



Getting to Affordability:

Spending Trends and Waste in California's Health Care System

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Introduction

While California has made impressive strides in increasing the number of residents who have health insurance coverage — and proposals for reaching the remaining uninsured continue to be debated at the state and federal level — health care is still far too expensive for the three million Californians who lack coverage and the 37 million who do not. The average cost of a family health insurance plan in California is nearly \$20,000 per year, almost one-third of median family income in the state. Premiums for the average family health plan in the employer market in California have increased 133% since 2002, vastly outpacing inflation. The average deductible facing a California family now exceeds \$3,000, while the average copay for a physician office visit is nearly \$25.¹

Californians are desperate for relief from these costs. In a 2018 statewide survey, more residents were extremely or very worried about paying for health care than those worried about paying for housing, transportation, or utilities.² This fear at least partially reflects Californians' direct experience. About one out of five Californians reported problems paying medical bills for themselves or a family member in the past year, leading them to cut back on basic household spending, use up all of their savings, or delay or forgo medical treatments or prescription drugs.³ Nearly half experienced some type of cost-related access problem for themselves or a member of their family.⁴ Part I of this report further explores how health care costs are affecting the state's residents and forcing state officials to make unnecessary trade-offs.

Part II of this report describes sources of health insurance coverage in the state, spending by payer, and trends in spending over time. Individuals with employer-sponsored insurance are the largest segment of the population, and they account for the largest percentage of health spending in the state. Both inflation-adjusted premiums and deductibles for employer-sponsored insurance increased substantially from 2000 to 2017, with worker contributions to health care more than tripling at businesses with fewer

than 25 workers. Office-based visits, inpatient hospital stays, and prescription drugs drive much of health care spending across market segments in California.

There is nothing inherently wrong with rapid growth or high absolute levels of health care spending if the increased expenditure expands coverage or leads to improved care. However, Part III uncovers a troubling pattern in the state: Prices for the same medical treatments vary widely across California, even though these differences do not necessarily reflect higher-quality care. Significant evidence shows that health spending could be reduced without reducing access or undermining quality.

Part IV explores six areas of focus for understanding cost containment approaches targeting unnecessary spending across the state's health care system: (1) overtreatment, (2) failures of care delivery and inadequate prevention, (3) failures of care coordination, (4) administrative complexity, (5) pricing and market inefficiencies, and (6) fraud and abuse. These areas suggest significant opportunities to reduce health spending without adversely affecting patient health outcomes. In 2010, the Institute of Medicine (now the National Academy of Medicine) estimated that almost one-third of the nation's health care spending was wasteful and unnecessary. Shrank et al. updated the IOM estimates using more recent data and found that between 20% and 25% of national health spending can be attributed to waste.⁵ Assuming that California has a similar proportion of unnecessary spending, we estimate that the state could save between \$58 and \$73 billion per year by eliminating unnecessary spending.

Crucial to any cost containment effort is a detailed understanding of what costs are being reduced, where they are coming from, and who has the potential to capture the savings. In this report we focus on the landscape of health care spending and a framework for understanding cost containment approaches in California. The financial impact of a wide range of policy proposals aimed at reducing health care spending will be the subject of a second, follow-up report in this series.

I. Why Health Care Costs Matter

The vigorous public debate often swirling around health care policies may at times obscure the influence that health care costs have on the well-being of the population. To truly understand the importance of lowering the rapid growth of health care spending, it is illuminating to reflect on how citizens themselves are affected by health care costs.

Health care costs and access to quality care are very much on the minds of California residents. In late 2018, the Kaiser Family Foundation and the California Health Care Foundation conducted a representative survey of the state’s residents to gauge their views on the health policy priorities facing the state, as well as their experiences in the health care system.⁶ Among respondents, making health care affordable was a top priority. About 45% called affordability extremely important, second only to improving public education. When asked specifically about health care, Californians said their highest priorities were ensuring that people with mental health problems could get treatment, increasing access to coverage, and lowering the cost of health care.

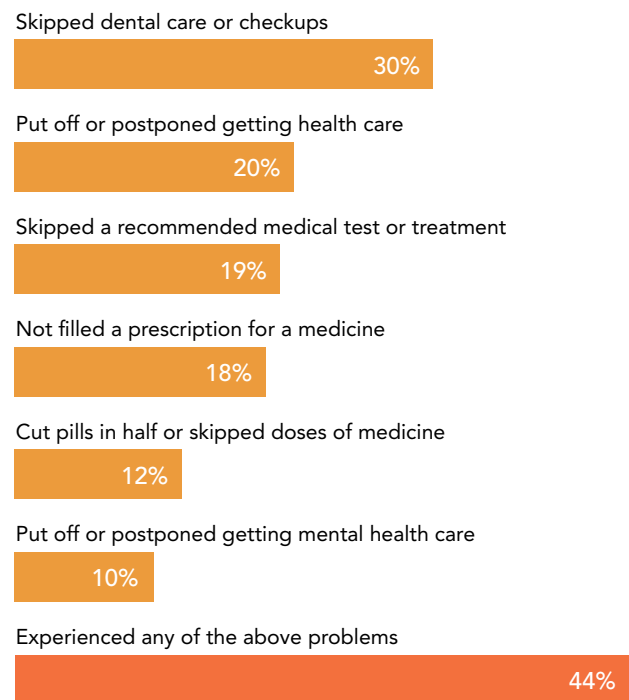
Survey respondents’ concerns about health care costs appeared to stem from their own experiences. As indicated above, about one out of five Californians reported problems paying medical bills for themselves or a family member in the past year. This number rises to nearly a third of Californians with debilitating medical conditions, those on Medi-Cal or without health insurance, and those with incomes below 200% of the federal poverty level. Residents, especially those without health insurance, reported concerns that they could not pay unexpected medical bills. Some residents who struggled to pay medical bills reported cutting spending on basic household items, putting off vacations or major purchases, and using up all of their savings.

Health care costs caused some Californians to delay or forgo medical treatments or prescription drugs. More than two out of five respondents said they or another family member in their household postponed or skipped care in the past year due to cost, including dental appointments and medical tests (Figure 1). Some didn’t fill prescriptions or skipped doses. Californians with lower incomes, those who lack health insurance, and Black and Latino residents were more likely than their white or Asian American counterparts to postpone or forgo care because they feared they would not be able to afford it.

For the 2019–2020 budget year, California allocated \$67 billion in total state funds to health and human services, \$42 billion of which came from the state general fund.⁷ Allocations for health and human services accounted for 28% of all general fund expenditures,

Figure 1. Two Out of Five Californians Postponed or Skipped Getting Health Care Due to Cost

CALIFORNIANS WHO HAVE ... IN THE PAST 12 MONTHS BECAUSE OF THE COST



Source: KFF/CHCF California Health Policy Survey (November 12 to December 27, 2018).

up from 25% in the 2018–2019 budget year. Concerns about waste in the system raise the possibility that other public policy priorities like education or housing may be shortchanged at the expense of low-value health care. As former Centers for Medicare & Medicaid Services (CMS) Administrator Donald Berwick discussed in a recent editorial, the degree of wasteful spending in our health system raises the possibility that “schools, small businesses, road builders, bridge builders, scientists, individuals with low income, middle-class people, would-be entrepreneurs, and communities as a whole could make much, much better use of that money.”⁸

II. A Snapshot of Health Spending Trends in California

Expenditures on personal health care for Californians totaled \$292 billion in 2014, according to CMS.⁹ California accounts for roughly 10% of total health spending in the nation.¹⁰

Individuals with employer-sponsored insurance (ESI) account for the largest portion of both the population and health spending in the state (see Table 1).

Inflation-adjusted premiums and deductibles for ESI both increased substantially since 2000, and large increases affected small and large firms alike. At approximately \$11,900 per year, Medicare beneficiaries have per-capita health spending that is roughly twice as high as that of other Californians. Spending by Californians without health insurance now accounts for only about 2% of total spending on health care.

Per-capita health spending in the state has grown steadily over time. Those with private health insurance coverage have faced the highest growth rates — about 4% per year. Office-based visits, inpatient hospital stays, and prescription drugs disproportionately fuel increases in health spending in California. With an average annual growth rate of more than 7%, prescription drug spending has far outpaced inflation.

This section uses data from the Medical Expenditure Panel Survey Household Component (MEPS-HC), conducted by the Agency for Healthcare Research and Quality (AHRQ), to explore these and other health spending trends in California from 2000 through 2016.¹¹ (More details about the report’s methodology are in Appendix A.) The remainder of this section presents a detailed analysis of the 2000–2016 MEPS data, including health spending by insurance type, site of service, and employer size.¹²

Table 1. Population Size and Health Spending in California, by Insurance Type, in 2016 Dollars

MARKET SEGMENT	POPULATION SIZE (MILLIONS)	TOTAL SPENDING (BILLIONS)	AVERAGE SPENDING	PERCENTAGE OF POPULATION	PERCENTAGE OF SPENDING
Employer	17.3	\$79.5	\$4,600	43%	37%
Medicare	4.7	\$55.8	\$11,900	12%	26%
Medi-Cal	10.6	\$56.4	\$5,300	26%	27%
Non-group	3.3	\$11.5	\$3,500	8%	5%
Other	1.5	\$5.8	\$3,900	4%	3%
Uninsured	2.6	\$3.6	\$1,400	7%	2%
Totals	40	\$213	\$5,300	100%	100%

Note: Totals may not sum due to rounding.

Source: Authors’ calculations based on MEPS-HC.

Health Spending by Insurance Type

Considering the wide variety of funding sources in health care is important when assessing the impact of programs on specific populations or groups. In California, with its highly diverse population, this is especially relevant.

Table 1 describes the size of health spending according to the primary source of insurance coverage for a given year. Because the team assigned each individual in the data to a primary source of health insurance, some segments of the market may be assigned lower levels of coverage than estimates that allow for multiple sources of coverage.

Californians with employer-sponsored insurance are the largest group in the market, with 17.3 million enrollees. With average per-capita health spending of \$4,600, the ESI population accounts for 37% of health spending in California, as well as 43% of the population.

The next-largest group, those with Medi-Cal¹³ as their primary source of coverage, accounts for 26% of the population and 27% of health spending. Medi-Cal is funded by state, local, and federal sources.¹⁴ The federal government funds approximately 63% of Medi-Cal expenditures. Nonfederal sources, including California counties and municipalities, provide approximately 16% of Medi-Cal funding, and the remaining 21% comes from the California general fund.¹⁵

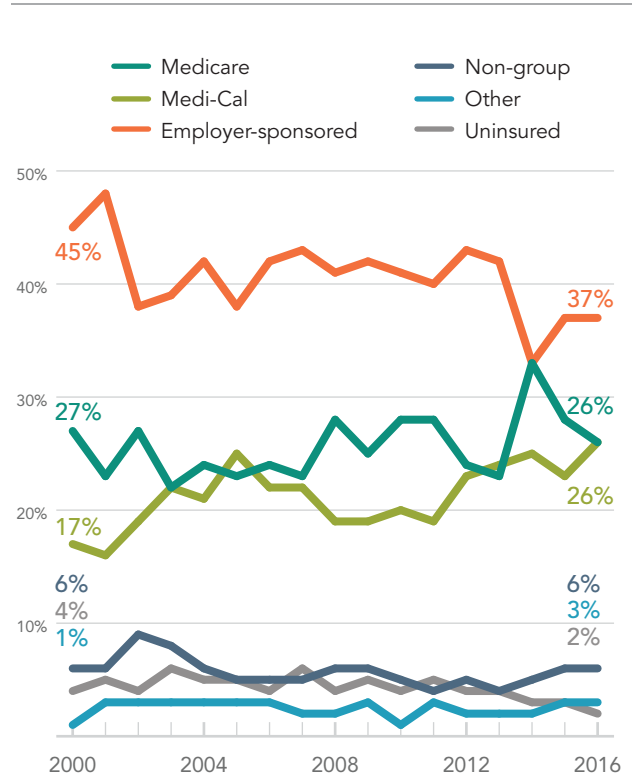
Medicare beneficiaries account for just under 12% of the California population, but they have the highest per-capita health spending (\$11,900) and account for 26% of spending on health care. Individuals with non-group coverage (including those who receive coverage through Covered California or other sources of private, individual market insurance) and individuals with miscellaneous other forms of insurance (such as the military's TRICARE program) each have slightly less than \$4,000 in health spending per year. The uninsured population accounts for roughly 7% of the California population and 2% of spending. Uninsured Californians spend an average of slightly less than

\$1,400 on health care per year, the smallest amount of any market segment.

As shown in Figure 2, the share of spending for each insurance type has changed over time.¹⁶ While enrollees in employer-sponsored insurance account for the largest share of health spending, this share declined from 45% to 37% from 2000 through 2016. Medicare spending remained stable since 2000, while the share of California health care spending from patients with Medi-Cal as their source of primary coverage increased from 17% in 2000 to nearly 27% in 2016.

In 2000, the uninsured population accounted for 4% of California health care spending. This share peaked at 6% in 2007 but decreased to 2% in 2016. The most notable declines occurred in 2011, when California began an early expansion of Medi-Cal under the Affordable Care Act (ACA), and in 2014, when the

Figure 2. Share of Annual Health Spending, by Insurance Type, California, 2000–16



Source: Authors' calculations based on data from the MEPS-HC.

ACA's health insurance expansions through Covered California took effect. Spending for those with non-group private insurance and other forms of insurance (such as TRICARE) remained stable over this period.

Figure 3 presents these results in terms of inflation-adjusted per-capita health spending from 2000 through 2016. Unlike the data shown in Table 1, the data in Figure 3 are adjusted to account for variation in spending over time due to extreme outliers (people with spending in the top 1% of the distribution), which could be spurious. As a result, the 2016 estimates reported in Figure 3 (and other trend graphs) differ somewhat from the static estimates presented in Table 1. In each year, mean per-capita spending was highest for Medicare beneficiaries. Over the 2000–2016 time period, average inflation-adjusted per-capita spending for California Medicare beneficiaries increased from \$7,700 to \$11,000 (after adjustments for outlier spenders), an average annual growth rate of nearly 3%. Medi-Cal patients had the next highest per-capita health spending, although per-capita Medi-Cal spending increased by only about 2% per year during this period. Per-capita spending for the employer-sponsored population increased by just under 4% per year.

These spending differences are reflected in out-of-pocket health spending among patients in different types of insurance plans (see Figure 4). Medicare beneficiaries consistently have the highest out-of-pocket payments. However, after peaking in 2004, Medicare out-of-pocket payments have declined over time. This decrease may be due to the 2006 expansion of Medicare benefits to include prescription drug coverage through Medicare Part D. Out-of-pocket payments also have declined for uninsured Californians and for those with Medi-Cal (who have seen a 28% decrease in inflation-adjusted out-of-pocket patient spending).

In contrast, from 2000 through 2016, annual out-of-pocket patient spending increased by almost 36% for those with employer-sponsored coverage, an average annual increase of 2% per year. Of note, this increase in out-of-pocket spending is below the average annual growth rate of per-capita spending among those with

Figure 3. Mean Per-Capita Per-Enrollee Annual Health Spending, by Insurance Type, California, 2000–16

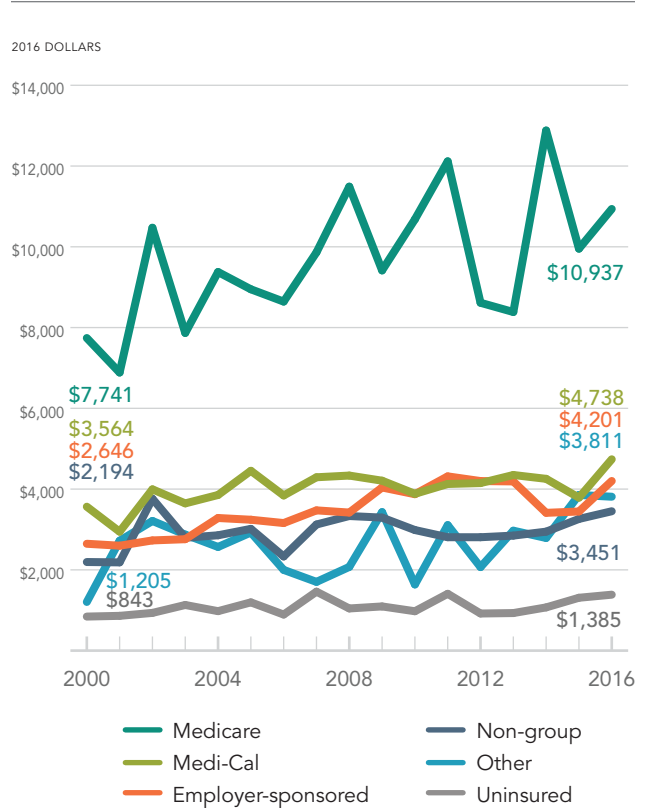
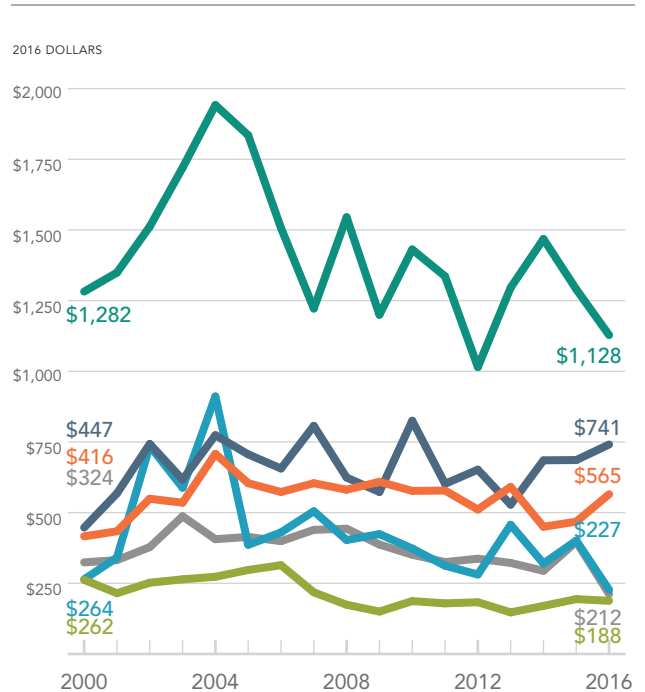


Figure 4. Mean Annual Patient Out-of-Pocket Payments, by Insurance Type, California, 2000–16



Source (Figures 3 and 4): Authors' calculations based on data from the MEPS-HC.

employer-sponsored coverage (just under 4%; see Figure 3). For those with private, individual market coverage rather than coverage from an employer, out-of-pocket payments increased by 66% from 2000 through 2016, an average annual growth rate of around 4%. These increases translate into cumulative increases in average spending from 2000 to 2016 of \$149 for Californians with employer-sponsored insurance and \$294 for those with non-group commercial insurance, after adjusting for outlier spenders.

Health Spending by Site of Service

Table 2 presents health spending by site of service. At nearly \$60 billion per year for each, inpatient hospital and office-based medical provider services account for the largest shares of annual spending, approximately 28% each in 2016. Californians spent \$45.6 billion on prescription drugs in 2016, which accounted for about 21% of spending that year.

Table 2. Health Spending, by Site of Service, 2016

SITE OF SERVICE	AMOUNT (BILLIONS)	SHARE OF TOTAL	AVERAGE PER-CAPITA
Office-based	\$59.2	28%	\$1,500
Inpatient	\$59.1	28%	\$1,500
Prescription drugs	\$45.6	21%	\$1,100
Dental	\$16.9	8%	\$400
Other	\$14.7	7%	\$400
Hospital outpatient	\$9.4	4%	\$200
Emergency	\$7.9	4%	\$200
Totals	\$213	100%	\$5,300

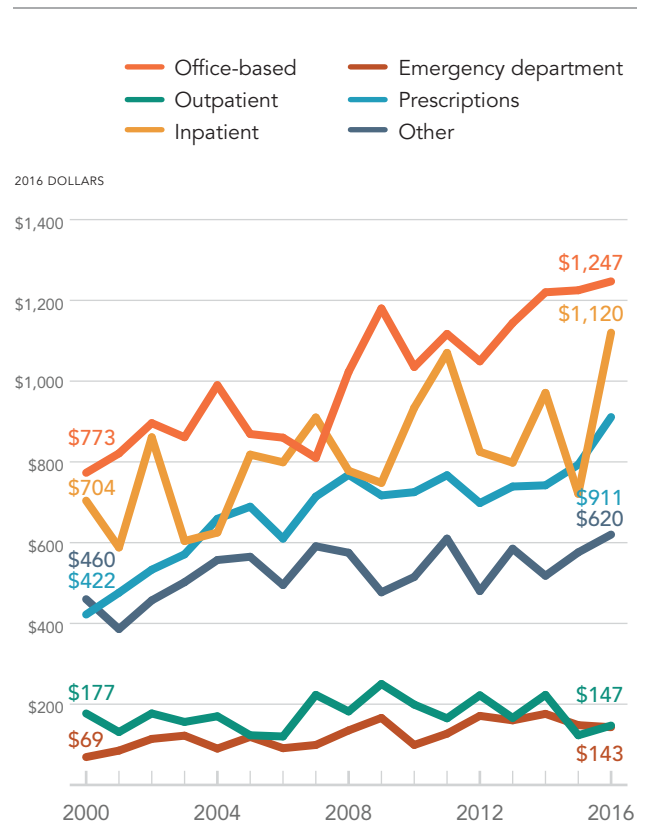
Note: Totals may not sum due to rounding.

Source: Authors' calculations based on MEPS-HC.

Figure 5 shows changes in spending by site of service, with adjustments for outlier spenders. From 2000 through 2016, the share of health spending attributed to each site of care increased for all but outpatient hospital services. Per-capita spending on office-based medical provider services increased by almost 4% per year, as did spending on inpatient hospital services. For prescription drugs, the growth rate was even larger, increasing by an average annual rate of about 7%.

These results have important implications for potential health policy options. Office-based medical provider services and inpatient visits account for the largest shares of health spending in California. Policies that address use of these services may create large potential savings opportunities. Likewise, prescription drug costs have grown more rapidly than growth in any other cost area studied. Policies that address rising drug prices can help reduce this growing cost burden.

Figure 5. Per-Person Annual Health Spending, by Site of Service, California, 2000–16



Source: Authors' calculations based on data from the MEPS-HC.

Employer-Sponsored Insurance Spending by Business Size

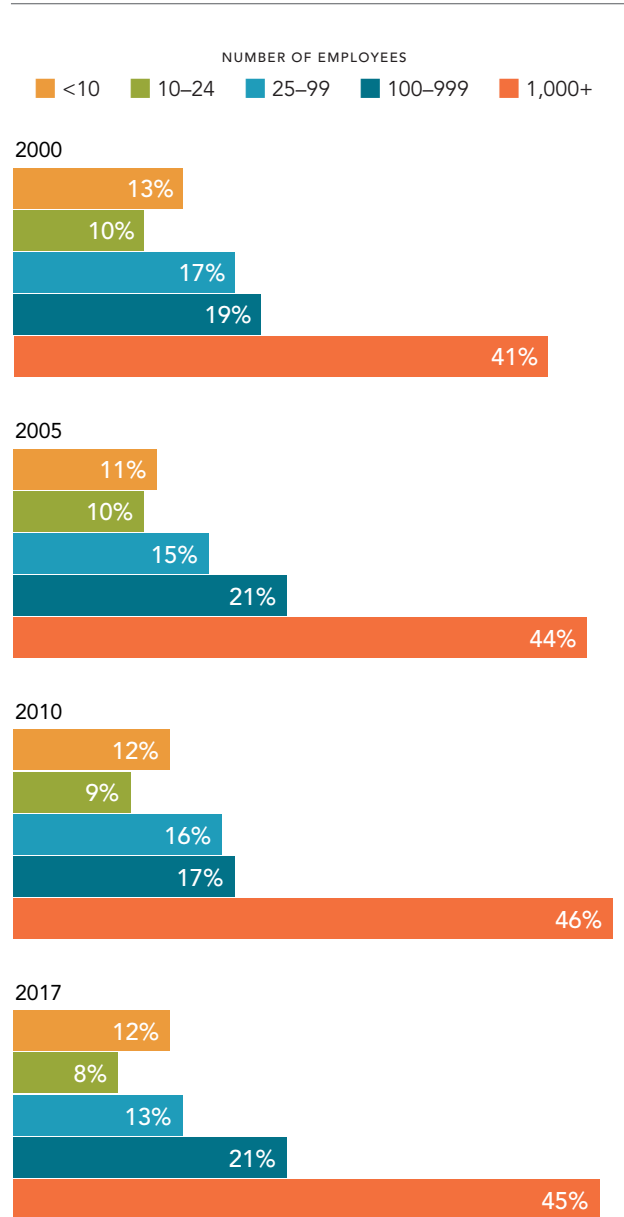
Individuals with employer-sponsored insurance (ESI) make up the largest population segment in California. To better understand this population, the research team also examined health spending for different types of ESI. Analysis of the California ESI market used MEPS Insurance Component (MEPS-IC) data specific to California employers.¹⁷

ESI plans have two options: (1) self-funding, in which the employer is responsible for health care costs but pays the insurer an administrative fee; or (2) remaining fully insured, in which the employer contracts with an insurer to provide health insurance benefits. Nationwide, about 60% of people with ESI were enrolled in self-funded health plans in 2017; in California, however, only about 46% of private-sector ESI enrollees were in self-funded plans.¹⁸ The lower enrollment in self-funded plans in California may reflect the state’s high level of HMO penetration, and also the dominance of Kaiser Permanente, which offers only fully insured plans. Self-funded insurance is more common at large firms than at small ones. According to the MEPS-IC data, 70% of California health insurance enrollees at firms with 1,000 or more workers were in self-funded plans, compared with only 12% of enrollees at firms with fewer than 50 workers.

In the figures below, the team used the MEPS-IC data to examine trends in both coverage and spending for Californians with ESI, breaking down the numbers according to firm size. The team examined ESI enrollment, the average premium for a single enrollee (that is, for a plan that covers only a single person and does not cover dependents), and the average deductible for a single enrollee.

Figure 6 presents the share of the total employer-sponsored health insurance population by firm size. Employees not eligible for health insurance are excluded from these percentages. Californians who work for a firm with 1,000 or more employees account for the largest portion of the ESI population, and this share has grown over time. From 2000 through 2017,

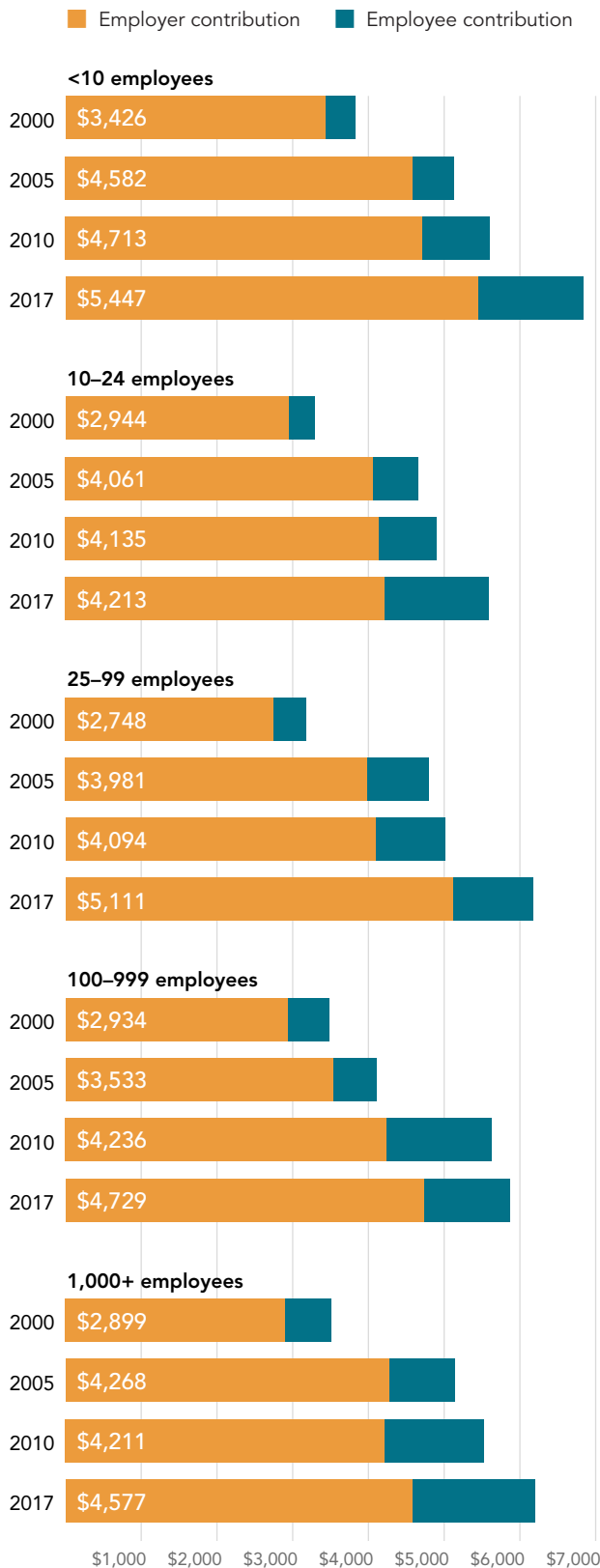
Figure 6. Share of the Employer-Sponsored Insurance Population, by Firm Size, California, 2000–17, Selected Years



Note: Totals may not sum due to rounding.

Source: Authors’ calculations based on data from the MEPS-IC.

Figure 7. Employers' Share of Premium, by Firm Size, California, 2000–17, Selected Years



the share of the ESI population that works for a firm with 1,000 or more employees increased from 41% to 45%; while the share of the ESI population that works for a firm with 100 to 999 employees increased from 19% to 21%. The share of enrollees who worked at firms with fewer than 100 workers declined over the same time period.

Figure 7 shows differences in average total premiums in California for a single enrollee (that is, an enrollee in a plan that covers only a single person and does not cover dependents) by firm size. Premiums include employer and employee contributions. In 2017, the average total single-enrollee premium in California was nearly \$7,000 for firms with fewer than 10 workers and roughly \$6,000 for firms of other sizes. Although the smallest firms (those with fewer than 10 workers) consistently have the highest premiums, a consistent relationship between premiums and firm size does not appear in the data.

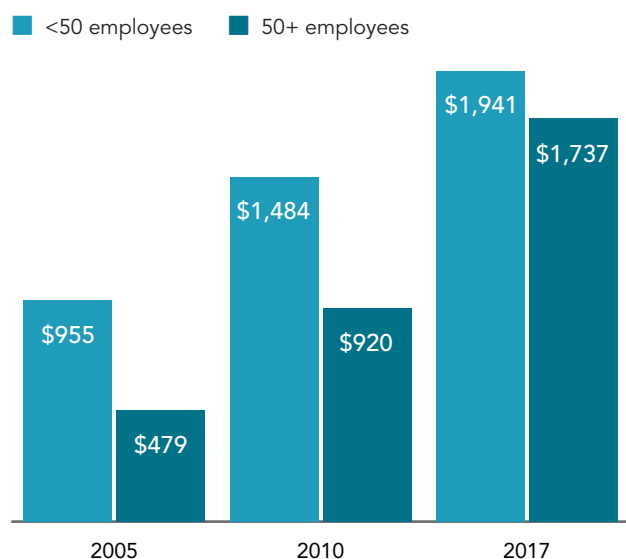
Worker contributions more than doubled from 2000 through 2017. Firms with fewer than 25 workers faced the largest increases in worker contributions, which more than tripled over the time period studied.

Since 2000, average total premiums increased by between 68% and 94% in absolute terms, with the largest increases at firms with 25 to 99 workers. Worker contributions more than doubled from 2000 through 2017. Firms with fewer than 25 workers faced the largest increases in worker contributions, which more than tripled over the time period studied.

Source (Figure 7): Authors' calculations based on data from the MEPS-IC.

Figure 8 examines trends in annual deductibles for ESIs. Deductibles represent the amount that patients are required to pay “out of pocket” before insurance coverage begins.¹⁹ Although employees of smaller firms face consistently higher average deductibles than those of larger firms, the gap has narrowed over time. For example, while deductibles approximately doubled for firms with fewer than 50 employees between 2005 and 2017, deductibles for larger firms nearly quadrupled over the same time period.

Figure 8. Average Individual Employer-Sponsored Deductible, California, 2000–17, Selected Years



Source: Authors' calculations based on data from the MEPS-IC.

III. Disparities That Signal Wasteful Spending

As the preceding sections demonstrate, rapidly rising health care costs have a dramatic impact on Californians' lives, and these cost increases are not spread equally across the various types of insurance, sites of service, and sizes of businesses. Increases in health care costs are also not spread equally across the state. In addition, prices for the same medical treatment vary widely across California, and these differences do not necessarily reflect differences in the quality of care.

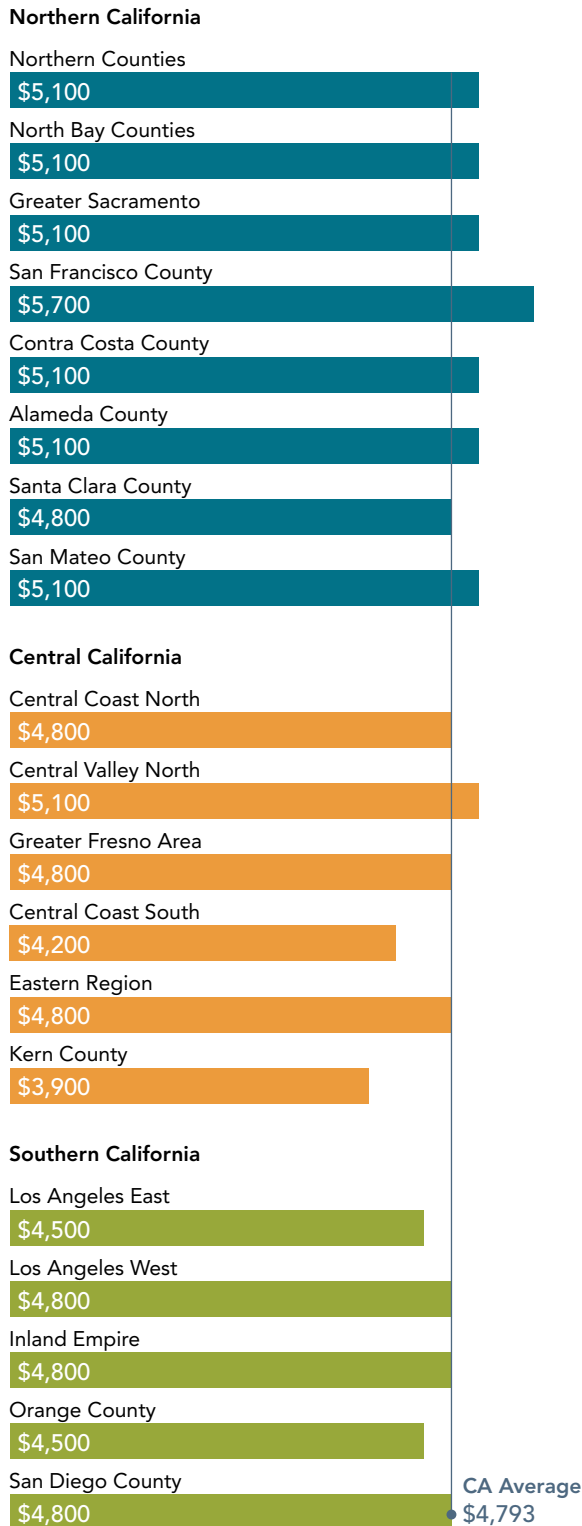
For example, the Integrated Healthcare Association estimated that if all Californians with commercial and Medicare insurance received care at the same cost as in San Diego — one of the least expensive major metropolitan areas in which to receive health care, and a city with high-quality care — total costs to the state would decrease by an estimated \$11 billion annually.²⁰

This section provides an overview of the considerable price and quality disparities across California, using publicly available sources. The disparities outlined below signal enormous areas of wasted spending, and they represent clear opportunities to reduce health care spending without compromising quality and outcomes.

Price Disparities by County and Region in California

According to the California Regional Health Care Cost & Quality Atlas (the Atlas) — a resource that analyzes clinical quality, hospital use, and the cost of care for three-fourths of the state's population — prices and quality vary widely across the state.^{21,22} To illustrate the range of variation, Figure 9 provides a snapshot of the range of average total risk-adjusted costs of care per member per year for the commercially insured across the state.²³

Figure 9. Average Total Cost of Care,* Commercially Insured Californians, by Region, 2017



*Geography and ACG risk adjusted.

Source: Integrated Healthcare Association. *California Regional Health Care Cost & Quality Atlas: Total Cost of Care – Geography and ACG Risk Adjusted – Commercial*. 2017. Accessed January 7, 2020.

Average annual costs range from a high of \$5,700 in San Francisco County to a low of \$3,900 in Kern County. Other components of the total cost of care show similar magnitudes of variation across the state. For example, pharmacy costs range from an average of \$650 per member per year in several locations, including Alameda County, Central Valley North, Kern County, and much of the southeastern part of the state to \$1,100 per member per year in San Francisco.

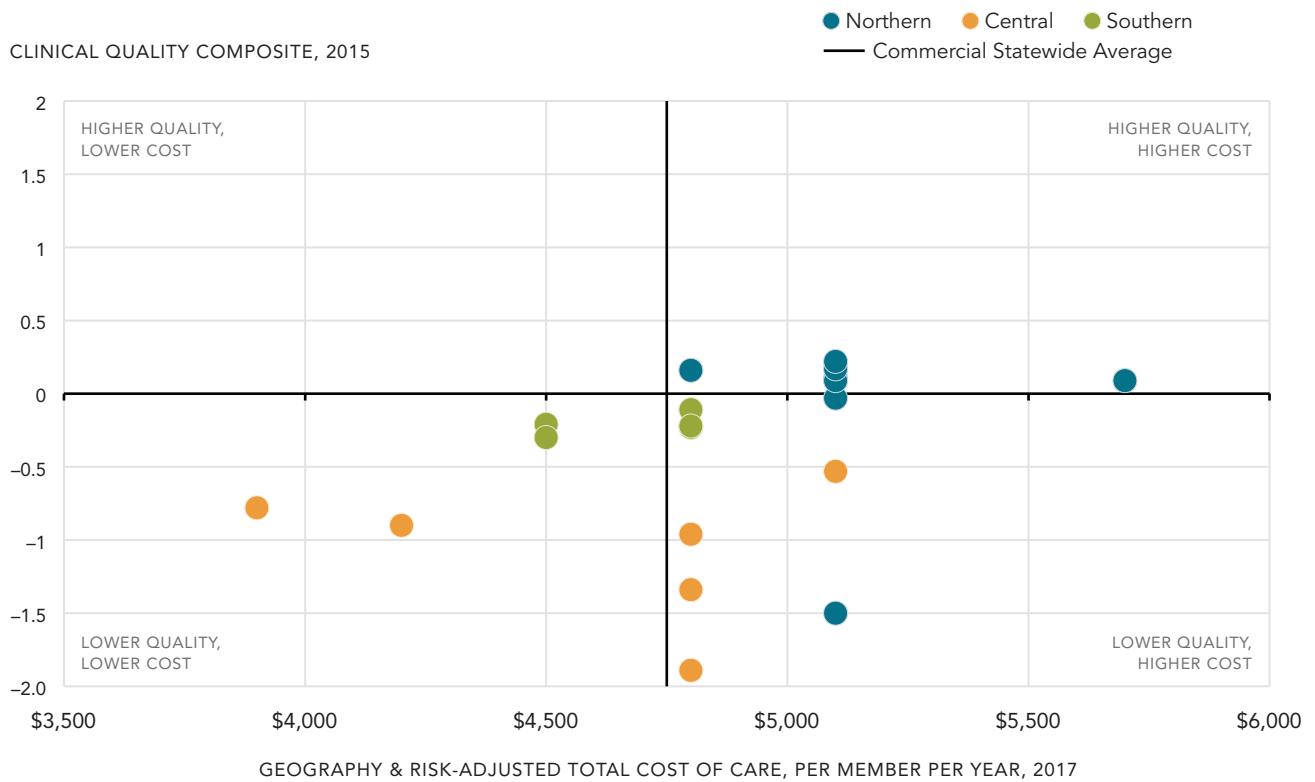
Figure 10 compares the clinical quality composite score (for the 10 clinical quality measures available for 2015) and the average total risk-adjusted cost of care for each region in California. Regions are grouped into three “super regions” of the state — Northern, Central, and Southern.

Northern California regions (in the upper-right quadrant) typically provide better clinical quality but have the highest costs. Exceptions are the northern rural counties (in the bottom-right quadrant), which have both poor quality and higher-than-average costs. Santa Clara County (the blue dot closest to the vertical axis) also stands out as having above average quality and relatively low costs. Southern California counties (in green) have relatively average costs and slightly below average quality, while Central California counties (in orange) tend to have worse quality scores than other regions, and wide variation in costs.

The analysis does not suggest the “right” spending level for any region. However, the Atlas shows the wide variation in risk-adjusted costs. Although imperfect risk adjustment could be the source of some of the variation, the differences in costs suggest that some residents could be receiving poor value for their health care investment.

If the quality of care from the top-performing region were provided to all Californians, “nearly 570,000 more people would have been screened for colorectal cancer and 166,000 more women would have been screened for breast cancer in 2015,” according to the Atlas.²⁴

Figure 10. Quality vs. Cost in Commercial Insurance, by Region, California



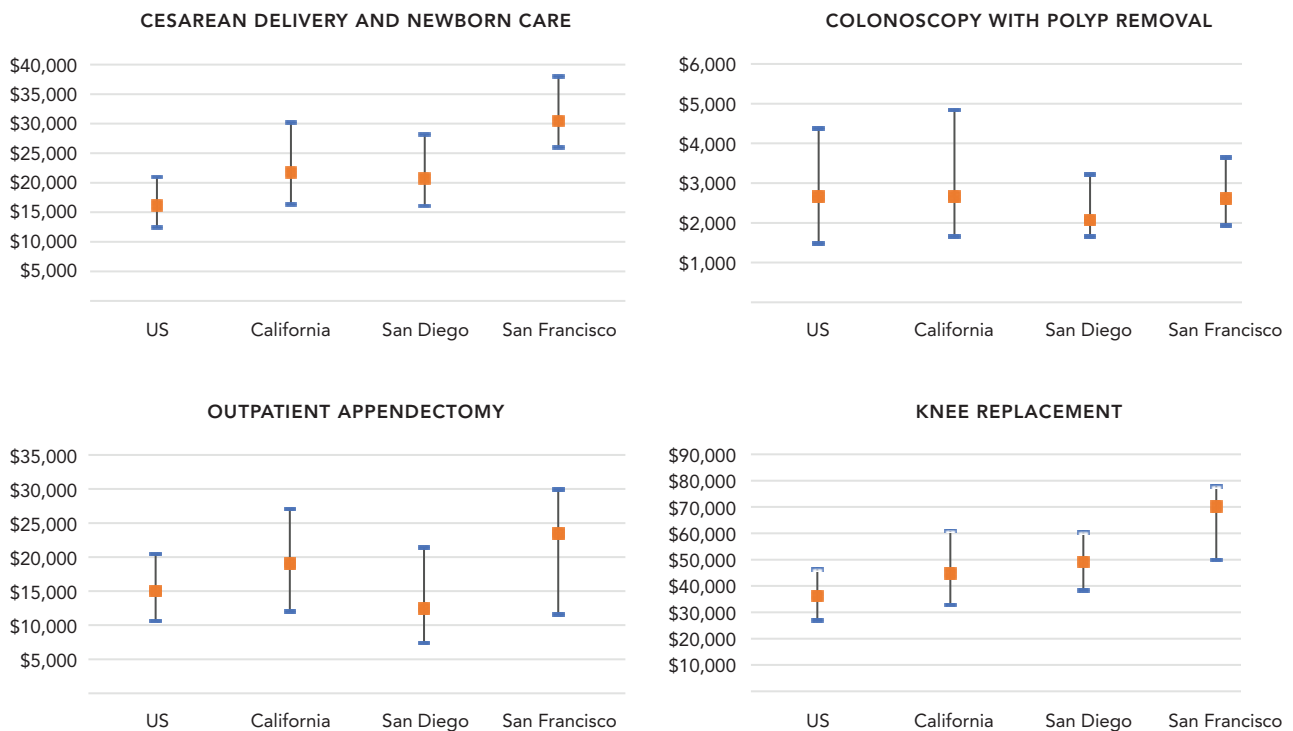
Source: Integrated Healthcare Association, [California Regional Health Care Cost & Quality Atlas: Total Cost of Care - Geography and ACG Risk Adjusted - Commercial and Clinical Quality Composite - 2015 Measures - Commercial](#). 2017. Accessed January 10, 2020.

Price Disparities for the Same Procedures

The Atlas data above paint a disparate picture of health costs and quality statewide. The prices that private health plans pay for specific procedures also reveal wide disparities around the state. The Health Care Cost Institute (HCCI) has amassed more than 730 million claims from four insurers²⁵ and uses the data to assess variations in prices across the US. HCCI data for four common health care service bundles were assessed using the Guroo online price transparency tool, as seen in Figure 11.²⁶

The substantial variation in prices for the same procedure shown in Figure 11 suggests that some consumers may be getting poor value for their dollars. For example, the average price of a cesarean delivery in San Diego was just over \$20,000, compared with an average price of just over \$30,000 in San Francisco. Even within a region, prices often vary substantially. For example, the minimum price for an outpatient appendectomy in San Diego is less than half the amount of the maximum price, according to the data. In general, average prices in California for these services are higher than average prices nationwide, although the wide range in prices indicates a high degree of overlap.

Figure 11. Price Ranges for Four Common Health Care Services, US, California, San Diego, and San Francisco



Note: Data are based on claims paid between July 1, 2014, and June 30, 2016, trended forward to 2018 price levels.

Source: Authors' calculations based on [Guroo Price Transparency Tool](#). Accessed December 2019.

IV. Six Contributors to Wasteful Spending

The large price disparities among regions in California described above suggest substantial waste or inefficiency in the system. If health care policymakers addressed waste and inefficiency, they could significantly lower the cost of care.

In their 2019 update of a landmark report by the IOM, Shrank et al. estimated that between one-fifth and one-quarter of the nation's health care spending was the result of wasteful and unnecessary spending, as well as missed opportunities to provide appropriate care.²⁷ Assuming that the proportion of wasteful and unnecessary spending is similar in California, the state could save between \$58 and \$73 billion per year by eliminating waste and improving efficiency.

This section explores six contributors to wasteful spending and examines their relevance to costs in California. Options for reducing health spending in a number of these areas are covered in the second report in this series.

Overtreatment

Nationwide, overtreatment accounts for up to \$76 to \$101 billion in health spending annually.²⁸ Factors that contribute to overtreatment include ordering duplicate tests, prescribing treatments that have little or no value, and ordering a high-cost treatment when a lower-cost treatment could have resulted in equivalent or superior quality of care. Some patients and doctors believe that more treatment is better. The availability (or supply) of health care treatments may also cause patients and doctors to use them more, regardless of their clinical benefit.^{29,30} Further, excessive prices and overtreatment may be related: If providing services of little or no clinical value is profitable, some providers may continue to offer them despite the limited benefit.

The Choosing Wisely initiative, which the ABIM (American Board of Internal Medicine) Foundation launched in 2012 in partnership with *Consumer*

Reports, seeks to identify commonly used tests and procedures that may be unnecessary. The initiative provides information about these services to help patients and providers make better decisions.^{31,32} Based on recommendations from Choosing Wisely, stakeholders in California recently formed Smart Care California, a consortium of payers that includes CalPERS (the California Public Employees' Retirement System), Medi-Cal, and Covered California. The group promotes best practices for reducing overtreatment in three areas: inappropriate opioid prescribing, unnecessary cesarean sections, and unnecessary imaging for low back pain. According to Smart Care California data, the state saw sizable reductions in inappropriate opioid prescribing and small reductions in cesareans for low-risk, first-time mothers from 2015 through 2017.³³

While the Smart Care initiative is a step toward reducing unnecessary care, additional opportunities to expand and build on this capacity exist. California's all-payer claims database (APCD), which is in development, may enable policymakers to identify patterns about low-value care and, ultimately, take action to address waste. For example, the Minnesota Department of Public Health used its APCD to show \$55 million in spending on 18 low-value services in 2014. The most common low-value service was diagnostic imaging for uncomplicated headaches.³⁴ A similar study used Virginia's APCD to estimate that more than \$586 million in spending went to 44 low-value services, including baseline lab tests for patients having low-risk surgery, annual cardiac screening for asymptomatic patients, and routine imaging for uncomplicated rhinosinusitis.³⁵

Failures of Care Delivery and Inadequate Prevention

Shrank et al. estimated that the US spends \$102 to \$166 billion each year, or 14% to 18% of all avoidable health spending, treating conditions that are preventable, unnecessary, or avoidable.³⁶ These missed opportunities include primary prevention (avoiding an illness or injury), secondary prevention (screening to identify health issues at an early stage), tertiary prevention (managing diseases post-diagnosis), avoidable

conditions such as hospital-acquired infections, and excess costs stemming from clinical inefficiency.

While reducing hospital-acquired infections and clinical inefficiencies will both improve health care quality and reduce costs, prevention is something of a mixed bag in terms of cost containment. Prevention can save money in many important ways, such as by reducing the cost of treating diseases by detecting them earlier and avoiding treatment altogether. But in other ways, prevention can increase costs when poorly targeted.

While the IOM points to some specific opportunities to save money by expanding access to treatment, in general the literature shows that expanding access to preventive care increases spending.³⁷ Preventive services must typically be provided to a large share of the population, many of whom will not have the condition. Among those who screen positive, savings will only materialize if lower-cost treatments can stave off costlier treatments down the road. In a review of the literature, Cohen, Neumann, and Weinstein found that most preventive services both add value to the health system and increase total costs.³⁸ Similarly, a recent review of disease management programs found cost savings in only a minority of cases.³⁹

Nevertheless, as both Shrank et al. and the IOM concluded, certain types of preventive services can save money, particularly if targeted to high-risk populations. For example, certain colorectal cancer screening approaches have been found to reduce total health spending for people in targeted age groups,⁴⁰ as have disease management programs for congestive heart failure.⁴¹ In many cases, preventive services enable people to live longer, healthier lives, making the services a good investment even if they cause overall health care spending to increase.

According to the National Healthcare Quality and Disparities Reports, California scores average relative to other states in terms of providing preventive care, and weak relative to other states in terms of managing chronic conditions through preventive care.⁴² Among the prevention measures considered, California scored poorly on influenza and pneumococcal vaccinations

and cholesterol measurement. The state scores in the average range for many vaccines provided to children and adolescents, and for depression treatment among those who have experienced a major depressive episode. Areas of strength include preventive care measures related to colorectal and cervical cancer screening, and chronic care measures related to HIV management.

Failures of Care Coordination

Although some people disagree about the meaning of “care coordination,” the Agency for Healthcare Research and Quality (AHRQ) defines it as a process in which a provider or other person in the health care system takes responsibility for managing a patient’s course of care across multiple settings, including home, community, primary, inpatient, and other care.⁴³ Failures of care coordination occur when a patient’s care is disjointed, such as when there is poor communication across multiple providers caring for a patient, potentially leading to lapses, oversights, or redundancies in treatment.⁴⁴ Individuals with complex chronic conditions, who use more services and may interact with many providers, are at particular risk for coordination failures. At a national level, failures of care coordination that may lead to avoidable or unnecessary medical complications and hospital admissions account for approximately \$27 to \$78 billion in excess spending. However, the California profile is a bit different, possibly due to the high adoption of managed care in the state, which may facilitate care coordination if patients are treated in an integrated delivery system with established protocols for sharing information. In the most recent version of the National Healthcare Quality and Disparities Report,⁴⁵ California’s ratings in the priority area of care coordination were above average.⁴⁶

Still, the state has room for improvement. For example, a recent assessment of the Cal MediConnect Program — which attempts to integrate and coordinate Medicare and Medi-Cal services for those eligible to participate in both programs — found that while enrollees said they were more satisfied with benefits and thought the quality of care was better because

of the program, there was no improvement in care coordination.⁴⁷

Administrative Complexity

Shrank et al. estimate that high administrative expenses contribute to roughly \$266 billion in overspending nationwide.⁴⁸ A comprehensive 2005 accounting of administrative costs for private insurers, physician groups, and hospitals in California found that commercial insurers in the state spend roughly 10% of revenue on administration, physician groups spend about 27% of revenue on administration, and hospitals spend about 21% of revenue on administration.⁴⁹ CALPIRG (the California Public Interest Research Group) estimated in 2008 that administrative activities consumed 5% of total health spending in California, although the data may be outdated.⁵⁰

California has several unique features that may contribute to high administrative costs. First, a ban on the corporate practice of medicine, which aims to separate the “professional standards and obligations” of medical professionals and the “profit motive of the corporate employer,” prohibits corporate entities from employing physicians or owning physician entities.⁵¹ This may lead to inefficient behaviors, such as hospitals having to establish or contract with a medical foundation that can employ physicians.

In addition, California remains the only state in which two agencies regulate health insurance, which adds an additional layer of administrative complexity. The Department of Managed Health Care oversees most health maintenance organizations (HMOs), covering about 21.6 million Californians. The California Department of Insurance regulates most preferred provider organizations (PPOs) and traditional fee-for-service plans, covering about 2.4 million people. The dual structure has been described as confusing and inefficient, with the potential for regulatory inconsistencies.⁵² Potential options for regulatory reform include consolidating the two agencies and institutionalizing coordination and consistency between them.⁵³ However, at present, both agencies continue to operate independently.

Finally, California’s 13 million Medi-Cal beneficiaries receive their health care through six models of managed care.⁵⁴ This relatively complex approach to administering the Medi-Cal program has the potential to increase administrative costs.

Pricing and Market Inefficiencies

As noted in the discussion of data from HCCI above, prices for health care services are often higher in Northern California compared with the statewide average. Increased market concentration plays an important role. In March 2018, California Attorney General Xavier Becerra brought a civil antitrust action against Sutter Health and its affiliates for using their market power in Northern California to increase prices, and therefore costs, for its health care services.⁵⁵ The suit alleged that Sutter prevented insurers from using “steering and tiering,” which can be important tactics for gaining bargaining leverage against health care providers that dominate local markets. In late 2019, Sutter agreed to pay \$575 million to settle the lawsuit, and also agreed to restrictions on out-of-network charges and practices viewed by the state as anticompetitive, such as requiring insurers to include all Sutter hospitals in their networks as opposed to individual hospitals (“all or nothing” agreements).⁵⁶ At the time of this writing, it is too early to know how the settlement will affect the market for health care in California.

Despite health care market consolidation, average health spending in California is lower than in the rest of the country by some measures. According to statistics compiled by the Kaiser Family Foundation using data from the Office of the Actuary of the Centers for Medicare & Medicaid Services, per-capita health spending in California — \$7,549 — was lower than the national average of \$8,045 in 2014 (the most recent year for which data are available).⁵⁷ Similarly, 2017 employer premiums in California were slightly below the national average, according to an analysis conducted by the Kaiser Family Foundation using data from the Medical Expenditure Panel Survey (MEPS) Insurance Component.^{58,59}

One factor that may contribute to lower per-capita spending is the dominance of managed care in the state. HMOs cover 59% of eligible Californians, the highest rate of any state.⁶⁰ Kaiser Permanente accounts for a particularly large share of the California market. A recent assessment of accountable care organization (ACO) partnerships in California underscores Kaiser's strong competitive pressure in a community: "The more dominant Kaiser's presence, the stronger the incentive for other plans to develop new products at lower prices to maintain market shares."⁶¹ In addition, the California population is relatively young compared with the national population,⁶² and Medi-Cal payment rates for physician services are low relative to the national average,⁶³ although not for hospital care.⁶⁴

Fraud and Abuse

Across the nation, Shrank et al. put the cost of health care fraud at between \$59 and \$84 billion.⁶⁵ The Federal Bureau of Investigation, the primary agency tasked with investigating fraud in the health care system, estimates that health care fraud costs US taxpayers \$80 billion per year.⁶⁶ The most common types of fraud include billing for services that were never rendered — such as using genuine patient information, sometimes obtained through identity theft, to fabricate entire claims, as well as padding claims with charges for procedures or services that did not take place.

Major fraud investigations have produced multiple criminal filings, which provide some sense of the magnitude of the problem in California. For example, prosecutors in Los Angeles filed cases in 2018 alleging \$660 million in fraudulent bills. The 33 defendants included doctors, pharmacists, and an attorney accused of kickback schemes involving surgeries, drugs, home health services, Medicare Part D prescriptions, and hospice care.⁶⁷ Also in 2018, the South San Francisco-based drug manufacturer Actelion paid \$360 million to resolve claims that it illegally paid the copays of thousands of Medicare patients who used the drugmaker's hypertension drugs, including Tracleer, Ventavis, Veletri, and Opsumit.⁶⁸

These recent actions in California indicate that fraud is an ongoing, and very likely a costly, concern in the state.

Extrapolating to California

The national estimates of wasteful spending are challenging to extrapolate to California given several factors raised above, including the higher prevalence of managed care in the state, the relatively younger population, and unique market consolidation patterns, particularly in Northern California. Nevertheless, if we use the Shrank et al. estimates⁶⁹ as a rough guidepost, we can infer that roughly \$58 to \$73 billion of total health spending in California is wasteful, with the largest shares of waste stemming from excessive administrative complexity (28% to 35%) and pricing and market inefficiencies (26% to 30%). Table 3 shows estimates of the breakdown of wasteful spending in California by category, assuming that the Shrank et al. national estimates can be applied at the state level.

Table 3. Estimated Breakdown of Wasteful Health Spending, by Category, California, 2014

WASTE CATEGORY	LOWER BOUND (%)	UPPER BOUND (%)	LOWER BOUND (BILLIONS)	UPPER BOUND (BILLIONS)
Administrative complexity	34.9%	28.4%	\$20.3	\$20.7
Pricing and market inefficiencies	30.4%	25.7%	\$17.6	\$18.8
Failures of care delivery and inadequate prevention	13.5%	17.7%	\$7.8	\$12.9
Overtreatment	10.0%	10.8%	\$5.8	\$7.9
Fraud and abuse	7.7%	9.0%	\$4.5	\$6.5
Failures of care coordination	3.6%	8.4%	\$2.1	\$6.1
Totals	100%	100%	\$58	\$73

Notes: The lower bound estimates assume it is possible to eliminate 20% of health spending (\$58 billion), and the upper bound estimates assume it is possible to eliminate 25% of health spending (\$73 billion). Totals may not sum due to rounding.

Source: Estimated percentages come from Shrank WH, Rogstad TL, Parekh N. "Waste in the US Health Care System: Estimated Costs and Potential for Savings." *JAMA*. Oct 7, 2019; 322(15):1501–1509.

V. Conclusion

One of the three primary goals of 2010's Affordable Care Act was to stimulate efforts nationwide to contain health care costs. However, health spending continues to outpace inflation and remains a major challenge nationally and within California.

The high cost of care is a significant source of stress for Californians, particularly for the poor and those with chronic conditions, who often have to choose between paying for food and utilities and paying for doctor visits and prescription drugs. Businesses of all sizes struggle to afford the rapidly rising costs of providing health care to their employees. And prices themselves remain stubbornly high in many regions due to market consolidation and other factors.

Although many stakeholders agree that controlling health care spending should be a priority, little consensus exists about how to achieve that goal. In the next report in this series, we will take a step toward addressing that issue as we explore the policies that have the strongest potential to move the needle on cost containment.

California has always been a national leader in the development of health policy and in creating and scaling up innovative approaches to reducing health care costs. Governor Gavin Newsom's recent creation of the Office of Health Care Affordability provides a fresh opportunity to redouble our collective efforts to tame the inexorable rise in health spending.

Appendix A. Methodology

Background on the MEPS

The Medical Expenditure Panel Survey Household Component (MEPS-HC) is an annual panel survey of households that began in 1996 and is conducted by the Agency for Healthcare Research and Quality (AHRQ). Data from MEPS are widely used to examine health care costs and utilization. MEPS combines detailed survey information with spending and utilization data that are validated through the patient's insurer and provider. To produce estimates for California, the team used restricted-access state identifiers made available for this project through AHRQ project number 466 and Census Bureau project number 2169. The research for this report was conducted at the AHRQ's Center for Financing, Access and Cost Trends (CFACT) Data Center, and the support of AHRQ is acknowledged. The results and conclusions in this paper are those of the authors and do not indicate concurrence by AHRQ or the US Department of Health and Human Services.

The research team used MEPS data from 2000 through 2016, the last year for which we had access to the data. (Data from the MEPS Insurance Component, an employer survey, are released on a different schedule.)

An advantage of the MEPS relative to other data sources such as State Health Expenditure Accounts (SHEA) data from the Office of the Actuary (OACT) of the Centers for Medicare & Medicaid Services (CMS) is that it is disaggregated, allowing the user to analyze specific categories of health spending. However, while MEPS is designed to be nationally representative, the estimates are not necessarily representative of the population of California.

MEPS reports aggregated annual data files and medical event files for specific sites of care (such as hospital inpatient care, hospital outpatient care, office visits, and prescription drugs). For this report, the team used data from both the full-year consolidated files and the medical event files.

Health Spending Estimates

The MEPS data result in smaller spending estimates than those found in the CMS SHEA data due in part to an undercount of high spenders. The MEPS estimates were adjusted to address this undercount using the method described by Bernard et al.⁷⁰ After adjustment, California health spending in the MEPS was \$213 billion in 2016. Even with these adjustments, the MEPS figures are lower than those reported by the National Health Expenditure Accounts (NHEA), because MEPS excludes certain categories of health care, including long-term care, public health spending, health-related investments and philanthropy, and over-the-counter medications. The approach used to adjust the MEPS data is described in detail below.

Weighting

To account for MEPS undercounting,⁷¹ prior research upweights MEPS spending categories to better align with the CMS National Health Expenditure Accounts (NHEA). Bernard et al.⁷² propose using the weights shown in Table A1 for specific sources of payments.

Table A1. MEPS Weights to Align with NHEA Benchmarks

PAYMENT SOURCE	WEIGHTS TO ALIGN WITH NHEA BENCHMARKS
Out of pocket	9.47%
Private health insurance	30.51%
Medicare	14.28%
Medicaid/Children's Health Insurance Program (CHIP)	38.84%
Department of Veterans Affairs	-9.94%
Workers' compensation insurance	112.40%
Other federal	0.00%
Other state and local	0.00%
Other sources	0.00%
All expenditures	23.10%

Source: Bernard D, Selden TM, Pylpchuk YO. [Aligning the Medical Expenditure Panel Survey to Aggregate U.S. Benchmarks](#), 2010 (PDF); Working Paper No. 15002. 2015. Accessed April 5, 2019.

Spending estimates for the present analysis were reweighted by increasing the raw numbers by the percentage factors shown in Table A1. As an example, a private health insurance expenditure of \$100 in the 2016 MEPS would be increased by a factor of 30.51%, to \$130.51. Unlike the other spending estimates, VA spending is reduced, because this category of expenditure is overestimated in the MEPS relative to the NHEA. California-specific MEPS-HC spending estimates shown in this document are reported in 2016 dollars, weighted for MEPS undercounting. Medical spending is also reported by insurance plan.

Insurance Hierarchy

Because some individuals in MEPS report having insurance from more than one source, the following hierarchy was used to classify individuals into mutually exclusive groups: Medicaid, Medicare, employer-sponsored insurance, other government insurance (including TRICARE and other public plans), non-group plans (including those purchased through Covered California), and the uninsured. Individuals with miscellaneous private insurance who are not classified as having Medicare, Medicaid, or employer-sponsored plans are included in the non-group category.

Trends

In order to understand trends in medical spending in California, the team used the MEPS full-year consolidated data files for 2000–2016. The team's trend analysis differs from the expenditure analysis described above in two key ways. First, medical spending for years prior to 2016 was inflated to 2016 dollars using the California Consumer Price Index (CPI) for urban consumers. Second, since the distribution of medical spending is highly influenced by a small number of high-cost patients, observations in the top 1% of the spending distribution were replaced with the 99th-percentile expenditure in each category. While very high-cost individuals are an important feature of overall health spending in California, in finite survey

samples they distort underlying trends. For that reason, we recategorized spending for these individuals in the trend analysis, although all observations were kept when reporting total spending. This accounts for discrepancies between total spending estimates and the trend estimates.

Gross State Product (GSP) Calculations

The team calculated total per-capita health care expenditures in California as the sum of personal expenditures (\$7,549 in 2014⁷³) and nonpersonal expenditures (\$1,474 in 2014⁷⁴). Nonpersonal expenditures include government health care administration, net costs of private health insurance, government public health activities, and investments in research, structures, and equipment. California per-person nonpersonal expenditures are assumed to equal the national average. Health expenditures as a share of GSP are then $(\$7,549 + \$1,474) / \$61,957 = 14.6\%$, where the denominator is California's GSP per capita as estimated by the US Bureau of Economic Analysis.⁷⁵

Endnotes

1. The statistics reported in this paragraph were compiled based on California-specific data for 2018 reported by the Agency for Healthcare Research and Quality as part of the [Medical Expenditure Panel Survey Insurance Component State and Metro Area Tables](#).
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11. To produce estimates for California, the team used restricted-access state identifiers made available for this project through AHRQ project number 466 and Census Bureau project number 2169. The research for this report was conducted at the AHRQ's Center for Financing, Access and Cost Trends (CFACT) Data Center, and the support of AHRQ is acknowledged. The results and conclusions reported here are those of the authors and do not indicate concurrence by AHRQ or the US Department of Health and Human Services.
12. To show trends, historical spending numbers have been adjusted to 2016 dollars using the California Consumer Price Index (CPI) for urban consumers. This adjustment eliminates changes in spending due to general inflation while preserving portions of the trends that are due to changes in utilization and increases in relative price levels.
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