CHCF

Investing in Primary Care:
Why It Matters for Californians with Medi-Cal Coverage

JULY 2022

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About the Authors

This paper is based on an analysis prepared by **Edrington Health Consulting** (EHC), a Health Management Associates company. EHC is an actuarial consulting firm specializing in Medi-Cal–related strategy and actuarial needs. The EHC team performing this study on behalf of the California Health Care Foundation (CHCF) includes Kyle Edrington, managing director; Joe Costa, senior actuarial consultant; Cassie Williams; senior actuarial consultant; and Joe Sadow, MA, actuarial analyst.

About the Foundation

The **California Health Care Foundation** is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

DESIGN BY DANA KAY DESIGN

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- Gold Coast Health Plan
- Health Net of California
- Health Plan of San Joaquin
- Health Plan of San Mateo
- Inland Empire Health Plan
- Kern Health Systems
- Partnership HealthPlan of California
- San Francisco Health Plan
- Santa Clara Family Health Plan

Collectively, these plans provide care for 5.6 million Californians.

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About the Primary Care Matters Resource Center

Primary care is the foundation of health and health equity. This report is part of a series on strengthening primary care in California.

To learn more, visit **www.chcf.org/primary-care-matters**.

Executive Summary

Decades of research demonstrates that health systems oriented toward delivering primary care services, and with greater supply of primary care physicians, are associated with more equitable outcomes, lower total cost of care, and better quality of care, including lower mortality, fewer hospitalizations, and enhanced patient satisfaction.[1] Notwithstanding these benefits, investment in primary care in the United States is low.[2] The COVID-19 pandemic further strained an already overwhelmed and understaffed primary care system.[3]

In California's Medicaid program (Medi-Cal), there is increasing recognition of the need to strengthen primary care to improve access and quality of care received by Medi-Cal enrollees. The California Department of Health Care Services (DHCS), which oversees Medi-Cal, made prevention and primary care the foundation of its recently adopted five-year quality and equity strategy. Starting in 2024, DHCS will require managed care plans to report on primary care spending as a percentage of total spending, and will explore setting targets for minimum primary care spending.[4]

In this context, this study examined the following:

- **Primary care spending among health plans within Medi-Cal**, expressed as a per-member per-month (PMPM) amount and as a percentage of overall spending by plans. This study used summarized calendar year 2019 spending and utilization data provided by 13 Medi-Cal managed care health plans, covering half of Medi-Cal enrollees.
- **The relationship between primary care spending percentage and performance on a number of measures** related to clinical quality, overall plan performance, patient experience, hospital and emergency department (ED) utilization, and total cost of care.

Key findings are noted below. (Because of the study's data limitations, it was difficult to produce statistically rigorous conclusions. Statistically significant findings are noted when they occurred. Many results are observations on directional relationships, which still merit attention.)

- **Primary care spending varied significantly by plan and by population.** Spending on primary care across plans ranged from $8.85 PMPM to $61.24 PMPM. This translates to roughly 11% of health care dollars spent on primary care, with a range from 5% to 19%. This study used a broad definition of primary care services.
- **Plans that spend a higher percentage on primary care appear to ensure better quality of care for their members.** A higher primary care spending percentage was statistically associated with plans achieving a better Aggregated Quality Factor Score (AQFS), which takes into account multiple measures, such as the rates of women receiving breast and cervical cancer screenings, childhood immunizations, well-child visits, and more. A relationship was also observed between higher primary care spending percentage and better performance on nine of the 11 (82%) individual Healthcare Effectiveness Data and Information Set (HEDIS) quality measures studied, with statistically significant results for three.
- **Plans that spend a higher percentage on primary care were statistically more likely to get a better rating from the National Committee for Quality Assurance (NCQA).** NCQA evaluates health plans on the quality of care patients receive, how patients experience their care, and health plans' efforts to keep improving. Additionally, higher primary care spending was directionally consistent with better performance on all 10 patient experience (Consumer Assessment of Healthcare Providers and Systems, or CAHPS) measures analyzed; one measure (Rating of All Health Care — Adult) met statistical significance.

- **A plan's primary care spending percentage had no impact on total cost of care or its members' utilization of acute hospital services or the emergency department — with one exception.** A higher primary care spending percentage was statistically associated with an increased rate of acute hospital utilization among older adults and people with disabilities (but not in any other population).

Additional analyses related to patient experience and the effects of primary care utilization and the mode of primary care payment are included in the appendices.

This paper provides an exploratory look at primary care spending and health plan performance in California's Medi-Cal program. This preliminary information contributes to a growing body of literature about the role of primary care in achieving high-quality, person-centered health care. This arena of research is particularly important in light of urgent quality and access challenges within Medi-Cal, and further research should be undertaken to guide policy action.

Background

Decades of research demonstrates that health systems oriented toward delivering primary care services, and with greater supply of primary care providers (PCPs), are associated with more equitable outcomes, lower total cost of care, and better quality of care (specifically, lower mortality, lower acute hospital use, and enhanced patient satisfaction).[5] Despite this evidence, the percentage of health care dollars that go to primary care are low for the United States when compared with other developed countries.[6] This leaves many practices under-resourced. The COVID-19 pandemic further strained an already overwhelmed system.[7]

PCP participation is particularly important in Medicaid, which covers populations for whom primary care is essential: low-income children and adults, pregnant women, older adults, and people with disabilities. Studies have demonstrated that for Medicaid enrollees, access to primary care and provider continuity can decrease emergency department utilization and hospitalizations.[8] However, enrollees in Medicaid, compared to those with commercial coverage, may face challenges in accessing primary care. Nationally, many providers decline to participate in Medicaid, including a third of PCPs.[9] This may be due to lower reimbursement rates as well as concerns about administrative burdens related to Medicaid participation. In one study, Medicaid enrollees' ability to schedule a new appointment with a primary care practice was 18 percentage points less than for patients with private insurance.[10]

In California's Medicaid program (Medi-Cal), there is increasing recognition of the need to strengthen primary care. Overall per-enrollee spending in California's Medicaid program is low, with California ranking in the lowest third of states in 2019.[11] In 2015, the ratio of PCPs to beneficiaries was 39 per 100,000, below the minimum standards set by the California Department of Health Care Services (DHCS) and the Council on Graduate Medical Education (COGME).[12] A national study using 2011 data found that only 53.7% of California PCPs participate in Medicaid, the second lowest percentage in the country, and California ranked 42nd nationally in PCPs per capita who accept Medicaid.[13] California also ranks in the lowest quartile of primary care access for children and adolescents in Medicaid, as measured by the percentage of enrollees who had a recent PCP visit.[14] Relatedly, there is strong interest in continuing to improve the quality of care received by Medi-Cal enrollees. Quality of care in Medi-Cal managed care was found in one study to be stagnant from 2009 to 2018. Among 31 quality measures tracked by state health officials, quality of

care significantly declined for Medi-Cal enrollees on four measures and was unchanged on 12 measures; improvement was observed on only 15 measures.[15] Recently, California expanded Medi-Cal to provide coverage to undocumented adults 50 and older, making it even more essential to strengthen the primary care system, so it can address the needs of its growing member base.[16]

In this context, several recent efforts have focused on increasing primary care investment in California, as one strategy to improve access to primary care and to improve the quality of care. DHCS made prevention and primary care the foundation of its recently adopted five-year quality and equity strategy. Starting in 2024, DHCS will require managed care plans to report on primary care spending as a percentage of total health care spending, and will explore setting targets for minimum primary care spending.[17]

Statewide, the **Primary Care Investment Coordinating Group of California (PICG)**, which is composed of public and private health care purchasers, policymakers, analysis and improvement specialists, consumer advocacy organizations, and funders, has come together to align and coordinate primary care investment strategies.

Across the country, a number of states, including California,[18] have begun to measure primary care spending and establish targets to increase investment, including within their Medicaid programs, as described in the sidebar on this page and on page 7. Measuring the percentage of total health spending that an entity — whether it be a state, a health plan, or an accountable provider organization — spends on primary care gives a sense of the priority placed on primary care and allows policymakers to track progress over time.

This study measures primary care spending percentage across Medi-Cal managed care plans, providing a baseline assessment of the level and percentage of spending, how that spending is structured, and how it varies across plans. This study also provides a preliminary exploration of how primary care spending percentage might be associated with measures of quality, patient experience, utilization, and cost.

California's Office of Health Care Affordability: A Lever to Strengthen Primary Care

In June 2022, Governor Newsom signed into law legislation creating an Office of Health Care Affordability, responsible for analyzing data on health care cost drivers and establishing industry-wide growth targets to ensure affordability for consumers and purchasers. In addition to setting overall health care cost growth targets, the office will set and enforce targets designed to increase primary care and behavioral health investment, promote greater use of alternative payment models for health care, and help strengthen California's health care workforce.

Source: ***State of California Senate Bill No. 184***, TrackBill, June 30, 2022.

The methodology used in this analysis of Medi-Cal managed care plans is unique and does not readily align with approaches used in other states. The estimate of primary care spending percentage generated from this method may be generous, because it (1) uses a broad definition of primary care based on provider type only, (2) includes non-claims payments (capitation and incentive payments), (3) excludes certain carved-out services from the denominator, and (4) includes a sizable pediatric population. Future studies should consider approaches more aligned with those used in other states, in order to provide more meaningful comparisons, on both a percentage and a dollar basis.

Measurement of Primary Care Spending Percentage in Other States' Medicaid Programs

Estimates of primary care spending percentages in Medicaid programs across the country have used different methods and definitions, making it difficult to draw direct comparisons. Studies that have examined primary care spending percentages for different payers (commercial, Medicare, and Medicaid) within a state have tended to find a higher percentage of dollars spent on primary care within Medicaid, compared with the commercially insured and Medicare-covered populations. These higher percentages within Medicaid likely reflect the fact that a large portion of the Medicaid population consists of children and younger adults, who have lower total spending due to lower need for hospitalization and specialty care. Thus, despite a higher primary care spending percentage, the absolute level of spending on primary care may be low.

To date, a number of states have reported on primary care spending percentage in Medicaid, including Colorado, Connecticut, Delaware, Maine, Massachusetts, New Hampshire, Oregon, Rhode Island, Utah, Vermont, and Washington. The reported percentages vary widely, depending on a number of factors, including the following:

- **How primary care is defined.** Primary care spending can be defined based on the type of provider who is providing the service, and based on the specific service provided. Some states report using a "broad" definition of primary care, which includes all services provided by clinicians classified as primary care clinicians. Other states report a "narrow" definition, which limits primary care spending to specific primary care services, provided by specific primary care clinicians. Some states report both definitions. For example, Washington reported a primary care spending percentage in Medicaid managed care plans of 5.1% in 2018 using a narrow definition, and 6.8% using a broad definition.[19] Even within the "broad" and "narrow" frameworks, states vary in what is considered primary care. For example, some states include ob/gyn services as primary care services, while others do not.
- **Whether non-claims spending is included.** Non-claims spending can include capitation arrangements, incentive payments, care coordination payments, infrastructure investments, and other types of payments that are not paid "fee-for-service." Non-claims spending is an increasingly common component of primary care spending. Some states, such as Oregon, included non-claims spending in their primary care spending percentage, and other states did not. Non-claims spending can constitute a sizable portion of total spending: In Oregon's Medicaid program, which reported a primary care spending percentage of 16.2% in 2019, more than 43% of primary care spending was non-claims–based.[20]
- **What services are included in the denominator of total spending.** States differ in the services that are included in total spending. This affects the calculation of primary care spending percentage because a smaller denominator results in a higher percentage. For example, some states exclude pharmacy from the denominator used to calculate primary care spending. For Medicaid, the inclusion or exclusion of long-term care can greatly impact the calculated primary care spending percentage, and is not consistent across states. In Connecticut, for example, the primary care spending percentage in Medicaid using 2018 data was 6% when skilled nursing was included in the denominator and 8% when it was not.[21]
- **Which populations are included in the analysis.** Medicaid is a very heterogeneous program, serving distinct groups with very different medical needs and spending patterns. For example, children tend to have lower total spending and higher percentage of spending on primary care. An "average" primary care spending percentage reported in a state's program hides these large population differences. A state with a large percentage of children in Medicaid will have a higher calculated primary care spending percentage than a state with proportionally more older adults and people with disabilities. Some states have reported primary care spending percentage separately for different populations. For example, Utah's primary care spending percentage in its Medicaid population (excluding the Children's Health Insurance Program, or CHIP) in 2019 was 7.3% using a narrow definition and 9.3% using a broad definition, but its primary care spending percentage for CHIP was 15.9% using a narrow definition and 19.4% using a broad definition.[22]

Methodology

Health Plan Data Sources

This study used calendar year (CY) 2019 rate development template (RDT) information as the source of health plan utilization and expense data. The study examined data submitted by 13 of the 24 Medi-Cal managed care plans, which together include 5.6 million enrollees, roughly half of Medi-Cal enrollees in 2019. Certain plans operate in multiple counties and submit RDTs separately for each county (or region, in the case of Partnership HealthPlan of California; see Table A1 in Appendix A). Thus, in total 30 RDTs were submitted by the 13 plans, three of which were excluded due to insufficient data. Therefore, the results of this study are based on 27 RDTs. Further, individuals whose care was delegated under a global capitation arrangement were also excluded. The study included data for four different population groups: children, adults, adults covered under the Affordable Care Act's Medicaid expansion, and older adults and people with disabilities. Dually eligible enrollees (people eligible for and enrolled in both Medicaid and Medicare) and people who are long-term residents of nursing homes were excluded. In total, data for approximately 5.4 million enrollees are represented in this study.

Note: For simplicity's sake, the term *county-specific health plan(s)* will be used throughout this paper to refer to the rate development templates that comprise the data set.

Recent Findings for Primary Care Spending Among Commercially Insured Populations in California

The Integrated Healthcare Association (IHA) recently conducted an analysis of primary care spending percentage among commercially insured adults in California.[23] The IHA study showed that provider organizations with higher primary care spending percentage had lower total cost of care, lower acute hospital and emergency department utilization, and better performance on quality measures. There are several fundamental differences between the IHA study and this one: study population, data sources, definitions of primary care and total spending, statistical methods, and levels of analysis. The IHA report complements this study, but results are not comparable due to these differences.

Data Aggregation

Using information provided on the RDTs, primary care spending for each county-specific health plan was calculated as spending from three service categories (physician primary care; other medical professional spending, which includes services provided by nurse practitioners, nurse-midwives, and therapists; and Federally Qualified Health Centers, or FQHCs) plus all professional incentive payments. Total spending was calculated as the sum of spending on all services reported in the RDT, which includes all Medicaid state plan benefits required of the managed care entities. These benefits differ in the counties offering county-operated health systems. (Carved-out services are described in Appendix A.) Primary care, emergency room, and acute hospital utilization were calculated from utilization information provided on the RDTs.

Contribution of FQHCs

Federally Qualified Health Centers (FQHCs) are particularly important providers for the Medicaid population. However, inclusion of FQHC spending in this study raises several methodological challenges. First, while all FQHC spending was included within the definition of primary care spending, FQHCs provide substantial amounts of services that are not primary care, thus resulting in a potential overestimation of the amount of primary care spending. Second, payments to FQHCs are not completely captured within the data set, as DHCS is mandated to pay FQHCs a separate reconciliation payment outside of the claims system. These reconciliation payments represent roughly 30% of total FQHC reimbursement and are not reported on the RDT. This limitation leads to an underestimate of primary care spending.

These effects are particularly pronounced for plans where FQHC spending comprises a sizable proportion of the plans' calculated total primary care spending. Analysis of FQHC spending shows that there is significant variation in the percentage of primary care spending that comes from FQHC payments, ranging from approximately 15% to over 60%. A preliminary assessment of the relationship between the percentage of primary care spending attributable to FQHCs and plans' performance on HEDIS and CAHPS measures was inconclusive. Future analyses should more precisely define and measure spending associated with primary care services provided by FQHCs.

Health Plan Quality and Patient Experience Data Sources

Quality measures include measures from the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS), individually and aggregated into the DHCS Aggregated Quality Factor Score (AQFS). Patient experience was assessed using the 2019 Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. Overall plan performance was assessed using the NCQA Health Insurance Plan Ratings.

Statistical Approach

The relationship between primary care spending and clinical performance was evaluated using scatter plots and univariate regression models. In these univariate regression models, the dependent variables were the quality and patient experience data variables discussed above. The control variable was the plan-level primary care spending percentage. The unit of analysis is the county-specific health plan (N = 27). Univariate regressions were performed because of the limited sample size available; thus, other potentially important factors are not controlled for in the analysis. Therefore, the results should be considered associations and suggestive of a potentially meaningful relationship. Results contained in this paper are directional in nature, as a more refined analysis would require detailed data to perform key normalization techniques. Statistical relationships with R^2 values greater than 15.0% and p values less than or equal to .05 were deemed meaningful for purposes of this study. The main text presents statistically significant results for the relationship between primary care spending percentage and overall health plan rating, AQFS, and acute hospital utilization. Additional models are presented within Appendix B (HEDIS), Appendix C (CAHPS, emergency department utilization, total cost of care, and the effects of primary care utilization), and Appendix D (effects of the mode of primary care payment).

The authors of this study held a data-sharing agreement with each participating health plan. These agreements included the commitment to confidentiality and privacy of sensitive health plan information. As such, results contained in this report are limited in nature and have been translated into generalized metrics that do not reflect information that may lead to plan identification.

Additional information about the study methodology can be found in Appendix A.

Findings

Definition and Level of Primary Care Spending

Previous work has delineated different approaches to measuring primary care, including a "broad" approach that defines primary care based on the type of provider delivering the care, versus a "narrow" approach that defines primary care based on both the type of provider delivering the care and the type of service that was delivered. In some ways, this study's approach is more aligned with the broad approach, in that the classification is driven solely by provider type.

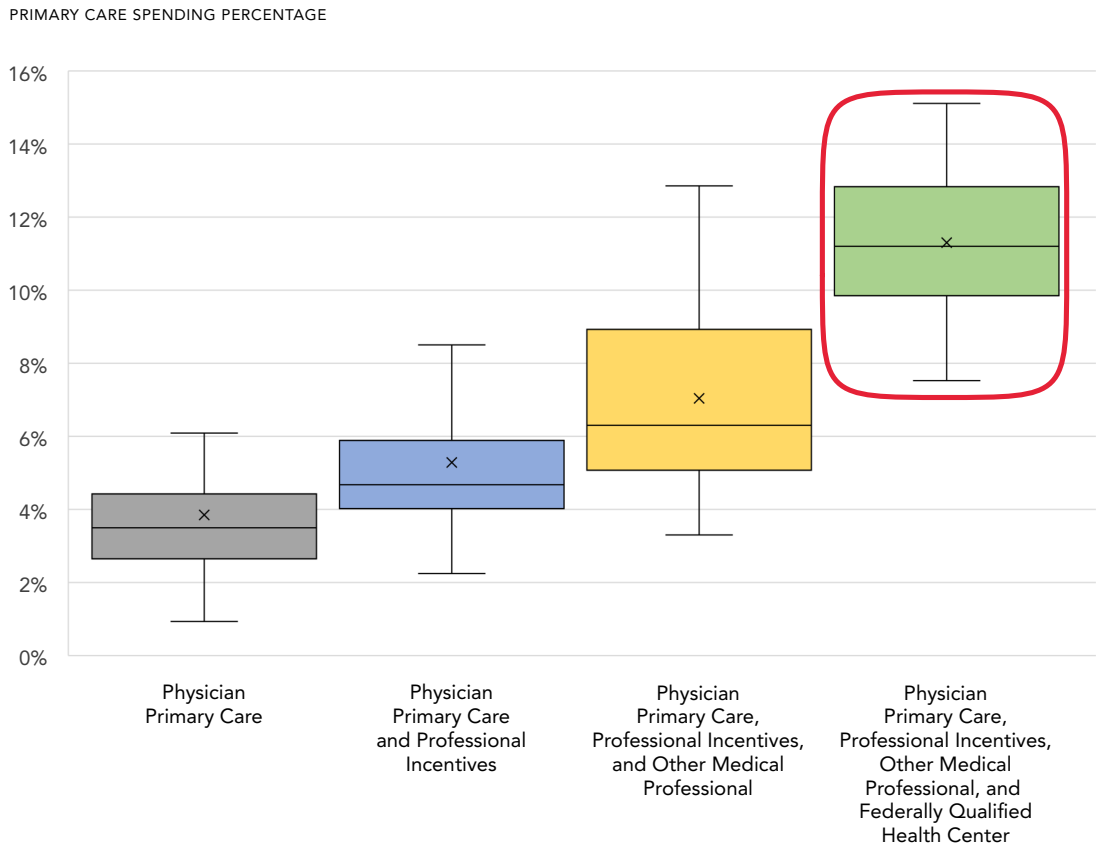
However, this study's source data have a number of unique features that make direct comparisons challenging. For example, obstetrician-gynecologists are included as primary care providers, which is not typical in definitions used in other studies. In addition, the professional incentives category includes all dollars spent on incentives paid to all providers, not solely primary care providers. These features suggest that this methodology would result in a higher-than-typical estimate for primary care spending percentage.

Additionally, there are several considerations that relate to the inclusion of FQHC spending. Through stakeholder engagement meetings, health plans advocated to categorize FQHCs as primary care for purposes of this study, given their important role in providing primary care services to Medi-Cal members. However, there were several limitations related to the data on FQHCs, which are described in the sidebar on the previous page, that could result in either an over- or underestimate of the spending associated with primary care delivered by FQHCs. Because plans vary in the percentage of services delivered through FQHCs, these data limitations affect plans unevenly and have potential impacts that are difficult to quantify.

Figure 1 outlines the percentage of total medical expense identified as primary care in a stepwise manner, evaluating the impact of including each of the additional categories of spending mentioned above. The top of each box represents the 75th percentile, and the bottom of each box represents the 25th percentile of the data set. The line in the middle of each box is the median, while the "x" represents the mean. The top and bottom stems go to the largest and smallest data points that are not outliers.

The green box circled in red is the primary care definition used for purposes of this study, inclusive of FQHC providers. Under this definition, Medi-Cal health plans spent an average of 11% on primary care services. This is likely a high estimate of primary care spending percentage, because of the broad definition of primary care as well as the exclusions from the denominator (see box on page 7, "Measurement of Primary Care Spending Percentage in Other States' Medicaid Programs"). In addition, total per-enrollee spending is lower in Medi-Cal than in most other states' Medicaid programs, so a low-to-average primary care spending percentage in Medi-Cal translates to lower absolute dollars spent on primary care, compared with higher-spending states. Future data collection efforts may wish to align more closely with the definitions of primary care spending used in other studies in order to facilitate more meaningful comparisons.

Figure 1. Primary Care Spending Percentage Across Definitions



Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Variation in Primary Care Spending Levels, Percentages, and Composition

There is significant variation in percentages and levels of primary care spending across populations and county-specific health plans. The data provided distinguish health plan experience for four different demographic groupings: child, adult, Affordable Care Act (ACA) optional expansion, and seniors and persons with disabilities (SPD). Table 1 outlines the range in primary care spending observed in these four populations on a per-member per-month (PMPM) basis and illustrates the resulting variation in primary care spending as a percentage of total cost of care across the 27 county-specific health plans. As expected, the highest mean primary care spending *percentage* (28.2%) and lowest mean primary care spending *PMPM* ($20.49) occur in the child population, reflecting this population's low medical acuity. In contrast, the SPD population has the lowest mean primary care spending percentage (4.9%) and highest mean primary care spending PMPM ($44.49), reflecting its high medical acuity.

KEY TAKEAWAY. There is significant variation in percentages and levels of primary care spending across populations and county-specific health plans.

An overall primary care spending percentage was also calculated for each county-specific health plan, using a standardized membership distribution across the participating plans. The mean overall primary care spending percentage across all plans was 11.3% (range, 5.0% to 18.7%), and the mean primary care spending PMPM was $28.50 (range, $8.85 to $61.24).

Primary care spending across the 27 county-specific health plans was further analyzed to better understand if the higher primary care spending was related to a greater number of primary care visits or to higher reimbursements to primary care providers. Health plans' utilization and unit cost metrics were plotted against primary care spending to examine the relationship. Results of this analysis indicate higher primary care spending is driven by a combination of both higher utilization and higher unit cost.

Table 1. Range of Primary Care Spending Across County-Specific Health Plans (*N* = 27)

		PER MEMBER PER MONTH			PERCENTAGE		
POPULATION	PERCENTAGE OF STUDY POPULATION	MINIMUM	MEAN	MAXIMUM	MINIMUM	MEAN	MAXIMUM
Adult	15.6%	$13.01	$35.87	$57.85	5.0%	11.6%	20.2%
Child	45.9%	$5.90	$20.49	$34.10	9.6%	28.2%	37.4%
ACA optional expansion	30.8%	$10.97	$32.12	$67.91	4.1%	9.7%	18.9%
SPD	7.7%	$18.67	$44.49	$123.85	2.3%	4.9%	14.7%
All	**100.0%**	**$8.85**	**$28.50**	**$61.24**	**5.0%**	**11.3%**	**18.7%**

Note: *ACA* is Affordable Care Act; *SPD* is seniors and persons with disabilities.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

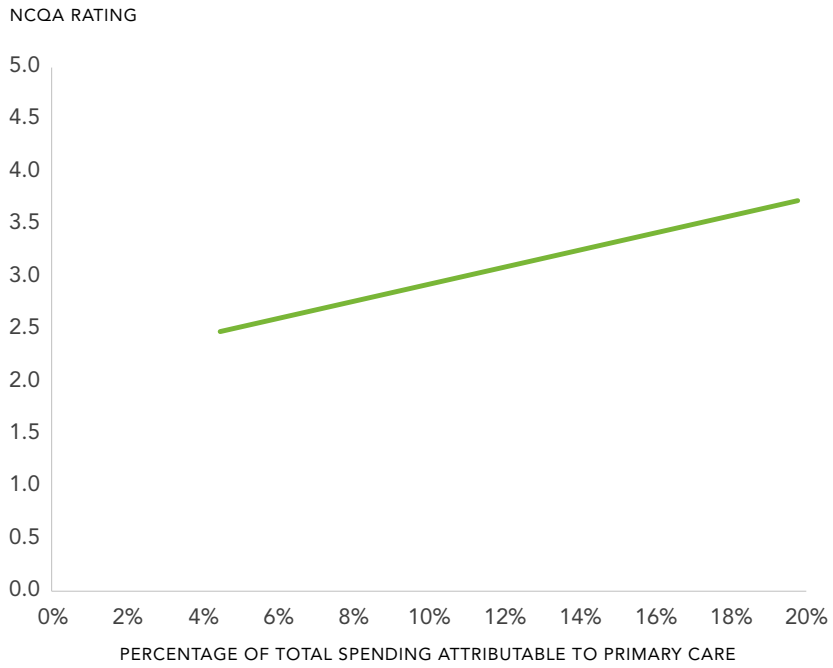
This study further examined the proportion of primary care spending under three different payment mechanisms (capitation payments, incentive payments, and direct spending) across the 27 county-specific health plans. Capitation payments are predetermined amounts paid prospectively to providers on a PMPM basis, regardless of the incurred utilization within the contract period. Incentive payments typically reward providers for achieving quality and/or efficiency goals, and can include shared savings payments, pay-for-performance payments, or pay-for-reporting payments. Direct spending is a fee-for-service arrangement, whereby providers are reimbursed for individual services rendered. There is significant variation in the reimbursement structures used by participating county-specific health plans to pay for primary care, as shown in Appendix D.

Association Between Primary Care Spending Percentage and Overall Health Plan Rating

The next set of analyses examine the association between the percentage of dollars health plans spend on primary care and how well plans perform on a number of different measures.

To understand whether higher percentages of spending on primary care are associated with higher consumer ratings of care, univariate regression analysis was performed using overall primary care spending percentage and health plan performance on the NCQA Health Insurance Plan Ratings. The NCQA ratings reflect performance on HEDIS clinical quality measures, CAHPS patient experience measures, and NCQA accreditation standards. Overall ratings are computed on a scale of 0 to 5, where 5 is the highest score and 0 is the lowest. Figure 2 shows the association of primary care spending

Figure 2. NCQA Rating, by Percentage of Total Spending Attributable to Primary Care (*n* = 17)



KEY TAKEAWAY.
Plans with the highest primary care spending percentage had the highest NCQA ratings.

Note: R^2 = 28.2% and p = .03.

Sources: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022. National Committee for Quality Assurance (NCQA), "**NCQA Health Insurance Plan Ratings 2019–2020 – Summary Report (Medicaid)**," accessed July 19, 2022.

percentage with overall health plan rating. This and subsequent figures display only a trend line, as presentation of individual data points could allow for identification of individual plans, which is not permitted by the confidentiality requirements associated with the data source. As shown in Figure 2, plans with the highest primary care spending percentage had the highest NCQA ratings.

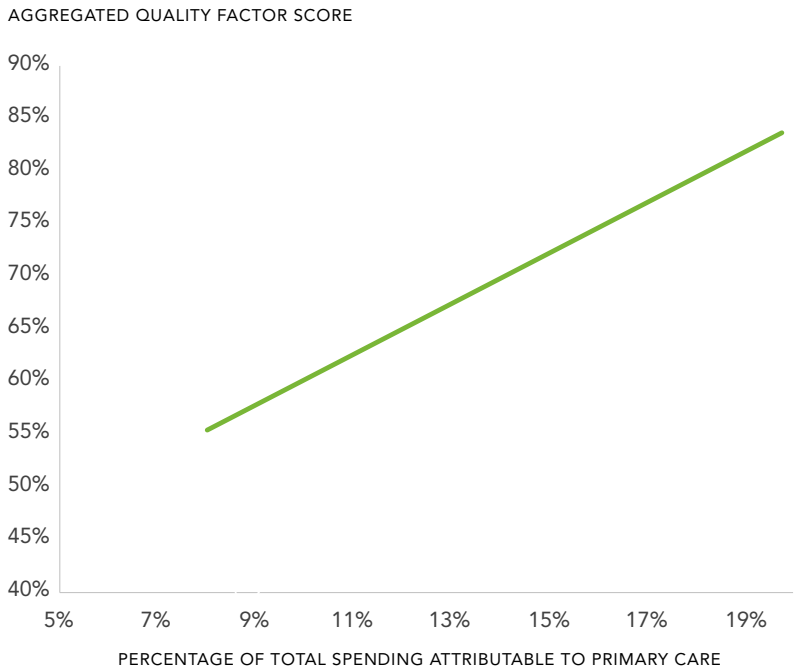
Association Between Primary Care Spending and Quality Performance

The DHCS Aggregated Quality Factor Score (AQFS) was used to analyze the relationship between overall primary care spending percentage and quality of care. AQFS is a single score that accounts for plan performance across multiple HEDIS indicators, including measures related to completion of well-child visits, receipt of immunizations, control of diabetes, and receipt of recommended cancer screenings. A higher score corresponds with better performance. To learn more about the AQFS score and how these measures align with other common quality performance measures in California, refer to Appendix A. There was a meaningful association between health plans' primary care spending percentage and their quality of care, as measured by the AQFS (Figure 3).

KEY TAKEAWAY. Higher primary care spending percentage was associated with better performance on nine of 11 (82%) specific clinical quality measures.

This study also examined the relationship of primary care spending percentage with performance on 11 specific measures of clinical quality, shown

Figure 3. AQFS, by Percentage of Total Spending Attributable to Primary Care (*n* = 24)



Note: R^2 = 25.1% and p = .013.

Sources: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022. California Department of Health Care Services (DHCS), ***Managed Care Performance Monitoring Dashboard Report*** (PDF), January 9, 2020.

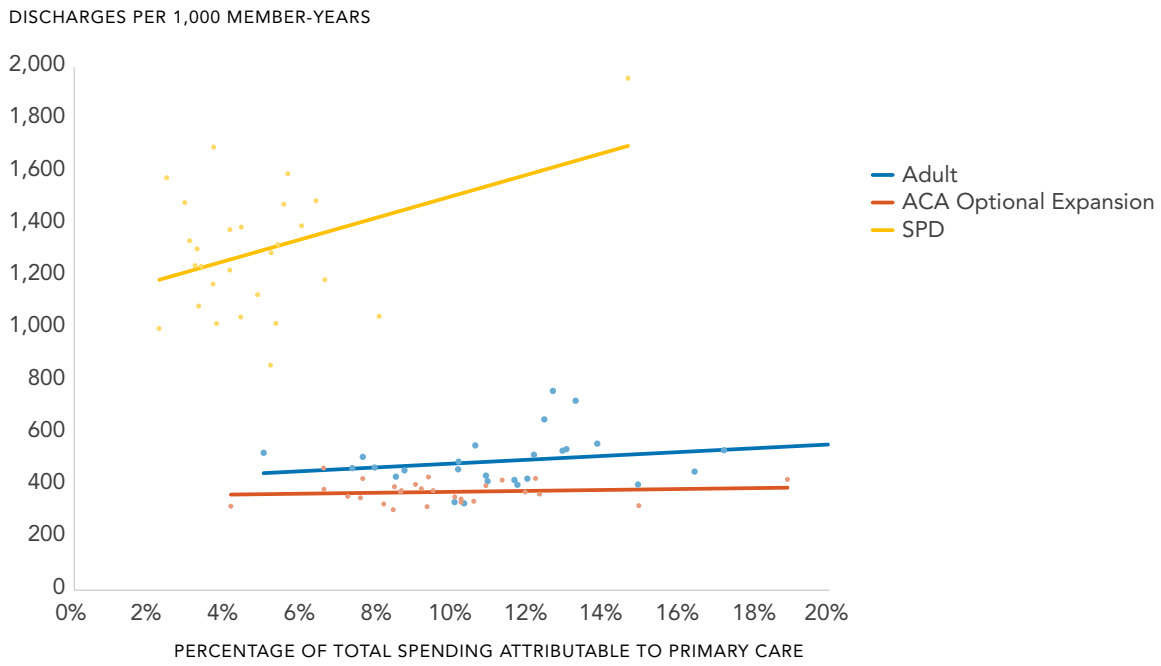
in Appendix B. For nine of the examined measures (82%), higher primary care spending percentage was directionally consistent with better performance, and thresholds for statistical significance (R^2 > 15% and $p \leq .05$) were met for three of these measures. Regression results for the full list of the HEDIS metrics reviewed are listed within Appendix B.

Relationship Between Primary Care Spending Percentage and Acute Hospital Utilization

Regression analyses were used to examine the relationship between primary care spending percentage and acute hospital utilization (as measured by discharges per 1,000 member-years) in each of the four included populations (results for adult populations are shown in Figure 4, and results for children are shown in Figure 5 on page 16). For adults, the adult ACA optional expansion population, and children, no relationship was found between primary care spending percentage and acute hospital utilization (as measured by discharges per 1,000 member-years). Among the population of older adults and people with disabilities, higher primary care spending percentage was associated with higher inpatient utilization. It is unclear whether this relationship is simply reflecting the higher level of service utilization among the highest-need, highest-cost populations or whether high levels of engagement with primary care are in some way contributing to higher acute hospital utilization.

There was no relationship found between primary care spending percentage and ER utilization (see Appendix C).

Figure 4. Inpatient Hospital Discharges per 1,000 Member-Years, by Primary Care Spending Percentage, Adults (*N* = 27)



Notes: *ACA* is Affordable Care Act; *SPD* is seniors and persons with disabilities. Adult: R^2 = 5.4%, p = .24; ACA optional expansion: R^2 = 1.5%, p = .54; SPD: R^2 = 16.4%, p = .04.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Figure 5. Inpatient Hospital Discharges per 1,000 Member-Years, by Primary Care Spending Percentage, Children (*N* = 27)

Note: Children: R^2 = 5.4% and p = .96.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022

Association Between Primary Care Spending Percentage and Other Performance Measures

We assessed the relationship between primary care spending percentage and patient experience measures, total cost of care, and emergency department utilization. Details are in Appendix C. We also examined the relationship between primary care utilization and various quality and patient experience measures. These results are also shown in Appendix C.

Study Limitations and Areas for Future Refinement

Study Limitations

Calendar year 2019 RDT information submitted by Medi-Cal managed care health plans was used as the main source of plan utilization and expense data to conduct this study. While providing a source of baseline information about primary care spending, the RDT has significant limitations that should be considered in the interpretation of findings.

The use of RDT data does not allow for controlling for important differences between health plans, including patient acuity associated with the populations enrolled in each health plan; geographic variation and its impact on medical unit costs and access to care; and unique contracting structures between managed care organizations and providers. Additionally, there is significant variation in health plan reliance on unique hospital types, including university or advanced treatment centers. To the extent a health plan has a substantial amount of utilization at one of these high-cost providers, total spending may be high, resulting in lower primary care spending percentage relative to other health plans. Detailed claims data would allow for adjustments to account for some of these differences.

It is important to note that results contained in this report may be confounded by the limited nature of the data described above. Differences discussed among health plans and populations would require further investigation and normalization, which was not feasible given the data available. Unobserved factors may be associated with both primary care spending percentage and our outcomes of interest. For example, healthier populations may use less specialty services, confounding the observed relationship between higher primary care spending and higher total spending. Quality performance may also be impacted by other factors, such as geography, network composition, non-PCP services, member engagement, and member decisions. The results in this study should be considered associations and not causal. To learn about other limitations, refer to Appendix E.

Future Refinement

Exploration of detailed statewide claims-level data would allow for several normalization adjustments that may lead to additional or varying findings. Provider-specific supplemental payments, population acuity variations, contracting differences, and potential variations in data reporting are all areas that could be explored with detailed data. Detailed claims data would enable the use of risk adjustment. Additionally, claims data would enable a more detailed definition of primary care services, more consistent with approaches used in other studies. Detailed claims data would additionally allow for normalization of the universe of covered benefits used to calculate the primary care spending percentage, improving consistency among Medi-Cal health plans.

This study evaluated primary care spending by focusing on the percentage of health care spending that goes to primary care. In other words, primary care spending was divided by total cost of care to calculate a primary care spending percentage. Thus, a high primary care spending percentage could reflect higher absolute primary care spending, a lower total cost of care, or both. Further analysis should consider examining the absolute level of primary care spending and its relationship to desired outcomes, in addition to primary care spending percentage.

Implications and Conclusions

This study provides a preliminary, exploratory look at primary care spending within Medi-Cal managed care plans. This study found that primary care spending varied across plans, from a low of $8.85 PMPM to a high of $61.24 PMPM, with primary care spending percentage ranging from 5.0% to 18.7%. Because of the unique definition of primary care used for this study, based on the categories of spending reported by managed care plans, it is difficult to draw meaningful comparisons to findings reported in other states.

The study demonstrates marked variation in primary care spending percentage across the heterogeneous populations served by these health plans. As expected, children have the lowest levels of primary care spending but the highest primary care spending percentage, while the population of older adults and people with disabilities have the highest levels of primary care spending and the lowest primary care spending percentage. Within each of these populations, there remains large variation in both level of spending and percentage of spending across the 27 county-specific health plans represented.

KEY TAKEAWAY. Findings suggest that plans that spend a greater percentage of their total budget on primary care have higher quality performance and overall plan ratings.

Findings pertaining to the relationship between primary care spending percentage and performance on measures of quality and overall ratings of care suggest that plans that spend a greater percentage on primary care have higher quality performance and overall plan ratings. However, higher primary care spending percentage was not associated with lower total cost of care, acute hospital utilization, or emergency department utilization. For the population of older adults and people with disabilities, higher primary care spending appeared to be associated with increased acute hospital utilization.

This study provides a preliminary exploration of primary care spending within Medi-Cal plans using summary-level data. The significant variation in primary care spending across plans and the association of higher primary care spending with a range of different outcomes support further exploration of primary care spending in the Medi-Cal population, using more detailed analyses. These efforts take on particular urgency in light of the renewed focus on quality and primary care within Medi-Cal and statewide efforts to measure and promote sustained systemwide investment in primary care and behavioral health. Better information about the benefits of investing in primary care, along with the best strategies for achieving desired quality, experience, utilization, and cost outcomes, can help guide and inform policy action.

Appendix A. Study Methods

Study Population and Data Source

Calendar year (CY) 2019 rate development template (RDT) information was used as the main source of plan utilization and expense data. This study examined data submitted by 13 of the 24 Medi-Cal managed care plans. The 13 plans include 5.6 million enrollees, representing roughly 54% of the Medi-Cal population. The plans are heavily concentrated within the urban regions of California, with limited participation from commercial health plans. The authors believe that the population reviewed was credible to perform this study and do not believe that the results are materially impacted by the plans that did not participate. Certain plans operate in multiple counties and submit RDTs separately for each county (or region, in the case of Partnership HealthPlan of California). Thus, in total, 30 RDTs were submitted by the 13 plans. Three of the RDTs provided by plans were excluded from this study, because they were sparsely populated due to downstream capitated arrangements. Therefore, results of this study are based on 27 RDTs.

Table A1. Participating Medi-Cal Managed Care Health Plans (*N* = 13)

HEALTH PLAN	COUNTIES/REGIONS SERVED*	CY 2019 ENROLLEES†	% OF MEDI-CAL ENROLLEES
Alameda Alliance for Health	Alameda	252,712	2.43%
CalViva Health	Fresno, Kings, Madera	358,702	3.45%
CenCal Health	San Luis Obispo, Santa Barbara	176,317	1.70%
Central California Alliance for Health	Merced, Monterey, Santa Cruz	339,421	3.27%
Gold Coast Health Plan	Ventura	196,537	1.89%
Health Net of California	Kern, Los Angeles, Sacramento, San Diego, San Joaquin, Stanislaus, Tulare	1,392,357	13.40%
Health Plan of San Joaquin	San Joaquin, Stanislaus	340,403	3.28%
Health Plan of San Mateo	San Mateo	102,743	0.99%
Inland Empire Health Plan	Riverside, San Bernardino	1,230,934	11.85%
Kern Health Systems	Kern	258,408	2.49%
Partnership HealthPlan of California	South (aggregate of Napa, Solano, Yolo, Sonoma, Lake, Marin, Mendocino) and North (aggregate of Humboldt, Del Norte, Modoc, Lassen, Shasta, Siskiyou, Trinity)	548,580	5.28%
San Francisco Health Plan	San Francisco	127,063	1.22%
Santa Clara Family Health Plan	Santa Clara	240,899	2.32%
Total Enrollees in Participating Plans		**5,565,076**	**53.56%**
Total Medi-Cal Enrollees		**10,389,927**	**100.00%**

*For simplicity's sake, the term *county-specific health plan(s)* will be used throughout this paper to refer to the rate development templates that comprise the data set.

† "**Medi-Cal Managed Care Enrollment Report**," California Health and Human Services Agency, May 2022.

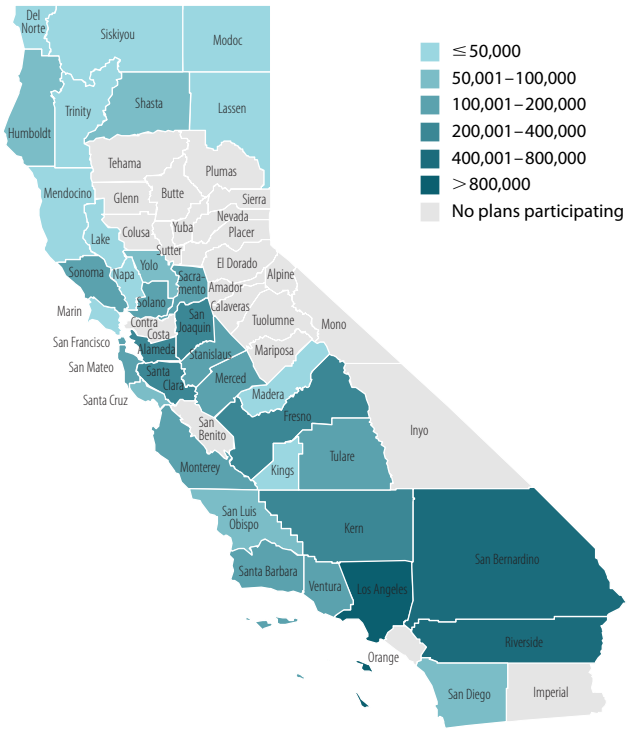
Note: *CY* is calendar year.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

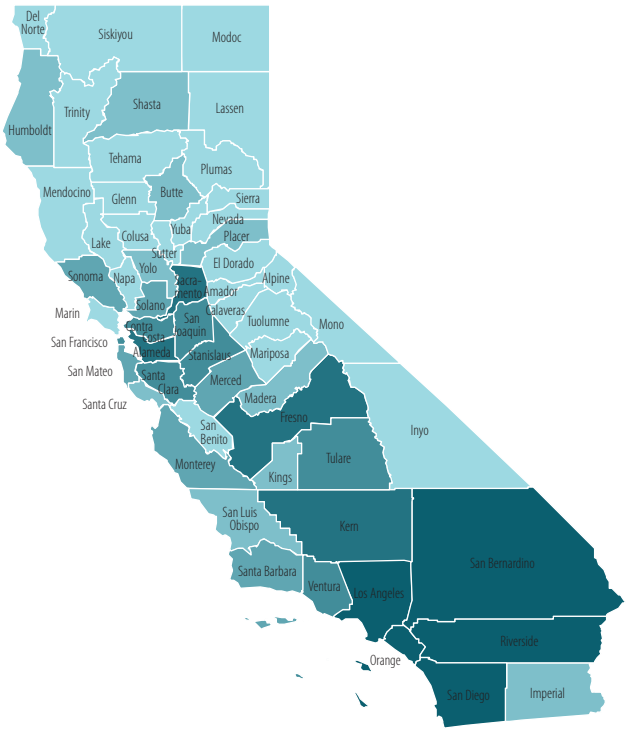
Table A1 provides enrollment data for each of the participating health plans, while Figure A1 highlights the 36 counties served by these health plans, enrollment in participating MCPs, and average total number of Medi-Cal enrollees in each county.

Figure A1. Enrollment in Participating Medi-Cal Managed Care Plans and Average Number of Medi-Cal Enrollees, by County, 2019

ENROLLMENT IN PARTICIPATING MEDI-CAL MCPs



AVERAGE NUMBER OF MEDI-CAL ENROLLEES



Sources: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022. "**Month of Eligibility, Age Group, and Sex, by County, Medi-Cal Certified Eligibility**" (Jan. 2019–Dec. 2019), California Health and Human Services Agency Open Data Portal, last updated July 11, 2022.

The study population excluded individuals whose care was delegated under a global capitation arrangement, meaning that another entity was assigned responsibility for managing and delivering all of that individual's care.

The study data included four different population groups, based on category of aid, as follows:

- **Child.** Children age 18 and under covered under Medicaid or the Children's Health Insurance Program (CHIP).
- **Adult.** Categorically eligible adults, age 19 to 64, such as parents and caretaker relatives, and pregnant women.
- **Affordable Care Act (ACA) optional expansion.** Adults age 19 to 64 meeting the income and eligibility requirements of the Affordable Care Act.
- **Seniors and persons with disabilities (SPD).** Older adults (age 65 and over) and people with disabilities, excluding people who are dually eligible for Medicare and Medicaid and excluding long-term residents of nursing homes.

In total, data for approximately 5.4 million enrollees are represented in this study.

Calculation of Primary Care Spending

Primary care spending was calculated from expense data reported on RDTs. On the RDTs, utilization and expense data are reported across 12 categories of service:

- Inpatient hospital
- Physician primary care
- Other medical
- Outpatient facility
- Physician specialty professional
- Emergency room (ER) facility
- Pharmacy
- Transportation
- Long-term care facility (LTC)
- Federally Qualified Health Center (FQHC)
- Laboratory and radiology
- All other

Table A2 displays definitions of the most relevant categories of service (COS) used by the Department of Health Care Services (DHCS) in its rate development template (RDT).

For purposes of this study, primary care services were defined to include the following categories of service: physician primary care, other medical professional, and Federally Qualified Health Centers (FQHCs). These categories are primarily based on provider types and do not consider the procedure/service-level designation. The categories of service include capitation payments but not incentive payments. Incentive payments are separately itemized within the RDT and are split between professional and facility payments, but are not reported by category of service. In this study, all professional incentive payments were considered primary care spending.

Table A2. Definitions of Categories of Service (COS)

COS	DHCS DEFINITION
Inpatient hospital	All facility-related expenses for hospital inpatient services, including room, board, and ancillary charges. Includes ER facility charges resulting in admission but excludes professional components and any long-term care patients.
Emergency room (ER)	All facility-related expenses of an ER visit that did not result in an inpatient admission. Excludes professional components but includes any same-day outpatient claims.
Physician primary care	Services provided by all physician types (except specialty) outside of an FQHC setting.
Physician specialty	All services provided by certain physician types (based on provider taxonomy code) not included elsewhere. Excludes FQHC and mental health services.
Federally Qualified Health Center (FQHC)	All expenses for services provided in an FQHC or rural health clinic (RHC). Excludes mental health services.
Other medical professional	All expenses related to services provided by nonphysician professionals who are not classified as physician primary care or specialty. Examples include certified nurse practitioners, nurse-midwives, and therapists.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Quality and Patient Experience Measures

The quality metrics included in this report originate from the National Committee for Quality Assurance (NCQA)'s Healthcare Effectiveness Data and Information Set (HEDIS), as summarized within the DHCS *Medi-Cal Managed Care External Quality Review Technical Report*.[24] National benchmarks for each metric were obtained, when possible, using a data license from the NCQA. This study also relied on the DHCS Aggregated Quality Factor Scores (AQFS), a single score calculated based on performance on multiple HEDIS metrics.[25]

AQFS measures align with other common quality performance measures in California, including the Advanced Primary Care (APC) Measure Set, HEDIS, and the Managed Care Accountability Set (MCAS) for Medi-Cal Managed Care Plans (MCPs), as shown in Table A3.

Health plan member experience metrics used in this study are from the *2019 CAHPS Medicaid Managed Care Survey*.[26] CAHPS scores reflect an assessment of perceptions and experiences of Medi-Cal managed care beneficiaries. The report displays results from adult beneficiary surveys as well as surveys for parents or caretakers of child beneficiaries. Additionally, this study examined performance on the NCQA Health Insurance Plan Ratings, which report an overall rating derived from the plan's performance on HEDIS clinical quality measures, CAHPS patient experience measures, and NCQA accreditation standards.[27] Most performance measures were available at the health plan and county level, corresponding to the same level of detail provided within participating health plans' financial data. When performance for a measure was available only by health plan and not by county, the same performance was assumed across all counties within that health plan. Consideration was also given to population type within performance measures. For example, if a given performance measure was specific to children or adults, the corresponding health plan financial data were limited to only children or adults, respectively.

Table A3. Alignment of Common Measures of Primary Care Performance

MEASURE NAME	AQFS*	APC†	HEDIS‡	MCAS FOR MCPs (MEDI-CAL)*
Adult BMI Assessment (ABA)	✔		✔	✔
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: BMI Assessment for Children/Adolescents (WCC-BMI)	✔			✔
Childhood Immunization Status: Combination 10 (CIS-10)	✔	✔		✔
Immunizations for Adolescents: Combination 2 (IMA-2)	✔			✔
Breast Cancer Screening (BCS)	✔		✔	✔
Cervical Cancer Screening (CCS)	✔		✔	✔
Chlamydia Screening in Women (CHL)	✔		✔	✔
Asthma Medication Ratio (AMR)	✔	✔	✔	✔
Controlling High Blood Pressure (CBP)	✔	✔	✔	✔
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing (CDC-HT)	✔			✔
Comprehensive Diabetes Care: HbA1c Poor Control (>9.0%) (CDC-H9)	✔	✔		✔
Antidepressant Medication Management: Acute Phase Treatment (AMM-Acute)	✔			✔
Antidepressant Medication Management: Continuation Phase Treatment (AMM-Cont)	✔			✔
Prenatal and Postpartum Care: Timeliness of Prenatal Care (PPC-Pre)	✔			✔
Prenatal and Postpartum Care: Postpartum Care	✔			✔
Well-Child Visits in the First 15 Months of Life (W15)	✔		✔	✔
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (W34)	✔		✔	✔
Adolescent Well-Care Visits (AWC)	✔		✔	✔

* ***Managed Care Accountability Set (MCAS) for Medi-Cal Managed Care Plans (MCPs)*** (PDF), California Department of Health Care Services, updated October 23, 2019. AQFS measures are measures held to the minimum performance level (MPL) from the MCAS for MCPs.

† ***Advanced Primary Care Measure Set: Alignment with Attributes*** (PDF), Purchaser Business Group on Health, accessed June 22, 2022.

‡ ***HEDIS 2019, Volume 2: Summary Table of Measures, Product Lines and Changes*** (PDF), NCQA, accessed June 22, 2022.

Note: *APC* is Advanced Primary Care Measure Set; *AQFS* is the California Department of Health Care Services Aggregated Quality Factor Score; *BMI* is body mass index; *HEDIS* is the National Committee for Quality Assurance (NCQA)'s Healthcare Effectiveness Data and Information Set.

Total Cost of Care and Utilization

Inpatient and emergency room utilization per 1,000 member-years was calculated from utilization and enrollment information provided on the RDTs.

Primary care utilization, measured as primary care visits per 1,000 member-years, was calculated from utilization and enrollment information provided on the RDTs.

Total health care spending was defined as all services reported in the RDT, which include all Medicaid state plan benefits required of the managed care entities. Certain services are carved out of managed care in California and thus not included in the data. These include, for example, specialty mental health services, substance use disorder treatment services, and HIV/AIDS and most psychotherapeutic medications.

Appendix B. Relationship Between Primary Care Spending Percentage and HEDIS Results

The relationship between primary care spending percentage and clinical performance was evaluated using scatter plots and univariate regression models. Univariate regression models include Healthcare Effectiveness Data and Information Set (HEDIS) measures as the dependent variables and plan-level primary care spending percentage as the control variable (see Table B1). The unit of analysis is the county-specific (or region-specific, in the case of Partnership HealthPlan of California; see Table A1 above) health plan (*N* = 27).

Eleven different HEDIS measures were examined. For nine of the measures, higher primary care spending percentage was directionally consistent with better performance. Thresholds for statistical significance were met for three measures: cancer screening, antidepressant medication management (acute phase), and antidepressant medication management (continuation phase). These three measures reflect important priority areas for the state (see the shaded rows in Table B1).

Table B1. Relationship Between Primary Care Spending Percentage and HEDIS Results (*N* = 27)

QUALITY METRICS	β*	R^2	*p* VALUE†	POSITIVE OBSERVATIONAL RELATIONSHIP
Cancer Screening (average of breast and cervical cancer)	0.758	16.0%	.04	✔
Childhood Immunization Status — Combination 10	0.089	0.1%	.85	✔
Immunizations for Adolescents — Combination 2	0.123	0.4%	.75	✔
Well-Child Visits in the First 15 Months of Life — >5 Well-Child Visits	–0.290	2.6%	.42	
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	0.041	0.1%	.86	✔
Comprehensive Diabetes Care — HbA1c Poor Control (>9.0%)	–0.742	12.8%	.07	✔
Antidepressant Medication Management — Acute Phase	1.256	28.1%	.00	✔
Antidepressant Medication Management — Continuation Phase	1.165	23.3%	.01	✔
Controlling High Blood Pressure — Total	0.384	3.4%	.36	✔
Asthma Medication Ratio — Child	–0.392	9.5%	.12	
Asthma Medication Ratio — Adult	0.175	0.5%	.72	✔

*The statistical model is $y = \beta x + \alpha$, where the slope parameter represents how much more or less quality will move with every 1% increase in primary care spending.

†*p* values are displaying significance results from an F-test of slope significance with primary care spending as the independent variable and clinical performance as the dependent regression variable. *p* values less than or equal to .05 were deemed statistically significant for purposes of this study (see shaded rows).

Sources: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022. California Department of Health Care Services (DHCS), "**Medi-Cal Managed Care Quality Improvement Reports Volume 2**," last modified April 26, 2022.

Appendix C. Results of Other Performance Measures

Relationship Between Primary Care Spending Percentage and Patient Experience (CAHPS) Metrics

The relationship between primary care spending percentage and patient experience was evaluated using scatter plots and univariate regression models. Univariate regression models include Consumer Assessment of Healthcare Providers and Systems (CAHPS) metrics as the dependent variables and plan-level primary care spending percentage as the control variable (see Table C1). The unit of analysis is the county-specific (or region-specific, in the case of Partnership HealthPlan of California; see Table A1 above) health plan (N = 27). For all 10 of the CAHPS measures, higher primary care spending percentage was directionally consistent with better performance. Only one of the measures (Rating of All Health Care — Adult) met thresholds for statistical significance (see the shaded row in Table C1).

Table C1. Relationship Between Primary Care Spending Percentage and Patient Experience (CAHPS) Metrics

CAHPS METRICS	POPULATION	β*	R^2	p VALUE†	POSITIVE OBSERVATIONAL RELATIONSHIP
Rating of Health Plan	Adult (n = 19)	0.452	11.7%	.15	✔
	Child (n = 16)	0.046	0.5%	.80	✔
Getting Needed Care	Adult (n = 14)	0.399	9.1%	.29	✔
	Child (n = 12)	0.295	11.3%	.28	✔
Rating of All Health Care	Adult (n = 14)	0.685	34.6%	.03	✔
	Child (n = 14)	0.428	17.1%	.14	✔
Rating of Personal Doctor	Adult (n = 14)	0.538	15.8%	.16	✔
	Child (n = 14)	0.265	14.8%	.17	✔
Getting Care Quickly	Adult (n = 13)	0.177	1.9%	.66	✔
	Child (n = 13)	0.301	26.0%	.07	✔

*The statistical model is $y = \beta x + \alpha$, where the slope parameter represents how much more or less quality will move with every 1% increase in primary care spending.

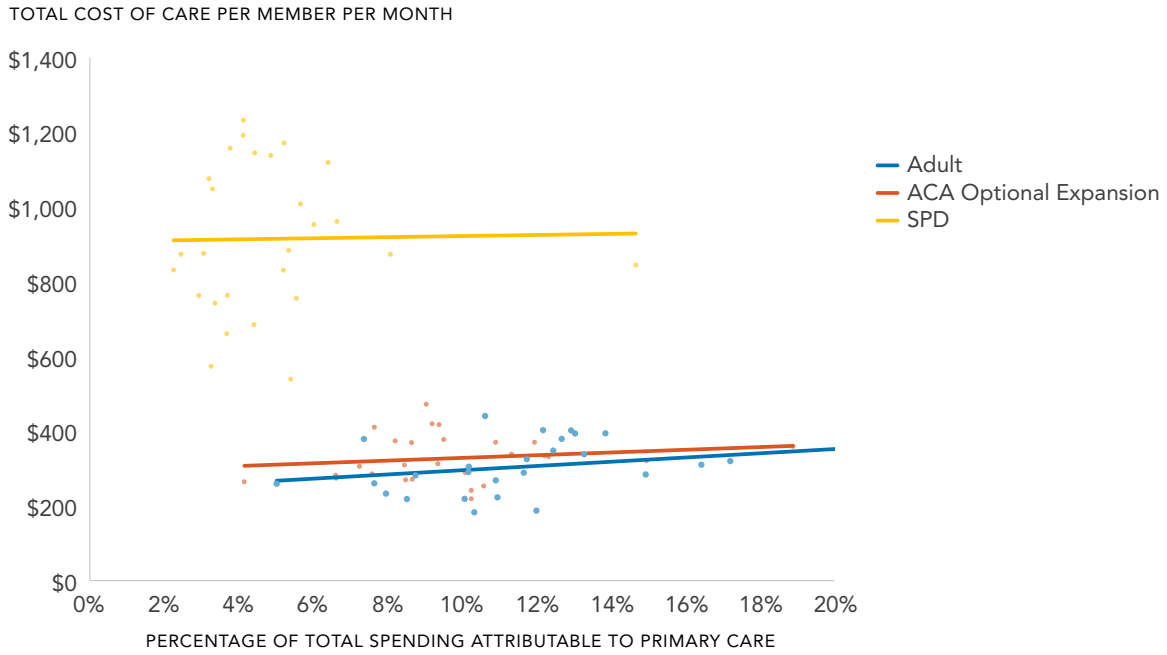
†p values are displaying significance results from an F-test of slope significance with primary care spending as the independent variable and clinical performance as the dependent regression variable. p values less than or equal to .05 were deemed statistically significant for purposes of this study (see shaded row).

Sources: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022. California Department of Health Care Services (DHCS), ***2019 CAHPS Medicaid Managed Care Survey: Summary Report*** (PDF), October 2021.

Relationship Between Primary Care Spending Percentage and Total Cost of Care

The data used in this study do not support a strong relationship between primary care spending percentage and total cost of care. Among adult populations, the scatter plots and resulting regressions do not find a statistically meaningful relationship between primary care spending percentage and total cost of care (see Figure C1). Among children, higher primary care spending percentage appears to directionally align with higher total cost of care, though this relationship did not meet predefined thresholds for statistical significance (see Figure C2).

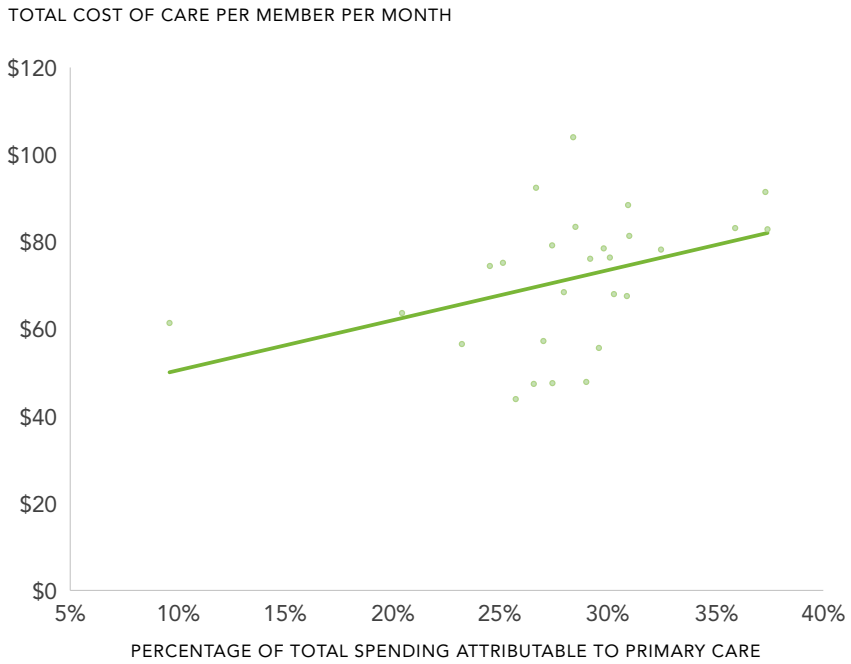
Figure C1. Total Cost of Care PMPM, by Primary Care Spending Percentage for Adults (*N* = 27)



Notes: *ACA* is Affordable Care Act; *SPD* is seniors and persons with disabilities. Adult: R^2 = 6.7%, p = .19; ACA optional expansion: R^2 = 2.7%, p = .41; SPD: R^2 = 0.0%, p = .93.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Figure C2. Total Cost of Care PMPM, by Primary Care Spending Percentage for Children (*N* = 27)



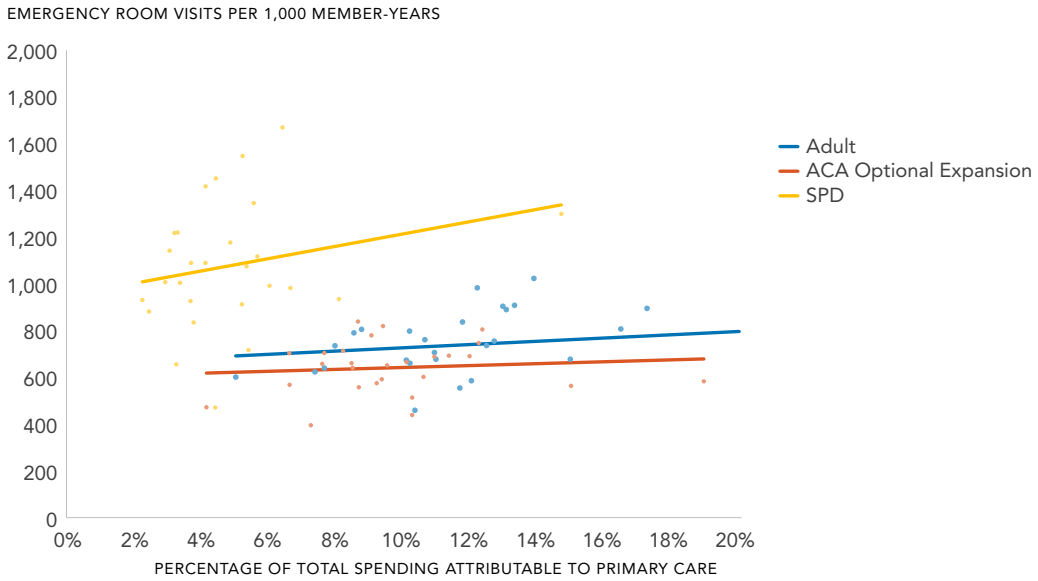
Note: Children: R^2 = 6.7% and p = .04.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Relationship Between Primary Care Spending Percentage and Emergency Room Utilization

There was no relationship found between primary care spending percentage and emergency room utilization (see Figures C3 and C4).

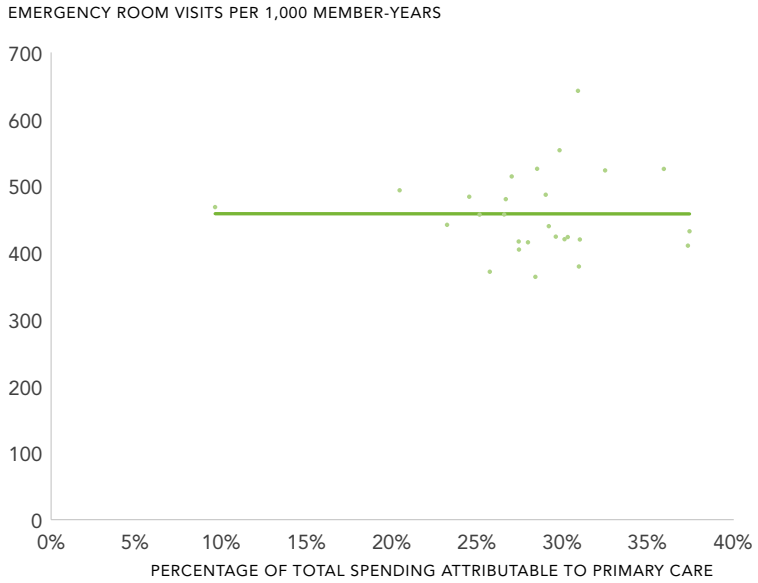
Figure C3. Emergency Room Visits per 1,000 Member-Years, by Primary Care Spending Percentage for Adults (*N* = 27)



Notes: *ACA* is Affordable Care Act; *SPD* is seniors and persons with disabilities. Adult: R^2 = 2.5%, p = .43; ACA optional expansion: R^2 = 1.1%, p = .61; SPD: R^2 = 5.6%, p = .24.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Figure C4. Emergency Room Visits per 1,000 Member-Years, by Primary Care Spending Percentage for Children (*N* = 27)



Note: Children: R^2 = 2.5% and p = 1.00.

Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Relationship Between Primary Care Utilization and AQFS, NCQA, and CAHPS Metrics

In addition to exploring the association of primary care spending percentage with quality and patient experience, the study also assessed the association between primary care utilization and outcomes of interest. Specifically, this study examined the relationship of primary care *utilization*, measured as primary care visits per 1,000 member-years, with quality, as measured by the AQFS; with patient experience, as measured by CAHPS ratings; and with the NCQA Health Insurance Plan Ratings. Primary care utilization alone, excluding the impact of unit cost, is associated with better quality performance as measured by the AQFS (R^2 = 34.5%, $p < .005$). Better performance on the CAHPS measure and the NCQA Health Insurance Plan Ratings were directionally consistent with higher primary care utilization, but these relationships did not meet thresholds for statistical significance (for CAHPS, R^2 = 3.5% and $p = .45$; for NCQA, R^2 = 11.2% and $p = .19$).

Appendix D. Composition of Primary Care Spending

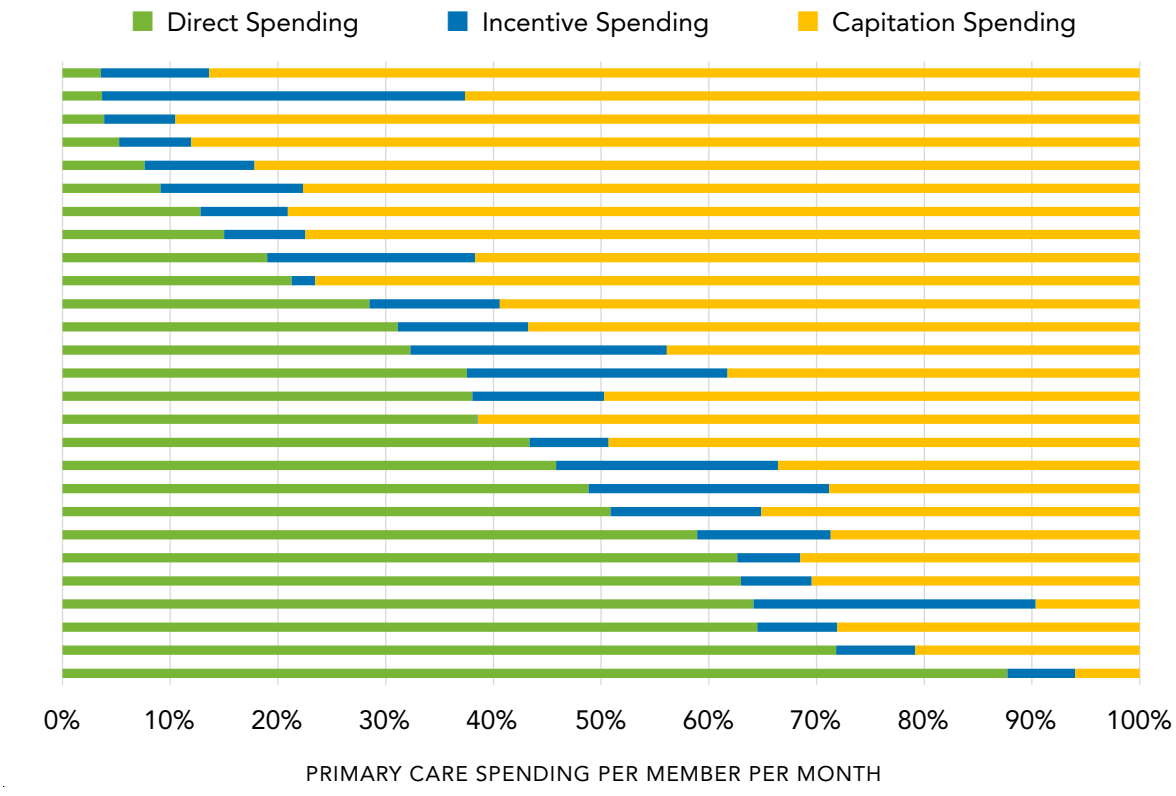
This study examined the proportion of primary care spending under three different payment mechanisms (capitation payments, incentive payments, and direct spending) across the 27 county-specific (or region-specific, in the case of Partnership HealthPlan of California; see Table A1 above) health plans.

As illustrated in Figure D1, there is significant variation in the reimbursement structures used by participating county-specific health plans to pay for primary care. For example, direct spending plus incentives varied from roughly 15% to over 90% of all primary care spending, depending on the particular plan.

To explore whether the method of primary care payment is associated with quality performance, this study further examined the contribution of incentive payments as a component of total primary care spending. Professional incentive payments are reported on the RDTs, and, as previously noted, could include professional incentives paid to either primary care or specialty providers. Incentive payments typically reward providers for achieving quality and/or efficiency goals, and can include shared savings payments, pay-for-performance payments, or pay-for-reporting payments.

A higher percentage of primary care spending attributed to incentive payments is directionally consistent with better quality as measured by the AQFS, but this relationship did not meet thresholds for statistical significance (R^2 = 14.7%, p = .06).

Figure D1. Primary Care Spending in County-Specific Health Plans, by Payment Mechanism (N = 27)



Source: Edrington Health Consulting analysis of CY 2019 rate development templates; direct plan submission of proprietary data, July 2022.

Appendix E. Additional Information on Noted Limitations and Areas for Future Analysis

Health plans also vary in their usage of capitation-based reimbursement structures. Individuals whose care was delegated under a global capitation arrangement were excluded from the study, and these exclusions may not have been evenly distributed across the different plans.

Health plans with other capitation-based reimbursement may not receive complete or detailed encounter data from sub-capitated entities, which may result in underreporting within the rate development template (RDT). Additionally, capitation structures present challenges when populating the RDT, as it can be difficult to allocate the aggregate capitation payment and utilization to specific categories of service. Inconsistencies between how much capitation is utilized across plans and how payments are allocated affect the calculation of primary care spending percentage.

As shown in Figure D1 in Appendix D, health plans vary in their usage of professional incentive payments. The RDTs include the aggregate amount of funding but do not segment the data by programs specifically targeting primary care supports and services. The total amount of professional incentive payments was counted as primary care spending, which could lead to an overestimation of primary care spending.

RDT data also do not include supplemental payments to providers, such as California's Proposition 56 Supplemental Payments, due to their unique payment structure. Proposition 56 provided add-on payments for certain primary care services.

As noted, the inclusion of Federally Qualified Health Centers (FQHCs) presents several data challenges. Reconciliation payments made by health plans to FQHCs represent roughly 30% of total FQHC reimbursement and are not reported on the RDT. Additionally, FQHCs perform a broader suite of services than only primary care, which complicates the ability to distinguish expenses for solely primary care activities in this setting. These limitations make it difficult to analyze the true investment in primary care services for plans with heavy FQHC utilization.

Endnotes

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