SECOND IN A SERIES

ColoradoCare

An Independent Analysis – Finances

Plan Would Achieve Universal Coverage but Likely Fall Short of Funds

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Informing Policy. Advancing Health.

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About This Series

The first report in this series is available at **coloradohealthinstitute.org**. It is titled "ColoradoCare – An Independent Analysis: How It Would Work, How It Would be Financed and Questions to Ask."

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One of the biggest questions about ColoradoCare, a proposed constitutional amendment to create a system of universal health care coverage, is whether its financing plan would work. Would it be viable over time?

To answer this question, the Colorado Health Institute (CHI), a nonpartisan health policy research center, conducted an independent financial analysis of ColoradoCare.

Our study found that:

- ColoradoCare would nearly break even in its first year while extending coverage to all Coloradans, but it would slide into ever-increasing deficits in future years unless taxes were increased.
- On the plus side for ColoradoCare, it would be able to reach its goal of saving money in the health care system by cutting billions of dollars in administrative costs and insurance company profits. That funding could be reallocated to provide coverage to the 6.7 percent of Coloradans who remain uninsured, achieving universal coverage.
- However, the revenues designated for ColoradoCare to pay for the new universal coverage wouldn't be able to keep up with increasing health care costs, resulting in red ink each year of its first decade.

CHI's analysis finds that ColoradoCare would struggle with the same financial dilemma as the current health care system — the inability to tame rising health care costs. That would create a structural problem for ColoradoCare.

Although its savings on administrative costs would grow over time, those savings would be overwhelmed by the rising cost of health care, which is projected to grow faster than tax revenue. This is crucial because taxes would account for roughly two-thirds of ColoradoCare's projected funding.

CHI is a nonpartisan health policy institute. Our mission is to be a trusted source of independent and objective health information, data and analysis. We do not advocate for or against ColoradoCare. Future research will cover ColoradoCare's governance structure and address other possible effects of the measure.

There would be a limited set of options to cover the deficits. ColoradoCare could ask its members to approve tax increases in statewide elections, increasing revenue. Or it could cut costs by offering fewer health care benefits or by lowering payments to health care providers.

CHI projects that ColoradoCare would need to make $36.3 billion in health care payments in its first year, slightly less than the $37 billion in the current system. But ColoradoCare also would have less revenue, $36 billion compared with $37 billion in the current system, resulting in a first-year deficit of $253 million. This sounds like a large loss, but it is less than one percent of ColoradoCare's projected annual revenue. However, the deficit would grow every year.

Any estimate — including this one by CHI — depends on a series of assumptions about how consumers, health care providers, any remaining private insurers and the federal government would respond to the very different set of incentives and systems that would exist under ColoradoCare.

Amendment 69, which would create ColoradoCare, leaves a number of important decisions, such as how much to compensate providers, up to the ColoradoCare Board of Trustees. While that would give the trustees flexibility to manage unpredictable circumstances, the lack of firm details makes it difficult to predict the financial effects over a decade with the highest degree of certainty. Small changes in assumptions can produce big changes in the projected bottom line.

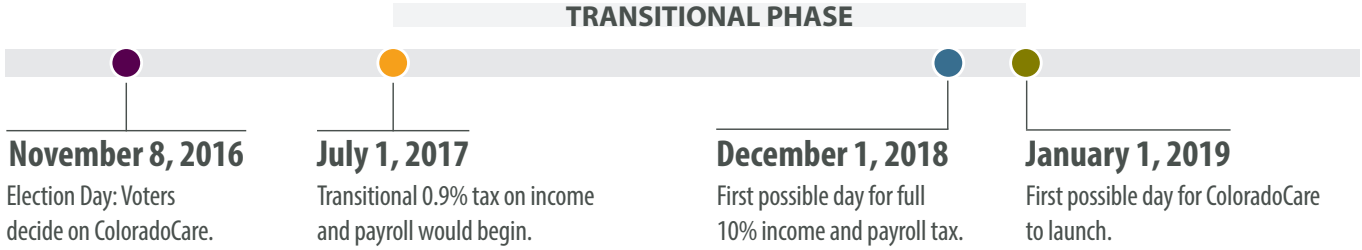
Also unknown: how the sweeping changes brought by ColoradoCare would ripple throughout the state economy. For example, the proposed taxes could discourage some businesses from operating here, while universal health care could attract other businesses to the state. ColoradoCare could lead some Coloradans to leave the state while other people might decide to move here.

Despite these uncertainties, CHI's analysis identified six major factors that could make or break ColoradoCare financially. We answered these questions about each factor:

- **Administrative costs:** What savings could be expected by reducing administrative costs for health care providers and private insurance companies?
- **Use of health services:** How much would ColoradoCare's expenses rise when more people gain insurance or receive more generous coverage, leading to more use of health care services?
- **Federal funding:** How much of the federal funding that Colorado currently receives from Medicaid would be available for ColoradoCare?
- **Out-of-pocket costs:** How much of health expenses would ColoradoCare cover for its beneficiaries?
- **Participation rate:** To what degree would people keep buying private insurance outside of the ColoradoCare system?
- **Tax revenue:** How much tax revenue would ColoradoCare bring in, and would it grow fast enough to keep pace with health spending? Would ColoradoCare members vote for tax increases if revenues aren't sufficient to cover expenses?

Timeline of ColoradoCare Implementation

ColoradoCare trustees would decide the launch date. The earliest possible launch is 2019.



A Brief Overview of ColoradoCare

Amendment 69 on the November 2016 ballot proposes to create ColoradoCare, a taxpayer-financed entity to achieve universal health coverage in Colorado.

ColoradoCare would replace most private health insurance. Medicaid and other state-federal programs would transfer over to ColoradoCare's control. Purely federal programs, such as Medicare, TRICARE and the Veterans Administration (VA), would continue to be the primary insurers for their members.

ColoradoCare has three main funding sources. The first is a new 10 percent tax on payroll and other income. Employers would pay 6.67 percent and employees 3.33 percent. The self-employed would pay the full 10 percent. These taxes would total $25 billion in 2019, the first year ColoradoCare could launch. Additional money would come from state and federal funding for current health care and coverage programs, mostly Medicaid. Finally, members would make copayments when they use their ColoradoCare coverage.

Private health insurance would still be allowed. If people purchased private coverage, their policies would be the primary payers for covered medical expenses. ColoradoCare would be a secondary payer.

A Board of Trustees would govern ColoradoCare. The governor and legislative leaders would appoint an interim board of 15 people, and a permanent board of 21 would be elected by ColoradoCare members from seven districts across the state.

ColoradoCare would cover a range of health services, but the exact level of coverage and copayments would be decided by the Board of Trustees. Consumers would have no annual deductibles.

Every person who lives in Colorado would be a beneficiary and eligible to receive services. And every beneficiary who is at least 18 and has lived in the state for the past year would be eligible to vote for the board and approve any tax increases necessary to fund the program. Eligible voters would be called members of ColoradoCare.

Universal Coverage

Every Coloradan would have health insurance under ColoradoCare, which would make Colorado the first state in the nation to achieve universal coverage.

CHI's analysis finds that ColoradoCare would bring universal coverage to the state with a bit less health care spending statewide. But it also finds that ColoradoCare itself would fall into deficit. How can this be?

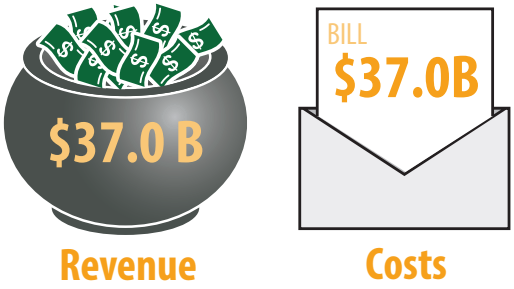
Simply put, the revenue would not be sufficient. CHI's model projects that the revenue from taxes and federal funds would fall just short of paying ColoradoCare's bills in the first year, with widening deficits in each subsequent year.

When private insurance companies are faced with rising health care costs, they can raise their prices to get more revenue. ColoradoCare would have a harder time increasing revenue because it would have to get permission from voters to raise taxes.

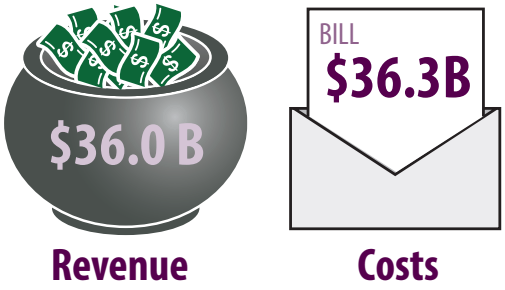
ColoradoCare vs. Current System

ColoradoCare would bring universal coverage for roughly the same cost, but it would narrowly lack the revenue to break even in its first year.

Current System: 6.7% Uninsured



ColoradoCare: 0% Uninsured



Revenue Shortfall: **$253 M**

How CHI Analyzed ColoradoCare: Step-by-Step

EXPENSES

STEP 1

We projected all health spending for Colorado in 2019, the first year ColoradoCare could start.

Examples: Hospital care, prescription drugs, medical equipment, dental care, nursing homes, insurance profits, many others.

Colorado Health Spending: $58.2 billion

STEP 2

We subtracted spending for which ColoradoCare would not be responsible.

- **Federal:** $11.4 billion — Medicare, TRICARE, Veterans Administration
- **Uncovered Services:** $7.9 billion — Some adult dental, vision and hearing, cosmetic surgery, others
- **Remaining Private Insurance:** 5 percent — Some people eligible for ColoradoCare would choose to keep their private coverage.

ColoradoCare's Share of Health Spending: $37.0 billion

STEP 3

We adjusted ColoradoCare spending for savings and new expenses.

We subtracted savings: $5.3 billion.
Savings come from administrative efficiency, hospital costs and other areas.

Savings

We added new expenses: $4.6 billion.
These include administration and increased use of care.

Expenses

ColoradoCare's Adjusted Spending: $36.3 billion

Pause

At this point, we have an estimate of how much ColoradoCare would spend in its first year: **$36.3 billion**. Now we need to see whether it would have the revenue to sustain that spending. *Move on to Step 4.*

REVENUE

STEP 4

We added up the revenue for ColoradoCare.

- **Out-of-Pocket (copays):** $3.9 billion
- **Federal Funding:** $7.1 billion
- **Taxes:** $25.0 billion

Total Revenue: $36.0 billion

STEP 5

Finally, **we calculated** the surplus or deficit.

Spending: $36.3 billion
minus
Revenue: $36.0 billion
equals
Deficit: $253 million

Understanding Our Analysis

CHI began by projecting all health expenses in Colorado in 2019, the first possible year that ColoradoCare could take effect. We found a total of $58.2 billion.

But ColoradoCare would not pay for all health spending, so we subtracted items outside ColoradoCare's responsibility, such as Medicare and other federal programs, dental and vision benefits for adults who don't qualify for Medicaid and a number of other services. We project that ColoradoCare would need to cover $37 billion in annual health spending in 2019.

We then estimated savings that ColoradoCare would bring to the system, as well as new expenses. Savings would come from reduced administrative burden, the elimination of most profits paid to private insurance companies and negotiation of lower hospital reimbursement. New expenses would include costs for covering the uninsured and increased use of health care services for currently insured Coloradans. We found that savings and new expenses would roughly cancel each other out.

Finally, we looked at available revenue from new taxes, government funding and the copayments Coloradans would make for health services. We found that revenue would fall slightly short of covering costs in 2019, and the gap would grow every year.

In all, CHI analyzed more than 50 separate variables that would determine ColoradoCare's revenue and expenses. For each variable, we made a detailed study of the empirical evidence, academic literature and best available models to identify the most plausible assumptions.

Next, we built a computer model to analyze these variables. It's much more complicated than simple addition and subtraction. Changes in one variable often lead to changes in others, so we had to account for how all parts of the model would interact.

Our work produced what we consider the most probable scenario for ColoradoCare. Because there is substantial uncertainty, we also calculated best-case and worst-case scenarios. This paper focuses on the scenario that we consider to be the most probable.

See "A Detailed Look at Methodology" for a discussion of CHI's methodology on page 15.

Differences from ColoradoCare Campaign Projections

The campaign for Amendment 69 prepared its own financial analysis, done by Gerald Friedman and updated by Ivan Miller. Friedman is an economist with the University of Massachusetts-Amherst hired by ColoradoCare proponents to prepare an analysis of a universal health care plan in Colorado. He also produced economic analyses for former presidential candidate Bernie Sanders' economic plan. Miller, a psychologist, is executive director of the Colorado Foundation for Universal Health Care and is a leader of the ColoradoCareYES campaign to pass Amendment 69.

CHI's approach was broadly similar to the method used by Friedman and Miller. However, our assumptions differed, sometimes in ways that were favorable to the financial viability of ColoradoCare and other times not. These differences are based on our detailed study and best judgment of how a system like ColoradoCare would affect health care spending.

The pro-ColoradoCare campaign's analysis shows a surplus of $1.6 billion in the first year. CHI projects a deficit because we expect, among other differences:

- Lower federal funding.
- Fewer savings from administration, bulk purchasing and fraud reduction.
- Larger increases in the use of health services.
- Higher administrative expenses to operate ColoradoCare.

CHI also projects a small role for private insurance, which the campaign does not. ColoradoCare's bottom line is improved when Coloradans retain some private insurance.

Transitional Costs and Reserves

CHI did not estimate start-up costs, which could be significant. Amendment 69 levies a 0.9 percent transitional tax on payroll and other income starting in July 2017 and continuing until the Board of Trustees decides to launch ColoradoCare, which we assume will be in January 2019. CHI, for this analysis, assumed this tax would be sufficient to cover start-up costs.

Private insurance companies are required to maintain a reserve. While Amendment 69 does not require ColoradoCare to have a reserve, it is a prudent financial practice. CHI assumed the Board of Trustees would not launch ColoradoCare without building up a sufficient reserve from the transitional tax.

The transitional tax would result in $4.9 billion for ColoradoCare, assuming ColoradoCare launches in January 2019. After these funds are used to pay for start-up costs and establish a reserve, it is possible that ColoradoCare could use the remaining funds to pay for some health expenses. However, it is difficult to predict how much money — if any — would be left over after paying start-up costs.

Adjusted ColoradoCare Revenue Figure

CHI's first paper on ColoradoCare reported that it would have $38 billion in annual revenues when it launches. We estimated this using a blend of projected tax revenues and the pro-ColoradoCare campaign's estimate of federal subsidies. We refined that estimate in this paper using the best available evidence, and we now project revenues of $36 billion in 2019.

Six Important Factors

We'll now look at the six items that have the most influence over ColoradoCare's finances. In this section, we have included graphics that show what would happen to ColoradoCare's bottom line in the first year with the best-case and worst-case projections for each factor, when everything else in the model is held constant.

Variations in these six factors — of the more than 50 analyzed by CHI — would make the biggest differences to ColoradoCare's projected bottom line.

If all variables worked in ColoradoCare's favor, CHI's best-case scenario projects a first-year surplus of $5.5 billion. Surpluses would fall over the next 10 years, but ColoradoCare would still be in the black by 2028, the last year in our model. In the worst-case scenario for ColoradoCare, the first-year deficit would be $6.5 billion and get larger every year. CHI believes both of these scenarios are highly unlikely.

The Six Factors

1. Administrative Costs

2. Use of Health Care

3. Federal Funds

4. Out-of-Pocket Costs

5. Participation Rate

6. Future Tax Revenue

1. Administrative Costs

ColoradoCare aims to save money chiefly by reducing the administrative costs of health care by cutting out most private insurance and reducing billing costs in medical provider offices.

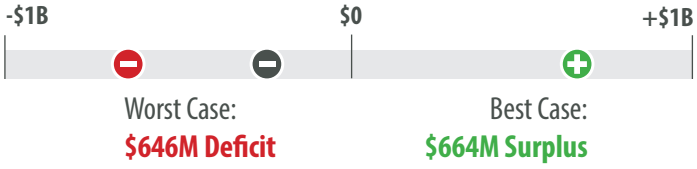
By reducing the number of insurance plans that providers have to deal with, their administrative costs would be reduced. CHI estimates that roughly half of the insurance-related administrative expenses encountered by physicians and hospitals could be eliminated with ColoradoCare, but that these savings would take three years to be fully realized. The estimated savings are $946 million in 2019, increasing to $1.8 billion in 2021.[1]

Larger savings are projected by limiting the role of private insurance companies. CHI estimates that 14 percent of private health insurance premiums currently go toward insurer profits and administrative costs. Our analysis eliminates the majority of insurer profits and administrative costs, based on evidence that private health insurance plans often have higher administrative costs and profit than publicly administered systems. Savings from reducing insurer profit and administration are estimated to be $2.9 billion in 2019 and increase to $3.3 billion in 2021.

However, ColoradoCare would have its own administrative expenses, which we project to be $1.5 billion, or four percent of ColoradoCare's expenditures.

We project $2.7 billion in combined net savings by reducing administrative costs in provider offices and cutting out most private insurance companies and Medicaid, after accounting for ColoradoCare's own administrative expenses.

What happens to ColoradoCare's bottom line if the Administrative Costs factor is changed while everything else remains constant?



All numbers are for 2019. ⊖ = Baseline or "most plausible" scenario of $253M deficit.

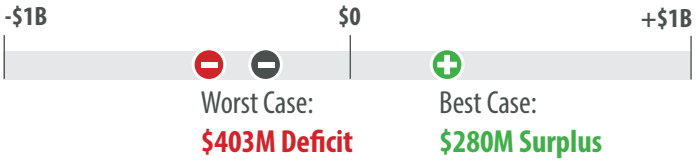
2. Use of Health Care

When people gain insurance coverage, they tend to use health care services more than they did when uninsured.[2] And when people get insurance coverage with more benefits and lower deductibles than they currently have, they also increase their spending.

We estimate about one of five Coloradans currently has a high-deductible health insurance plan, which is defined by the Internal Revenue Service as an annual deductible of $1,300 or more for an individual or $2,600 for a family. High deductibles discourage health spending. ColoradoCare would have no deductibles, so we expect people to increase their use of health services.

We anticipate $2.7 billion in increased spending annually to cover the costs of the newly insured and the increased use of services among those Coloradans who currently have health insurance.

What happens to ColoradoCare's bottom line if the Use of Health Care factor is changed while everything else remains constant?



All numbers are for 2019. ⊖ = Baseline or "most plausible" scenario of $253M deficit.

3. Federal Funds

ColoradoCare would need to apply for waivers from the federal government to receive billions of dollars currently used to pay for Medicaid coverage and the Affordable Care Act (ACA) tax subsidies.

Medicaid, the joint federal-state public insurance program, is the second-largest potential funding source for ColoradoCare, after the new taxes. Under Amendment 69, significant parts of the current Medicaid budget would be transferred to ColoradoCare.

A separate waiver would be needed to shut down the state health insurance marketplace, Connect for Health Colorado, and transfer federal tax subsidies for its users to ColoradoCare. Those subsidies would bring in another $285 million annually, an estimate that is based on the subsidies awarded in 2015 and adjusted for projections to 2019.

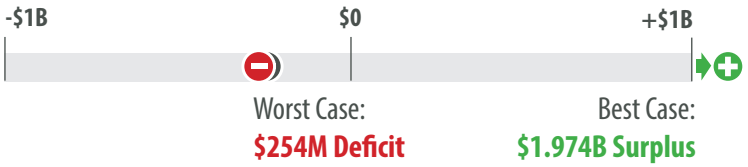
Approval of these waivers would depend on the political stance of the new presidential administration. If the federal government chose to deny some or all of Colorado's waiver requests, it could jeopardize ColoradoCare's ability to collect sufficient revenue to operate.

Our most plausible scenario assumes ColoradoCare would receive $6.8 billion from a Medicaid waiver in its first year of implementation, about $4.0 billion less than the pro-ColoradoCare campaign projects.

The biggest reason for the difference in the two estimates is that CHI assumes ColoradoCare would not get approximately $1.6 billion from the Hospital Provider Fee. This funding is intended to help hospitals recoup losses when they care for Medicaid clients. Colorado currently receives federal funding when Medicaid payment rates are lower than Medicare rates. The state then forwards some of those funds to the hospitals. Because ColoradoCare intends to pay providers above Medicare payment rates, we assume that this federal funding would no longer exist.

Similar reasoning applies to other smaller pots of federal Medicaid funding we project ColoradoCare would not receive. (See "A Detailed Look at Methodology.")

What happens to ColoradoCare's bottom line if the Federal Funds factor is changed while everything else remains constant?



All numbers are for 2019. ⊖ = Baseline or "most plausible" scenario of $253M deficit.

4. Out-of-Pocket Costs

Our analysis assumes ColoradoCare would pay 86 percent of health care expenses for members, the average actuarial value of all current private health plans in Colorado. This would make it a "gold" plan under the ACA, and it means members would pay the other 14 percent in out-of-pocket costs.

The metal level of ColoradoCare's plan, its actuarial value, would be a crucial component of its revenues. Raising or lowering out-of-pocket costs by adjusting the actuarial value would be one lever to influence revenues.

Metal Tiers

The Affordable Care Act places insurance policies into four tiers, based on the amount of medical costs paid by the plan. Here's what they mean:

- **Bronze: 60% of costs paid**
- **Silver: 70% of costs paid**
- **Gold: 80% of costs paid**
- **Platinum: 90% of costs paid**

While ColoradoCare's metal level is not specified in Amendment 69, and the final decision would be up to the board, leaders of the campaign for ColoradoCare say its metal level would be platinum, with ColoradoCare paying 96 percent of costs and members picking up only four percent. Our analysis indicates that a plan with 96 percent actuarial value would expand ColoradoCare's 2019 deficit by more than $2.8 billion.

The final actuarial value is important for two reasons: first, the higher level would reduce copayments and shift more of the cost of health care to ColoradoCare; and second, the higher level would most likely lead to increased use of health care services, resulting in higher expenditures for ColoradoCare.

It's also important for ColoradoCare members. At an 86 percent actuarial value, about 2.6 million Coloradans could be required to make higher co-pays under ColoradoCare than they are making now, though the difference would be small. But an actuarial value of 96 percent would make ColoradoCare a more robust plan, with lower copays, for almost everyone in the state.

What happens to ColoradoCare's bottom line if the Out-of-Pocket Costs factor is changed while everything else remains constant?

Worst Case: **$3.029B Deficit**

Best Case: **$1.379B Surplus**

All numbers are for 2019. ⊖ = Baseline or "most plausible" scenario of $253M deficit.

5. Participation Rate

Many developed countries use systems similar to ColoradoCare, in which the government provides most coverage but private insurance is still available. In those countries, a small part of health spending is paid through private insurance. Based on the experience of other countries, we estimate that commercial insurance would continue to pay for five percent of the expenses that otherwise would be covered by ColoradoCare.

Coloradans who decide to buy private coverage still would pay taxes for ColoradoCare, even though they wouldn't be using the coverage. Because of this, ColoradoCare's finances would improve if more people maintained private coverage.

Small changes in this variable make a large difference in the projected bottom line. If private health spending rose to 10 percent instead of our assumption of five percent, ColoradoCare would record an overall surplus of $1.4 billion in 2019 rather than a $253 million deficit. But if no one used private coverage, ColoradoCare's 2019 deficit would climb to an estimated $1.9 billion compared with the $253 million projection under the probable scenario.

Our analysis assumes that employers would not legally challenge the ColoradoCare system. But it's possible that employers that currently offer insurance policies governed by the federal Employee Retirement Income Security Act (ERISA) could attempt to exempt themselves and their employees from ColoradoCare taxes. ERISA plans currently provide coverage for more than 10 percent of the state's population. Federal law provides a broad exemption from state law for ERISA plans.[3] While our analysis does not address the possibility of large numbers of employers refusing to participate in ColoradoCare, it could have a very large impact on ColoradoCare's finances.

What happens to ColoradoCare's bottom line if the Participation Rate factor is changed while everything else remains constant?

Worst Case: **$1.917B Deficit**

Best Case: **$1.412B Surplus**

All numbers are for 2019. ⊖ = Baseline or "most plausible" scenario of $253M deficit.

6. Future Tax Revenue

The biggest source of funds for ColoradoCare would be a 10 percent tax on payroll and other income, which would bring in $25 billion in 2019, according to the Colorado Legislative Council, the legislature's research arm.

Historically, though, health care costs have grown faster than the economy. CHI expects that over time there would be a widening gap between ColoradoCare's tax revenue and how much money it would need in order to cover all of the health services used by members. This would cause ColoradoCare's bottom line to worsen every year.

The anticipated $25 billion in tax revenue in 2019 is projected to grow at an annual rate of between four percent and 4.5 percent.[4] By 2028, annual tax revenues would reach an estimated $36.6 billion, an increase of $11.6 billion from the $25 billion in 2019.

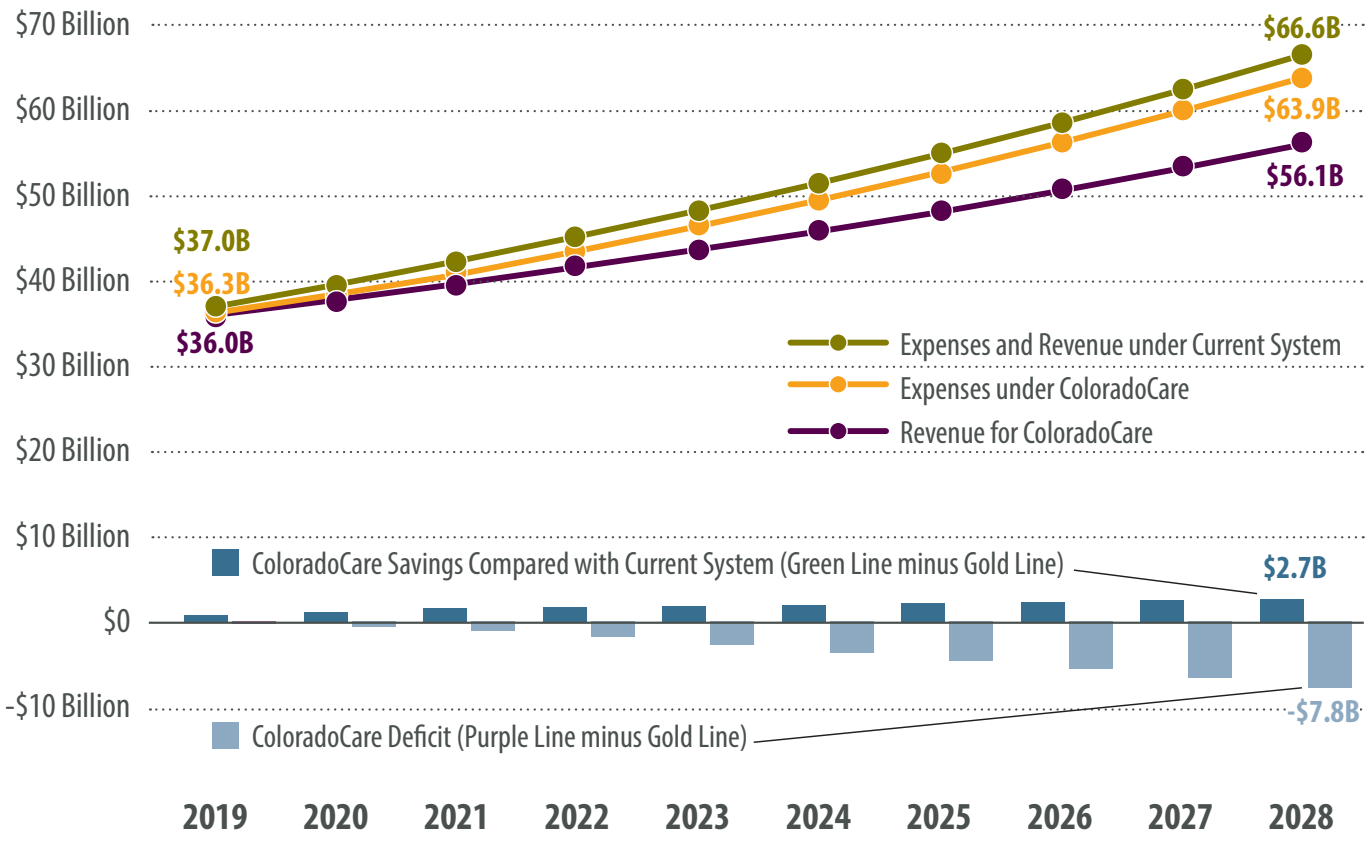
But health spending is projected to increase even faster — between six percent and 6.8 percent a year. ColoradoCare's health spending would grow by $27.7 billion between 2019 and 2028, increasing to $63.9 billion, based in part on projections by the Centers for Medicare & Medicaid Services (CMS).

The resulting deficit in 2028, after all other revenues and savings are taken into account, would be $7.8 billion.

Amendment 69 directs ColoradoCare to use payment models that "optimize quality, value and healthy outcomes." However, Amendment 69 offers no guarantee that ColoradoCare would succeed in the difficult task of reducing overall health spending, so CHI did not have enough detail to project significant changes to health spending trends identified by CMS.

Ten-Year Projections: Current System Spending Compared with ColoradoCare Expenses and Revenue

Totals do not include items outside ColoradoCare, including uncovered services and federal programs such as Medicare.



Rising Costs Affect the Current System, Too

As long as health spending continues to outpace economic growth, the share of health spending in the economy will rise and eventually become unsustainable. This will affect the current system as well as the ColoradoCare system.

The options to deal with this mismatch between health care spending and revenue growth are unpalatable. In general, the options are higher insurance premiums, reduced benefits, a greater portion of government budgets devoted to health care and higher taxes to cover the costs of government health programs.

Other Factors

CHI's analysis included other notable items that would affect ColoradoCare's financial viability and sustainability.

Fraud reduction: CHI's most plausible estimate does not predict any savings from reducing fraud. Private insurance companies have a better track record at reducing fraud than government-run enterprises such as Medicare and Medicaid. In the best-case scenario for ColoradoCare, we assume fraud savings would be nearly $500 million a year. In the worse-case scenario, fraud would increase and cost an additional $1.3 billion a year.

Bulk purchasing savings: ColoradoCare would be the largest health care payer in the state, so it could negotiate better prices for hospital care, with a projected savings of $802 million. However, at the national level, ColoradoCare would be a small fish in a big pond. With roughly 4.4 million members, ColoradoCare would be much smaller than the leading private insurance companies in the U.S. Therefore, CHI projects no bulk purchasing savings for products that are sold in the national market, including prescription drugs and medical equipment such as wheelchairs.

Capital reserves: Insurance companies are required to keep money in the bank to cover unexpected costs. The state of Colorado maintains a financial reserve as well. Amendment 69 does not mention capital reserves, but we assume they are covered by the transitional tax that will be introduced prior to ColoradoCare's full implementation.

Vermont's Experience

Vermont's legislature passed a bill in 2011 to create Green Mountain Care, a single-payer system that would provide universal health care in the state. Three years later, after intense analysis and deliberation, Vermont Governor Peter Shumlin decided to abandon the effort, citing concerns about the high cost to taxpayers.

There are key differences between policies proposed under ColoradoCare and those included in the Vermont plan. For example, Vermont's model would have covered non-residents working for Vermont-based companies. This would have increased health care spending without adding revenue since non-residents do not pay the state tax. Vermont also would have exempted residents that Colorado would not, including some of the privately insured and Medicare beneficiaries, from the income tax.

Colorado and Vermont have important differences. Colorado has lower per capita health care costs and higher median family incomes. Many Vermonters live close to the New York, New Hampshire or Massachusetts borders and often receive medical services outside of the state. And Vermont's workers frequently cross state borders for jobs, creating inefficiencies in the collection of payroll taxes.

Because of the critical distinctions, it is difficult to compare Vermont's experience with Colorado's proposed constitutional amendment.

Conclusion

CHI's analysis shows that ColoradoCare proponents have identified a way to achieve universal health coverage in Colorado without increasing health spending in the economy. This would remove a crucial barrier to access to care for all Coloradans.

However, CHI projects that ColoradoCare, as it is currently envisioned by Amendment 69, would lack the revenue needed to sustain itself. Our projections show ColoradoCare is likely to post a small deficit in its first year, and the deficit would grow annually over the next decade.

ColoradoCare's board would have several basic options for covering the deficit:

- **Cut benefits:** The board could decide to pay for fewer services or raise copayments. Higher copayments would create an incentive for ColoradoCare members to use fewer health care services. For many beneficiaries, though, cutting benefits would reduce the level of insurance below what they have today.
- **Raise taxes:** Amendment 69 gives the board the authority to propose a tax increase once a year, but ColoradoCare members must give their approval through a statewide vote. Obtaining voter-approved tax increases could be difficult.
- **Reduce provider rates:** Amendment 69 is silent on compensation to providers. While our analysis does not contemplate large savings from reducing provider rates, reductions in compensation could significantly improve ColoradoCare's bottom line.
- **Maintain Hospital Provider Fee funding:** Because ColoradoCare intends to reimburse providers above Medicare payment levels, we expect that Colorado would not receive federal funding associated with the Hospital Provider Fee. If ColoradoCare reimburses hospitals at rates below Medicare for low-income patients, some of these federal funds could be reinstated.
- **Shut down ColoradoCare:** Amendment 69 specifies a procedure for the board to shut down ColoradoCare if the finances do not work out.

Amendment 69 does not otherwise specify how a deficit would be covered or who would be responsible if ColoradoCare defaulted.

Endnotes

[1] University of Massachusetts Medical School Center for Health Law and Economics and Wakely Consulting Group, Inc. (2013). State of Vermont Health Care Financing Plan Beginning Calendar Year 2017. Available at: http:// www.umassmed.edu/uploadedfiles/cwm_chle/about/ vermont%20health%20care%20financing%20plan%20 2017%20-%20act%2048%20-%20final%20report.pdf

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A Detailed Look at Methodology

This section describes in detail how CHI constructed its financial analysis of ColoradoCare.

The analysis was divided into four categories:

Colorado health consumption expenditures. CHI first projected how much health care in Colorado would cost under the current system in 2019, the first possible year that ColoradoCare could take effect. This estimate used a broad measure of health expenses defined as "health consumption expenditures" by the Centers for Medicare & Medicaid Services (CMS). It includes every hospital stay, doctor's office visit, prescription, dental cleaning and administrative cost in the state to name just a few examples. Many state-level data were not provided by CMS, so an extensive estimation methodology was developed in order to arrive at Colorado-specific projections. CHI estimated that, across the state, $58.2 billion would be spent on these health care services in 2019.

Spending within ColoradoCare's responsibility. Next, CHI subtracted items outside of ColoradoCare's responsibility from total Colorado health consumption expenditures. These items include costs of Medicare and other federal programs, dental and vision benefits for adults who don't qualify for Medicaid and a number of other services. CHI projected that, of the $58.2 billion in health consumption expenditures in 2019, ColoradoCare would need to cover $37 billion.

Spending adjustments related to ColoradoCare. CHI then estimated all savings as well as any new expenses under the proposed ColoradoCare system. Savings would come from reduced administrative burdens and lower prices. New expenses include costs for extending coverage to all Coloradans, including those currently without insurance. CHI found that savings and new expenses would roughly cancel each other out, and spending in 2019 under ColoradoCare would be around $37 billion, close to the estimate of spending under the current system.

Projected ColoradoCare revenue. Finally, CHI analyzed available revenue from new taxes, state and federal government funding and copayments by members. CHI considered copayments as ColoradoCare revenue because they represent money that would be paid to cover expenses, even though this money would not flow through ColoradoCare's coffers. CHI found that revenue would fall slightly short of covering costs in 2019, and the gap would grow every year over the next decade.

Section One: Colorado Health Consumption Expenditures

CHI began with National Health Expenditure (NHE) reports from CMS.[1] State projections do not exist past 2009, so several adjustments to national data were made in order to calculate projected costs for Colorado.

Definitions:

- **"Expenditure type"** refers to a wide range of categories such as hospital care or dental services.
- **"Payer"** refers to all sources of payment, including private insurance and out-of-pocket.
- **National health expenditures** includes all health expenditures in the U.S.
- **Health consumption expenditures** (Health care expenditures) equals all national health expenditures minus investments in research, medical structures and equipment.
- **Personal health care** (PHC) spending also subtracts such items as public health spending and health insurance profits.

All NHE, health care expenditures and personal health care data are reported in "nominal dollars." Nominal dollars are dollars that are unadjusted for inflation, while "real dollars" are dollars that have been adjusted for inflation.

National Personal Health Care Projections

CHI used historical CMS data for U.S. personal health

care spending by expenditure type and payer between 2008 and 2014. CMS projections were used for 2015 to 2024.

Historical data were downloaded directly from CMS. However, the CMS projections for 2015 to 2024 don't have all details included in the historical data. For instance, while these projections report total Medicaid spending, it is not split by state and federal shares. CHI imputed data in some cases for years after 2014, when additional detail was not provided by CMS.

To do this, the 2014 ratios were applied to each category. Medicaid dental services is one example. In 2014, the federal share was 63 percent and the state share was 37 percent. That ratio was applied to 2015's total Medicaid spending on dental services. The 2015 total was $10.4 billion, so the estimated distribution was $6.5 billion federal spending and $3.9 billion state spending.

Colorado Personal Health Care Projections

Next, CHI adjusted for the fact that Colorado spending would look different from overall U.S. spending going forward. For example, since Colorado has a large veteran population, Colorado's Veterans Administration (VA) spending would be greater than the U.S. average.

Several methods were used to weight the Colorado-to-U.S. ratio:

- **Out-of-pocket spending:** 16.2 to 13.3 (the ratio of Colorado out-of-pocket spending to U.S. out-of-pocket spending[2]).
- **Private health insurance:** 40.3 to 34.2 (the ratio of Colorado private insurance spending to U.S. private insurance spending[2]).
- **Medicare:** 16.7 to 22.6 (the ratio of Colorado Medicare spending to U.S. Medicare spending[2]).
- **Medicaid/Child Health Plan *Plus* (CHP+) before 2014**: 11.9 to 7.2. (the ratio of Colorado Medicaid/CHP+ spending to U.S. Medicaid/CHP+ spending[2]).
- **Medicaid after 2014:** 17.5 to 19.2 (the ratio of Medicaid enrollment in Colorado to Medicaid enrollment in the U.S., according to the 2014 American Community Survey).
- **CHP+ after 2014:** 11.9 to 7.2 (the ratio of Colorado Medicaid and CHP+ spending to U.S. Medicaid and CHP+ spending because the two types weren't split[2]).
- **VA:** 9.3 to 7.9 (the ratio of the percentage of the 18+ population with veteran status in Colorado to U.S., according to the 2014 American Community Survey).
- CHI assumed every other payer had no reason to look substantially different from the U.S. average.

These ratios were then used to adjust the distribution of spending. For example, the Colorado-to-U.S. out-of-pocket ratio was 1.2 (16.2/13.3 = 1.2) in 2013. CHI therefore assumed Colorado spent 15.7 percent of its personal health care spending on out-of-pocket costs in 2015 based on the U.S. out-of-pocket expenditure of 12.9 percent in 2015 (12.9 percent * 1.2).

Finally, these percentages were standardized so that all expenditure types were forced to add up to 100 percent.

Next, CHI projected the rate of health spending growth in Colorado, based on U.S. spending growth projections.

CHI developed a ratio based on the rate of change by expenditure type in Colorado and the U.S. between 1999 and 2008. These 10 years were selected because the full effects of the recession hit Colorado in 2009, temporarily slowing the rate of state health spending relative to the U.S.

The ratio for each expenditure type was applied to the U.S. spending growth projections to get Colorado growth rate projections. CHI applied those Colorado growth rates to the most recent year of Colorado data from 2009, resulting in projected Colorado personal health care spending by expenditure type through 2024.

At this point, CHI had projections by expenditure type and the distribution of payers specific to Colorado. The next step was to estimate the projections by payer and expenditure type. For example, CHI had separate estimates of total home health care spending in Colorado and total Medicaid spending in Colorado but needed an estimate of Medicaid home health care spending.

To get this, expenditure type was multiplied by the payer distribution. For example: Colorado spent an estimated $2.4 billion on dental care in 2014, and 15.4

percent of Colorado's expenditures are out of pocket. CHI therefore estimated that Colorado spent $369 million on out-of-pocket dental care.

Colorado Health Consumption Expenditures

The final step was taking these personal health care values and turning them into estimates of Colorado's health care expenditures. Personal health care measures the total amount spent to treat people with specific medical conditions. Health care expenditures are the sum of personal health care spending and government public health activity, government administration and the net cost of health insurance (defined as total insurance expenditures minus benefits).

CHI calculated the ratio of health care expenditures to personal health care spending at a national level. That ratio was applied to projected estimates of Colorado's personal health care spending to arrive at total Colorado health care expenditures for 2019 through 2024.

Section Two: Spending Within ColoradoCare's Responsibility

Not all health consumption expenditures would become the responsibility of ColoradoCare, according to the constitutional amendment. This section details what was subtracted and why.

First, CHI removed services outside of ColoradoCare's responsibility:

- **Nursing home out-of-pocket, home health care out-of-pocket, nursing home private insurance and home health care private insurance**. ColoradoCare wouldn't provide for long-term services and supports, although it would continue to pay for any long-term services and supports provided by Medicaid. CHI defined the cost of non-Medicaid long-term services as out-of-pocket and private health insurance spending on nursing homes and home health care, and backed out this spending. The amount of spending to back out was calculated as part of the Colorado health care expenditures projection process, described above.
- **Non-durable medical equipment.** CHI assumed that ColoradoCare wouldn't pay for any non-durable medical equipment (NDME) that insurance doesn't currently pay for, such as bandages. However, CMS does not distinguish between health consumption expenditures for NDME and prescription drugs. CHI applied the national ratio of prescription drugs to non-durable medical equipment personal health care spending from CMS to the CHE value for "prescription drugs and other non-durable medical equipment." This resulted in an estimate of the value of NDME, which was backed out of Colorado health care expenditures under ColoradoCare's responsibility.
- **Public health expenditures.** ColoradoCare would not be responsible for public health expenditures, with the exception of $12 million in public health programs now provided by the state Medicaid agency, the Colorado Department of Health Care Policy and Financing (HCPF). Estimates of public health expenditures were calculated as part of the CHE projection process, described above. The $12 million exception was based on HCPF's fiscal year (FY) 2016-17 budget requests, which were projected out from 2017 to 2019 based on anticipated growth in state and local Medicaid health consumption expenditures.
- **Elective cosmetic surgery.** ColoradoCare would not pay for facelifts and other elective cosmetic surgery. About $13.5 billion was spent on elective cosmetic surgery in 2015 in the U.S., according to the American Society for Aesthetic Plastic Surgery[3]. Because Colorado has 1.5 percent of U.S. health care spending, CHI assumed the state accounts for 1.5 percent of national cosmetic surgery spending, or $230 million. The 2019 projection is based on the assumption that this spending will grow at the same rate as total health spending.
- **Non-Medicaid adult dental care.** Amendment 69 does not say ColoradoCare would cover adult dental care. But it would have to continue covering dental for Medicaid-eligible Coloradans. Because adults make up about 81.5 percent of total dental spending according to the 2013 Medical Expenditures Panel Survey (MEPS), CHI applied this percentage to projected 2019 dental spending, then subtracted the Medicaid portion. Adults make up about 52 percent of Medicaid dental spending.
- **Non-Medicaid adult vision services.** Amendment

69 does not say ColoradoCare would cover adult vision services. But it would have to continue covering vision care for Medicaid-eligible Coloradans. CHI applied the Colorado-to-U.S. spending ratio to total U.S. spending on non-Medicaid vision services in 2019.[4]

- **Non-Medicaid adult hearing services**. Amendment 69 does not say ColoradoCare would cover adult hearing care. But it would have to continue covering hearing for Medicaid-eligible Coloradans. CHI assumed that five percent of the population needs hearing services[5] at an annual per capita cost of $200 for screening[6] and $880 for hearing aids.[7] An estimated 70 percent of the population needs two hearing aids.[8] CHI applied these numbers to the projected non-Medicaid adult population of 3.2 million and increased by a 2015-2019 spending growth rate.

Second, CHI subtracted expenditures that would be covered by payers other than ColoradoCare, using the health care expenditures estimates:

- **Medicare,** the federal program that provides coverage for everyone aged 65 and above, as well as younger people with disabilities and those with end-stage renal disease.
- **TRICARE,** the health insurance program for active-duty and reserve military service members and their families.
- **Veterans Administration,** the benefit program for military veterans.

Finally, CHI projected ColoradoCare's actual share of this spending in practice. Private insurance would be allowed to continue doing business in Colorado. In industrialized countries with government-administered health coverage systems, the private market continues to account for an average of about 20 percent of the health care spending.[9]

Private coverage would continue to pay for some adult dental, vision, cosmetic surgery and other items, as detailed above. This accounts for about 15 percent of the 20 percent in private spending that Colorado might expect under Amendment 69.

That left an estimated five percent of total health consumption expenditures that would remain in the private insurance market, assuming some people prefer private physician networks or would have employers who continue to offer coverage despite ColoradoCare.

After removing this five percent, CHI estimated that ColoradoCare would be responsible for $37 billion in Health care expenditures in 2019.

Section Three: Spending Adjustments Related to ColoradoCare

ColoradoCare is likely to benefit from additional savings and incur new expenses.

CHI identified opportunities for savings and subtracted these from ColoradoCare's expenses:

- **Reductions in administrative costs for providers.** Providers could expect to see administrative savings because they would have to deal with fewer payers and fill out fewer forms. CHI assumed 13.9 percent of the health care expenditures categories of physician services, other professional services and dental expenditures and 6.6 percent of hospital care expenditures go to billing activities.[10] While not all of these administrative burdens would go away, CHI does estimate that it would reduce 47 percent from the first category and 50 percent from the second category.[10] CHI assumed the savings would take a couple years to be fully implemented. CHI assumed 60 percent of the savings would be realized the first year and 80 percent the year after. Full savings would be realized by the third year in this model.
- **Reductions in private insurance administrative costs and profits.** CHI assumed that 14.1 percent of private health insurance spending is administrative costs and profits.[11]
- **Reduction in Medicaid administrative costs.** Any administration costs related to Medicaid would still have to be covered by ColoradoCare, but CHI removed these at this point because they would be added back in later. CHI assumed that four percent of Medicaid expenditures are for administration.[12]
- **Drug, medical and hospital price savings.** ColoradoCare would have more than four million

enrollees,[13] most likely enabling it to negotiate some price breaks with hospitals. To estimate hospital savings, CHI took the difference in Colorado hospitals' current profit (13.9 percent) and median profit (10.2 percent) margins, which is 3.7 percent.[14] That was applied to the projected total hospital health care expenditures in 2019. But drug and equipment pricing is negotiated at a national level, and ColoradoCare would not have as much bargaining power as bigger national insurers. CHI did not assume any savings from bulk purchases of drugs or medical equipment.

- **Fraud reduction savings**. Amendment 69 would direct ColoradoCare to set up a fraud reduction unit. But because fraud tends to be higher in public programs, which ColoradoCare would be, than in private insurance, CHI assumed no savings.[15]
- **ACA-related private insurance administrative and exchange expenses.** ColoradoCare would not be responsible for some ACA-specific costs identified by the Congressional Budget Office (CBO). CHI adopted an analysis of the costs identified by the CBO.[16]

CHI also assumed that ColoradoCare would incur some new costs and added these to ColoradoCare's total expenses:

- **Covering the newly insured.** About 6.7 percent of Coloradans are currently uninsured, according to the Colorado Health Access Survey (CHAS). Data show that when people gain health insurance their use of health care services increases. CHI estimated how much Coloradans are averaging on health care spending now by age, health status and insurance status using data from the 2013 MEPS. CHI calculated the spending differences between insured and uninsured Coloradans below the age of 65 in order to remove Medicare beneficiaries from the equation. The calculation was further refined by age and health status. CHI applied the difference in spending of the insured versus uninsured by age and health status to Colorado's remaining uninsured population by age and health status to arrive at an estimated increase in spending if all Coloradans were covered. Finally, people gaining insurance without a deductible, as would be the case under ColoradoCare, would spend more than current insurees with deductibles. CHI adjusted for that expectation using the method described below under "paying for higher use of health care."
- **Paying for higher use of health care.** Amendment 69 specifies that the ColoradoCare plan would not have deductibles. Currently, 20.6 percent of insured Coloradans under the age of 65 are covered by a high-deductible plan.[17] Studies show that moving from a high-deductible plan to a no-deductible plan can lead to a 12.8 percent increase in use of health care services. CHI therefore assumed a 12.8 percent increase in use for 20.6 percent of the spending in this category. CHI did not assume that there would be any additional changes to utilization. The amendment does not specify an actuarial value, but proponents have said they expect an actuarial value of 96 percent. CHI, however, assumed the actuarial value would not change from 86 percent, the weighted average of the actuarial values across all current plans in the state, public and private.
- **Administration costs.** ColoradoCare would have administration costs, although CHI assumed they would be lower than the administration costs of the current private market. CHI assumed that 4.08 percent of costs would be administrative, based on an analysis by the World Health Organization (WHO) of all public schemes.[18]
- **Medicaid premium refunds.** Payroll taxes paid by Medicaid-eligible ColoradoCare members would have to be reimbursed to them under federal law. CHI assumed that 3.33 percent of the total income of Medicaid enrollees[19] would be returned.

Finally, CHI projected these estimates past 2024 in order to obtain a complete 10-year forecast. CHI applied the change in spending from 2023 to 2024 and assumed the same rate of change continued every year from 2025 to 2028.

Section Four: ColoradoCare Revenue

Revenue would come from four sources: a new 10 percent tax on payroll and income, redirected federal and state Medicaid funding, redirected federal tax subsidies for people who bought insurance through Connect for Health Colorado (the state-based health insurance marketplace) and out-of-pocket costs paid by ColoradoCare members.

The main source of funding for ColoradoCare would be the new payroll and income tax. The state Legislative Council estimated the proposed tax would bring in $25 billion in 2019.

The second largest source of ColoradoCare funding would be redirected state and federal funds that currently pay for Medicaid. Colorado could apply for a federal waiver to continue using federal Medicaid match money to fund ColoradoCare. If the federal waiver were approved, ColoradoCare would continue to get at least some of the Medicaid payments from the federal government.

CHI assumed ColoradoCare would get these funds:

- **"Traditional" Medicaid premiums.** This is calculated as the total Medicaid funding minus the federal share of the Hospital Provider Fee, bottom-line financing, and Disproportionate Share Hospital (DSH) funds described below.

CHI assumed ColoradoCare would not get these funds:

- **Hospital Provider Fee.** The 2019 value of the federal match from the Hospital Provider Fee comes from the HCPF FY 2016-17 budget request, projected out to 2019.
- **Total bottom-line financing**. These are small pockets of funding within Medicaid:
    - Upper Payment Limit Financing
    - Department Recoveries Adjustment
    - Denver Health Outstationing
    - Hospital Provider Fee Supplemental Payments
    - Nursing Facility Provider Fee Supplemental Payments
    - Physician Supplemental Payments
    - Memorial Hospital High Volume Supplemental Payments
    - Health Care Expansion Fund Transfer Adjustment
    - Cash Funds Financing

One exception is Intergovernmental Transfer for Difficult to Discharge Clients. These transfers would still have to happen, so CHI assumed the state will continue to get the full amount, roughly $1 million.

- **DSH funds**. CHI assumed that the state would not continue to receive its DSH funds because there would no longer be uninsured Coloradans.

The third revenue source would be Connect for Health Colorado tax subsidies. Pending approval of a federal waiver, ColoradoCare would get funding currently spent on tax subsidies to make insurance more affordable for customers of the online marketplace. CHI obtained the 2015 tax credit amounts received by Colorado and based projections for 2019 on the expected growth in health insurance spending from 2015 to 2019.

Out-of-pocket costs would be the fourth funding source. CHI assumed that the current average actuarial value in Colorado of 86 percent would continue under ColoradoCare, meaning that members would pay for 14 percent of the consumer health expenditures. CHI also assumed that the Medicaid payments wouldn't be subject to this cost-sharing.

As with ColoradoCare expenses, CHI projected revenue estimates out past 2024 in order to obtain a complete 10-year forecast. Medicaid, tax subsidy and out-of-pocket spending were grown by applying the change in revenue from 2023 to 2024 to each year from 2025 to 2028. Premium tax revenue was grown according to an annual rate projection from the Colorado Futures Center.

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Notes

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