topic areas: <ul style="list-style-type: none"> • Pricing transparency • Adequacy, composition and distribution of physician and health care networks. • Drug formularies • Co-Insurance, copayments and deductibles • Health plan availability 	The Commission reviewed and made recommendations related to the following topics: transparency, workforce, pharmaceuticals, rural cost and access to care, social determinants, administrative costs, payment and delivery reform, market competitiveness, and made corresponding recommendations in the second report provided to the General Assembly, November 2016 https://www.colorado.gov/pacific/sites/default/files/Cost%20Commission%20November%202016%20report%20-%20Final.pdf
Work with other Boards, Task Forces, Commissions, or other entities that study or address health care costs, access, quality	The Commission reached out to HCPF, DOI, and CDPHE related to their work on initiatives addressing cost, access and quality. Additionally, the Commission had presentations related the Colorado State Innovation Model. Additional information was provided through presentations by the following entities: CIVHC, RAND, George Mason University/ Center for Health Policy Research and Ethics, Foundation for Government Accountability, and the Urban Institute.
Enter into business associate agreements with HIPAA covered entities	Not applicable

To make recommendations about other public or private entities that should continue to study health cost drivers in Colorado	
To make recommendations to the Congressional Delegation about changes in Federal law that may be needed to make health care affordable in Colorado	<p>The Commission made recommendations related to needed changes to federal law and considerations related to the topics of workforce and pharmaceuticals in the second report provided to the General Assembly, November 2016</p> <p>https://www.colorado.gov/pacific/sites/default/files/Cost%20Commission%20November%202016%20Report%20-%20Final.pdf</p>
Recommendations of the Commission for private sector actions, market-based initiatives, and policy interventions that control costs while maintaining access to and quality of health care must be centered on evidence-based analysis and data. The Commission shall prioritize areas for action based on the potential impact on health care costs, access, and quality	<p>The Market Advisory Committee charge was to discuss the important role that both market forces (and competition) and regulations play in controlling the cost of health care. Specifically:</p> <ul style="list-style-type: none"> Identifying the role that market forces and regulations have on principal drivers of health care costs. Identifying the principal areas of focus and cost containment goals. <p>The Advisory Committee made recommendations related to their charge to the Commission at their March meeting. These recommendations will be included in the final report to the General Assembly in June 2017</p>
The Commission shall create advisory committees that focus on specific subject matters and make recommendations to the full commission.	The Commission created a Market Advisory Committee that met 6 times between December and March. The Advisory Committee presented its recommendations to the Commission at its March 2016 meeting
The Commission may respond to inquiries referred by members of the general assembly, the Governor, businesses, consumers, as resources allow	<p>The Commission worked with Milliman to perform tasks required under HB15-1083 to conduct a study concerning the costs, including patient cost-sharing, for physical rehabilitation services. The study analyzed costs to the health care system, including the distribution of cost between payers and individual patients, as well as whether patient cost-sharing creates barriers to the effective use of physical rehabilitation services,</p> <p>https://www.colorado.gov/pacific/sites/default/files/Milliman%20-%20Cost%20of%20Rehabilitation%20Services%20-%20Final%20Report%202015-10-28%5B1%5D.pdf.</p> <p>In addition, the Commission has responded to requests from individual legislators: Rep. Ginal and Rep. Kennedy related to proposed legislation on pharmacy and cost transparency.</p>

<p>The Commission shall hold public hearings to solicit input on health care cost drivers and ways to control health care costs. The Commission shall accept written and oral testimony and shall conduct at least one public hearing in each congressional district in the state</p>	<p>The Commission’s seven outreach meetings — held in Adams County, Alamosa, Colorado Springs, Grand Junction, Greeley, Sterling, and Summit County as well as regular meetings in Denver — centered around a series of questions aimed at probing the primary drivers of health care costs and potential strategies to arrest them:</p> <ul style="list-style-type: none"> • What do you think are the fundamental cost drivers in your region and why? • What are the barriers to reducing cost? • What would you change to improve health care cost? • Do you have any thoughts on the recommendations and topics that the Commission is addressing? <p>The Commission’s meetings, which were each scheduled for 90 minutes, yielded a series of insights from their 139 total participants. The key participant takeaways are grouped by topic and summarized in the link below. These participant comments informed the work of the Commission and shaped its recommendations and future work. The findings of the statewide meetings can be found in the second report provided to the General Assembly, November 2016 https://www.colorado.gov/pacific/sites/default/files/Cost%20Commission%20November%202016%20report%20-%20Final.pdf</p>
<p>Shall prepare and submit annual reports as well as a final report on findings and recommendations</p>	<p>The Commission submitted annual reports and made corresponding reports to the SMART committees in November 2015 and November 2016.</p>

Appendix B – Market Advisory Committee Recommendations

Market Advisory Committee Discussions				
	Pharmaceutical	Behavioral health: Substance abuse and mental health	Balancing billing and networks	Consolidation of hospitals/ role of non-profits hospitals
Market	Reimportation of drugs from abroad (quality considerations)	Inpatient bed shortage – increase payment to incent the creation of more inpatient beds	Not allow balance billing	Reference pricing for major procedures to encourage more competitive pricing among hospitals
Regulation	Biosimilars (FDA)* Direct to consumer advertising* Contraceptive coverage over the counter (self-administered) State funding for long term contraceptives Medical loss ratio that applies to pharmaceuticals Limit increases of drugs from one year to another/ curbing opportunistic behavior	Require enforcement of existing parity laws within all insurances Require large group coverage of behavioral health services Payment methodologies that support the integration of behavioral health into primary care Require coverage of a continuum of care related to substance abuse disorders including comprehensive assessments, detox, intensive outpatient, lab work, residential treatment, medication assisted treatment (esp. induction), and	Ask DOI to create an alternative standard for network adequacy that includes access to telehealth and other things Ensure carriers are using telehealth as an option. Require hospital based physicians to be in-network/ accept in-network rates if not	Don't allow hospital-owned physician practices or treatment centers to bill a facility fee unless they are within 250 yards of the facility. More authority for AG's office - (community test of need) to look at more factors related to consolidation requests (research needed)
				Community conversation/ transparency related to the costs of health care
				Rural issues of plan design, and networks
				Compel DOI to create an alternative standard for network adequacy that includes access to telehealth and other things. Ensure carriers are using telehealth as an option. (actionable now)
				Reference based pricing
				Increase subsidy level for those between 400-500 for rural areas

		any other evidence based services			
	Recommendation to develop practice guidelines for dosing and level of treatment				
Both	<p>Generic equivalent substitutions</p> <p>Transparency related to pricing - point of sale and in plan design</p> <p>Price negotiation for pharmaceuticals (Medicare)</p> <p>Organize drug purchasing pools to increase market share (plans and Medicare/Medicaid)</p> <p>Take advantage of Medicaid purchasing for others</p>	<p>Loan repayment or other tools to increase provider workforce (APN, medical students, etc. to increase access to mental health/substance abuse providers)</p> <p>Create a system of evidence based continuum of care and assessment in Colorado</p>			<p>Modifications to plan design that trade off access for lower cost</p> <ul style="list-style-type: none"> Ability to have more flexibility related to primary care plan and catastrophic plans, outside of metal tiers, that includes reference pricing with link of providers of where to go for care – plan design that meets the needs of rural markets where there is already less choice Balance with too many plans/ too much choice – avoid too much complexity <p>Allowing plans to carve out communities in region 9 –</p>

					<p>i.e. carve out summit to allow to travel to Denver</p> <p>Create incentives to encourage participation of carriers in regions that need them the most – risk sharing agreements that encourages more access</p>
How would be addressed?	<p>More flexibility at physician and pharmacist level at point of interaction and point of sale (both more education, as well as limiting efforts to restrict generic equivalent substitutions)</p> <p>Objective data related to biosimilars – using data to identify if the biosimilars is truly unique of if there is an equivalent/ patent extension issues</p> <p>Transparency Bill that was introduced last legislative session</p> <p>Explanation of benefits for pharmaceuticals</p>	<p>Increase authority of DOI to review/ look at mental health parity (question of whether for fully insured and/ or self-funded)</p> <p>Research to determine appropriate funding and evidence-base for screening, treatment, and interventions in public and private programs related to mental health and substance abuse</p> <p>Adequate resources/ payment for inpatient beds (evidence base, quality) – as well as for intensive outpatient to transition people to the appropriate level of care</p>	<p>Look to CA law on balance billing.</p> <p>Require physician to not balance bill the member as payment in full is the greater of UCR, Medicare or other negotiated amount.</p> <p>Don't allow hospital-owned physician practices or treatment centers to bill a facility fee unless they are within 250 yards of the facility.</p> <p>Market – create preferred narrow networks to put some responsibility on consumers – ensure balanced with national quality standards and reasonable access</p>		<p>Costs are higher in rural – should there be a community "vote" before additional services are added by a provider</p>

	<p>Curbing opportunistic behaviors – Legislation that says prices can only be increase by a factor of X to address market failures.</p> <p>With respect to Rx, should we request that any drug currently manufactured in the US will cost no more than the same drug that is exported to another country.</p>	<p>Use market conduct studies through the DOI to proactively assess and address behavioral party issues</p>	<p>Clear consumer transparency/ price disclosure to ensure consumers understand at point of sale what are purchasing</p> <p>Compel DOI to create an alternative standard for network adequacy that includes access to telehealth, what timely distance means, micro-networks for bundles of care (being done in PERA), medical tourism, other options.</p> <p>Ensure carriers are using telehealth as an option.</p>		
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Appendix C - Minority Comments

Cindy Sovine-Miller, cindy@sovinemiller.com

Data Shows Reduction of Public Spending on Prescription Drugs in States with Medical Marijuana Laws

The members of the Colorado Commission on Affordable Health Care have spent three years working diligently to provide meaningful solutions to reduce costs in the health care delivery system. The Commission had a statutorily high bar for recommendations, requiring at least 8 out of 12 of voting Commissioners must support a recommendation for it to make it in the report. Despite this high bar, all the members, most notably our Chair, gave a lot of their time and demonstrated painstaking dedication in helping the Commission achieve majority support and in many cases universal consensus on recommendations presented in the final report.

One area the Commission was unable to reach agreement on robust recommendations was what can be done to tackle the rising cost of pharmaceuticals. Prescription drug costs continue to escalate beyond what is sustainable for families and individuals in need of affordable health insurance coverage. According to a study done in [Mayo Clinic Proceedings](#), the average annual cost of cancer drugs increased from roughly \$10,000 before 2000 to over \$100,000 by 2012.

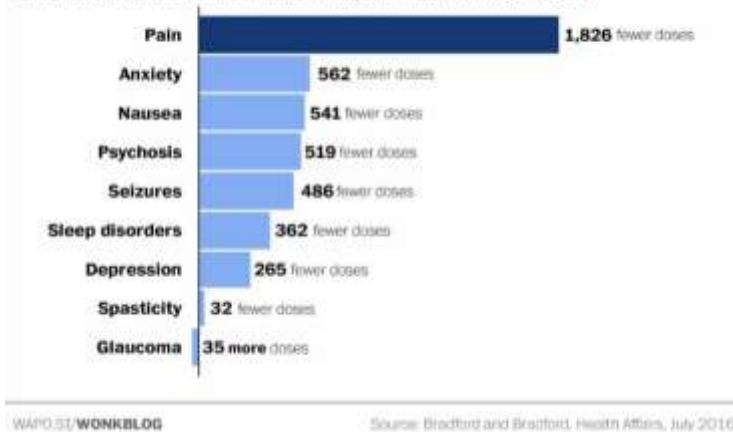
Meanwhile, many of the most frequently prescribed drugs in Medicaid, as well as in private insurance, have been found to have a high potential for abuse *and* overdose. According to the [Centers for Disease Control](#) "Sales of prescription opioids in the U.S. nearly quadrupled from 1999 to 2014,¹ but there has not been an overall change in the amount of pain Americans report. During this time period, prescription opioid overdose deaths increased similarly."

I tried unsuccessfully to bring to the forefront the growing body of evidence that suggests that prescription drug use as well as overdose rates decline in state where medical marijuana has been legalized. Due to time constraints and the amount of work the Commission needed to tackle, the issue never made it to the formal agenda.

These comments serve as testament to the nearly 100,000 Coloradans on the medical marijuana registry in Colorado. My dad was one of them after becoming a medical marijuana patient to relieve the suffering of his lymphatic cancer. I have seen medical marijuana alleviate human suffering as well the reduce costs to the health care delivery system on a micro level. My dad's case may be anecdotal, but we are far from alone. Research has not caught up to current practice. What is not being discussed is that many of these patients qualify, and are on Medicaid, and are treating severely debilitating and chronic conditions. They report they are finding relief with medical marijuana and are subsequently taking less prescription medication.

Fewer pills prescribed in medical pot states

Difference between annual drug doses prescribed per physician in medical marijuana states, and in states without medical marijuana laws, by drug category



There is research to indicate it may be happening on a macro level and is worth further conversation and exploration.

Does Medical Marijuana have pharmacological value?

In 2015, the [JAMA Network](#) reviewed dozens of randomized clinical trials from 1948-2015 of cannabinoids as pharmacotherapy. According to their findings, a number of these trials had positive results *suggesting* that cannabis has medical value for specific indications and concluded more research is necessary. They also conclude that physicians should educate patients about medical marijuana to ensure that it is used appropriately and that patients will benefit from its use.

Currently, 29 states and the District of Columbia have medical marijuana laws in place. Medical Marijuana has been in Colorado's Constitution since the year 2000. Yet very few doctors are taught that our bodies have an endocannabinoid system. In 2013, David B. Allen MD commissioned a survey in which all the medical schools in the US were asked whether they included the ECS within their syllabus. Only 13 percent of medical schools responded that they are teaching doctors that human beings have an endocannabinoid system, let alone the interaction of medical cannabis or the research that is available for treatment of specific conditions.

The liberalization of marijuana laws in the United States have allowed researchers such as Colleen Barry and her team at the John Hopkins School of Public Health to compare overdoses from painkiller prescriptions and opioids in states that permit medical marijuana versus those states that do not have medical marijuana laws in place. "Using state-level death certificate data from 1999 to 2010, (the researchers) found that the annual rate of opioid overdose deaths decreased substantially — by 25 percent on average — following the passage of medical marijuana laws, compared to states that still had bans." More research is necessary and is being

outpaced by informal experimentation, as millions of people nationwide have access to medical marijuana to treat themselves.

Can Medical Marijuana Reduce Spending in Public Programs?

Medicaid:

In April 2017, Health Affairs released published an article entitled Prescriptions For Medicaid Enrollees Medical Marijuana Laws May Be Associated With A Decline In The Number Of Prescriptions for Medicaid Enrollees by Ashley C. Bradford¹ and W. David Bradford^{2,*}

Abstract: In the past twenty years, twenty-eight states and the District of Columbia have passed some form of medical marijuana law. Using quarterly data on all fee-for-service Medicaid prescriptions in the period 2007–14, we tested the association between those laws and the average number of prescriptions filled by Medicaid beneficiaries. We found that the use of prescription drugs in fee-for-service Medicaid was lower in states with medical marijuana laws than in states without such laws in five of the nine broad clinical areas we studied. If all states had had a medical marijuana law in 2014, we estimated that total savings for fee-for-service Medicaid could have been \$1.01 billion. These results are similar to those in a previous study we conducted, regarding the effects of medical marijuana laws on the number of prescriptions within the Medicare population. Together, the studies suggest that in states with such laws, Medicaid and Medicare beneficiaries will fill fewer prescriptions.

Medicare:

In July of 2016, Health Affairs released an article entitled Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D by Ashley C. Bradford¹ and W. David Bradford^{2,*}

Abstract: Legalization of medical marijuana has been one of the most controversial areas of state policy change over the past twenty years. However, little is known about whether medical marijuana is being used clinically to any significant degree. Using data on all prescriptions filled by Medicare Part D enrollees from 2010 to 2013, we found that the use of prescription drugs for which marijuana could serve as a clinical alternative fell significantly, once a medical marijuana law was implemented. National overall reductions in Medicare program and enrollee spending when states implemented medical marijuana laws were estimated to be \$165.2 million per year in 2013. The availability of medical marijuana has a significant effect on prescribing patterns and spending in Medicare Part D.

Potential Recommendations:

- Provide targeted state funding for clinical research into the medical efficacy of medical marijuana on specific conditions.

- Incentivize and encourage medical schools to update their curriculum to teach about the endocannabinoid system and the clinical research that is available on medical marijuana so doctors can provide patients with credible information about medical marijuana to ensure that it is used appropriately and that patients will benefit from its use.
- Consider expanding the list of conditions eligible for the treatment of medical marijuana including opiate addiction. Crises of these proportions require a shift in thinking about all possible solutions. The rapidly changing political landscape provides an opportunity to address the current opioid abuse crisis. Evidence suggests increasing access to medical marijuana reduces the amount we are spending on pharmaceuticals in Medicaid and Medicare.

Minority Comments on the Health Care Cost Commission Reports and Recommendations
(Based on v4 of the Final Draft distributed to Commissioners)
By Linda Gorman

The Reports issued by the Colorado Commission on Affordable Health Care reflect a specific, viewpoint on health care in Colorado, the United States, and the rest of the world. It was enforced by majority vote. Not all members of the Commission share that viewpoint. Readers interested in crafting effective policy are strongly encouraged to conduct their own investigation, and to pay close attention to weaknesses in the theoretical and empirical underpinnings that plague many of the policies the Reports recommend.

Many Report recommendations reflect an implicit belief that central planning can lower health care costs. This belief is reflected in recommendations that the control the health care workforce, determine the value of treatments offered to patients, and set prices paid for services. Euphemistic labels for price controls occur throughout the Reports. Price controls are disguised as proper “incentive structures” and “value-based” payments. A great deal of evidence dating back over 100 years suggest that price controls and central planning controls like certificate of need increase health care costs by retarding innovation and limiting competition. This evidence is not addressed in the Reports.

The bias against innovation without state permission is evident in the recommendation to study increased regulation for freestanding emergency departments (FSEDs). One FSED in Colorado is decades old. In the past few years, others have been opened because physicians and investors believe that they can provide better service for the same price. Colorado is one of the few states in which regulations allow for such potentially beneficial innovations. The Commission heard testimony from the Department of Health Care Policy and Financing suggesting that there were no serious continuing problems with the operations of FSEDs. It heard testimony from the Colorado Hospital Association suggesting that their data showed that the new facilities seemed to reduce the wait at existing emergency rooms but were not associated with an observable increase in patient emergency department use.

The 2017 Report does not discuss how FSEDs may benefit patients by lowering access costs. It focuses instead on the cost differences between emergency facilities and urgent care facilities. It says that had “patients sought treatment in urgent care centers instead of FSEDs, health care spending would have declined.” It does not examine whether symptom severity, hours of operation, or range of treatment options might rationally cause patients to choose one over the other. Instead it simply sows doubt with meaningless claims like “it is difficult to conclude that all of these patients definitively should not have gone to an urgent care center instead of an FSED.” It also fails to describe facility fees, explain why they exist, or show how they are a problem.

The malign effects of central planning are illustrated by the success of consumer directed health insurance and health savings accounts in reducing spending trends in the general population. They do this by getting rid of central planners and putting people in charge of health spending on discretionary services. The Reports do not discuss the success of consumer directed health insurance in reducing health spending or how Colorado Medicaid's Consumer Directed Attendant Services Support program has increased patient satisfaction for the same expenditure. They also ignore how poor incentive structures and underpayment for drugs, doctors, and hospitals by public programs may increase private costs.

In general, the theoretical and empirical literature in economics and health policy suggest that price controls and central planning make people worse off by wasting resources, retarding innovation, treating patients poorly, and enriching those with political power. The Reports fail to mention the results from this literature, opting instead to recommend increased research on such health care topics as an analysis of overhead costs and the causes of high health care utilization in rural Colorado. The fallacy inherent in this point of view was ably summed up by Alfred E. Kahn in *The Economics of Regulation*, a book published in the early 1970s:

Effective regulation of operating expenses and capital outlays would require a detailed, day-by-day, transaction-by-transaction, and decision-by-decision review of every aspect of the company's operation. Commissions could do so only if they were prepared completely to duplicate the role of management itself. [p. 30, 1995 edition]

While much of the analysis in the Reports is concerned with pricing variation in poorly defined service bundles, it is surprisingly unconcerned with how variations in the underlying health of the people who live in different parts of the state might affect costs. It ignores the significance of known cost differentials in providing food, housing, and other essentials. It fails to make clear distinctions between the operational results of for profit and nonprofit health providers, an especially important task given the difference in taxes, access to capital, and malpractice expenses.

Testimony to the Commission suggested that the private sector has made significant strides in providing patients with data on the cost of care. The Reports make little mention of this, instead recommending that more public money be spent on subsidizing vaguely worded "transparency" efforts and supporting All Payer Claims Database efforts to create more complete provider claims data and make the data public, supposedly in support of enabling providers in the business of providing care to "better understand how their rates compare to those of other providers." Insurers already have these data. The All Payer Claims Database results are problematic due to partial claims coverage and the fact that there is no objective way to distinguish between the actual cost of the same kind of care provided to a patient on time after a next day appointment or two hours late after waiting two months for an appointment.

Most of the Report recommendations call for more public spending, more public control over provision of health care by the private sector, and increased spending on public programs. This was summed up in the last Commission meeting as having to spend money to make money. In view of the waste and incompetency that characterizes so many government programs, the Report recommendations claiming that health care costs can be reduced by expanding public spending on housing and education deserve special scrutiny.

The state already spends large sums on housing and education. History suggests that many government social programs have a limited record of success. They often generate costly unintended consequences. It is well known that better health and lower health care costs are correlated with higher income. It is unknown whether better health is caused by higher income or is a result of personality traits like perseverance, self-denial, and impulse control, traits that may also generate higher income.

Report recommendations that extend research on results from small numbers of particularly disadvantaged people to conclusions about effects in the general population are fundamentally unconvincing. Program quality often declines when program size increases. Initial work often neglects to accurately determine total program costs. Recommending preschool for Medicaid eligible children is a case in point. Authorities differ on the academic effects of preschool, likely because measured outcomes apparently depend upon a child's family background and his subsequent schooling.

The 2017 Report claims the 1972 Abecedarian (ABC) Project provides evidence of the effectiveness of preschool in reducing health care costs. This claim, in the words of Grover J. Whitehurst writing for the Brookings Institution in 2014, is equivalent to believing that "an expansion of the number of U.S. post offices today will spur economic development because there is some evidence that constructing post offices 50 years ago had that effect." There were 111 total children in the Abecedarian Project, just 57 in the group enrolled in preschool, and the study suffered from a compromised random assignment. More recent studies of large scale preschool programs in Tennessee and Quebec suggest that state funded preschool has little lasting effect on academic achievement. It may have negative effects on non-cognitive "soft" skills like self-control.

The description of the Affordable Care Act (ACA) in the 2017 Report provides another example of how the things left out of the Reports limit the examination of policy options. In its description of the Affordable Care Act and its impact on Colorado's health care costs the 2017 Report says

The Affordable Care Act had many goals, among those was the desire to reform how health insurance operates in the private market, and thus to make coverage more

available to the population. Arguably, this goal was achieved. More people have coverage than ever before. As an aside, the ACA also provided of [sic] millions of dollars to the state from the Prevention and Public Health Fund, funding programs to prevent diabetes, heart disease, stroke, tobacco use and cancer. [page 57, Final Report Draft v4.]

An analyst relying on this report would have no idea that the (ACA) effort to “reform how health insurance operates in the private market” has had a disastrous effect on Colorado’s individual insurance market. Premiums for individual health insurance have doubled in less than 5 years and are likely higher than those that would have been charged by CoverColorado, the high risk pool that the state closed in 2013. Whether additional state funding has prevented a single case of diabetes, heart disease, stroke, or cancer is an open question.

The discussion of the ACA fails to mention that it has caused people who have individual coverage to experience unprecedented difficulty with narrow networks that blocking their access to medical care and generate large unexpected charges. It fails to discuss the unaffordable deductibles created by the Affordable Care Act policy requirements. It ignores the fact that the Affordable Care Act has made it impossible for most people buying individual policies in Colorado to have health savings accounts or buy a plan with a nationwide commercial PPO network comparable to those offered by many employer plans. It also fails to address how the Affordable Care Act Medical Loss Ratio requirements limit innovation and new entry into the market for coverage.

While the Report does mention that most of the coverage increase is due to Colorado’s Medicaid expansion, it does not discuss whether the increased coverage is a worthwhile policy goal if covered people still cannot get adequate medical care. Even though people have coverage on paper, the Commission heard public testimony that secondary care for Medicaid patients is virtually unobtainable in some parts of the state.

Before the Affordable Care Act, CoverColorado guaranteed health insurance to everyone in Colorado regardless of health status. The state indigent care program helped those who still choose to be uninsured manage the cost of unexpected acute care. People without major medical coverage still had coverage through auto policies, workers’ compensation, and EMTALA. They also had access to free primary care through federally qualified health clinics. Even with a few necessary modifications, the cost of these programs may have been less than the cost of the ACA Medicaid expansion, the ACA premium and tax increases, and the cost of running Connect for Health Colorado. Quality may have been better as well. The Report does not examine these possibilities.

Claiming that the failure to “honor risk corridor payments payable to insurance companies....meant that affected companies had to increase rates to make up their losses”

misleads the reader by ignoring the fact that individual insurers did not have such losses prior to the passage of the Affordable Care Act.

Even more important omissions occur in the recommendations on pharmaceuticals. There is a large literature on how pharmaceutical companies ration global drug supplies in response to price. There is significant research on the response to government price controls of the sort recommended in the Reports, and on how monopsony negotiations with Medicare are likely to affect innovation. The Reports fail to mention these results.

There is a growing literature on the extent of drug counterfeiting and the danger it poses for those who reimport drugs. The Reports fail to mention it. The Reports also fail to discuss widely accepted facts about how FDA delay in drug approvals has created an opening for opportunistic pricing of generic drugs. They blame “opportunistic pricing behaviors by pharmaceutical companies or PHMs” instead.

The Reports suffer from sloppy methodology. Consider how they define health care costs. On page 12 of the 2017 Report, health care cost is defined as “the resources it takes for a health care supplier to produce goods or services, including labor, equipment, facilities and administration.” Costs that are important but not included in this definition include patient costs for specific types of health care delivery incurred in time, money, and the individual risk created by various treatment options forgone. Omitting patient costs also compromises the recommendations about payment structures. Emerging evidence suggests that seriously ill people may receive better, higher quality, care when payments are made on a fee-for-service basis. The Reports fail to mention this.

The data that are provided in the Reports often lack appropriate context. In the 2017 Report, a bar graph compares “Health and Social Care Spending” as a percentage of GDP for the US and other countries. It does not inform the reader that different countries use different accounting systems. While the US counts assisted living and home care as health spending, other countries include the same expenses under social spending. Despite the larger share of US health spending in overall spending, the Report confidently informs people that “the US devotes a relatively small share of its economy to social services designed to address social determinants.”

Recommendations to expand public programs also neglect the costs that state program expansions impose on citizens in the form of higher taxes and forgone program options. Even as no credible review of health care costs can neglect patient costs, no credible set of policy recommendations can neglect to examine the effect that specific recommendations may have on patients and, where applicable, taxpayers.

The Reports do not analyze the extent to which rent seeking may affect the outcomes of the recommendations they make. Rent seeking occurs when people lobby the government to pass rules or regulations that benefit them. Benefits may take the form of increased payments, protection from competition, a more influential position, or more power over others. As an example, the testimony on the effects of requiring patients to watch videos on end-of-life care was from a group of academic physicians well positioned to benefit from payments from hospitals required to show their videos by states seeking to reduce health care costs.

Though the Reports recommend a variety of policies to reduce spending in the last year of life, they do not discuss recent research suggestion that the fraction of health care spending on end-of-life care has been stable for decades. Recent estimates suggest it is roughly 13 percent of total health care spending and that a focus on reducing other areas of spending might be more productive [\[Aldridge and Kelley, 2015\]](#). The Reports fail to address the fact that letting someone die is generally less expensive than treating him and that governments overly concerned with controlling cost have ended up killing patients. Britain's Liverpool Pathway scandal provides an illustrative recent example of the dangers in this area.

Report claims that primary care reduces health care spending are based on limited evidence from one set of studies. The economics literature questions whether those studies properly address underlying population differences in health, wealth, and education.

Given that the Reports recommend determining such things as "value-based payment" and "value-based models" some consideration should have been given whether value-based experiments have been successful. This is important as numerous pay-for-performance efforts have done little to reduce costs or improve care. There is little evidence that value-based purchasing has improved hospital quality. [\[Ryan et al, New England Journal of Medicine, 2017\]](#)

In contrast, the Reports implicitly assume that health care value can be objectively determined. This assumption is probably incorrect. Economic research has demonstrated that an individual may value the same type of health care differently depending upon his stage of life and health status. It has also shown that many people enrolled in Medicaid probably place a lower value on it than the cost of the program would indicate should be the case.

The assumption of objectively definable value may lead the creation of economic rent if measures of value are constructed to control payments. The drive to produce quality metrics has produced large flows of funds to entities seeking the rents that flow from governments adoption of their metrics. The possibility of rent seeking by entities seeking to determine value should not be overlooked.

The Reports exhibit a superficial understanding of what markets are, how markets operate, and the conditions required for reasonable market performance. Even though it is well known that market power is seldom determined solely by the number of competitors in a market, the 2017

Report states that fewer insurance carriers “could reduce the level of market competition.” After observing that Summit County has three carriers and high premiums while several Front Range counties have lower premiums, it concludes that “competition among carriers is not the only factor associated with high insurance premiums.”

The Market Advisory Committee was a separate group of people convened by the Commission to “discuss the important role that both market forces (and competition) and regulations play in controlling the cost of health care and identifying the role that market forces and regulations have on the principal drivers of health care costs.” Rather than describe how market competition has made sophisticated care generally available on a timely basis throughout the US and created physicians and hospitals that are as productive as any in the world, the Market Advisory Committee operated from the presumption that regulation comes first. A major topic of discussion was “when should the market be allowed to work unfettered by regulation.”

The Committee produced a series of recommendations that would extend the medical loss ratios that have harmed insurers to pharmaceutical drug manufacturers, put price and profits controls on pharmaceutical companies, prohibit balance billing by physicians and hospitals, and inject government into decisions about where a physician decides to practice. The Reports make little effort to provide evidence that this kind of political control will reduce health care costs or improve quality.

The Reports do not contain a discussion on the costs and distortions likely to be produced by the Market Committee recommendations or any description of the known consequences that those recommendations have had in Britain, Canada, and other countries that have already adopted similar policies. It did not discuss how treatment is provided in cash markets or how market competition makes those markets relatively inexpensive. These results are well known and should have been provided along with the recommendations.

Finally, it is unfortunate the Reports did not see fit to address the extent of existing state health programs. Several other states have produced detailed lists of state health programs that show significant overlap and unnecessary duplication of effort. Without knowing what the state currently spends, how can people be certain that Report recommendations for more spending are not simply duplicating existing state and private sector efforts?

Endnotes

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