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CENTER FOR IMPROVING
VALUE IN HEALTH CARE

Total Cost of Care Multi-State Project:
Colorado Results

February 2018

Overview

- Multi-State Project funded by Robert Wood Johnson Foundation, led by Network for Regional Healthcare Improvement
- Colorado data based on 2015 claims in the CO APCD
  - 14 commercial health payers
  - 102 adult primary care practices
  - 24 pediatric primary care practices

**REGIONAL COMMITMENT.
NATIONAL IMPACT.**

Pilot RHICs

Center for Improving Value in Health Care | Colorado
Maine Health Management Coalition | Maine*
Midwest Health Initiative | St. Louis, Missouri
Minnesota Community Measurement | Minnesota
Oregon Health Care Quality Corporation | Oregon

Expansion Regions

Greater Detroit Area Health Council | Michigan
HealthInsight Nevada | Nevada
HealthInsight New Mexico | New Mexico
HealthInsight Utah | Utah
Health Care Improvement Foundation | Philadelphia
The Health Collaborative | Ohio
Integrated Healthcare Association | California
Maryland Health Care Commission | Maryland
Massachusetts Health Quality Partners | Massachusetts
The University of Texas Health Science Center at Houston | Texas
Virginia Health Information | Virginia
Washington Health Alliance | Washington
Wisconsin Health Information Organization | Wisconsin

The initiative was piloted by NRHI and RHICs in five regions. Their success led to the expansion to thirteen additional regions over the course of the project.

*Phase I and II only participant

Why Understanding This Data Matters

- **Between 2006-2016, annual premiums** paid by families with employer-sponsored health insurance **increased by 77%, from $2,973-$5,277**.

- During the same period, **median household income rose by just below 19 percent**, from $48,451-$57,617.

- By 2030, Medicare beneficiaries are likely to pay **up half of their average Social Security income** for out-of-pocket health care costs.

- **With 30 percent of health care services deemed "low value" or "waste,"** there is ample opportunity to bring down the cost of health care without reducing or compromising patient care.

How This Study is Different

- **Other studies are either too broad** to be actionable on the ground **or too specific to be meaningful** to measure system-wide change. These results do both for the first time.

- CO has always known costs vary regionally and are higher in some areas of the state. This helps us to **understand whether price, utilization or both are driving costs** within the state and statewide when we make multi-state comparisons.

- CO's comparison gives us insights into how our marketplace differs from other lower-cost lower-utilization areas, offering **potential alternatives to our model**.

Figure 1. Multi-State Total Health Care Cost Comparison
(Source: Getting to Affordability: Untangling Cost Drivers)
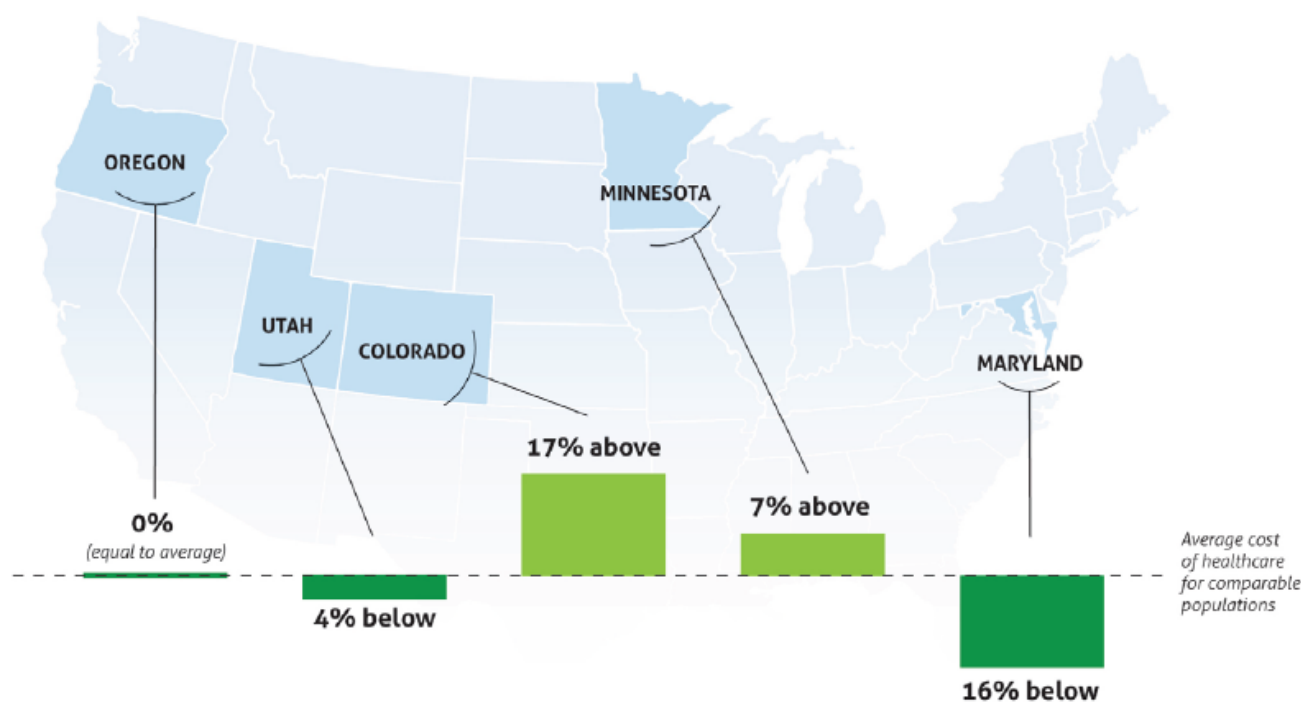
Relative Cost of Healthcare

Opportunities for reducing the cost of healthcare are revealed by comparing 2015 risk-adjusted spending across participating states for private payers. Bringing the higher than average cost states highlighted above down to the average of the participating states could potentially save over $1 billion. Imagine if all the participating states could match the lowest cost state, several billion dollars would be available for other parts of the economy.

State Comparison of Total Cost Drivers

Untangling The Cost Drivers
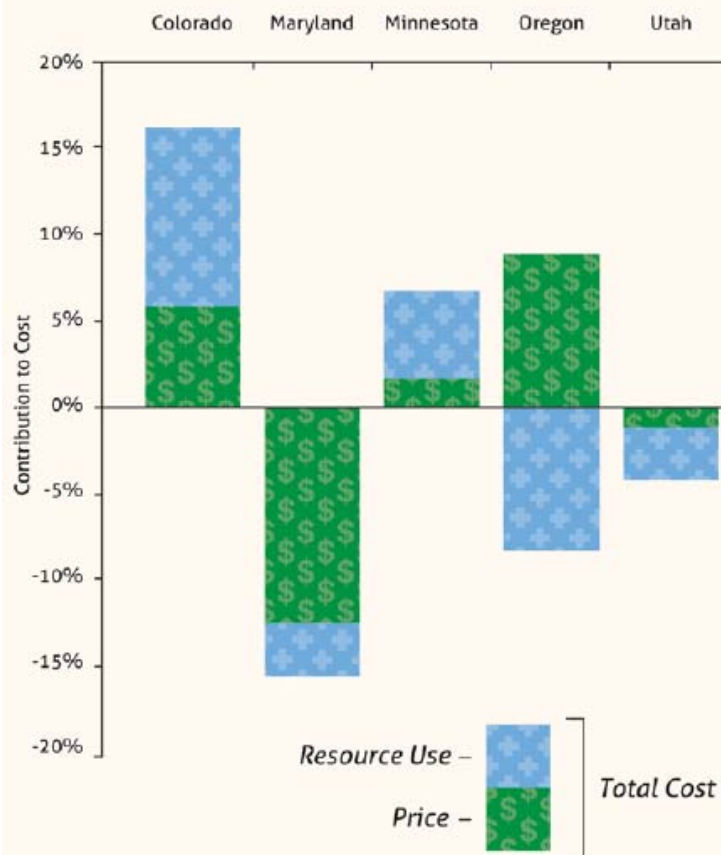
The size of the bars represents the impact of price and resource use on the total cost. As seen in the above graphic, price and resource use played different roles in the variation of total cost by state.

Total Cost of Care by Service Category
Commercial Population 2015
Combined Attributed and Unattributed

Measure	Colorado	Maryland	Minnesota	Oregon	Utah
Total Cost					
Overall	17%	-16%	7%	0%	-4%
Inpatient	16%	-18%	7%	0%	-1%
Outpatient	30%	-30%	0%	-7%	17%
Professional	5%	-18%	21%	12%	-17%
Pharmacy	24%	7%	-11%	-12%	-8%
Resource Use					
Overall	11%	-3%	5%	-8%	-3%
Inpatient	0%	-7%	8%	-14%	16%
Outpatient	25%	-19%	5%	-16%	13%
Professional	3%	2%	10%	-3%	-13%
Pharmacy	23%	6%	-9%	-10%	-9%
Price					
Overall	6%	-13%	1%	9%	-1%
Inpatient	16%	-12%	-1%	16%	-14%
Outpatient	4%	-13%	-5%	11%	4%
Professional	2%	-20%	10%	15%	-5%
Pharmacy	0%	1%	-2%	-2%	2%

Comparison to Other Studies

Table 2. HCCI Price Index for Denver-Aurora-Lakewood (2012-2014) vs.
CO APCD Total Cost of Care Five-State Price Comparison (2015)

SERVICE CATEGORY	2012 Denver CBSA compared to National Average*	2013 Denver CBSA compared to National Average*	2014 Denver CBSA compared to National Average*	2015 Colorado compared to 5-State Average*
Inpatient	11%	7%	13%	16%
Outpatient	14%	25%	37%	30%
Professional	4%	5%	2%	5%
	National Average	National Average	National Average	5-State Average
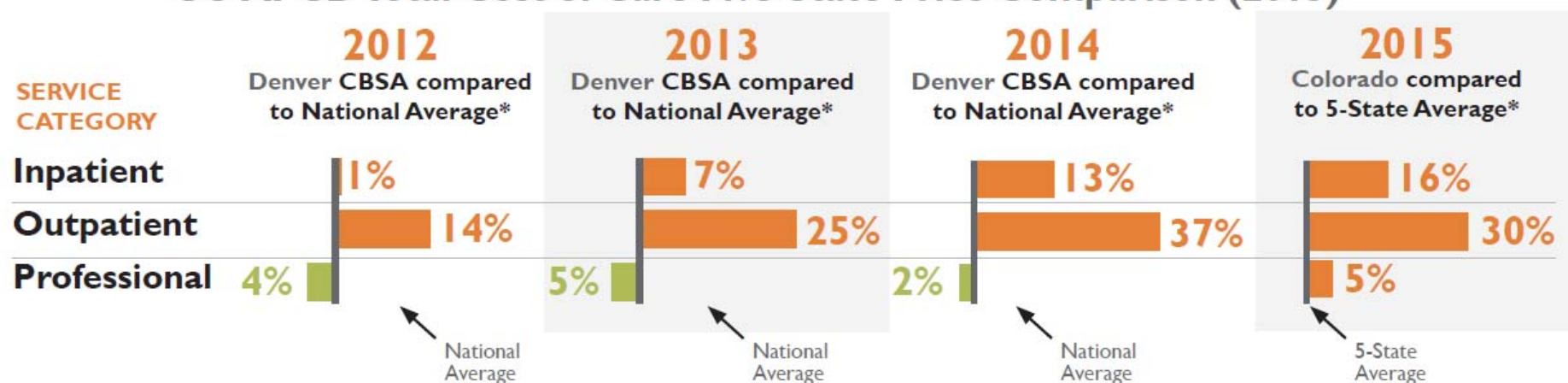
*Source: Health Care Cost Institute Healthy Marketplace Index
**Source: Colorado All Payer Claims Database, Getting to Affordability: Untangling Cost Drivers

The CO APCD data is more recent, includes more of the population of Colorado, and covers the entire state when compared to the HMI analysis, however, the results of both studies indicate consistent opportunities for improvement in Colorado.

Data reflects 2015 claims from the Colorado All Payer Claims Database included in the Network for Regional Healthcare Improvement Total Cost of Care Project. For full report, visit www.civhc.org.

Colorado Regional Data, Total Cost of Care

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Table 3. Total (Inpatient, Outpatient, Professional, Pharmacy) Median Risk-Adjusted Per Member Per Month (PMPM) Cost by CO Division of Insurance Region

	COST PMPM	UTILIZATION Compared to the CO Statewide Median*	PRICE Compared to the CO Statewide Median*
East	$591	8%	21%
Greeley	$559	6%	17%
West	$547		33%
Grand Junction	$539	2%	23%
Pueblo	$455	9%	7%
Boulder	$439	5%	8%
Fort Collins	$424	8%	4%
Denver	$403	1%	7%
Colorado Springs	$390	8%	6%

Statewide Median: $437

Statewide Median (arrow)   Statewide Median (arrow)

*Statewide medians only reflect results for the 102 adult primary care practices included in the study
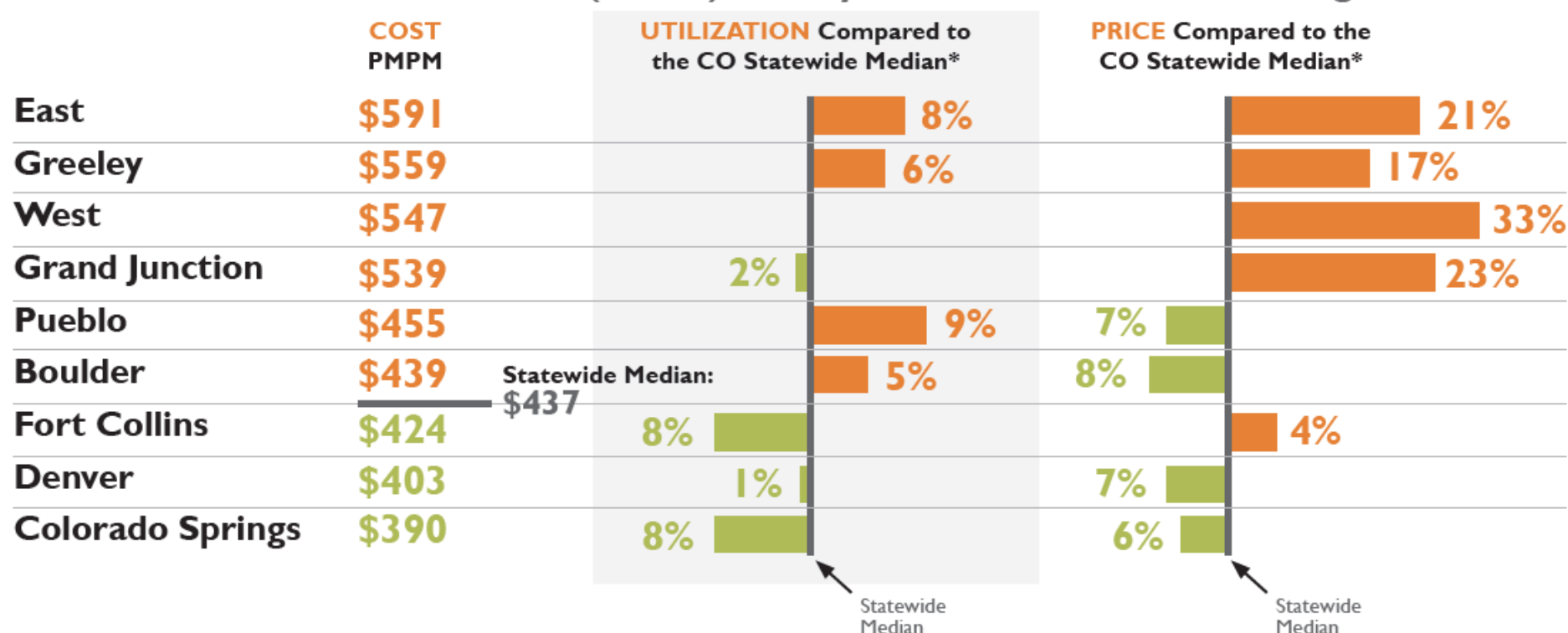
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Colorado Regional Data, Outpatient Costs PMPM

Fort Collins $121

Greeley $208

West $207

$101

Boulder

Denver $94

Grand Junction $185

Colorado Springs $87

East $192

Pueblo $129

Statewide Median PMPM for Outpatient: $104

Data reflects 2015 claims from the Colorado All Payer Claims Database included in the Network for Regional Healthcare Improvement Total Cost of Care Project. For full report, visit www.civhc.org.
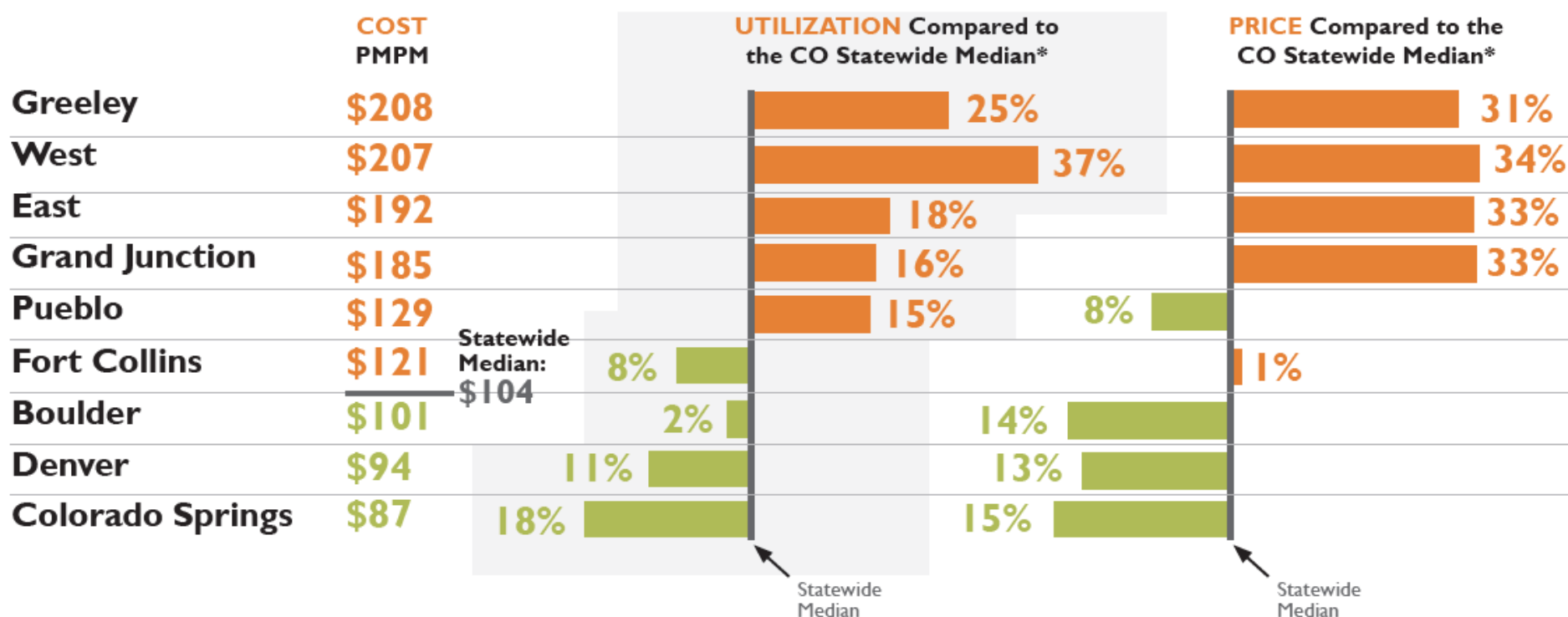
Colorado Regional Data, Outpatient Costs

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Table 4. Outpatient Median Risk-Adjusted Per Member Per Month (PMPM) Cost by Colorado Division of Insurance Regions

	COST PMPM	UTILIZATION Compared to the CO Statewide Median*	PRICE Compared to the CO Statewide Median*
Greeley	$208	25%	31%
West	$207	37%	34%
East	$192	18%	33%
Grand Junction	$185	16%	33%
Pueblo	$129	15%	8%
Fort Collins	$121	8%	11%
Boulder	$101	2%	14%
Denver	$94	11%	13%
Colorado Springs	$87	18%	15%

Statewide Median: $104

Statewide Median

Statewide Median

*Statewide medians only reflect results for the 102 adult primary care practices included in the study

Data reflects 2015 claims from the Colorado All Payer Claims Database included in the Network for Regional Healthcare Improvement Total Cost of Care Project. For full report, visit www.civhc.org.
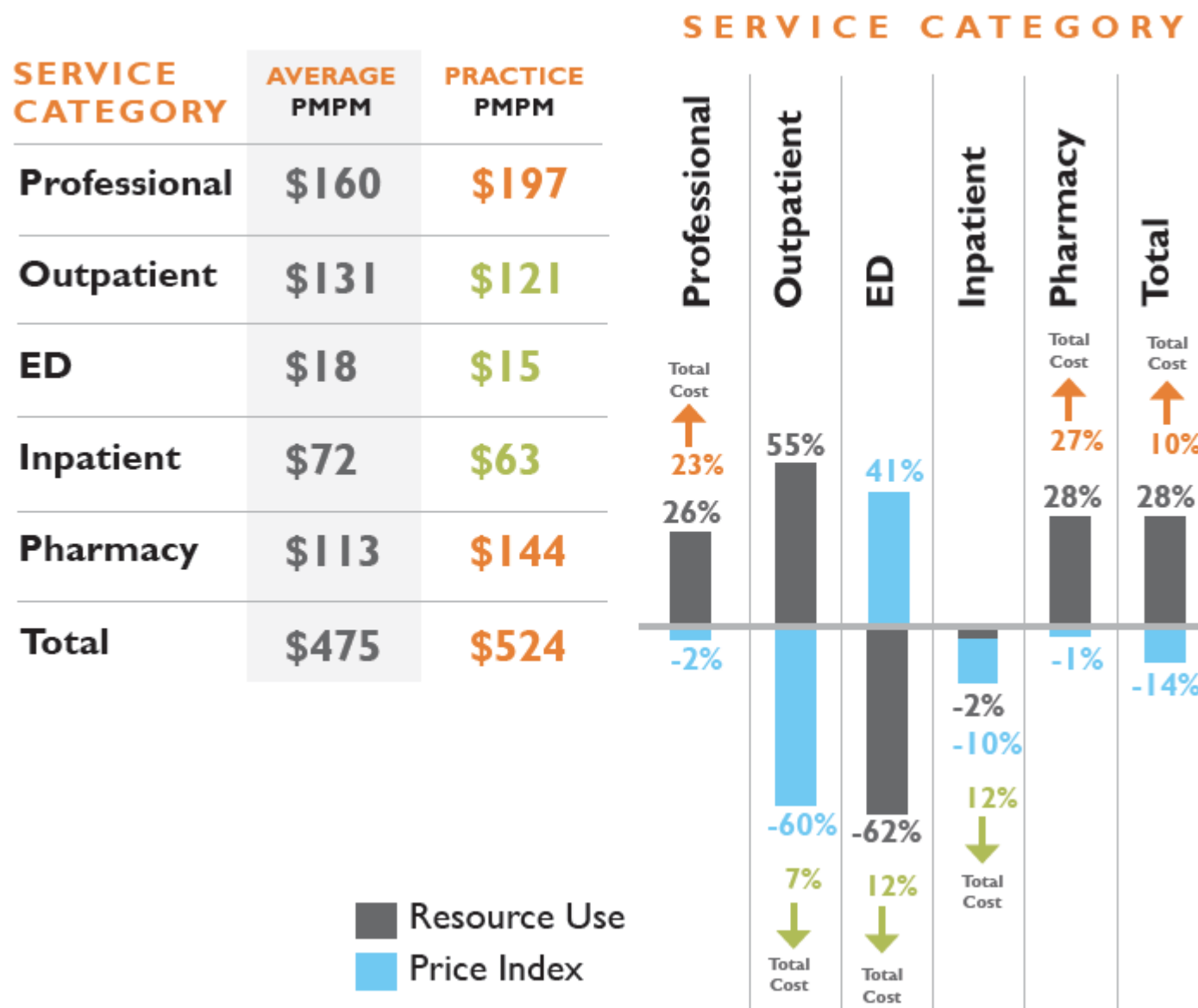
Figure 5: Colorado Provider Practice Utilization and Price Comparison
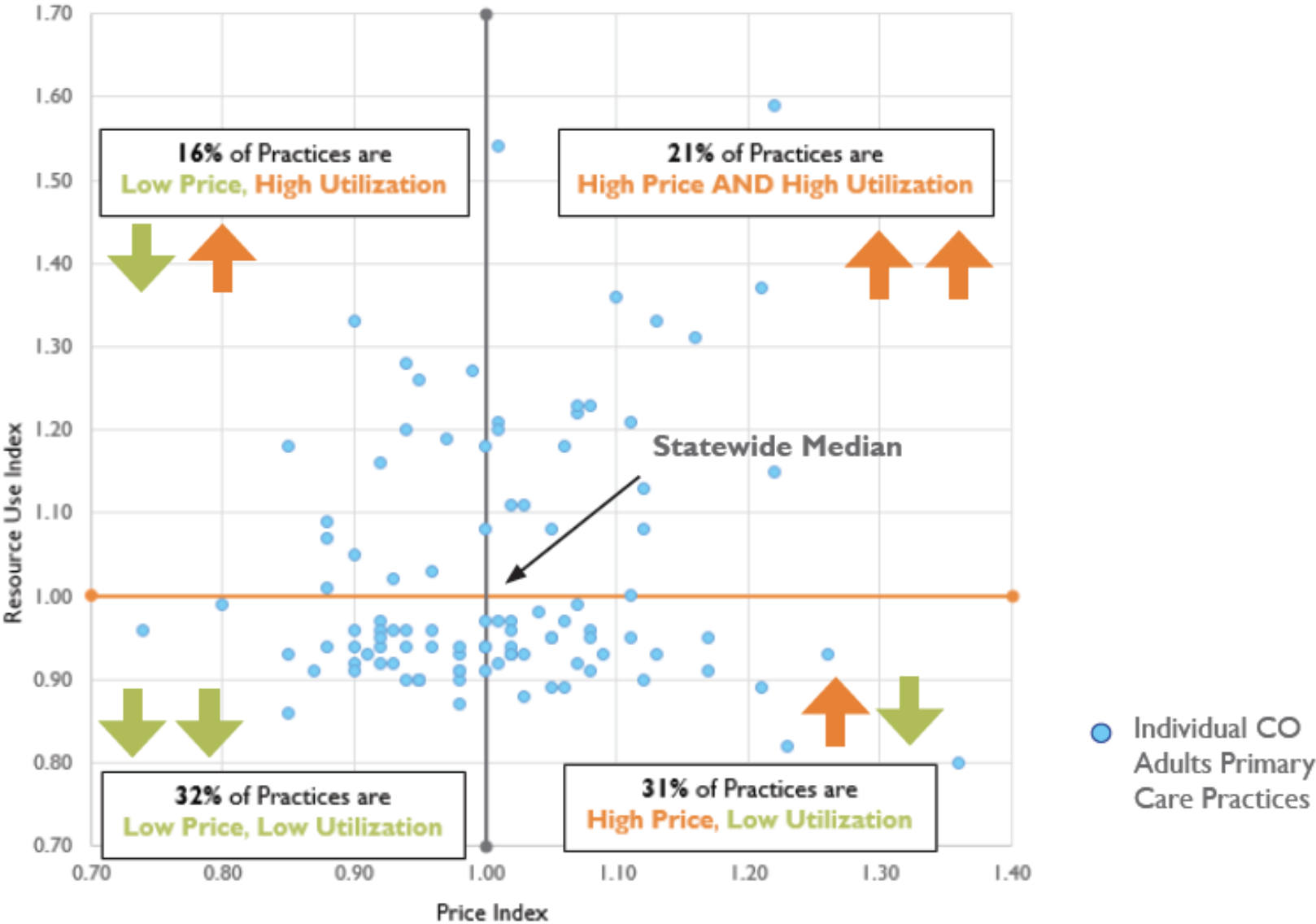
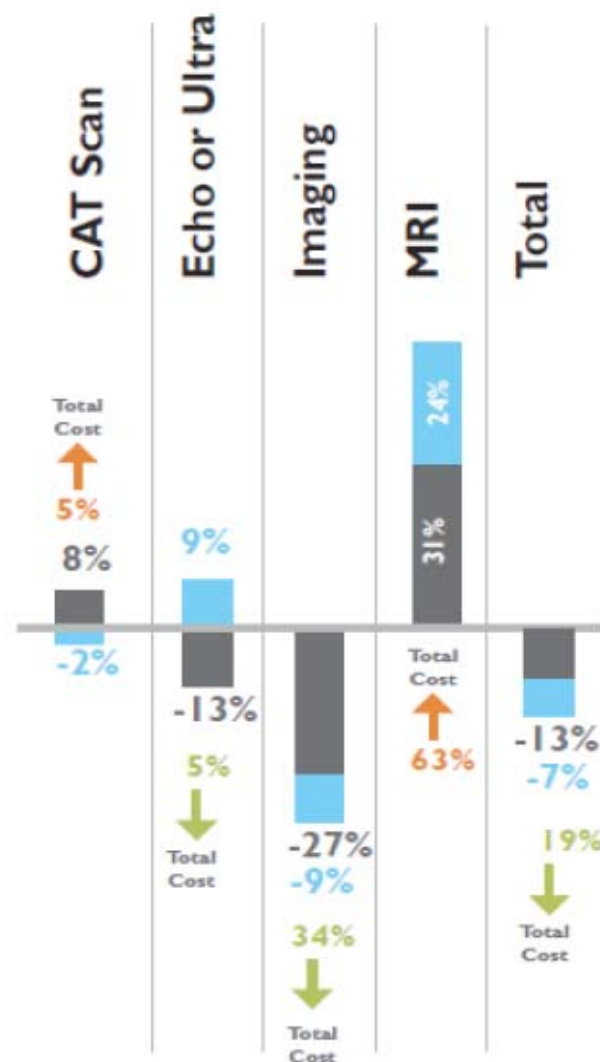*CO All Payer Claims data represents 102 adult primary care practices included in the Total Cost of Care Project

Example of Overview Data Provided to Practices

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SERVICE CATEGORY	AVERAGE PMPM	PRACTICE PMPM
Professional	$160	$197
Outpatient	$131	$121
ED	$18	$15
Inpatient	$72	$63
Pharmacy	$113	$144
Total	$475	$524

SERVICE CATEGORY

Legend:
- ■ Resource Use
- ■ Price Index

Professional: Total Cost ↑ 23%, 26%, -2%
Outpatient: 55%, -60%, 7% Total Cost
ED: 41%, -62%, 12% Total Cost
Inpatient: -2%, -10%, 12% Total Cost
Pharmacy: Total Cost ↑ 27%, 28%, -1%
Total: Total Cost ↑ 10%, 28%, -14%

Example Service-Level Data Provided

IMAGING CATEGORY	AVERAGE PMPM	PRACTICE PMPM
CAT Scan	$2	$2
Echo or Ultra	$3	$2
Imaging	$31	$21
MRI	$5	$8
Total	$41	$33

IMAGING CATEGORY

CAT Scan — Total Cost ↑ 5%, 8%, -2%

Echo or Ultra — 9%, -13%, 5%, Total Cost ↓

Imaging — -27%, -9%, 34%, Total Cost ↓

MRI — 24%, 31%, Total Cost ↑ 63%

Total — -13%, -7%, 19%, Total Cost ↓

Resource Use
Price Index

Who Can Use These Reports

- **Primary Care Providers** participating in pay-for-value programs where they are responsible for care beyond their walls.

- **Policymakers** looking to better understand drivers of Colorado's relatively high total cost of care, the causes of variation across different regions of the state, and what might be done to better control costs.

- **Employers and health plans** looking for ways to align benefit designs to help patients make high value health care decisions and select high value health providers.

- **Consumers** looking for information on where to receive high value care.

- **Add nationally endorsed quality measures** to the practice-level reports
- Make some of the information in **practice-level analysis available publicly**
- **Add additional payers**
- **Offer as a service** to additional practices

Questions?

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- www.civhc.org for more information