Final Evaluation of California's Health Homes Program (HHP)

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Exhibit 1 defines acronyms and terms referenced throughout the report.

Exhibit 1: General Health Homes Program Acronyms and Definitions

Acronym	Definition
AB	Assembly Bill
ACO	Accountable Care Organization
AHF	AIDS Healthcare Foundation
AHS	Alameda Health Systems
AOD	Alcohol and Other Drug
ASC	Ambulatory Surgical Center
ASP	Average Sales Price
BMI	Body Mass Index
CB-CME	Community-Based Care Management Entity
CBO	Community Based Organizations
CBAS	Community-Based Adult Services
CCA	Clinical Care Advance
CCW	Chronic Condition Warehouse
CDPS	Chronic Illness and Disability Payment System Risk Score
CKD	Chronic Kidney Disease
CM	Care Management
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CPT	Current Procedural Terminology
CSH	Corporation for Supportive Housing
DD	Difference-in-Difference
DHCS	California Department of Health Care Services
DME	Durable Medical Equipment
DRG	Diagnosis Related Grouping
E&M	Evaluation & Management
ED	Emergency Department
EHR	Electronic Health Record
ER	Emergency Room
FFS	Fee-for-Service
FMAP	Federal Medical Assistance Percentage
FQHC	Federally Qualified Health Center
GRM	General Risk Model
HAP	Health Action Plan
HCPCS	Healthcare Common Procedure Coding System
HCSA	Alameda County Health Care Services Agency
HEDIS	Healthcare Effectiveness Data and Information Set
HH/HCBS	Home Health and Home and Community-Based Services
HHP	Health Homes Program
HIE	Health Information Exchange
HIT	Health Information Technology
HMIS	Homeless Management Information Session
ICD	International Classification of Diseases
LA	Los Angeles
LCSW	Licensed Clinical Social Worker
LTC	Long-Term Care
MCP	Managed Care Plan

Acronym	Definition
MFT	Marriage and Family Therapist
MM	Member months
NADAC	National Average Drug Acquisition Cost
NPI	National Provider Identifier
NPPES	National Plan and Provider Enumeration System
NUCC	National Uniform Claims Committee
OPPS	Outpatient Prospective Payment System
OUD	Opioid Use Disorder
PACE	Program of All-Inclusive Care for the Elderly
PCP	Primary Care Provider
PMPM	Per Member per Month
POS	Place of Service
PQI	Prevention Quality Indicator
RHC	Rural Health Center
RN	Registered Nurse
SCAN	Senior Care Action Network
SFTP	Secure File Transfer Protocol
SMI	Severe Mental Illness
SNF	Skilled Nursing Facility
SNOMED CT	Systematized Nomenclature of Medicine-Clinical Terms
SPA	State Plan Amendment
SUD	Substance Use Disorder
SW	Social Worker
TAR	Treatment Authorization Request
TEL	Targeted Engagement List
UBREV	Revenue Code
UCLA	University of California, Los Angeles Center for Health Policy Research
UOS	Unit of Service

Exhibit 2 defines acronyms and full names of participating Managed Care Plans.

Exhibit 2: Managed Care Plans Acronyms/Abbreviations and Definitions

Acronym/Abbreviations	Managed Care Plan Full Name
ABHCA	Aetna Better Health of California
AAH	Alameda Alliance for Health
Anthem	Anthem Blue Cross of California Partnership Plan, Inc.
BSCPHP	Blue Shield of California Promise Health Plan
CHW	California Health & Wellness
CalOptima	CalOptima
CHG	Community Health Group Partnership Plan
HNCS	Health Net Community Solutions, Inc.
IEHP	Inland Empire Health Plan
Kaiser	Kaiser Permanente
KHS	Kern Health Systems
L.A. Care	L.A. Care Health Plan
MHC	Molina Healthcare of California Partner Plan, Inc.
SFHP	San Francisco Health Plan
SCFHP	Santa Clara Family Health Plan
UnitedHealthcare	UnitedHealthcare Community Plan of California, Inc.

Executive Summary

Health Homes Program (HHP) Overview

The California Department of Health Care Services (DHCS) implemented the Medi-Cal Health Homes Program (HHP) to serve eligible Medi-Cal beneficiaries with complex needs and chronic conditions. HHP was authorized under California Assembly Bill 361 and approved by the Centers for Medicare and Medicaid Services under Section 2703 of the 2010 Patient Protection and Affordable Care Act.

HHP was designed to provide six core services for eligible enrollees: (1) comprehensive care management; (2) care coordination; (3) health promotion; (4) comprehensive transitional care; (5) individual and family support; and (6) referral to community and social support services. DHCS selected 12 California counties where all 16 Medi-Cal managed care plans (MCPs) operating in those counties would implement HHP for their enrollees who met certain chronic condition and acuity criteria. HHP was implemented in phases by county groupings and two subsets of enrollees, with the first group implementing in July 2018 and the last group implementing in July 2020. Subsets of enrollees included those with chronic physical health conditions or substance use disorders (SUD) referred to as SPA 1 (State Plan Amendment 1) and those with serious mental illness (SMI) referred to as SPA 2. MCPs implemented SPA 2 six months after SPA 1 within each county grouping. DHCS published a program guide to ensure uniform HHP implementation, delivery of services, and reporting across all MCPs. MCPs contracted with Community-Based Care Management Entities (CB-CMEs) to deliver HHP services. MCPs enrolled eligible beneficiaries from a Targeted Engagement List (TEL) provided by DHCS but had discretion in enrolling other eligible beneficiaries.

Evaluation Methods

The UCLA Center for Health Policy Research was selected to evaluate HHP and developed a conceptual framework and evaluation questions to conduct a rigorous assessment of the program. This report presents the final summative findings of the HHP and is the last of three evaluation reports (the first and second evaluation reports can be found here and here). UCLA used all available data for the evaluation. These included MCP readiness documents that contained MCP's HHP policies and procedures for implementation and delivery of services; Targeted Engagement Lists (TEL) created every six months by DHCS to identify potentially eligible HHP enrollees per MCP; quarterly MCP enrollment and utilization reports that included beneficiary level enrollment data and homelessness status; Medi-Cal enrollment and claims data for all HHP enrollees with information on demographics, health status, and use of HHP and health services; and COVID-19 impact surveys of all participating MCPs and select CB-CMEs.

UCLA used readiness documents to describe HHP implementation including composition of HHP networks, types of staff, data sharing, enrollee outreach and engagement, and HHP service delivery approaches. UCLA used TEL, MCP enrollment and utilization reports, and Medi-Cal data to assess HHP enrollment patterns, demographics, health status, HHP service use, and health care service utilization. UCLA attributed a dollar amount to all claims and assessed change in estimated payments. The COVID-19 impact surveys were used to assess the impact of the pandemic of HHP implementation and infrastructure.

Results

HHP Implementation and Infrastructure

- HHP was implemented by all 16 MCPs operating in 12 California counties, with six MCPs implementing HHP in more than one county.
- In MCP implementation plans, 15 of 16 MCPs used delivery Model I, where CB-CMEs were typically medical providers that hired and housed HHP staff, including care coordinators. When HHP enrollees' medical providers were not able to take on these responsibilities, MCPs utilized Models II and III to deliver services centrally or regionally.
- In their Quarterly HHP Reports, MCPs reported the HHP delivery network grew from 212 unique CB-CMEs as of September 2019 (first interim report) to 244 unique CB-CMEs as of September 2020 (second interim report) to 263 unique CB-CMEs through the end of the program. These CB-CMEs were primarily community health centers (39%), followed by community based social service organizations or local government entities (25%), and community based primary care or specialty physicians (17%). Six MCPs indicated that they acted as a CB-CME for a portion of their HHP enrollees in an effort to expand service capacity in regions where community-based infrastructure was insufficient. CB-CME type was relatively consistent across time.
- MCPs reported that they anticipated that contracted CB-CMEs had an enrollment capacity of approximately 85,174 enrollees with 37% of that capacity in community health centers. The median capacity per CB-CME was 216 enrollees. Overall capacity grew significantly from the first interim report (September 2019), where MCPs reported that they anticipated CB-CMEs had an enrollment capacity of 47,010 enrollees. From the second interim report (September 2020), overall capacity grew by 5,804 and median capacity increased by 36 enrollees, with the addition of 33 CB-CMEs (who had a capacity for a minimum of 11 or more enrollees).
- MCPs ensured that CB-CMEs had adequate staffing to deliver HHP services; utilized data sharing technologies including SFTP, dedicated email, electronic health records (EHR), care management platforms, or health information exchange (HIE); and used predictive modeling and risk grouping of eligible beneficiaries to identify and target beneficiaries for HHP enrollment.

HHP and COVID-19

- The COVID-19 pandemic started in early 2020, near the end of the second year of HHP implementation.
- Cumulative rates of COVID-19 cases from the start of the pandemic through December 2021 were higher in seven HHP counties (San Diego, Kern, Tulare, Riverside, Los Angeles, San Bernardino, and Imperial) compared to the overall state. COVID-19 hospitalization and death rates in HHP counties followed a similar pattern, with peaks in July 2020, January 2021, and September 2021.
- In the second interim report, MCPs reported that the COVID-19 pandemic had impacted HHP processes, procedures, and/or policies, with the greatest impact on housing and homeless support services, comprehensive transitional care, and delivery of care coordination by frontline staff. MCPs were able to establish effective workflows and infrastructure to support their own and CB-CME's operation by transitioning to telehealth and strategically coordinating with shelters and other short-term housing services.
- As of December 2021, UCLA estimated that 19% of HHP enrollees and 17% of a control group (of similar Medi-Cal beneficiaries not enrolled in HHP) had at least one service with COVID-19 as the primary or secondary diagnosis. The monthly rate of services with a COVID-19 diagnosis was highest in January 2021 for both enrollees and the control group. HHP enrollees and controls with a COVID-19 diagnosis most commonly had COVID-19 related hospitalization (33% for HHP enrollees vs 31% for the control group), followed by COVID-19 related primary care services (22% vs 21%) and emergency department visits (14% vs 13%).
- Examining the overall service utilization patterns from 2019 to 2021 showed no declines in use of primary care services for HHP enrollees during the pandemic compared to before the pandemic. In contrast, specialty care services, ED visits, and hospitalizations declined at the start of the pandemic compared to 2019. Specialty care services utilization returned to 2019 levels by September 2020 but the rates of ED visits and hospitalizations remained below 2019 levels through December 2021.
- Telehealth service use was under 0.2% before March 2020 but rapidly increased to 25% of primary care services in April 2020 before declining to 9% by December 2021 among HHP enrollees. A similar pattern was observed for specialty care telehealth services.
- The proportion of monthly HHP service use by HHP enrollees was declining prior to the pandemic from a peak of 77% in October 2018 and although there was a small increase in the proportion at the start of the COVID-19 pandemic (from 37% to 42%), the proportion continued to decline throughout the remainder of the program.
- Prior to the pandemic, a similar proportion of HHP services were provided in-person versus telephonic. During the pandemic the majority of HHP services were provided telephonically.

HHP Enrollment and Enrollment Patterns

- A total of 90,045 individuals enrolled in HHP between July 1, 2018 and December 31, 2021, with 66,017 enrolled in SPA 1 and 24,028 enrolled in SPA 2. At end of the program, 48,481 enrollees were actively enrolled in HHP. The proportion of enrollees in SPA 2 increased over time from 3% in the first quarter of 2019 to 27% in the last quarter of 2021.
- The number of enrollees experiencing homelessness or at risk of homelessness increased over time and represented 8.2% of all HHP enrollees; a likely underestimate due to data limitations.
- The number of enrollees varied by both group and county. Groups 2 and 3 had the highest levels of enrollment (21,505 and 65,421, respectively) and Groups 1 and 4 had the lowest levels of enrollment (1,568 and 1,551, respectively). Los Angeles County had the highest level of enrollment with 38,819 enrollees, followed by Riverside (11,773) and San Bernardino (9,732).
- DHCS identified eligible Medi-Cal beneficiaries in the Targeted Engagement List (TEL) and shared the TEL with MCPs. Overall, 79% of HHP enrollees were reported on the TEL prior to enrollment. When examining the rate of enrollment from the TEL by MCP, the rate ranged from 67% to 98%. Overall, MCPs enrolled 8% of individuals identified on the TEL in participating counties.
- Over half (53%) of HHP enrollees were continuously enrolled, 45% were disenrolled, and 2.1% enrolled multiple times through the end of the program in December 2021. The average length of enrollment in Group 1 was 12.7 months for SPA 1 enrollees and 10.1 months for SPA 2 enrollees. Overall, the average length of enrollment was 12.6 months for Group 2, 11.0 months for Group 3, and 9.2 months for Group 4 enrollees.
- The most common reason MCPs reported for not enrolling from the TEL in Groups 2 and 3 was that an eligible beneficiary was not an MCP member, indicating the data informing the TEL did not always reflect current enrollment status (members are permitted to change MCPs every 30 days). The most common reason for Group 1 was eligible enrollee declined to participate and for Group 4 it was the eligible enrollee was already well managed.

HHP Enrollee Demographics and Health Status

- The majority of HHP enrollees were between 50 and 64 years old (48%), female (59%), and preferred English for communication purposes (71%). Nearly half of enrollees were Latinx (47%). Compared to SPA 1 enrollees, SPA 2 enrollees were more often between 18 and 49 years old (51% vs 32%) and more often female (65% vs 57%).
- Prior to enrollment, the most common chronic conditions among all HHP enrollees and SPA 1 enrollees were hypertension (65%) and diabetes (49%). The most common condition among SPA 2 enrollees was depression (73%).

- MCPs enrolled Medi-Cal managed care beneficiaries with multiple chronic health conditions, consistent with HHP's requirements. For example, 53% had hypertension along with chronic obstructive pulmonary disease, diabetes, coronary artery disease, and/or chronic or congestive heart failure and 44% had a combination of complex conditions such as chronic renal (kidney) disease, chronic liver disease, and traumatic brain injury. Nearly all (93%) of enrollees met at least one of the HHP chronic condition criteria based on their Medi-Cal data prior to enrollment.

HHP Service Utilization among HHP Enrollees

- MCPs reported challenges and significant lag with data reporting of HHP services by way of encounter data, which led to program data that reflected 25% of enrollees without any HHP service codes during their enrollment and these enrollees came from all 16 MCPs. The percent of enrollees without an HHP service use as reflected in the encounter data during at least one month was 26%, a decline from 38% as of September 2020.
- Existing data showed that MCPs reported 1,819,484 HHP units of service (UOS) to HHP enrollees from July 2018 through December 2021. In months where encounter data for HHP services were present, enrollees averaged 3.1 HHP UOS per month. Enrollees had a higher average use of core HHP services (2.8 UOS per month) and other HHP services (2.5) compared to engagement services (1.7).
- Average UOS per month where these services were reported were higher for services provided in-person (3.1 UOS per month) compared to telephonically (2.5) and by non-clinical providers (3.1) compared to clinical providers (2.6).
- The percentage of enrollees reported as at risk or experiencing homelessness peaked at 10% during the first quarter of 2021 before declining to 8% in the last quarter of the program. Among enrollees at risk of or experiencing homelessness in the final quarter of the program, 62% received housing services and 6% were reported as no longer homeless by December 2021.

HHP Outcomes

UCLA assessed changes in trends in HHP outcomes from 24 months prior to enrollment to the first 24 months of HHP enrollment for HHP enrollees and a control group of beneficiaries with similar patterns of utilization. UCLA further measured the difference in change in outcomes between the two groups (difference-in-difference) overall and by SPA as shown in the following Exhibits.

Core Performance Metrics

- HHP performance was assessed using 17 core metrics reflecting delivery of appropriate services (process of care) and outcomes of care (Exhibit 3). Of these, ED visits and hospitalizations are reported along with other measures of overall utilization of health care.
- Among HHP process metrics, rate of Adult BMI Assessment declined during HHP, but this decline was smaller than the control group for SPA 1 (DD: 1.2% per year) and SPA 2 (DD: 2.2%) enrollees. There were no other significant changes for the remaining process metrics by SPA. However, data showed that the rate of Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence within 7 days declined for the overall enrollee population vs. their control group (DD: -2.2%).
- Among outcome metrics, the rates of controlled high blood pressure improved during HHP and in comparison to controls for SPA 1 and SPA 2 enrollees. In addition, the Prevention Quality Indicator (PQI 92) significantly decreased during HHP overall and for SPA 1 enrollees. The rate of Admissions to an Institution from the Community for long-term stays also increased for the overall HHP enrollee population compared to controls.

Exhibit 3: Changes (DD) in HHP Core Metrics for HHP Enrollees vs. Controls from 24 Month Before to the 24 Months Following HHP Enrollment

	Differences in trends for HHP enrollees vs. control group (DD)		
	All Enrollees	**SPA 1 Enrollees**	**SPA 2 Enrollees**
Process Metrics			
Adult Body Mass Index Assessment	1.4%	1.2%	2.2%
Screening for Depression and Follow-Up Plan	NR	NS	NR
Follow-Up After Hospitalization for Mental Illness within 7 days	NS	NS	NS
Follow-Up After Hospitalization for Mental Illness within 30 days	NS	NS	NS
Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence within 7 days	-2.2%	NS	NS
Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence within 30 days	NS	NS	NS
Initiation of Alcohol and Other Drug Treatment	NS	NS	NS
Engagement of Alcohol and Other Drug Treatment	NS	NS	NS
Use of Pharmacotherapy for Opioid Use Disorder	NS	NS	NS
Outcome Metrics			
Controlling High Blood Pressure	2.9%	2.5%	4.8%
Plan All-Cause Readmissions	NS	NS	NS
Prevention Quality Indicator (PQI) 92: Chronic Conditions Composite	-79	-90	NS
Short-Term Admission to an Institution from the Community	NS	NS	NS
Medium-Term Admission to an Institution from the Community	NS	NS	NS
Long-Term Admission to an Institution from the Community	1	NS	NS

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: Blue indicates significant increase and orange indicates significant decrease compared to the control group. NS means the DD result was not significant. NR indicates that the analysis was not reported. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with serious mental illness.

Health Care Utilization and Associated Payments

- Ambulatory Care: Emergency Department (ED) Visits and Inpatient Utilization were also core HHP metrics. The number of ED visits declined more for HHP enrollees than the control group overall, with a greater decline among SPA 2 enrollees (Exhibit 4). The rate of hospitalizations also declined overall more than the control group, but the rate of decline was greater for SPA 1 enrollees.
- UCLA categorized all services received and paid for by HHP enrollees and the control group and examined the patterns of health care utilization and the associated costs.
- Assessment of patterns of health care utilization showed a greater decline in all categories of service overall with the exception of a slightly greater increase in long-term care stays.
- Among outpatient services, primary care and specialty care service use increased in the first six months of HHP enrollment. After the first six months, there was a greater decline in primary and specialty services for SPA 1 enrollees than the respective control group. In contrast, there was a greater decline in mental health services, substance use treatment services for SPA 2 enrollees compared to their respective controls.
- UCLA also examined utilization of all forms of long-term care stays regardless of length of stay and where the patient resided prior to admission, and found a greater increase among HHP enrollees than the controls overall.

Exhibit 4: Changes (DD) in Health Care Utilization per 1,000 beneficiaries per year for HHP Enrollees vs. Controls from 24 Month Before to the 24 Months Following HHP Enrollment

	Differences in trends for HHP enrollees vs. control group (DD)		
	All Enrollees	**SPA 1 Enrollees**	**SPA 2 Enrollees**
Utilization Measures Per 1,000 Beneficiaries Per Year			
Primary Care Services	-772	-778	-755
Specialty Services	-236	-239	-236
Mental Health Services	-409	-272	-823
Substance Use Disorder Services	-217	-175	-345
Ambulatory Care: ED Visits*	-31	-23	-56
Hospitalizations*	-42	-46	-30
Long-Term Care Stays	2	NS	NS

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: Blue indicates significant increase and orange indicates significant decrease compared to the control group.

NS means the DD result was not significant. NR indicates that the analysis was not reported. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with serious mental illness. *Indicates an HHP core metric.

- Assessment of estimated payments per beneficiary per year for all services received by HHP enrollees and the controls showed a greater decline for the HHP enrollees overall (Exhibit 5). The decline in estimated payments was greater for SPA 2 in contrast to SPA 1 enrollees.
- Comparing payments by broad categories of service indicated a greater decline for HHP enrollees overall in all outpatient services, outpatient medications, ED visits, and hospitalizations. The rates of decline were greater for SPA 1 enrollees in outpatient medications and hospitalizations and greater for SPA 2 in outpatient services and ED visits.
- In contrast, the estimated payments for long-term care stays increased for HHP enrollees compared to the control group overall. Payments similarly increased for SPA 1 enrollees but declined for SPA 2 enrollees.
- All other payments in a residual category of service also declined overall and for both SPA 1 and SPA 2, with a greater decline among SPA 2 enrollees.

Exhibit 5: Changes (DD) in HHP Estimated Medi-Cal Payments per beneficiary per year for HHP Enrollees vs. Controls from 24 Month Before to the 24 Months Following HHP Enrollment

	Differences in trends for HHP enrollees vs. control group (DD)		
	All Enrollees	**SPA 1 Enrollees**	**SPA 2 Enrollees**
Estimated Medi-Cal Payments Per Beneficiary Per Year			
Total Payments	-$1,113	-$1,074	-$1,232
Outpatient Services	-$547	-$490	-$718
Outpatient Medication	-$126	-$134	-$100
Emergency Department Visits	-$30	-$25	-$43
Hospitalizations	-$580	-$606	-$503
Long-Term Care Stays	$16	$26	-$14
Residual	-$14	-$6	-$38

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: Blue indicates significant increase and orange indicates significant decrease compared to the control group. NS means the DD result was not significant. NR indicates that the analysis was not reported. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with serious mental illness. *Indicates a HHP core metric

Conclusions and Implications

Two earlier HHP reports highlighted successful implementation of HHP by MCPs. This third and final summative report describes the overall findings of HHP as of December 30, 2021. By the end of HHP, MCPs had succeeded in building and expanding their CB-CME networks to address

the needs of over 90,000 program enrollees and despite the occurrence of the COVID-19 pandemic early during the implementation. MCPs successfully employed multiple methods to identify enrollees and succeeded in enrolling significant number of both SPA 1 and SPA 2 enrollees. The more frequent use of non-clinical HHP service providers may have been responsible in greater gains in reduced service utilization and costs reflecting greater needs of patients for care coordination and navigation, transportation, and education on self-care. The reduction in services and associated payment was likely to also be due to more intensive assessment of patients for medical, behavioral, and social needs and redirecting patients to needed services.

HHP has implications for Enhanced Care Management (ECM) and Community Supports (CS) programs under the California Advancing and Innovating Medi-Cal (CalAIM) initiative. The implications include the need for greater understanding of how MCPs have implemented ECM and CS services.

Introduction

This evaluation report is the third and final report describing the implementation and outcomes of the Health Home Program (HHP) by the end of the program in December 2021. The findings may differ from earlier reports that described progress in earlier phases of HHP implementation, with fewer and different enrollees, and a shorter observation period for many enrollees.

Health Homes Program Overview

The Health Homes Program (HHP) was created and implemented under the statutory authority of California Assembly Bill (AB) 361. The legislation authorizes the California Department of Health Care Services (DHCS) to create HHP under Section 2703 of the 2010 Patient Protection and Affordable Care Act. Section 2703 allows states to create Medicaid health homes to coordinate the full range of physical health, behavioral health, and community-based long-term services and supports needed by Medi-Cal enrollees with chronic conditions.

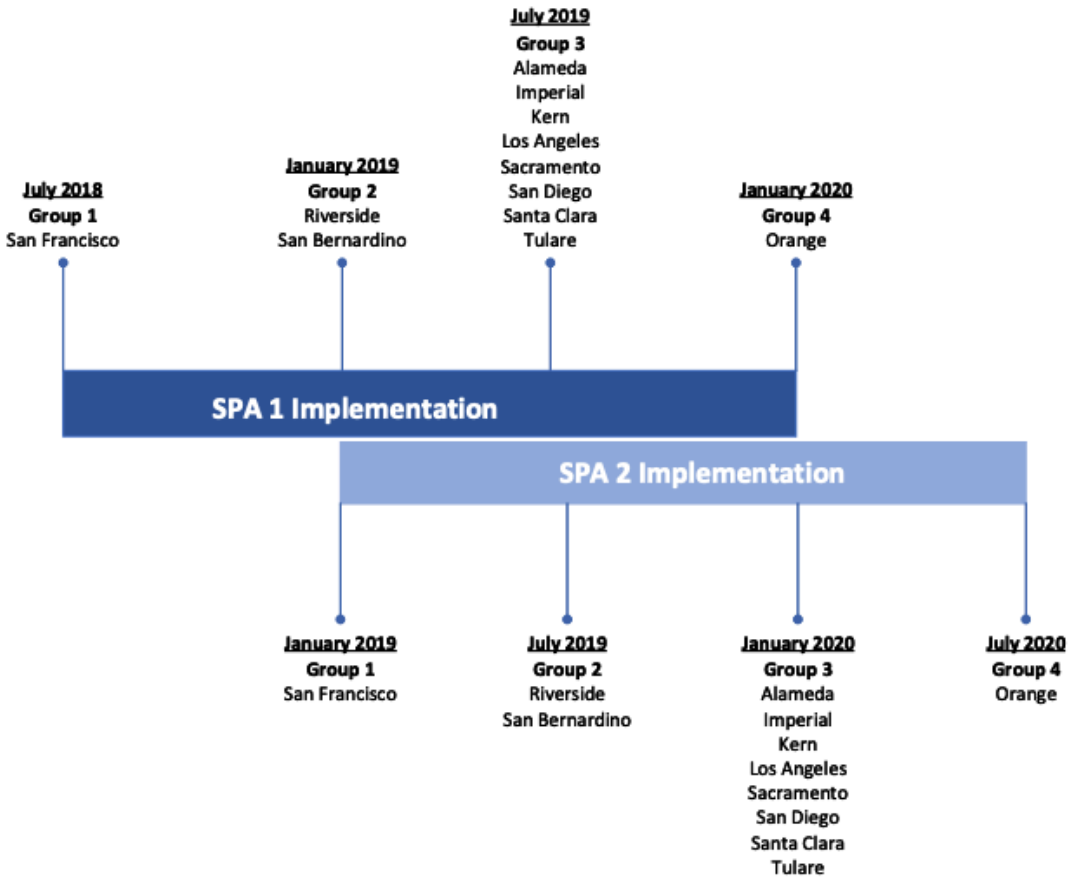
HHP was implemented in 12 California counties for Medi-Cal Managed Care Plan (MCP) enrollees who met certain chronic condition and acuity criteria. All Medi-Cal MCPs in the 12 participating counties were required to participate in HHP. HHP had a phased implementation schedule. Individuals with chronic physical health conditions or substance use disorders (SUD) were included in State Plan Amendment (SPA) 1 (i.e., Phase 1) and those with severe mental illness (SMI) were included in SPA 2 (i.e., Phase 2).

The primary goals of HHP were to improve member outcomes through care coordination and to reduce avoidable health care costs. MCPs were expected to deliver HHP services directly or through contracted community-based care management entities (CB-CMEs), which could include primary care providers (PCPs), Federally Qualified Health Centers (FQHCs), and other service providers. CB-CMEs worked with Community Based Organizations (CBOs) to provide linkages to community and social support services, as needed.

HHP Implementation Plan

The HHP implementation schedule is displayed in Exhibit 6. The 12 counties implementing HHP were divided into four groups, with Group 1 scheduled to begin implementation on July 1, 2018, and Group 4 to implement the final phase on July 1, 2020. Each Group would first implement HHP for SPA 1 enrollees (those with chronic physical health conditions and/or SUD), followed six months later by implementation for SPA 2 enrollees (those with SMI).

Exhibit 6: Timeline of HHP Implementation by Group and SPA



Source: Adapted from HHP Implementation Schedule. HHP Managed Care Plans.
Note: SPA is State Plan Amendment.

A total of 16 MCPs implemented HHP across the 12 counties (Exhibit 7). MCPs were responsible for the overall administration of HHP and were expected to fulfill HHP requirements by leveraging existing infrastructure, communication, and reporting capabilities. MCP responsibilities included (1) performing regular auditing and monitoring activities; (2) training, supporting, and qualifying CB-CMEs; (3) providing CB-CMEs with timely information on admissions, discharges, and other key utilization and health condition information; (4) when possible, providing access to immediate housing post discharge and permanent housing for those experiencing homelessness; and (5) fulfilling HHP care management requirements.

Exhibit 7: MCPs that Implemented HHP across California, by Group and County

Group	County	Managed Care Plan
1	San Francisco	Anthem Blue Cross of California Partnership Plan, Inc.
		San Francisco Health Plan
2	Riverside	Inland Empire Health Plan
		Molina Healthcare of California Partner Plan, Inc.
	San Bernardino	Inland Empire Health Plan
		Molina Healthcare of California Partner Plan, Inc.
3	Alameda	Alameda Alliance for Health
		Anthem Blue Cross of California Partnership Plan, Inc.
	Imperial	California Health & Wellness
		Molina Healthcare of California Partner Plan, Inc.
	Kern	Health Net Community Solutions, Inc.
		Kern Health Systems
	Los Angeles	Health Net Community Solutions, Inc.
		L.A. Care Health Plan
	Sacramento	Aetna Better Health of California
		Anthem Blue Cross of California Partnership Plan, Inc.
		Health Net Community Solutions, Inc.
		Kaiser Permanente
		Molina Healthcare of California Partner Plan, Inc.
	San Diego	Aetna Better Health of California
		Blue Shield of California Promise Health Plan
		Community Health Group Partnership Plan
		Health Net Community Solutions, Inc.
		Kaiser Permanente
		Molina Healthcare of California Partner Plan, Inc.
		United Healthcare Community Plan of California, Inc.
	Santa Clara	Anthem Blue Cross of California Partnership Plan, Inc.
		Santa Clara Family Health Plan
	Tulare	Anthem Blue Cross of California Partnership Plan, Inc.
		Health Net Community Solutions, Inc.
4	Orange	CalOptima

Source: DHCS.
Notes: MCP is Managed Care Plan and DHCS is the California Department of Health Care Services.

HHP Services

The overarching goal of HHP was to achieve the "triple aim" of better care, better health, and lower costs. To achieve these goals, MCPs provided HHP services most often through community-rooted CB-CMEs. These services included (1) comprehensive care management, (2) care coordination, (3) health promotion, (4) comprehensive transitional care, (5) individual and

family support services, and (6) referrals to community and social support services. Exhibit 8 displays detailed descriptions of these services.

Exhibit 8: HHP Services Provided through MCPs and CB-CMEs

Service	Description
Comprehensive care management	• Engage MCP members to participate in HHP • Collaborate with HHP enrollees and their family/support persons to develop a Health Action Plan (HAP) within 90 days of enrollment that is comprehensive and person-centered • Reassess HAP as needed and track referrals • Case conferencing to support continuous and integrated care among all service providers
Care coordination	• Provide enrollee support to implement HAP and attain enrollee goals • Coordinate referrals and follow-ups, share information to all involved parties, and facilitate communication • Frequent, in-person contact between HHP enrollees and care coordinators • Appointment with primary care physician within 60 days of enrollment encouraged • Identify and address enrollee gaps in care • Maintain an appointment reminder system for enrollees as appropriate • Link eligible enrollees who are experiencing homelessness or housing instability to permanent housing
Health promotion	• Encourage and support HHP enrollees to make lifestyle choices based on health behavior • Encourage and support health education • Assess and motivate enrollees and family/support person understanding of health condition and motivation to engage in self-management
Comprehensive transitional care	• Facilitate HHP enrollees' transition from and among treatment facilities • Provide medication information and reconciliation • Plan follow-up appointments and anticipate care or place to stay post-discharge
Individual and family support services	• Ensure HHP enrollees and family/support persons are educated about the enrollee's conditions to improve treatment and medical adherence
Referrals to community and social support services	• Determine appropriate services to meet HHP enrollee's needs • Identify and refer enrollees to available community resources

Source: Adapted from Health Homes Program Guide.
Notes: MCP is Managed Care Plan and CB-CME is Community-Based Care Management Entity.

HHP Target Populations

The eligibility criteria defined by DHCS for HHP was based on the presence of specific chronic conditions and evidence of high acuity (Exhibit 9). These criteria aimed to identify the Medi-Cal population who may benefit the most from HHP services. DHCS identified a Targeted

Engagement List (TEL) of Medi-Cal MCP enrollees in the 12 participating counties who were likely to be eligible for HHP services based on specific inclusion and exclusion criteria.

The exclusion criteria were designed to limit enrollment to eligible enrollees who were not receiving similar services in other programs and were more likely to benefit from HHP than other interventions, among other reasons. The TEL did not capture the inclusion criteria of chronic homelessness or some exclusion criteria, such as enrollees who would benefit from alternative care management programs, due to data limitations. DHCS delegated this responsibility to MCPs, and allowed MCPs to use other eligibility identification strategies, subject to DHCS approval.

Exhibit 9: HHP Eligibility Inclusion and Exclusion Criteria

Eligibility Requirement	Criteria Details
Met at least one chronic condition criteria	• At least two of the following: chronic obstructive pulmonary disease, diabetes, traumatic brain injury, chronic or congestive heart failure, coronary artery disease, chronic liver disease, chronic renal (kidney) disease, dementia, substance use disorders • Hypertension and one of the following: chronic obstructive pulmonary disease, diabetes, coronary artery disease, chronic or congestive heart failure • One of the following: major depression disorders, bipolar disorder, psychotic disorders (including schizophrenia) • Asthma
Met at least one acuity/complexity criteria	• Has at least three or more of the HHP eligible chronic conditions • At least one inpatient hospital stay in the last year • Three or more emergency department (ED) visits in the last year • Chronic homelessness
Did not meet one of the exclusion criteria	• Hospice recipient or skilled nursing home resident • Enrolled in specialized MCPs (e.g., Program of All-Inclusive Care for the Elderly (PACE), Senior Care Action Network (SCAN) and AIDS Healthcare Foundation (AHF)) • Fee-for-service rather than managed care • Sufficiently well managed through self-management or another program • More appropriate for alternative care management programs • Behavior or environment is unsafe for CB-CME staff

Source: Adapted from Health Homes Program Guide.

Funding and Payment Methodology

Under federal rules, DHCS would receive a 90% enhanced Federal Medical Assistance Percentage (FMAP) for HHP services for the first two years of each phase of implementation. However, the federal portion will revert to the 50% FMAP after this period. DHCS used grant funds provided by The California Endowment to pay for the state's share of HHP services. MCPs received a supplemental per member per month (PMPM) payment for HHP services and reimbursed CB-CMEs based on claims for services under contractual agreements. DHCS also

created an HHP-specified Healthcare Common Procedure Coding System (HCPCS) procedure code and modifiers to report HHP services. These codes are described later in this report in the HHP Service Utilization among HHP Enrollees chapter.

Transition to New Medi-Cal Services

Services provided under HHP were incorporated into new services covered by Medi-Cal under California Advancing and Innovating Medi-Cal (CalAIM). CalAIM is a multi-year initiative by DHCS designed to incorporate HHP approaches in delivery of care to Medi-Cal beneficiaries and to improve their health outcomes. Under CalAIM, Medi-Cal managed care plans were expected to provide Enhanced Care Management (ECM) and Community Supports (CS) through contracts with community-based providers, including CB-CMEs participating in HHP. Members receiving HHP were transitioned to Enhanced Care Management starting with the implementation of CalAIM in January 2022.

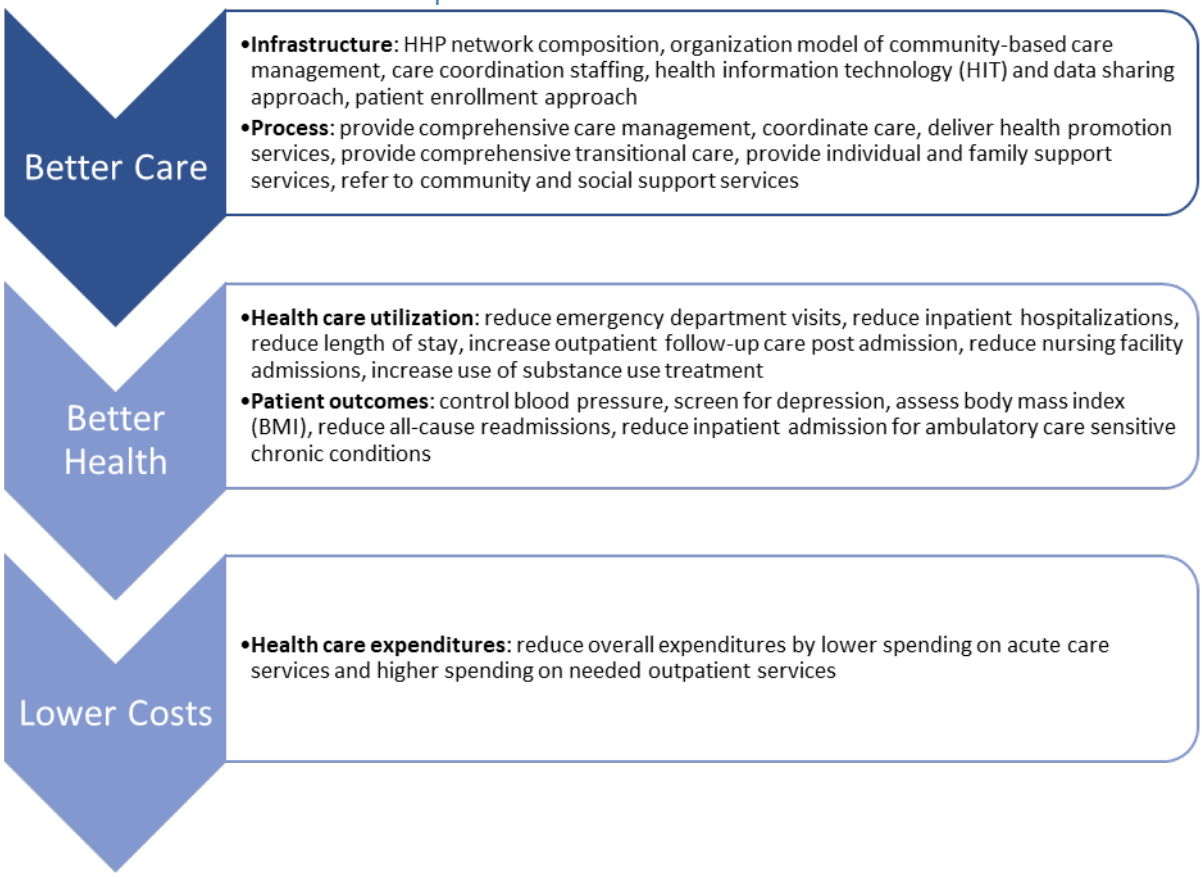
UCLA HHP Evaluation

AB 361 required an independent evaluation of HHP and submission of three reports to the legislature after the first, second, and last years of implementation. This requirement was met by submission of the first and second HHP Evaluation Reports in October 2020 and March 2022. This is the final evaluation report that covers the entire HHP implementation period through December 2021 when HHP ended and members were transitioned to ECM and CS under CalAIM in January 2022. The UCLA Center for Health Policy Research (UCLA) was selected as the evaluator of the HHP program.

Conceptual Framework

UCLA developed a conceptual framework for the evaluation of HHP (Exhibit 10). Following the HHP program goals and structure, the framework indicated that better care is achieved when MCPs establish the necessary infrastructure and deliver HHP services. Delivery of HHP services will in turn lead to better health indicated by reduced utilization of health care services that are associated with negative health outcomes as well as improvements in population health indicators. Better care and better health will lead to lower overall health care expenditures.

Exhibit 10: HHP Evaluation Conceptual Framework



Evaluation Questions and Data Sources

Exhibit 11 displays the evaluation questions and data sources that were used to answer those questions. The evaluation questions were aligned with the components of the conceptual framework. Questions 1-7 examined the infrastructure established by MCPs including the composition of their networks, populations enrolled, and the services delivered. Questions 8-13 examined the impact of HHP service delivery on multiple indicators of health services utilization as well as patient health indicators. Questions 14 and 15 examined the impact of HHP on lowering costs of the Medi-Cal program.

Exhibit 11: Health Homes Program Evaluation Questions and Data Sources

Evaluation Questions	Data Sources
Better Care	
Infrastructure	
1. What was the composition of HHP networks? 2. Which HHP network model was employed? 3. When possible, what types of staff provided HHP services? 4. What was the data sharing approach? 5. What was the approach to targeting patients for enrollment per HHP network?	• MCP Readiness Documentation • MCP Quarterly HHP Reports
Process	
6. What were the demographics of program enrollees? What was the acuity level of the enrollees including health and health risk profile indicators, such as aggregate inpatient, ED, and rehab skilled nursing facility (SNF) utilization? What proportion of eligible enrollees were enrolled? How did enrollment patterns change over time? What proportion of enrollees are experiencing homelessness? 7. Were Health Home services provided in-person or telephonically? Were Health Home services provided by clinical or non-clinical staff? How many enrollees received engagement services? How many enrollees experiencing homelessness received housing services?	• MCP Enrollment Reports • MCP Quarterly HHP Reports • TEL • Medi-Cal Enrollment and Encounter Data
Better Health	
Health care utilization	
8. How did patterns of health care service use among HHP enrollees change before and after HHP implementation? 9. Did rates of acute care services, length of stay for hospitalizations, nursing home admissions and length of stay decline? 10. Did rates of other services such as substance use treatment or outpatient visits increase?	• Medi-Cal Enrollment and Claims Data
Patient outcomes	

Evaluation Questions	Data Sources
11. How did HHP core health quality measures improve before and after HHP implementation? 12. Did patient outcomes (e.g., controlled blood pressure, screening for clinical depression) improve before and after HHP implementation? 13. How many enrollees experiencing homelessness were housed?	• MCP Quarterly HHP Reports • Medi-Cal Enrollment and Claims Data
Lower Costs	
Health care expenditures	
14. Did Medi-Cal expenditures for health services decline after HHP implementation? 15. Did Medi-Cal expenditures for needed outpatient services increase?	• Medi-Cal Enrollment and Claims Data

Note: TEL is Targeted Engagement List.

Detailed descriptions of the data sources and analytic methods used in the evaluations can be found in Appendix A and Appendix B.

HHP Implementation and Infrastructure

This section addresses the following HHP evaluation questions:

1. What was the composition of HHP networks?
2. Which HHP network model was employed?
3. When possible, what types of staff provided HHP services?
4. What was the data sharing approach?
5. What was the approach to targeting patients for enrollment per HHP network?

UCLA relied on three data sources to address these questions: (1) MCP readiness documents, which outlined MCPs' plans to develop and implement HHP under the guidelines set by DHCS; (2) the MCP Quarterly HHP Reports, which detailed the networks developed by the MCP during each quarter of the program; and (3) a one-time self-report by MCPs in September 2020 to provide additional detail on their CB-CME networks.

A total of 16 MCPs implemented HHP across California, submitting both readiness documents and Quarterly HHP Reports. The time period of this report covers data through December 31, 2021. UCLA aimed to answer the HHP evaluation questions by identifying and analyzing the strategies that each MCP planned to implement and by providing selected illustrative examples of these strategies. Since the first interim report, the data available through MCP readiness documents remain the same and UCLA provides a summary of these findings from the first interim report in this section. The HHP Delivery Networks section is updated with new information. Further analytic approach details can be found in Appendix A: Data Sources and Analytic Methods.

HHP Implementation

Exhibit 12 displays the participating HHP counties by their respective implementation groups and the MCPs implementing HHP in each county. Of the 12 counties implementing HHP, four counties were in Northern California, two in Central California, and the remaining six were in Southern California. A total of 16 MCPs were operating across the state with six MCPs (Aetna, Anthem, Health Net, Inland Empire, Kaiser Permanente, and Molina) operating in multiple counties.

Exhibit 12: Distribution of California Counties by Health Homes Program Implementation Group and MCPs Implementing Health Homes Program by County

MCP	Counties
Aetna Better Health of California	Sacramento, San Diego
Alameda Alliance for Health	Alameda
Anthem Blue Cross of California Partnership Plan, Inc.	Alameda, Sacramento, Santa Clara, Tulare, San Francisco
Blue Shield of California Promise Health Plan	San Diego
California Health & Wellness	Imperial
CalOptima	Orange
Community Health Group Partnership Plan	San Diego
Health Net Community Solutions, Inc.	Kern, Los Angeles, Sacramento, San Diego, Tulare
Inland Empire Health Plan	Riverside, San Bernardino
Kaiser Permanente	Sacramento, San Diego
Kern Health Systems	Kern
L.A. Care Health Plan	Los Angeles
Molina Healthcare of California Partner Plan, Inc.	Imperial, Riverside, San Bernardino, Sacramento, San Diego
San Francisco Health Plan	San Francisco
Santa Clara Family Health Plan	Santa Clara
United Healthcare Community Plan of California, Inc.	San Diego

Source: Adapted from Health Homes Program Guide.
Note: MCP is Managed Care Plan.

HHP Delivery Models

MCP HHP implementation plans outlined in readiness documents were used to examine MCP intentions at the beginning of HHP, even though the plans may have changed during implementation. These plans indicated that 15 (of 16) MCPs used delivery Model I, where CB-CMEs were typically medical providers that hired and housed HHP staff, including care coordinators. When HHP enrollees' medical providers were not able to take on these responsibilities, MCPs utilized Models II and III to deliver services centrally or regionally. See the first interim evaluation for more details.

HHP Delivery Networks

HHP delivery networks were composed of CB-CMEs who either used their own staff or sub-contracted with other community-based organization to deliver care management (CM) services. CB-CMEs were certified by the MCPs using DHCS general guidelines and requirements. CB-CMEs were required to maintain a strong and direct connection with the HHP enrollee and their primary care physician, the latter being applicable when CB-CMEs were not medical providers. Goals in developing a MCP's CB-CME network included: (1) ensuring CM delivery at point of care, (2) experience with high utilizing populations and individuals experiencing homelessness, and (3) building upon existing CM infrastructure within the county.

Six MCPs indicated that they acted as a CB-CME for a portion of their HHP enrollees; these MCPs included Blue Shield, CalOptima, Inland Empire, Kern, LA Care, and San Francisco Health Plan. In Quarterly HHP Reports, MCPs reported developing contracts with 263 unique CB-CMEs (as identified by organization name per MCP) by December 2021.

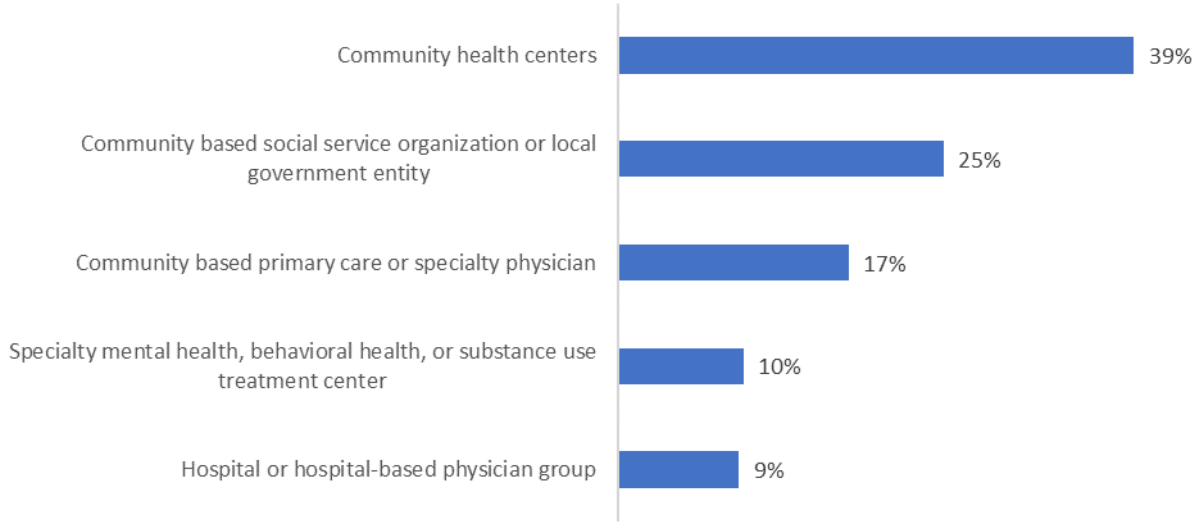
CB-CMEs by Organization Type

In September 2019, HHP delivery networks consisted of 212 unique CB-CMEs; these CB-CMEs were classified based on their primary taxonomy in the National Provider Index (NPI) database in the first interim report. In September 2020, MCPs identified the organization type of their 244 unique CB-CMEs through self-reports to UCLA and these findings were reported in the second interim report. For the final evaluation, UCLA classified the organization type of CB-CMEs added after September 2020 (37 CB-CMEs) based on their primary taxonomy in the NPI database.

As of the end of the program, MCPs reported 263 unique CB-CMEs in their delivery networks. Since the second interim report, 18 CB-CMEs were no longer participating. Of the 263 CB-CMEs, they were most commonly acommunity health centers (includes Federally Qualified Health Centers, rural health centers, Indian health centers, and other similar organizations; 41%;

Exhibit 13). The next most common organizational type of CB-CMEs included community-based social service organizations or local government entities (25%). CB-CMEs were also commonly identified as community based primary care or specialty physicians (17%). Changes in composition of CB-CME organizational type was minimal across time.

Exhibit 13: Health Homes Program CB-CME Network by Organization Type as of December 2021



Source: MCP Quarterly HHP Reports up to December 2021, MCP Self-Reports to UCLA in September 2020, and UCLA Classification of CB-CME type.
Note: CB-CME is Community-Based Care Management Entity, MCP is Managed Care Plan, and NPI is National Provider Identifier. In September 2020, a total of 244 CB-CMEs were reported and MCPs clarified CB-CME type in self reports to UCLA; 18 CB-CMEs were no longer participating as of December 2021, and UCLA classified 37 CB-CMEs added between September 2020 and December 2021. Community health centers included Federally Qualified Health Centers, rural health centers, Indian health centers, and other similar organizations.

CB-CMEs and Projected HHP Capacity

MCPs reported the projected number of enrollees each CB-CME would serve under their contracts (referred to as capacity) in MCP Quarterly HHP reports. DHCS required MCPs to report capacity criteria such as the HHP care manager ratios and certification requirements. For example, CB-CMEs had to have the ability to provide appropriate and timely in-person care coordination, telephonic communication, and accompany HHP enrollees to critical appointments.

Overall capacity grew significantly from the first interim report (September 2019), where MCPs reported that CB-CMEs had an enrollment capacity of 47,010 enrollees. As of December 2021, MCPs reported 257 CB-CMEs with capacity for a minimum of 11 or more enrollees. These CB-CMEs collectively had a projected capacity for managing the needs of approximately 85,174 HHP enrollees, with a median of 216 enrollees per CB-CME (Exhibit 14). From the second interim report (September 2020), overall capacity grew by 5,804 (from 79,370) and median

capacity increased by 36 enrollees, with the addition of 33 CB-CMEs (who had a capacity for a minimum of 11 or more enrollees). Median capacity increased from September 2020 to December 2021 for all groups, except community based primary care or specialty care. The median capacity was largest for hospital or hospital-based physician groups (250 enrollees). Community based social service organizations or local government entities reported the smallest capacity (185 enrollees). An additional six CB-CMEs with less than 11 enrollees were reported, but not included in the analysis below.

Exhibit 14: Total Projected CB-CME Capacity for Health Homes Program Enrollment by CB-CME Organization Type as of December 2021

CB-CME Type	N	Total Capacity	Median Projected Capacity
Total	**257**	**85,174**	**216**
Community health centers	101	35,411 (42%)	216
Other entity (e.g., community based social service organization, homeless service provider)	64	16,256 (19%)	185
Community based primary care or specialty physician	45	17,492 (21%)	240
Hospital or hospital-based physician group	24	9,520 (11%)	250
Specialty mental health, behavioral health, or substance use treatment center	23	6,495 (8%)	240

Source: MCP Quarterly HHP Reports up to December 2021, MCP Self-Reports to UCLA in September 2020, and UCLA Classification of CB-CME type.
Notes: CB-CME is Community-Based Care Management Entity, MCP is Managed Care Plan, and NPI is National Provider Identifier. In September 2020, a total of 244 CB-CMEs were reported and MCPs clarified CB-CME type in self reports to UCLA; 18 CB-CMEs were no longer participating as of December 2021, and UCLA classified 37 CB-CMEs added between September 2020 and December 2021. This analysis does not include six CB-CMEs who has less than 11 enrollees reported. Community health centers included Federally Qualified Health Centers, rural health centers, Indian health centers, and other similar organizations. Community health centers included Federally Qualified Health Centers, rural health centers, Indian health centers, and other similar organizations. CB-CMEs in the "Other" category included community based social service organizations, homeless service providers, and local government entities.

HHP Staffing

MCPs ensured that CB-CMEs had adequate staffing to deliver HHP services by requiring certain staffing types such as care coordinators, HHP directors, clinical consultants, and housing navigators. In readiness documents, 11 MCPs (of 16), including all of the MCPs that implemented in more than one County, indicated that they planned to hire certain HHP staff internally to improve efficiency and effectiveness. These roles most often included directors, program managers, and housing specialists. See the first interim evaluation for more details.

HHP Data Sharing

Seven MCPs planned to use a SFTP or dedicated email and six MCPs planned to use electronic health records (EHR), care management platforms, or health information exchange (HIE) data sharing technologies. Both CB-CMEs and MCPs planned to use data sharing technologies to provide timely access to information. Eight MCPs (of 16) planned to provide access to a dynamic Health Action Plan (HAP) to allow access to up-to-date information and five MCPs planned to provide real-time and automated notifications of HHP hospital admissions or emergency department visits to CB-CMEs. See the first interim evaluation for more details.

Communication with HHP Enrollees

MCPs developed plans for identifying and targeting individuals for HHP enrollment including use of predictive modeling and risk grouping of eligible beneficiaries. MCPs most often planned to use newsletters (nine of 16) and websites (nine) to communicate with eligible beneficiaries and developed plans on how often they would outreach to eligible beneficiaries. MCPs planned to use a mix of approaches to target individuals experiencing homelessness. These approaches included collaborating with CB-CMEs or community-based organizations that specialized in working with these individuals and leveraging existing infrastructure developed under Whole Person Care to provide outreach. See the first interim evaluation for more details.

HHP and COVID-19

This section addresses the following evaluation questions, included in response to the COVID-19 pandemic:

1. How did the COVID-19 pandemic impact HHP implementation?
2. How many HHP enrollees had COVID-19 related services?
3. How did healthcare utilization patterns change among HHP enrollees during the COVID-19 pandemic compared to the year prior to the pandemic?

The COVID-19 pandemic began during HHP enrollment. HHP Group 1, Group 2 and Group 3/SPA 1 were implemented between 6 and 18 months prior to the first reports of COVID-19 in the United States in January 2020. HHP Group 3/SPA 2 and Group 4 implemented just as these first cases were reported. In this chapter, UCLA examines the likely impact of the pandemic on HHP implementation.

The progress of the pandemic in counties where HHP was implemented was examined using data on COVID-19 cases and hospitalizations from April 2020, when such data were first available, through December 2021, the last month of HHP implementation. These data, along with population counts from the Census Bureau, were used to calculate cases and hospitalizations per 100,000.

The impact of COVID on MCP implementation efforts was examined through a COVID-19 Impact Survey (Appendix E) of all participating MCPs (n=16, response rate of 100%) in September 2020. MCPs respondents included HHP program managers and directors who were most informed about HHP implementation at their respective organizations. The impact of COVID-19 on CB-CMEs that had contracted with MCPs was assessed from a survey administered by the Corporation for Supportive Housing (CSH) in August 2020. UCLA submitted survey questions that were similar to those asked from MCPs to CSH who then distributed the survey to all contracted CB-CMEs at the time and collected the data. Further details on these surveys and results are found in the second interim report.

UCLA further used Medi-Cal enrollment and claims data to (1) identify HHP enrollees and their controls that have services with COVID-19 as the primary or secondary diagnosis and (2) report changes in overall health care utilization pre- and post-pandemic for HHP enrollees and their controls. COVID-19 cases were identified using the COVID-19 International Classification of Diseases (ICD) diagnosis code, which was first introduced in late March 2020. Therefore, these cases were likely to be underreported early in the pandemic. In addition, counts of state and

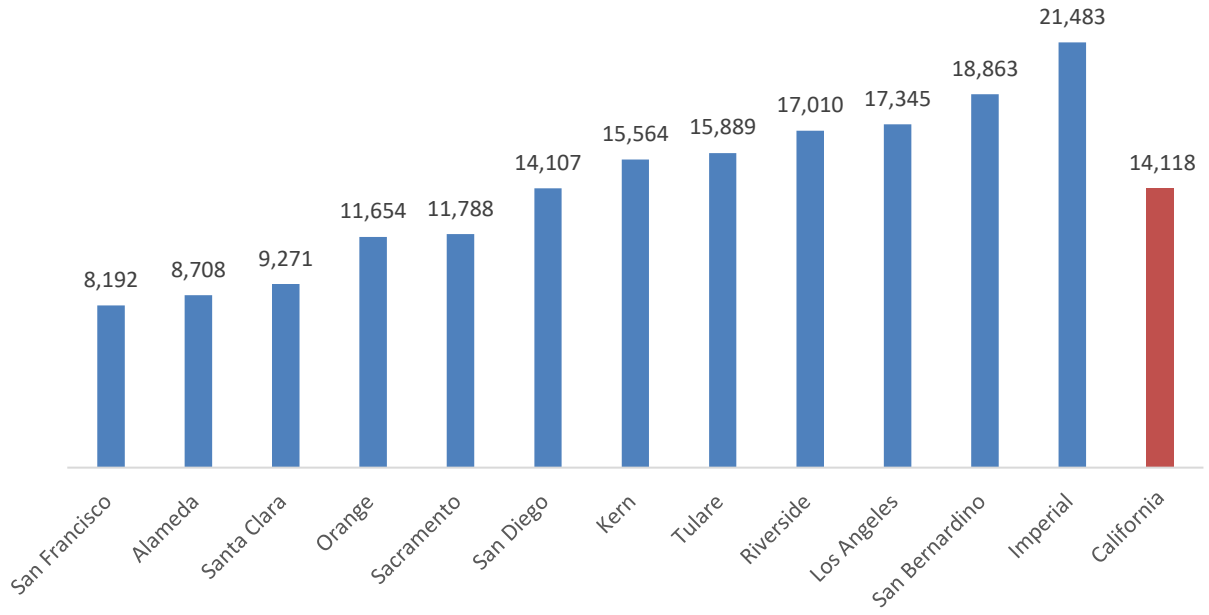
county-wide COVID-19 cases, hospitalizations, and deaths were examined using data reported by the LA Times.

MCPs were required to report HHP services to DHCS in Medi-Cal claims data starting on July 1, 2018. Two different procedure codes with unique modifiers that further indicated type and modality of services as well as type of providers were used. UCLA used Medi-Cal claims to identify the proportion of HHP enrollees with these HHP services each month before and during the COVID-19 pandemic, as well as the proportion of HHP services provided through telehealth during the same time period.

Progression of COVID-19 Cases and Hospitalizations in HHP Counties

UCLA assessed the progression of the COVID-19 cases by examining cumulative case rates and 14-day average hospitalization rates in HHP counties and California overall. Among all Californians, the cumulative case rate of COVID-19 reached 14,118 per 100,000 by the end of December 2021 (Exhibit 15). The cumulative case rate per 100,000 as of December 2021 among HHP counties ranged from a low of 8,192 in San Francisco to a high of 21,483 in Imperial. The cumulative case rates for seven HHP counties, including all Group 2 (Riverside and San Bernardino) counties, were above that of the entire state.

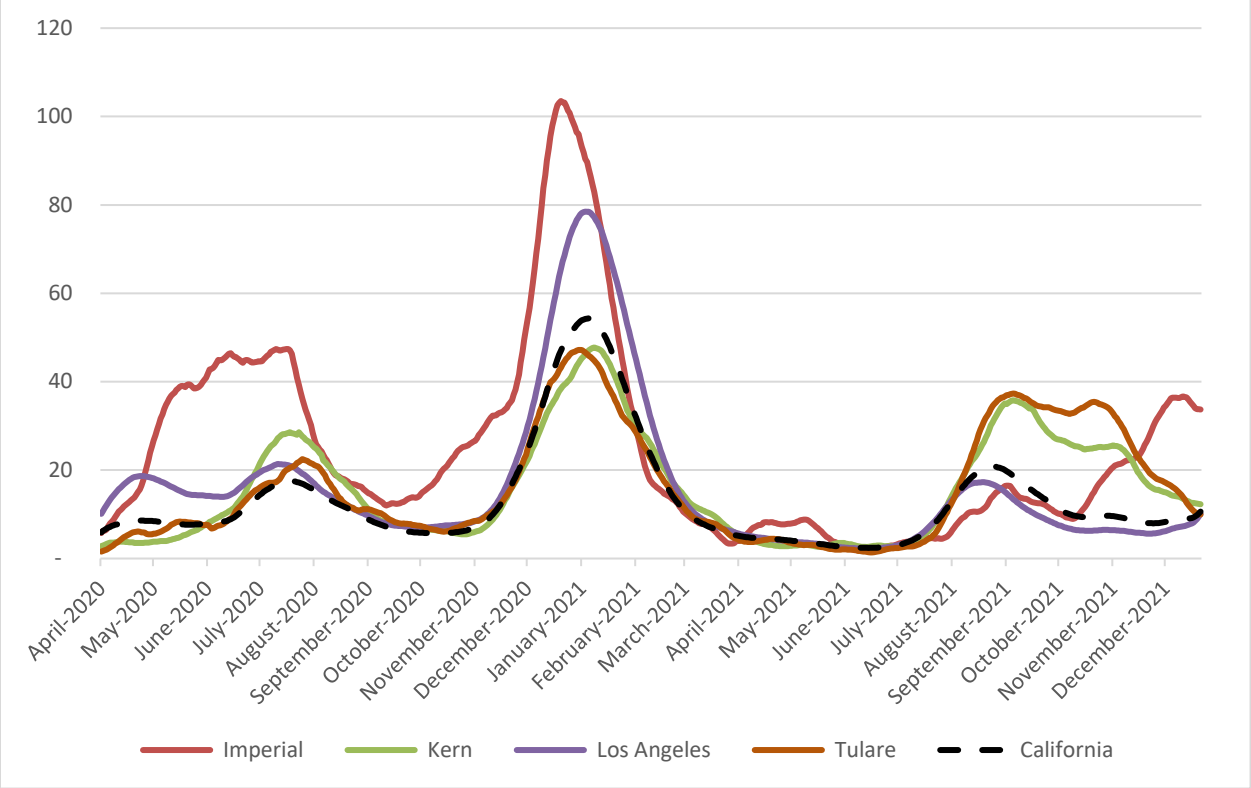
Exhibit 15: Cumulative COVID-19 Cases per 100,000, as of December 2021, HHP Counties and California



Source: UCLA analysis of daily COVID-19 cases reported from March 29, 2020 to December 31, 2021 by the LA Times. State and County population numbers were collected through Census data. Cases per 100,000 were calculated by multiplying cases by 100,000 then dividing by the population.

UCLA also assessed COVID-19 hospitalization rates as an indicator of the burden of disease on the healthcare system. From April 2020 to December 2021, the 14-day average hospitalization rate across California first peaked peaked near the end of July 2020 with 18 hospitalizations per 100,000 before returning to around 7 hospitalizations per 100,000 as seen early in the pandemic (Exhibit 16). Two additional peaks occurred in January 2021 and September 2021, with rates reaching 54 and 21 hospitalizations per 100,000, respectively. While most HHP counties had a similar burden of disease, notable exceptions included Imperial County that had an extended peak from May 2020 through August 2020 and an additional peak in late 2021; Los Angeles County with two peaks early in the pandemic in late April 2020 and July 2020; and Tulare and Kern counties with extended peaks in late 2021.

Exhibit 16: 14-day Average COVID-19 Hospitalization Rate per 100,000, April 2020 to December 2021, Statewide and Selected HHP Counties



Source: Daily COVID-19 hospitalizations reported from April 1, 2020 to December 31, 2021 through the California Department of Public Health. State and County population numbers were collected through Census data. Hospitalizations per 100,000 were calculated by multiplying hospitalizations by 100,000 then dividing by the population.
Note: Patterns of 14-day average COVID-19 hospitalization rates in other HHP counties were similar to the statewide trends.

UCLA also assessed the cumulative death rate per 100,000 and new daily deaths from COVID-19 in California, as reported by local public health departments, to estimate the burden of highly resource intensive, severe disease. By the end of December 2021, there were 197 COVID-19 deaths per 100,000 in California (data not shown). The death rate among HHP counties was highest in Imperial (460 deaths per 100,000), followed by San Bernardino (302 per 100,000). The new daily deaths from COVID-19 in California had two peaks in 2020 during April and July. New daily deaths rose rapidly in December 2020 before reaching the highest peak in January 2021. A smaller peak occurred in September 2021.

Impact of COVID-19 on HHP Implementation and Infrastructure

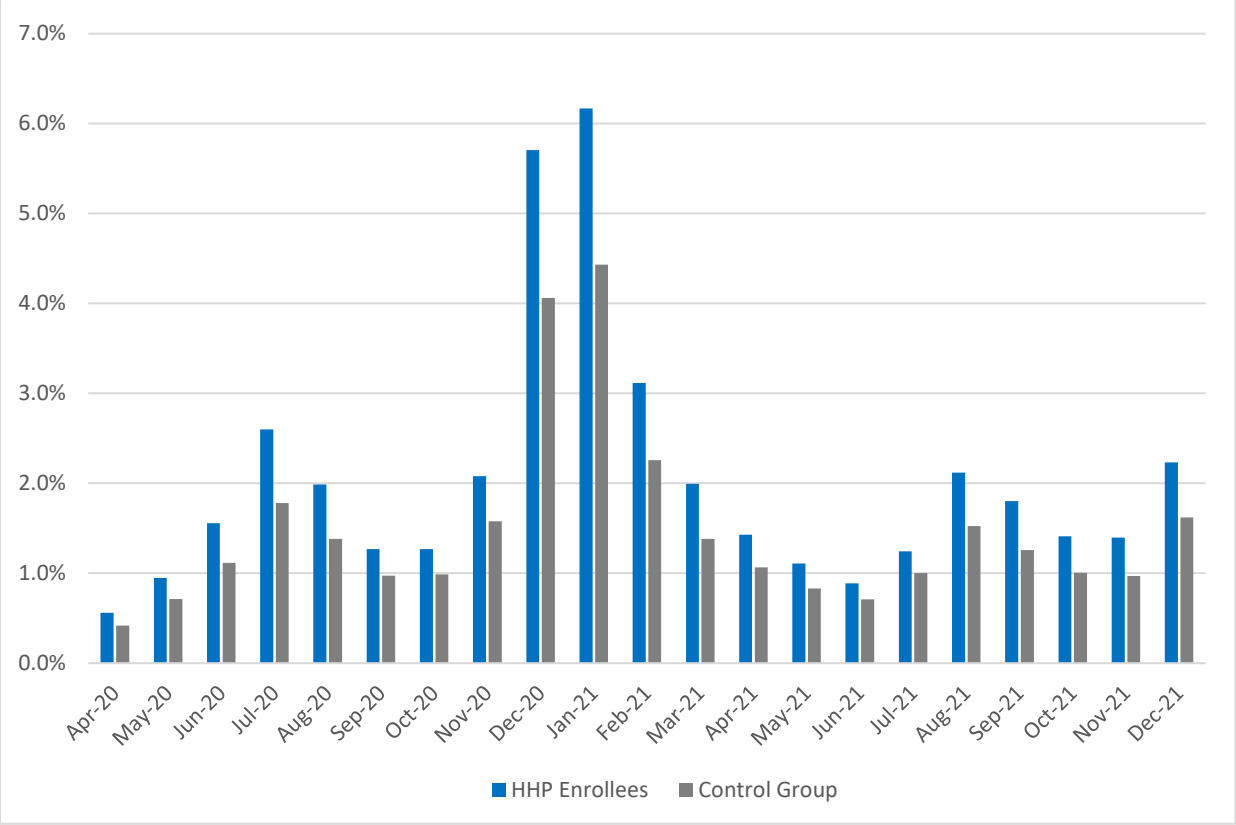
UCLA assessed the impact of COVID-19 on HHP implementation using MCP and CB-CME surveys. At the time of these surveys, all HHP counties were at or beyond their first peak in COVID-19 hospitalizations as shown in **Error! Reference source not found.**. MCPs reported that the COVID-19 pandemic had impacted HHP processes, procedures, and/or policies, with the greatest impact on housing and homeless support services, comprehensive transitional care, and delivery of care coordination by frontline staff. MCPs were able to establish effective workflows and infrastructure to support their own and CB-CME's operation by transitioning to telehealth and strategically coordinating with shelters and other short-term housing services. A full description of the findings can be found in the Second Interim Report.

Estimated Prevalence of and Trends in COVID-19 among HHP Enrollees and their Controls

The diagnosis code for COVID-19 was developed and utilized by providers starting in late March 2020. UCLA analyzed Medi-Cal claims starting in March 2020 and identified services used that had COVID-19 as the primary or secondary diagnosis in order to estimate the prevalence of the disease among HHP enrollees and the control group. Some (19%) of HHP enrollees had at least one COVID-19 related service. A slightly smaller proportion of the control group, 17%, had at least one COVID-19 related service (data not shown).

UCLA examined monthly trends in the proportion of enrollees and their controls with at least one COVID-19 related service in that month. Data showed two smaller surges in July 2020 and August 2021, and a larger surge in January 2021 (Exhibit 17). These patterns matched the peaks in COVID-19 hospitalizations seen in California and HHP counties during this timeframe (Exhibit 16). The estimated incidence of COVID-19 was higher for HHP enrollees in every month when compared to their controls for the time frame studied.

Exhibit 17: Proportion of HHP Enrollees and their Controls with a COVID-19 Related Service by month, April 2020 to December 2021

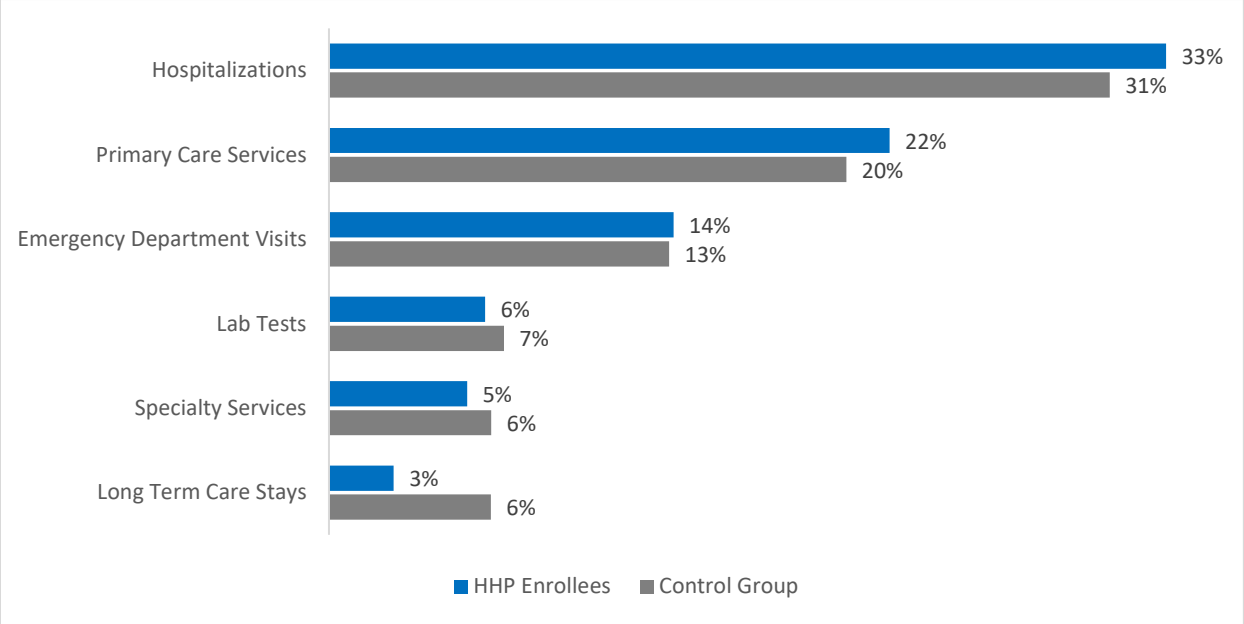


Source: UCLA analyses of Medi-Cal enrollment and claims data from April 2020 to December 2021.
Notes: COVID-19 diagnosis was identified using ICD code U07.1 in primary or secondary diagnosis per claim. March 2020 was not included because of limited reporting using U07.1 that month.

COVID-19–Related Health Service Use of HHP Enrollees and Controls

UCLA examined the types of health services for COVID-19–related care utilized by HHP enrollees and their controls with a COVID-19 diagnosis from April 2020 to December 2021. Enrollees and controls had similar rates of COVID-19-related services. They most frequently used hospitalizations (33% and 31%, respectively), followed by primary care services (22% and 20%), emergency department visits (14% and 13%), lab tests (6% and 7%), specialty services (5% and 6%), and stays in long-term care facilities (3% and 6%; Exhibit 18).

Exhibit 18: Proportion of COVID-19-Related Health Services used among HHP Enrollees and their Controls with a COVID-19 Diagnosis by Service Type

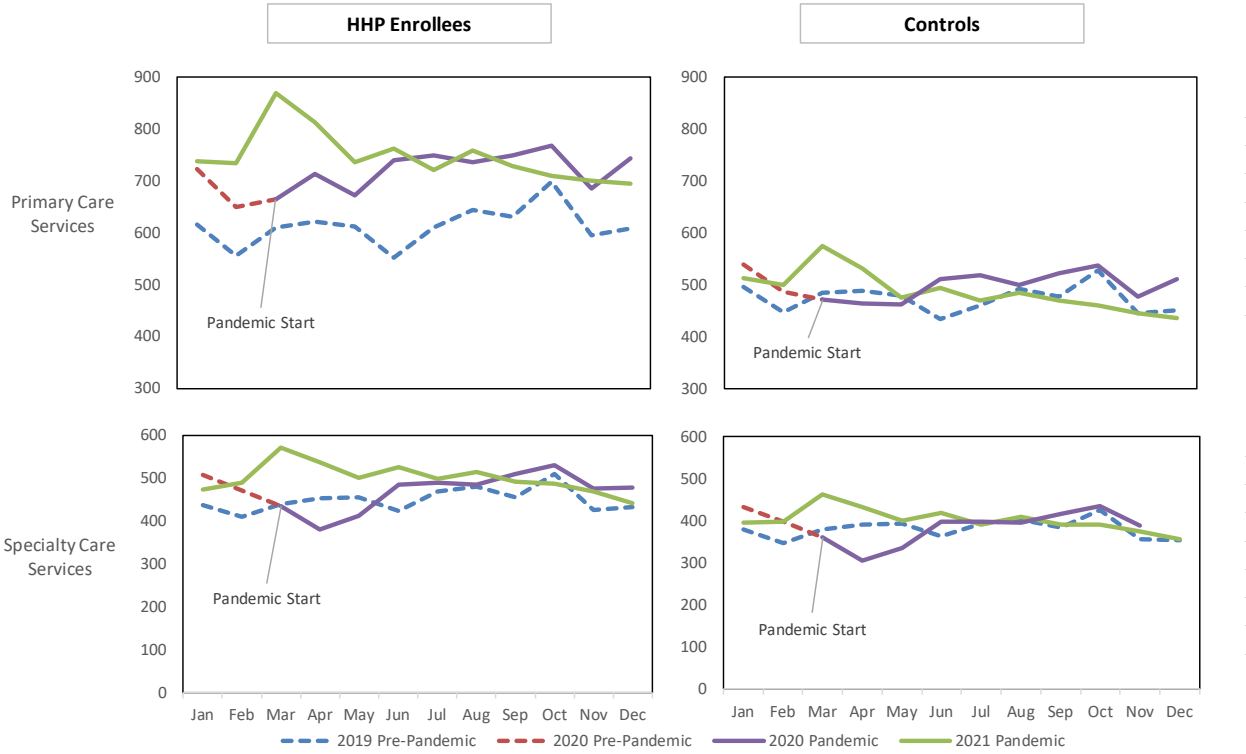


Source: UCLA analyses of Medi-Cal enrollment and claims data from March 2020 to December 2021.
Notes: Services with COVID-19 as primary or secondary diagnosis (identified using ICD code U07.1) only. Emergency department visits only include visits that did not result in hospitalization.

Changes in Healthcare Utilization trends before and during the COVID-19 Pandemic

UCLA compared trends in service utilization patterns among HHP enrollees and their controls before and during the pandemic, and found similar patterns for both groups. Both enrollees and their controls did not experience large declines in primary care services during the pandemic time period, but had a decline in April 2020 compared to April 2019 for specialty care (Exhibit 19). However, rates of specialty service utilization in December 2020 were similar to those in December 2019. The decline in service use observed in December 2021 for both enrollees and controls maybe due to fewer claims submitted by providers. DHCS reported delays of more than 6 months in receipt of Medi-Cal claims and encounters from some providers to UCLA.

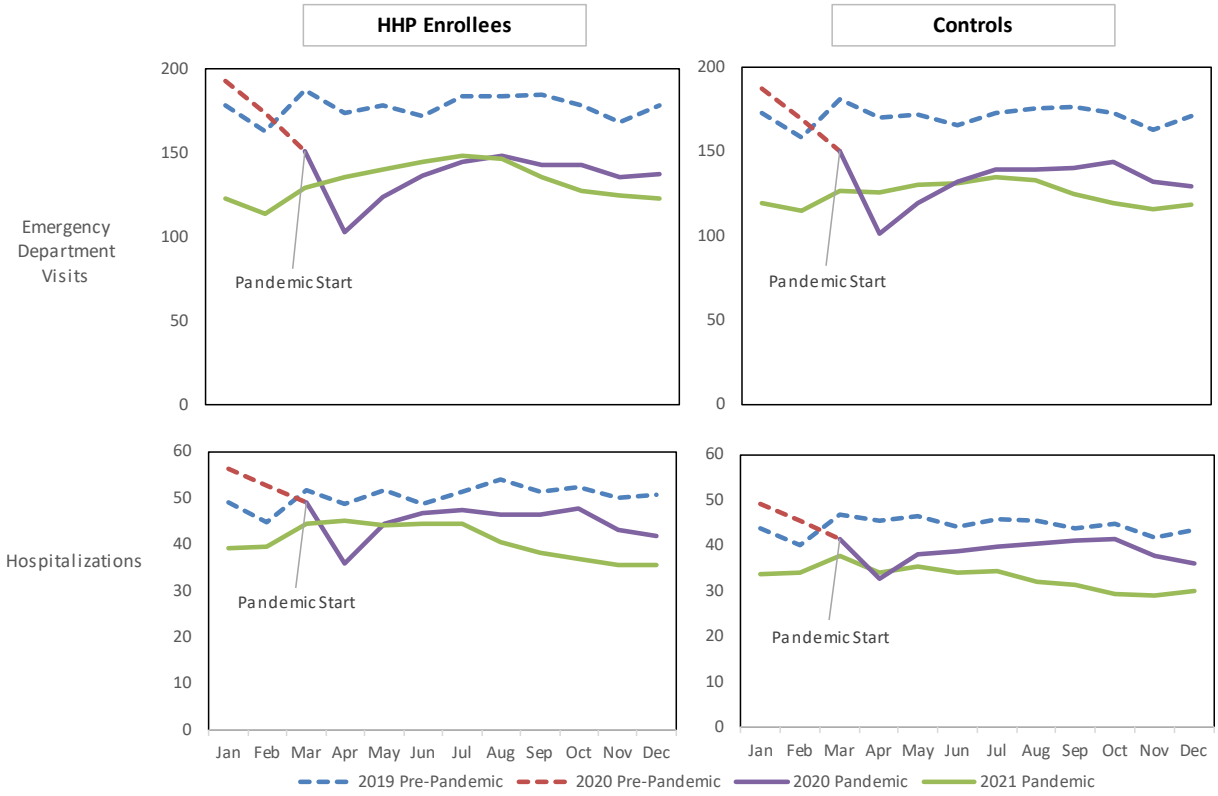
Exhibit 19: Monthly Utilization of Primary Care and Specialty Care Services per 1,000 Member Months among HHP Enrollees and their Controls, 2019 Compared to 2020 and 2021



Source: UCLA analysis of Medi-Cal claims data from January 2019 to December 2021.
Notes: Member-months were based on Medi-Cal enrollment.

In contrast to primary care and specialty care, the number of both ED visits and hospitalizations declined in April 2020 relative to April 2019, and the utilization maintained at lower levels throughout the remaining months of 2020 and all of 2021 (Exhibit 20).

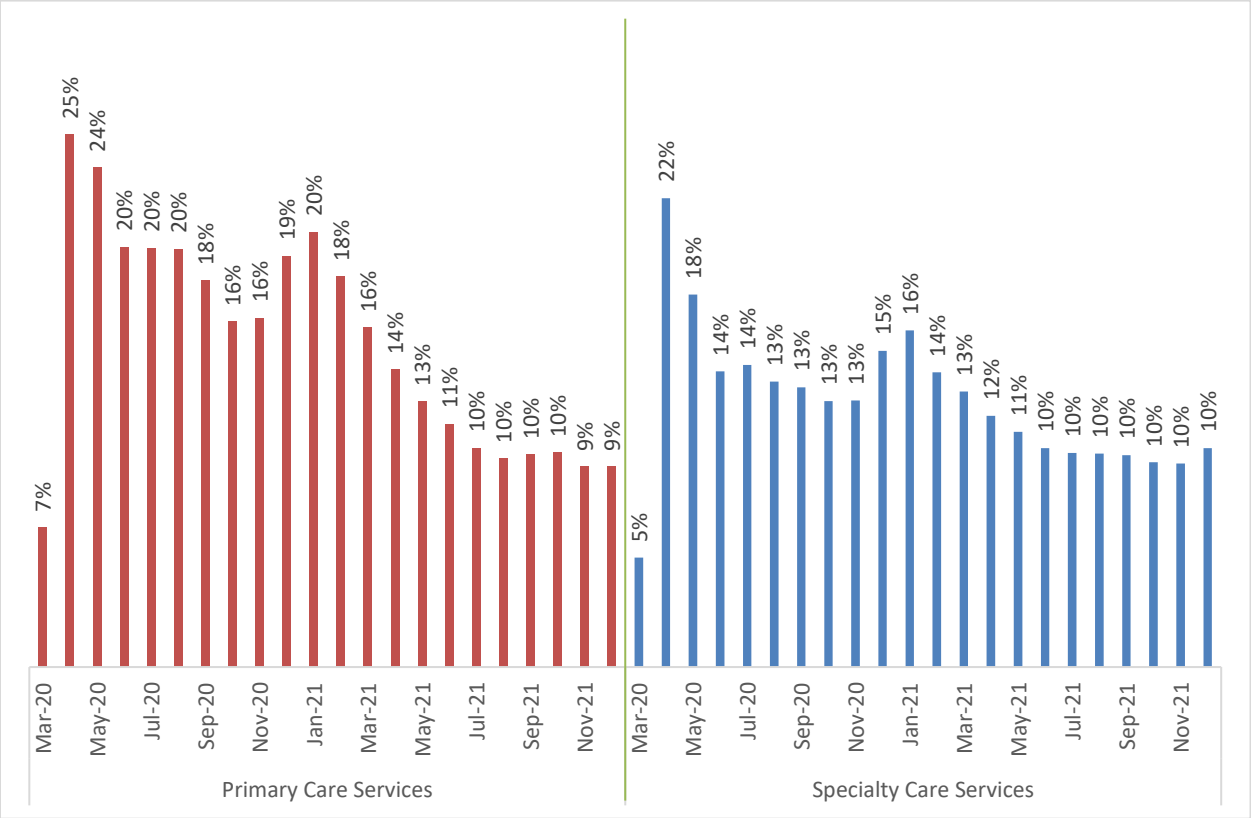
Exhibit 20: Monthly Utilization of Emergency Department Visits and Hospitalizations per 1,000 Member Months among HHP Enrollees and their Controls, 2019 Compared to 2020 and 2021



Source: UCLA analysis of Medi-Cal claims data from January 2019 to December 2021.
Notes: Member-months were based on Medi-Cal enrollment.

Further analyses (data not shown) found that less than 0.2% of primary care and specialty services were delivered via telehealth before the pandemic. In response to the pandemic, California's Department of Managed Health Care required that MCPs reimburse telehealth visits at the same rate as in-person visits starting March 18, 2020. UCLA analyses showed that rates of telehealth primary care and specialty care services increased substantially for HHP enrollees starting in March 2020, peaking in April 2020 (Exhibit 21).

Exhibit 21: Proportion of Primary Care and Specialty Care Services Provided through Telehealth by HHP Enrollees and Control groups, March 2020 to December 2021

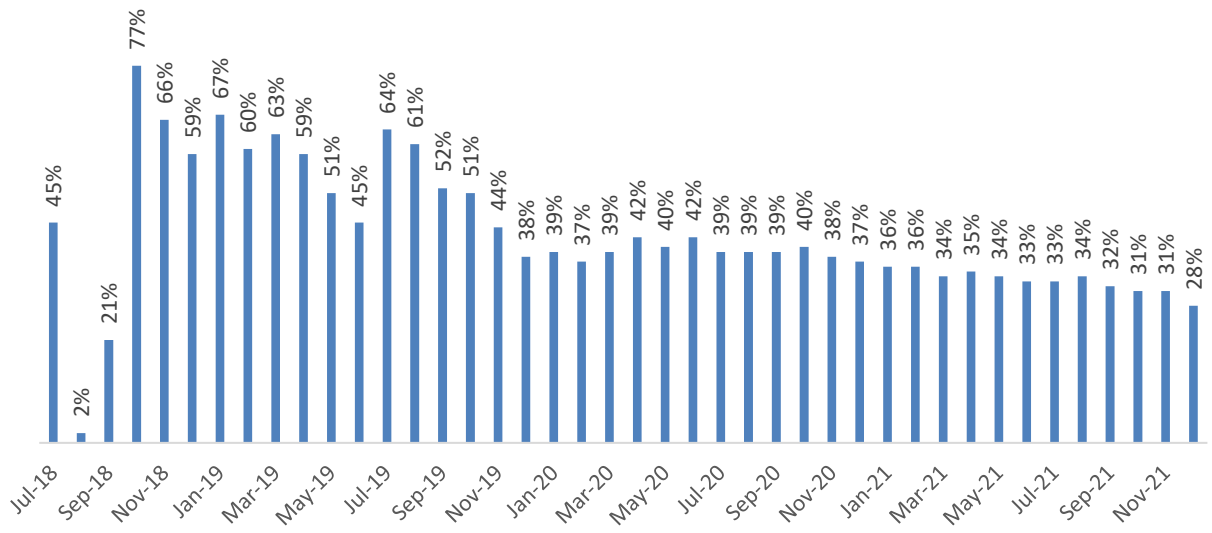


Source: UCLA analyses of Medi-Cal enrollment and claims data from March 2020 to December 2021.

Changes in HHP Service Utilization before and during the COVID-19 Pandemic

UCLA examined the proportion of HHP enrollees that used HHP services each month from July 2018 to December 2021. After some unstable reporting in the initial months, the proportion of enrollees with reported HHP services peaked in October 2018 at 77% (Exhibit 22), before largely declining through the remainder of the program. Slight increases were observed each six months as Group 2 and Group 3 counties began enrolling. There is also a small increase at the start of the COVID-19 pandemic with 42% of enrollees reporting HHP services in April 2020 compared to 37% two months earlier. Starting in June 2020 the proportion declined through the end of the program from 42% to 28%.

Exhibit 22: Proportion of HHP Enrollees with Reported HHP Services, July 2018 to December 2021

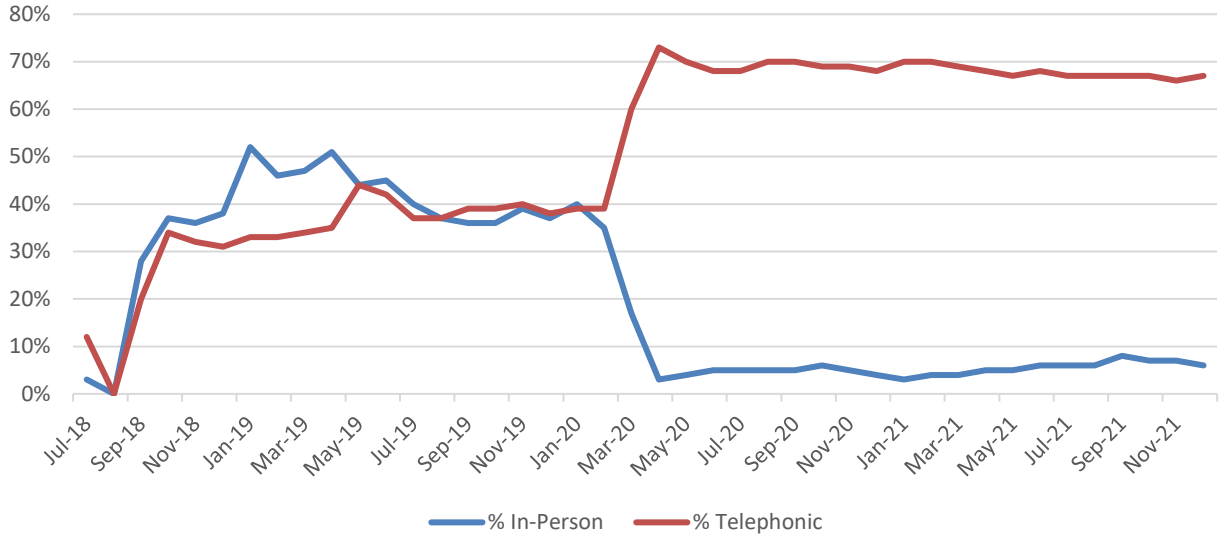


Source: UCLA analyses of Medi-Cal enrollment and claims data from July 2018 to December 2021.
Notes: Core HHP services include claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U1, U2, U4, or U5. HHP engagement service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U7. Other HHP service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to December 31, 2021), and modifier U3 or U6. Data are based on the number of months during HHP enrollment where HCPCS codes were present.

UCLA further examined the proportion of HHP services reported each month that were provided in-person versus telephonic each month from July 2018 to December 2021. HHP outreach services were not reported as either in-person or telephonic, likely resulting in most HHP services not reported as in-person or telephonic during the initial months of the program (Exhibit 23). Prior to the COVID-19 pandemic, the proportion of HHP services provided in-person versus telephone were similar, with slightly more services occurring in-person prior to

May 2019. After the start of the pandemic in March 2020, the majority of HHP services were reported as telephonic (66-73%) and the minority were reported as in-person (3-8%).

Exhibit 23: Proportion of HHP Services Provided In-Person or Telephonically, July 2018 to December 2021



Source: UCLA analyses of Medi-Cal enrollment and claims data from July 2018 to December 2021.
Notes: Core HHP services include claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U1, U2, U4, or U5. HHP engagement service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U7. Other HHP service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to December 31, 2021), and modifier U3 or U6. Data are based on the number of months during HHP enrollment where HCPCS codes were present.

HHP Enrollment and Enrollment Patterns

This section addresses the following HHP evaluation questions:

1. What proportion of eligible enrollees were enrolled?
2. What proportion of enrollees were experiencing homelessness?
3. How did enrollment patterns change over time?

From July 1, 2018 to July 31, 2019, MCPs reported data on individual-level enrollment in ad hoc Enrollment Reports requested by DHCS. Beginning in the third quarter of 2019, DHCS requested for MCPs to report on member level enrollment data in their Quarterly HHP Reports. Both reports included monthly enrollment status by individual, along with individual level SPA data. Homelessness status was reported by MCPs at the member level in Quarterly HHP Reports beginning in Quarter 3 of 2019. Therefore, enrollment growth and patterns among enrollees experiencing homelessness was not available for enrollees who had disenrolled prior to this time.

UCLA used these data from July 1, 2018, to December 31, 2021, to examine how enrollment changed over time for the overall HHP population, by SPA, and for enrollees experiencing homelessness. Data was available for counties in all implementation groups (Groups 1, 2, 3, and 4) at the time of this report. Further details can be found in Appendix A: Data Sources and Methods.

A small number of HHP enrollees (1,436) were enrolled for less than 31 days and were excluded from these analyses. MCPs received PMPM payments for one month which allowed MCPs and CB-CMEs to work together to verify HHP eligibility, however MCPs did not receive payments if those individuals could no longer be enrolled in the program. MCPs did not provide other services to this group. Comparison of these enrollees with those enrolled for longer than 30 days indicated the groups had similar demographics, health status, and health care utilization prior to HHP. Further detail about this group can be found in Appendix C: HHP Enrollees Enrolled Less Than 31 Days.

DHCS defined inclusion and exclusion eligibility criteria for HHP enrollees and used these criteria to identify eligible Medi-Cal beneficiaries to be included in the TEL, which was then distributed to MCPs in six-month intervals. However, all HHP eligibility criteria were not available in Medi-Cal enrollment and claims data. Specifically, DHCS lacked information on three exclusion criteria including “sufficiently well managed through self-management or another program”, “more appropriate for alternative care management programs”, and “behavior or environment is unsafe for CB-CME staff”. In addition to lack of data, the TEL was

based on retrospective claims used to define acuity criteria of “at least one inpatient hospital stay in the last year” and “three or more emergency department (ED) visits in the last year”. Nearly all the exclusion criteria were also retrospective and may have changed prior to the enrollment of the individual by the MCPs. For example, individuals in a skilled nursing facility, enrolled in specialized MCPs, or enrolled in fee-for-service Medi-Cal may have been discharged back to the community, disenrolled from a specialized MCP, or enrolled in managed care outside of the TEL defined timeline, respectively.

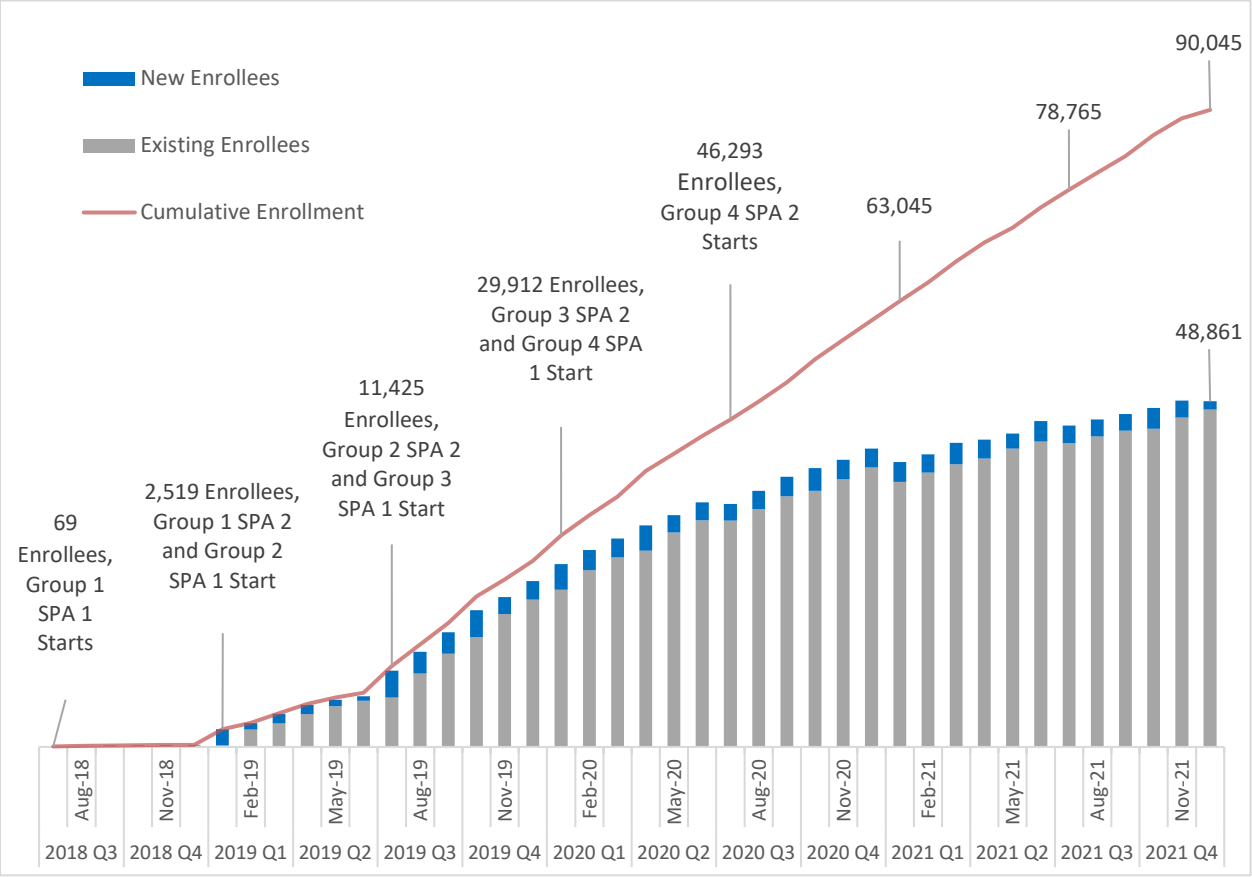
In addition, DHCS issued the TEL every six months based on adjudicated Medi-Cal claims data, while MCPs had and used more recent data on diagnoses and service utilization. MCPs were likely to have access to electronic medical records that contained more comprehensive diagnoses and information on health problems and needs of patients. Furthermore, MCPs had the option to enroll members that were referred by providers that may not have matched the HHP eligibility criteria in Medi-Cal data. Ultimately, MCPs prioritized some TEL enrollees based on severity, complexity, or risk-status using information not available to DHCS.

Trends in Enrollment

Growth in HHP Enrollment Overall and by SPA

A total of 90,045 enrollees had ever enrolled in HHP by the end of December 2021 (Exhibit 24). Enrollment in HHP began with Group 1, SPA 1 in San Francisco in July 2018 and expanded rapidly when Groups 2 and 3 began enrollment. The growth in enrollment continued steadily after Group 4 started enrollment. Monthly new enrollment into the program varied between a low of 27 in November 2018 and a high of 3,776 in July 2019, averaging at 2,144 new enrollees per month (data not shown). Total monthly enrollment (new enrollment plus existing enrollment) mainly increased each month through the end of December 2021, ending with 48,861 enrollees actively enrolled at the end of the program.

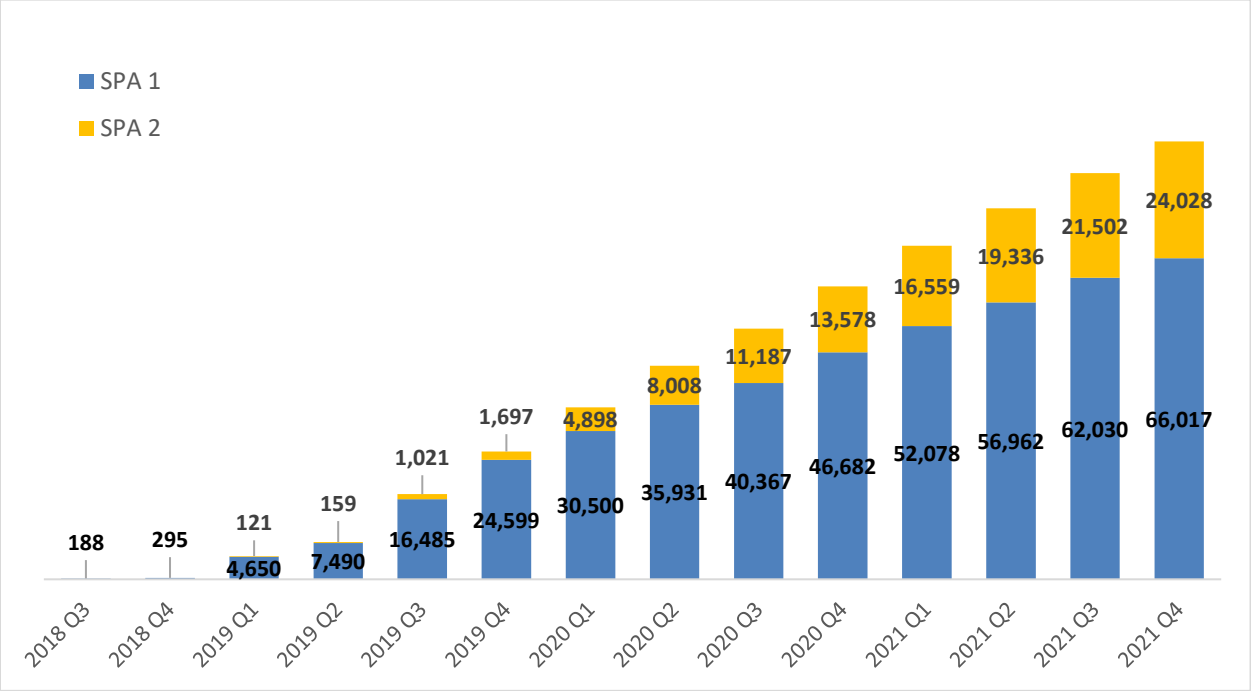
Exhibit 24: Unduplicated Monthly and Cumulative Enrollment in HHP, July 1, 2018 to December 31, 2021



Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.
Notes: MCP is managed care plan. Groups of MCPs implemented at different time points. Those enrolled for less than 31 days were excluded from this analysis. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness.

Examining HHP enrollment by SPA revealed a total cumulative enrollment of 66,017 in SPA 1 and 24,028 in SPA 2 as of December 2021 (Exhibit 25). In the first two quarters of the program, MCPs only enrolled in SPA 1 as planned and enrollment grew over time. SPA 2 enrollment as a percentage of total enrollment in HPP was at a minimum of 2.5% in the first quarter (Q1) of 2019 and steadily rose to a maximum of 27% in the last quarter (Q4) of 2021 (data not shown).

Exhibit 25: Unduplicated Quarterly Enrollment in HHP by SPA, July 1, 2018 to December 31, 2021

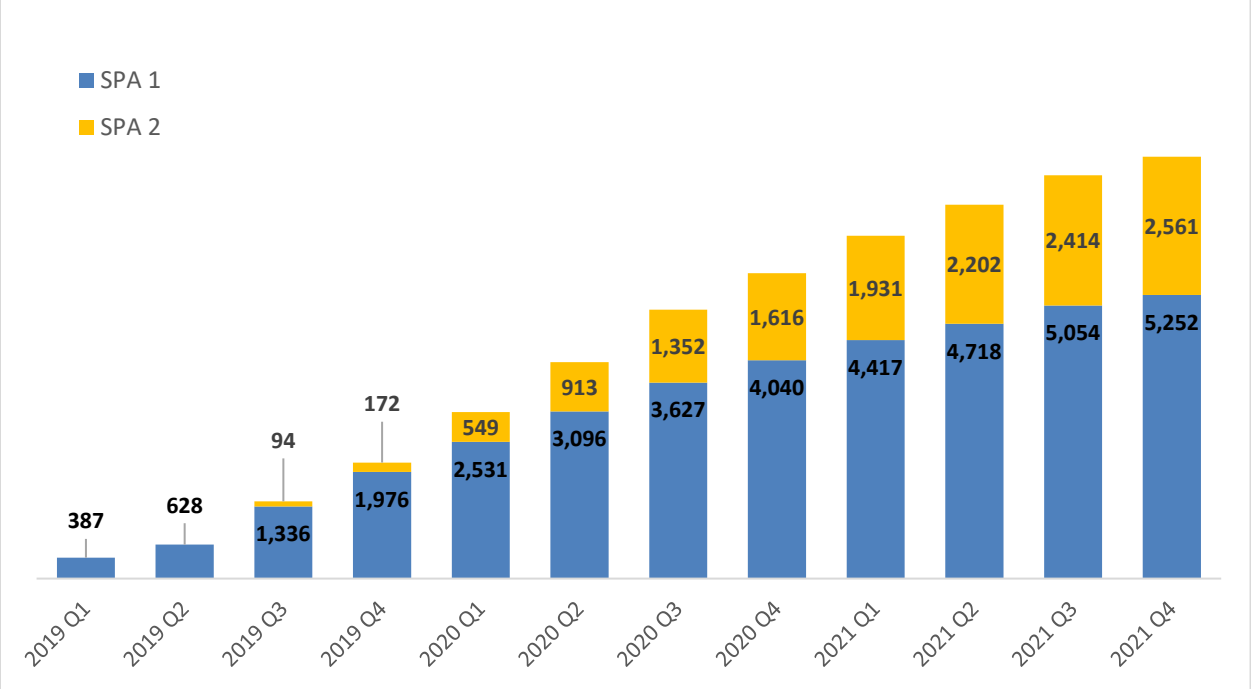


Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.
Notes: MCP is managed care plan. Those enrolled for less than 31 days were excluded from this analysis. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. In x-axis label, Q stands for quarter.

Growth in HHP Enrollment among Enrollees Experiencing Homelessness by SPA

MCPs began reporting homelessness data per enrollee in Quarter 3 of 2019 through HHP Quarterly Reports. UCLA used the identifier indicating enrollees who were ever experiencing homelessness or at risk of homelessness during each quarter to show the patterns of enrollment over time. However, these data underestimate the number of enrollees in HHP experience homelessness because they excluded enrollees experiencing homelessness that disenrolled prior to July 2019 and did not reenroll in HHP. During the fourth quarter of 2021, 5,252 SPA 1 and 2,561 SPA 2 enrollees were experiencing homelessness or at risk of homelessness (Exhibit 26). Enrollees experiencing homelessness or at risk of homelessness represented 8.2% of HHP enrollees overall by December 2019, 9.4% by December 2020, and 8.7% by December 2021 (data not shown).

Exhibit 26: Enrollment of Individuals Reported as Experiencing Homelessness or At-Risk of Homelessness each Quarter in HHP by SPA, January 1, 2019 to December 31, 2021

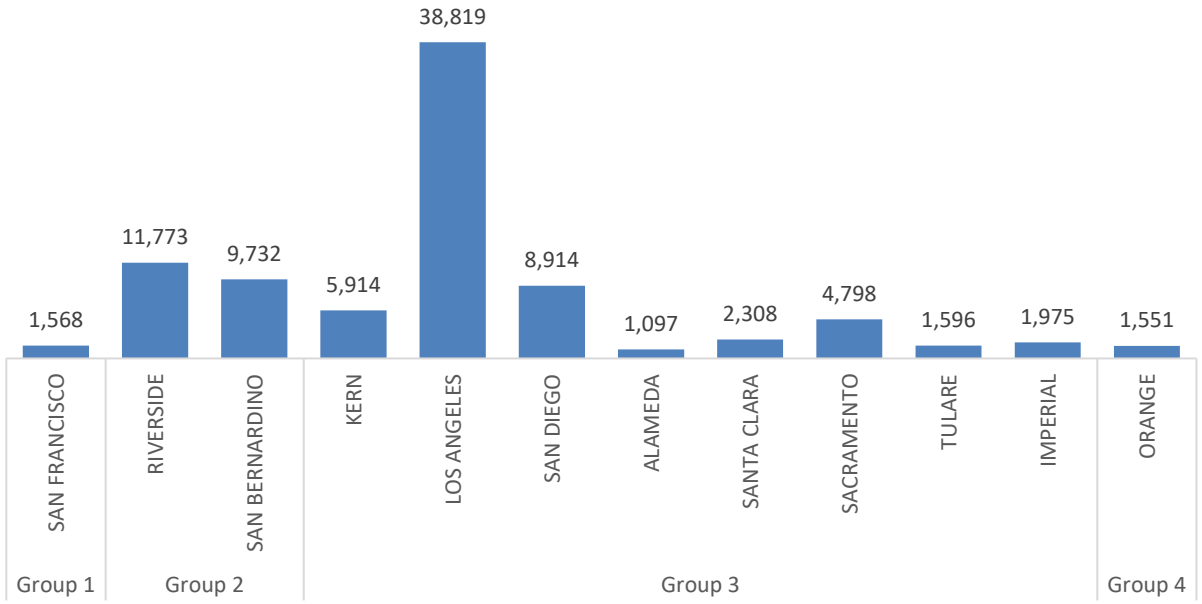


Source: Quarterly HHP Reports from July 2019 to December 2021. Enrollees experiencing homelessness that disenrolled prior to July 2019 are not included.
Notes: MCP is Managed Care Plan. Those enrolled for less than 31 days were excluded from this analysis. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Monthly enrollment of less than 11 was recorded as 11. Excludes HHP enrollees that were designated as experiencing homelessness and were disenrolled prior to Q3. Includes enrollees experiencing homelessness that were included in Q3 HHP Quarterly Reports. In x-axis label, Q stands for quarter.

Enrollment Size by Group and County

Exhibit 27 shows cumulative enrollment by group and county as of December 2021. Enrollment varied by county. Los Angeles (Group 3) had the largest enrollment, reaching 38,819 cumulative enrollments in December 2021. Other counties with large enrollment included Riverside (11,773) and San Bernardino (9,732) from Group 2, and San Diego (8.914) from Group 3.

Exhibit 27: Unduplicated Cumulative HHP Enrollment by Group and County as of December 31, 2021



Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.
Notes: MCP is Managed Care Plan. Those enrolled for less than 31 days were excluded from this analysis. Group 1 implemented HHP on July 1, 2018, Group 2 implemented HHP on January 1, 2019, Group 3 implemented HHP on July 1, 2019, and Group 4 implemented HHP on January 1, 2020 (SPA1) and June 1, 2020 (SPA2).

Enrollment from the Target Engagement List

UCLA assessed the concordance between Medi-Cal enrollees identified by DHCS as eligible for HHP, based on their claims prior to HHP enrollment and communicated to MCPs biannually in the TEL, and Medi-Cal beneficiaries enrolled in HHP. The analyses showed that 79% of HHP enrollees were identified in the TEL and this proportion varied by MCP (Exhibit 28). The proportion of enrollees identified in the TEL did not differ by SPA (data not shown).

Exhibit 28: Proportion of HHP Enrollees that were identified in the Target Engagement List (TEL), Overall and by MCP

	Total Enrollment	Proportion Identified in TEL
Overall	90,045	79%
Anthem Blue Cross of California Partnership Plan, Inc.	4,254	68%
San Francisco Health Plan	1,219	92%
Inland Empire Health Plan	18,632	82%
Molina Healthcare of California Partner Plan, Inc.	8,367	79%
Alameda Alliance for Health	749	79%
California Health & Wellness	1,518	83%
Health Net Community Solutions, Inc.	11,934	90%
Kern Health Systems	5,306	74%
L.A. Care Health Plan	29,216	72%
Aetna Better Health of California	442	68%
Kaiser Permanente	893	86%
Blue Shield of California Promise Health Plan	1,842	75%
Community Health Group Partnership Plan	2,219	98%
United Healthcare Community Plan of California, Inc.	260	67%
Santa Clara Family Health Plan	1,493	82%
CalOptima	1,551	95%

Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021. Target Engagement Lists from May 2018 to May 2021.
Notes: Those enrolled for less than 31 days were excluded from this analysis. Group 1 implemented HHP on July 1, 2018, Group 2 implemented HHP on January 1, 2019, Group 3 implemented HHP on July 1, 2019, and Group 4 implemented HHP on January 1, 2020. Individuals identified on the TEL supplemental list were not included as part of TEL.

Enrollment Patterns

Enrollment Churn

Slightly more than half of HHP enrollees (53%) remained continuously enrolled from enrollment date to December 2021, with a higher share for SPA 2 enrollees (58%) than SPA 1 enrollees (51%; Exhibit 29). Disenrollment rates increased since September 2019 for each of the two SPAs (data not shown). Overall, nearly half of enrollees (45%) have disenrolled once and stayed disenrolled from the program. Re-enrollment rates were low across both SPA 1 (2.4%) and SPA 2 (1.5%).

Exhibit 29: Enrollment and Disenrollment Patterns in HHP as of December 31, 2021

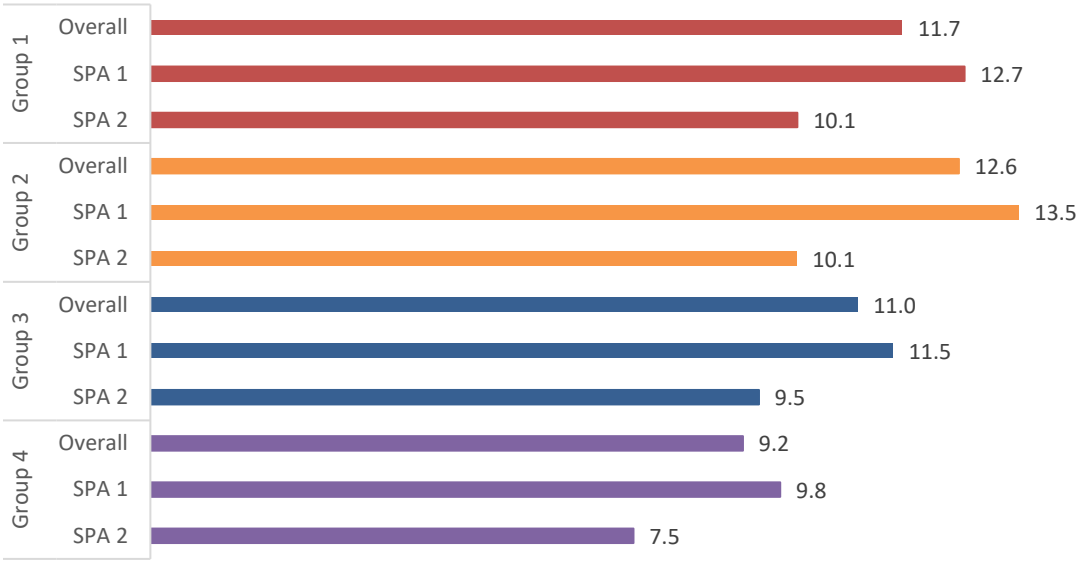
	Total Enrollment	Continuously Enrolled	Disenrolled Once	Enrolled Multiple Times
Overall	90,045	53.0%	44.8%	2.1%
SPA 1	66,017	51.2%	46.4%	2.4%
SPA 2	24,028	58.1%	40.4%	1.5%

Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.
Notes: MCP is Managed Care Plan. Those enrolled for less than 31 days were excluded from this analysis. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness.

Enrollment Length

Average length of enrollment was measured given the date first enrolled in HHP per enrollee and was calculated by Group and SPA. The length of enrollment was shorter for Groups 3 and 4 relative to Group 1. Group 2 had a longer average length of enrollment compared to all other groups. Length of enrollment was shorter for SPA 2 than for SPA 1, commensurate with the later start date of SPA 2 (Exhibit 30).

Exhibit 30: Average Length of Enrollment in Months in HHP by Group as of December 31, 2021



Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.
Notes: MCP is managed care plan. Those enrolled for less than 31 days were excluded from this analysis. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness.

MCP Exclusions of Specific HHP Eligible Populations

MCPs were able to use standardized criteria to exclude some of the eligible beneficiaries identified in their respective TELs and were required to report the reason for such exclusions in their Quarterly HHP Reports in the aggregate and for the first year of implementation. Ten MCPs reported this data only for the first three quarters of implementation and one MCP did not report at all. Exhibit 31 displays the percent of eligible beneficiaries in the TEL that were excluded by reasons for such exclusions. For Groups 2 and 3 the most common reason was that an eligible beneficiary was not an MCP member. At the time the TEL was constructed, these individuals may have been members of the MCP, but were no longer members when the MCP began enrollment either due to enrollment in another MCP or disenrollment from Medi-Cal.

Other most common reasons for exclusion were eligible enrollee declined to participate (Group 1) and eligible enrollee was already well managed (Group 4).

Exhibit 31: Percent of Eligible Beneficiaries Excluded by MCPs by Reason for Exclusion in the First Year of HHP Implementation

	Group			
Exclusion Rationale	**1**	**2**	**3**	**4**
Excluded because well-managed	0.4%	0.5%	0.4%	7.2%
Excluded because declined to participate	3.1%	1.9%	2.2%	2.2%
Excluded because of unsuccessful engagement	0.9%	3.0%	2.5%	4.8%
Excluded because duplicative program	0.5%	0.3%	1.0%	0.6%
Excluded because unsafe behavior or environment	n/a	<0.0%	<0.0%	n/a
Excluded because not enrolled in Medi-Cal at MCP	0.3%	7.4%	3.1%	1.8%
Externally referred but excluded	<0.0%	0.1%	<0.0%	n/a

Source: MCP Quarterly HHP Reports from September 1, 2018 to September 30, 2019. Groups 1 and 2 reported excluded beneficiaries for the first year of implementation. Group 3 MCPs reported 3 or 4 quarters of excluded beneficiaries. Group 4 only reported 3 quarters of excluded beneficiaries. HealthNet counties (Kern, Los Angeles, Sacramento, San Diego and Tulare) were excluded from analysis due to insufficient reporting. Eligible beneficiaries were identified on the targeted engagement lists created prior to the last quarter of reporting for each MCP and County.
Notes: MCP is Managed Care Plan and TEL is Targeted Engagement List. n/a indicates small cell size.

HHP Enrollee Demographics and Health Status

This section addresses the following HHP evaluation questions:

1. What were the demographics of program enrollees?
2. What was the acuity level of the enrollees including health and health risk profile indicators, such as aggregate inpatient, ED, and rehab SNF utilization?
3. What proportion of enrollees were experiencing homelessness?

UCLA used demographic information from the Medi-Cal enrollment data, homelessness status from MCP Quarterly HHP Reports, and Medi-Cal claims data to construct measures of health status and healthcare utilization prior to enrollment in HHP. Medi-Cal data included both managed care and fee-for-service encounters. UCLA used a look-back period of 24 months for these measures in line with the HHP Program Guide. The exception to this was description of enrollee demographics, which was based on an enrollee's HHP enrollment date. Measures of chronic conditions and acuity eligibility criteria were created based on definitions in the HHP Program Guide and the Centers for Medicare and Medicaid Service's Chronic Condition Warehouse condition categories, using primary and secondary diagnosis codes in each Medi-Cal claim. Further details can be found in Appendix A: Data Sources and Methods.

UCLA reported demographics and health status for (1) all enrollees, (2) SPA 1 enrollees, and (3) SPA 2 enrollees. Of the 90,609 HHP enrollees (see HHP Enrollment and Enrollment Patterns), seven enrollees were missing Medi-Cal data prior to HHP enrollment and were not included in these analyses.

DHCS defined inclusion and exclusion eligibility criteria for HHP enrollees and used these criteria to identify eligible Medi-Cal beneficiaries to be included in the TEL, which was then distributed to MCPs in six-month intervals. However, DHCS did not have access to all eligibility criteria in Medi-Cal enrollment and claims data (see Introduction: HHP Target Populations). Specifically, DHCS lacked information on the "chronic homelessness" acuity criteria.

Demographics of HHP Enrollees at Time of Enrollment

By the end of HHP, MCPs had enrolled 90,609 individuals, with 66,241 in SPA 1 and 24,368 in SPA 2. Overall, HHP enrollees were most often 50 to 64 years old, female and Latinx. When comparing SPA 1 and SPA 2 enrollees, the former group were more often older, less likely to be White, and less likely to speak English. Some (8%) of HHP enrollees were reported as experiencing homelessness at any point during HHP enrollment, and rates varied by SPA with 8% for SPA 1 and 10% for SPA 2 (Exhibit 32). The overall demographics of enrollees as of December 2021 did not differ greatly from the demographics of enrollees reported in the second interim evaluation (data not shown), indicating that the demographics of new enrollees remained similar throughout the program.

Exhibit 32: HHP Enrollee Demographics, Overall, and by SPA, at the Time of HHP Enrollment as of December 30, 2021

		Total	SPA 1 Enrollees	SPA 2 Enrollees
Enrollment	N	90,609	66,241	24,368
Age (at time of enrollment)	% 0-17	7%	7%%	5%
	% 18-34	15%	11%	24%
	% 35-49	22%	21%	27%
	% 50-64	48%	50%	41%
	% 65+	8%	10%	4%
Gender	% male	41%	43%	35%
Race/Ethnicity	% White	20%	18%	25%
	% Latinx	47%	49%	42%
	% African American	17%	18%	17%
	% Alaskan Native or American Indian	<1%	<1%	<1%
	% Asian	4%	5%	3%
	% Hawaiian, Guamanian, Samoan, Other Asian or Pacific Islander	1%	1%	1%
	% other	5%	4%	7%
	% unknown	5%	5%	5%
Language	% English proficient	71%	68%	78%
Enrolled in Medi-Cal full-scope during the year prior to enrollment	Average number of months	12	12	12
Homelessness	Experienced homelessness during enrollment	8%	8%	10%

Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 – December 2021. HHP enrollment was limited to available data for the period between July 1, 2018 and September 30, 2020, and homelessness is only reported for enrollees who were active as of July 2019. Demographics at the time of HHP enrollment were obtained from Medi-Cal enrollment data from July 1, 2016 to December 31, 2021.
Notes: MCP is Managed Care Plan. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Homeless data was not reported for 720 enrollees.

Health Status of HHP Enrollees Prior to Enrollment

UCLA examined the proportion of enrollees with the top ten most frequent physical health and mental health conditions in the 24 months prior to enrollment overall and by SPA. Data showed high rates of hypertension (65%) and diabetes (49%) among HHP enrollees (Exhibit 33). When comparing SPA 1 and SPA 2, SPA 2 enrollees were more likely to have mental health conditions, including depression (73%), anxiety (54%), and bipolar disorder (30%) compared to SPA 1.

Exhibit 33: Top Ten Most Frequent Physical and Mental Health Conditions among HHP Enrollees, 24 Months Prior to HHP Enrollment

Total	SPA 1 Enrollees	SPA 2 Enrollees
N=90,609	**N=66,241**	**N=24,368**
Hypertension (65%)	Hypertension (71%)	Depression (73%)
Diabetes (49%)	Diabetes (56%)	Depressive Disorders (69%)
Depression (40%)	Chronic Kidney Disease (45%)	Anxiety (54%)
Chronic Kidney Disease (39%)	Hyperlipidemia (40%)	Hypertension (50%)
Hyperlipidemia (38%)	Obesity (35%)	Obesity (33%)
Depressive Disorders (38%)	Asthma (31%)	Hyperlipidemia (32%)
Obesity (34%)	Rheumatoid Arthritis / Osteoarthritis (30%)	Fibromyalgia, Chronic Pain and Fatigue (31%)
Anxiety (33%)	Depression (27%)	Bipolar (30%)
Rheumatoid Arthritis / Osteoarthritis (29%)	Fibromyalgia, Chronic Pain and Fatigue (27%)	Diabetes (30%)
Fibromyalgia, Chronic Pain and Fatigue (28%)	Depressive Disorders (26%)	Rheumatoid Arthritis / Osteoarthritis (28%)

Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from December 2021. HHP enrollment was limited to available data for the period between July 1, 2018 and September 30, 2020. Chronic and other chronic health, mental health, and potentially disabling condition categories were identified using the Chronic Condition Warehouse methodology using Medi-Cal claims data from July 1, 2016 to September 30, 2020.
Notes: MCP is managed care plan. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness.

In order to further examine the level of complexity of health status of HHP enrollees, UCLA examined the proportion of HHP enrollees that met each of the four HHP eligibility criteria outlined in the HHP Program Guide in the 24 months prior to enrollment. Overall, 93% of HHP enrollees met at least one of these criteria. Exhibit 34 shows that 53% of HHP enrollees had hypertension along with chronic obstructive pulmonary disease, diabetes, coronary artery disease, or chronic or congestive heart failure (Criteria 2). Similar proportions of enrollees had serious mental health conditions (45%; Criteria 3) compared to those with a combination of very complex conditions such as chronic renal (kidney) disease, chronic liver disease, traumatic

brain injury and a more common condition (44%; Criteria 1). A smaller proportion of HHP enrollees (27%) had asthma (Criteria 4). Consistent with HHP program goals, more SPA 2 enrollees had major depression disorder, bipolar disorder, or psychotic disorders (Criteria 3) than SPA 1 enrollees (83% versus 30%). The composition of enrollees by eligibility criteria did not differ greatly as of December 2021 compared to September 2020 (data not shown).

Exhibit 34: Complexity of HHP Enrollees' Health Status by SPA, 24 Months Prior to HHP Enrollment as of September 30, 2020

	Total	SPA 1 Enrollees	SPA 2 Enrollees
Number of HHP Enrollees	**N=90,609**	**N=66,241**	**N=24,368**
Two specific conditions (Criteria 1)	44%	50%	27%
Hypertension and another specific condition (Criteria 2)	53%	61%	30%
Serious mental health conditions (Criteria 3)	45%	30%	83%
Asthma (Criteria 4)	27%	31%	16%
Any Criteria (1-4)	93%	93%	93%

Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 – December 2021. HHP enrollment was limited to available data for the period between July 1, 2018 and September 30, 2020. Utilization data was calculated using Medi-Cal claims data from July 1, 2016 to September 30, 2020. Chronic condition categories were based on definitions from the HHP Program Guide.

Notes: Criteria 1 includes any two of the following conditions: chronic obstructive pulmonary disease, diabetes, traumatic brain injury, chronic or congestive heart failure, coronary artery disease, chronic liver disease, chronic renal (kidney) disease, dementia, substance use disorders. Criteria 2 includes hypertension and one of the following: chronic obstructive pulmonary disease, diabetes, coronary artery disease, chronic or congestive heart failure. Criteria 3 includes one of the following: major depression disorders, bipolar disorder, psychotic disorders including schizophrenia. Criteria 4 includes asthma. HHP enrollees may meet multiple criteria.

HHP Service Utilization among HHP Enrollees

This section addresses the following HHP evaluation questions:

1. Were HHP services provided in-person or telephonically?
2. Were HHP services provided by clinical or non-clinical staff?
3. How many enrollees experiencing homelessness received housing services?

MCPs were required to report HHP services to DHCS in Medi-Cal claims data starting on July 1, 2018. Two different procedure codes with unique modifiers that further indicated type and modality of services as well as type of providers were used. DHCS required HCPCS code G0506 from July 1, 2018 to September 30, 2018, but discontinued it because it led to denial of claims where a provider had submitted more than one unit of service per date of service. Therefore, DHCS adopted HCPCS code G9008 starting on October 1, 2018. Both codes were used to report HHP services in this report.

Prior to Q3 2019, MCPs reported on the number of HHP enrollees experiencing or at risk of homelessness and the provision of housing services to these beneficiaries in the aggregate and per quarter. This data could not be used to assess trends since it lacked information on each individual member and changes in their status. MCPs began reporting this data at the member level starting in Q3 2019, representing July 1 through September 30, 2019, and reported homelessness status during each quarter, receipt of housing services during each quarter, and whether a person was no longer experiencing homelessness by the end of each quarter. Therefore, this report describes the homelessness status and receipt of housing services for beneficiaries experiencing or at risk of homelessness for each quarter from Q3 2019 to Q4 2021.

UCLA used all available data to examine the type and frequency of HHP services received by enrollees at the SPA level. Further details can be found in Appendix A: Data Sources and Analytic Methods. HHP enrollees enrolled for less than 31 days (2,758 enrollees) were excluded from these analyses (Appendix C: HHP Enrollees Enrolled Less Than 31 Days).

HHP Services

MCPs were required to report HHP services under HCPCS code G9008, defined as "coordinated care fee, physician coordinated care oversight services." MCPs were required to use HCPCS code modifiers (U1 – U7) to identify three unique service types, service provider, and service modality (Exhibit 35). MCPs were expected to use at least one modifier per claim to define an HHP service. For example, a single visit where an enrollee receives HHP core services in-person by both clinical and non-clinical staff would use two modifiers (U1 and U4). Multiple units of service (UOS) were allowed, where one UOS was equivalent to 15 minutes of time to provide the service. Clinical staff included licensed medical professionals such as physicians, nurse practitioners, LCSWs, and medical assistants, while non-clinical staff included employees working in administrative or technical roles. In-person visits could occur at a variety of locations (e.g., home, office, or clinic). Telehealth allowed for remote patient monitoring (e.g., vitals and blood pressure), allowing enrollee care, reminders, and education to occur through telephone and electronic communications.

Exhibit 35: HHP Services

Provider Type	HCPCS Modifier	Modality	Definition
Engagement Services			
Provider Type Not Specified	U7	Not specified	Active outreach such as direct communications with member (e.g., face-to-face, mail, electronic, and telephone), follow-up if the member presents to another partner in the HHP network or using claims data to contact providers the member is known to use. Providers must show active, meaningful, and progressive attempts at member engagement each month until the member is engaged. Examples of acceptable engagement include: (1) letter to member followed by phone call to member; (2) phone call to member, outreach to care delivery partners and social service partners; (3) and street level outreach, including, but not limited to, where the member lives or is accessible.
Core Services			
Provided by Clinical Staff	U1	In-person	Comprehensive care management, care coordination, health promotion, comprehensive transitional care, individual and family support services, and referral to community and social supports
	U2	Telehealth	
Provided by Non-Clinical Staff	U4	In-person	
	U5	Telehealth	
Other Services			
Provided by Clinical Staff	U3	Not specified	Case notes, case conferences, tenant supportive services, and driving to appointments
Provided by Non-Clinical Staff	U6	Not specified	

Source: Adapted from Health Homes Program Guide issued November 1, 2019.
Notes: HCPCS is Healthcare Common Procedure Coding System, MCP is Managed Care Plan, and UOS is Unit of Service. Service use was reported by MCPs in claims data. Each service (UOS) represented a 15-minute interaction between HHP staff and HHP enrollee. Multiple UOS' were allowed within a single visit. Modifiers U1-U7 accompanied both HCPCS code G0506 (July 1, 2018 to September 30, 2018) and HCPCS code G9008 (October 1, 2018 to December 31, 2021) to specify the service. Telehealth includes phone and other forms of remote communication.

UCLA's examination of claims data revealed that HHP-specific HCPCS codes were never reported for 25% of HHP enrollees and that enrollees without these codes came from all 16 MCPs (data not shown). DHCS reported identifying deficiencies in reporting of HHP services both in claims and in MCP reports. MCPs reported to DHCS that CB-CMEs had challenges in reporting of HHP services that were included in claims. DHCS provided technical support to MCPs to address these problems. MCPs also reported to DHCS that they were providing technical assistance to CB-CMEs to improve reporting for all data.

An examination of the extent of this under-reporting showed that 25% of HHP enrollees lacked any HHP-specific HCPCS modifier codes and 26% of HHP enrollees lacked HCPCS codes for some months during their enrollment (data not shown). The proportion of enrollees that lacked codes for some months declined from 38% in September 2020. Further analysis showed that the rate of under-reporting varied by type of service with a higher rate for engagement services and a lower rate for core services. Therefore, UCLA calculated the average number of HHP services during months when HHP-specific HCPCS codes were present for each enrollee rather than calculating HHP services across all months of enrollment. The latter methodology would have been based on the incorrect assumption that HHP enrollees did not receive HHP services when HCPCS modifier codes were missing. Due to the limitations of data on HHP services and the methodology employed by UCLA, the data presented in this chapter are considered estimates of HHP services received by enrollees.

Estimated Overall HHP Service Delivery to HHP Enrollees

Exhibit 36 shows estimated service utilization for any HHP service (HCPCS modifiers U1-U7), regardless of provider type and modality between July 1, 2018 and December 31, 2021. Available data showed that a total of 1,819,484 UOS (in 15-minute increments) were received during this time period, averaging to 3.1 UOS per enrollee per month in months where services were received.

Comparison of services received by HHP enrollees by SPA showed a higher number of total UOS delivered to SPA 1 enrollees corresponding to more enrollees in this SPA. However, SPA 2 enrollees had a slightly higher average number of UOS than SPA 1 enrollees (3.2 UOS versus 3.1 UOS per month per enrollee in months that HHP services were received). The median UOS per enrollee was similar between SPAs.

Exhibit 36: Estimated Overall HHP Units of Service Received by HHP Enrollees by SPA, July 1, 2018 to December 31, 2021

	All HHP Enrollees (n=90,045)	SPA 1 Enrollees (n=66,017)	SPA 2 Enrollees (n=24,028)
Total number of units of service received	1,819,484	1,403,357	416,128
Average number of units of service per enrollee per month in months where HHP services were received	3.1	3.1	3.2
Median number of units of service per enrollee per month in months where HHP services were received	2.0	2.0	2.0

Source: Medi-Cal Claims data from June 1, 2018 to December 31, 2021.
Notes: HCPCS is Healthcare Common Procedure Coding System, MCP is Managed Care Plan. Service use was under-reported by MCPs in claims data. Each unit of service (UOS) represented a 15-minute interaction between HHP staff and HHP enrollee. Multiple UOS' were allowed within a single visit. Modifiers U1-U7 accompanied both HCPCS code G0506 (July 1, 2018 to September 30, 2018) and HCPCS code G9008 (October 1, 2018 to December 31, 2021) to specify the service. Data are based on the number of months during HHP enrollment where HCPCS codes were present.

Estimated Types of HHP Services Received

Exhibit 37 shows estimated average number of UOS per enrollee per month in months where HHP services were received by type of service from July 1, 2018 to December 31, 2021. The average number of UOS received was higher for core HHP services (2.8) than engagement services (1.7) or other HHP services (2.5). Also, the average number of UOS for core HHP services was higher for SPA 2 than SPA 1 enrollees, while for other HHP services it was higher for SPA 1 than SPA 2.

Exhibit 37: Estimated Average Number of HHP Units of Service Provided to HHP Enrollees in Months HHP Services were Received by Service Type and SPA, July 1, 2018 to December 31, 2021

Service Type	All HHP Enrollees (n=90,045)	SPA 1 Enrollees (n=66,017)	SPA 2 Enrollees (n=24,028)
Engagement Services (U7)	1.7	1.7	1.7
Core HHP Services (U1, U2, U4, or U5)	2.8	2.7	2.9
Other Health Homes Services (U3 or U6)	2.5	2.5	2.4

Source: Medi-Cal Claims data from July 1, 2018 to December 31, 2021.
Notes: Data show estimated average number of units of services (UOS) per enrollee during months that specific service was received. HCPCS is Healthcare Common Procedure Coding System, MCP is Managed Care Plan. Service use is under-reported by MCPs in claims data. Each UOS represented a 15-minute interaction between HHP staff and HHP enrollee. Multiple UOS' were allowed within a single visit. Core HHP services include claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U1, U2, U4, or U5. HHP engagement service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to June 30, 2019), and modifier U7. Other HHP service includes claims with HCPCS code G0506 (July 1, 2018 to September 30, 2018), HCPCS code G9008 (October 1, 2018 to December 31, 2021), and modifier U3 or U6. Data are based on the number of months during HHP enrollment where HCPCS codes were present.

Estimated HHP Core Services by Modality and Staff Type

MCPs were required to report the modality of HHP core services including in-person or through telehealth. However, DHCS did not require reporting modality for other HHP services or engagement services. Exhibit 38 shows the average number of in-person UOS received per enrollee during months that in-person services were received (3.1 UOS) was higher than the average number of telehealth services received per enrollee (2.5 UOS). However, as shown in Chapter 3: Changes in HHP Service Utilization before and during the COVID-19 Pandemic, the use of telehealth services increased greatly after the pandemic with the proportion of HHP services provided telephonically peaking at 73% (data not shown). MCPs were required to report the types of staff that provided core and other HHP services. The average number of services received from non-clinical staff (3.1 UOS) were higher than clinical staff (2.6 UOS).

Exhibit 38: Estimated Average Number of HHP Core Units of Service Provided to HHP Enrollees in Months those HHP Services were received by Modality and SPA, July 1, 2018 to December 31, 2021

	All HHP Enrollees (n=90,045)	SPA 1 Enrollees (n=66,017)	SPA 2 Enrollees (n=24,028)
Modality			
In-Person UOS (U1 or U4)	3.1	3.1	3.1
Telehealth UOS (U2 or U5)	2.5	2.5	2.8
Staff Types Who Delivered the Service			
Clinical Staff UOS (U1, U2, or U3)	2.6	2.6	2.7
Non-Clinical Staff UOS (U4, U5, or U6)	3.1	3.0	3.1

Source: Medi-Cal Claims data from July 1, 2018 to December 31, 2021.
Notes: Data show estimated average number of units of services per enrollee during months that service was received. HCPCS is Healthcare Common Procedure Coding System, MCP is Managed Care Plan, and UOS is Unit of Service. Service use was under-reported by MCPs in claims data. Each service (UOS) represented a 15-minute interaction between HHP staff and HHP enrollee. Multiple UOS' were allowed within a single visit. Modifiers U1-U7 accompanied both HCPCS code G0506 (July 1, 2018 to September 30, 2018) and HCPCS code G9008 (October 1, 2018 to December 31, 2021) to specify the service. Data are based on the number of months during HHP enrollment where HCPCS codes were present.

HHP Housing Services

Housing navigation and transition services included activities such as conducting tenant screenings, developing an individualized housing plan, assisting with move-in, and assisting with the housing search and application process. MCPs began reporting enrollee level data on homeless status and delivery of housing services in Q3 2019 (July 1 through September 30, 2019). In this period and onward, MCPs reported on enrollees who were experiencing homelessness or at risk for homelessness during each quarter, those who were no longer experiencing homelessness by the end of the quarter, and those who received housing services during the quarter. They also reported on whether an enrollee had experienced homelessness during HHP, although this measure was not examined due to data inconsistencies. MCPs communicated challenges in reporting for provision of housing services. DHCS provided technical support to MCPs to address these problems, and MCPs reported to DHCS that they were providing technical assistance to CB-CMEs to improve reporting for all data.

The table below is considered an estimation of homeless status and receipt of housing services due to inconsistent reporting across these variables. Inconsistencies were present when an enrollee was reported as no longer experiencing homelessness while that enrollee was never reported as having experienced homelessness or at risk; an enrollee was reported as receiving housing services although they were never reported as experiencing homelessness or at risk; and an enrollee was not reported as having experienced homelessness or at risk during the same quarter when they first reported as experiencing homelessness at some point during the program. One reason for such discrepancies may have been that CB-CMEs had 90 days to assess an enrollee's homeless status and may not have done so when the quarterly report had to be submitted 60 days after the end the quarter.

Using data from the MCP Quarterly Reports, UCLA estimated that the percentage of enrollees who were experiencing homelessness or at risk for homelessness in a given quarter grew during HHP, from 4% of the population in Q3 2019 to 10% of the population in Q1 2021 and then declined to 8% of the population in Q4 2021 (Exhibit 39). The percentage of enrollees experiencing homelessness or at-risk enrollees who received housing services also increased over time, starting at 38% in Q3 2019 and peaked at 75% in Q1 2021. Of those who were experiencing homelessness or at-risk during a given quarter, 3% were no longer experiencing homelessness by the end of Q3 2019, and this number peaked in Q2 2020 at 10%.

Exhibit 39: Homelessness Status and Receipt of Housing Services by HHP Enrollees, July 1, 2019 to December 31, 2021

	Percentage of Enrollees Experiencing Homelessness or were at Risk During Quarter	Percentage of Enrollees Experiencing Homeless or were at Risk who Received Housing Services During Quarter	Percentage of Enrollees Experiencing Homeless or were at Risk who were No Longer Homeless by End of Quarter
Q3 2019	4%	38%	3%
Q4 2019	6%	44%	--
Q1 2020	7%	47%	4%
Q2 2020	8%	54%	10%
Q3 2020	9%	68%	7%
Q4 2020	9%	70%	7%
Q1 2021	10%	75%	4%
Q2 2021	9%	72%	6%
Q3 2021	9%	68%	8%
Q4 2021	8%	62%	6%

Source: MCP Quarterly Reports from July 1, 2019 to December 31, 2021.
Notes: "--" indicates samples of less than 11 enrollees. Housing services data is shown only for enrollees who were reported as experiencing homelessness or at risk for homelessness.

HHP Outcomes

This section addresses the following HHP evaluation questions:

1. How did patterns of health care service use among HHP enrollees change before and during HHP implementation?
2. Did rates of acute care services, length of stay for hospitalizations, nursing home admissions and length of stay decline?
3. Did rates of other services such as substance use treatment or outpatient visits increase?
4. How did HHP core health quality measures improve before and after HHP implementation?
5. Did patient outcomes (e.g., controlled blood pressure, screening for clinical depression) improve before and after HHP implementation?

UCLA used Medi-Cal claims data, which included both managed care and fee-for-service encounters, to construct HHP metrics per the HHP Technical Specifications. UCLA measured trends before and during HHP for each metric based on the date of an individual HHP enrollee's enrollment. UCLA did not examine trends through the second year of HHP enrollment because as of the end of the program in December 2021, only 33% of SPA 1 enrollees and 6% of SPA 2 enrollees had enrollment longer than 24 months (further details can be found in Appendix D: Enrollees with More than Two Year of HHP Enrollment). UCLA restricted the sample to enrollees with a minimum 1 month of HHP enrollment and calculated all metrics by SPA and overall. UCLA examined trends for all HHP metrics for SPA 1 and SPA 2 per HHP metric specifications and further created and examined the trend for seven optional measures to further describe changes in utilization of services during HHP.

UCLA examined changes in trends before and during HHP using a difference-in-difference (DD) analysis. The DD analyses differed for HHP specified metrics that required one year of observation from metrics that did not require one year of observation and for optional measures. For HHP specified metrics with a one-year requirement, the DD analyses measured changes from Pre-HHP Year 2 to Pre-HHP Year 1 for both HHP enrollees and the control group; the change from HHP Year 1 to HHP Year 2 for both HHP enrollees and the control group; and the difference between the changes for HHP enrollees vs. the control group.

For the remaining metrics and measures, UCLA examined changes in six month increments up to 24 months (1-6, 7-12, 13-18, and 19-24) before HHP enrollment and up to 24 months (1-6, 7-12, 13-18, and 19-24) during HHP. For these, the DD analysis measured the change from 19-24 vs. 1-6 months before HHP for both HHP enrollees and the control group; the change during

HHP from 1-6 to 19-24 months for both HHP enrollees and the control group; and the difference between the changes in HHP enrollees vs. the control group. The shorter timeframe for examining metrics allowed for a clearer assessment of changes during the early phase of HHP implementation. The findings were not subject to potential seasonality in service utilization due to rolling enrollment throughout the year and measuring change following the date of enrollment per beneficiary. Further details can be found in Appendix A: Data Sources and Analytic Methods.

HHP Utilization Metrics

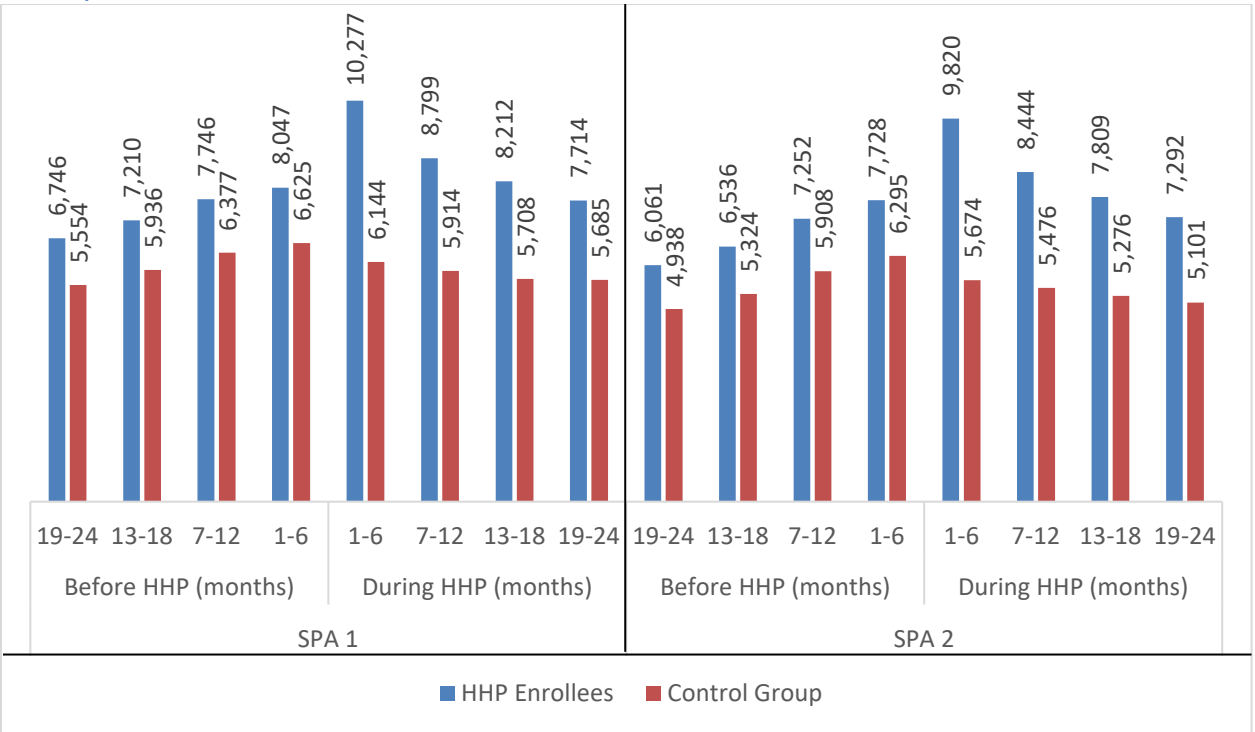
Trends in two HHP specified metrics and all seven optional measures were examined on a semi-annual basis.

Outpatient Utilization

Primary Care Services

UCLA calculated the number of primary care services per 1,000 beneficiaries per year as an optional measure of service utilization under HHP. Primary care services are likely to increase due to unmet need and increased access, but this use is likely to decrease once health needs are addressed. Exhibit 40 shows an increase in the number of primary care services before HHP by 434 services per 1,000 beneficiaries per year for SPA 1 enrollees. The rate of primary care services increased from 8,047 to 10,277 services per 1,000 beneficiaries per year from the six months before enrollment to first six month of enrollment. Following the first six months, this rate declined by 854 services per 1,000 beneficiaries per year. Rates of primary care service utilization remained higher than the rates seen before HHP for the first 18 months compared to controls that had rates below those observed before HHP. The decline from before to during HHP was significantly greater for HHP enrollees than the control group by 778 (DD). A similar trend was observed for SPA 2 enrollees.

Exhibit 40: Trends in Primary Care Services per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



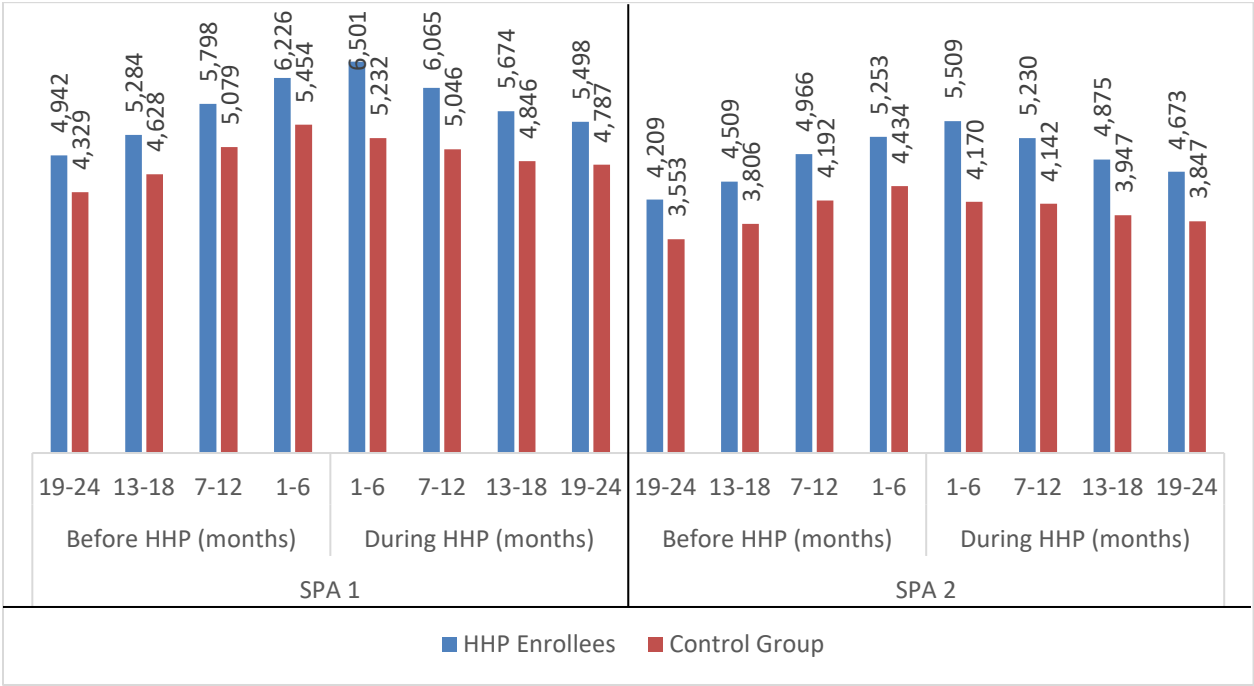
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	434*	-854*	-1,288*	
	Control Group	357*	-153*	-510*	-778*
SPA 2	HHP Enrollees	555*	-843*	-1,398*	
	Control Group	452*	-191*	-643*	-755*
Overall	HHP Enrollees	464*	-851*	-1,315*	
	Control Group	381*	-162*	-543*	-772*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. Primary care services were identified as services with a primary care physician, physician assistant, or nurse practitioner per NUCC's Taxonomy code set. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Specialty Care Services

UCLA calculated the number of specialty care services per 1,000 beneficiaries per year as an optional measure of service utilization under HHP. Specialty care services are likely to increase due to unmet need and increased access, but this use is likely to decrease once health needs are addressed. Exhibit 41 shows an increase in the number of specialty care services before HHP by 428 services per 1,000 beneficiaries per year for SPA 1 enrollees. The rate of specialty care services increased from 6,226 to 6,501 services per 1,000 beneficiaries per year from the six months before enrollment to first six month of enrollment. Following the first six months, the rate declined by 763 services per 1,000 beneficiaries pear year. The decline from before to during HHP was significantly greater for HHP enrollees than the control group by 239 (DD). A similar trend was observed for SPA 2 enrollees.

Exhibit 41: Trends in Specialty Services per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	428*	-334*	-763*	-239*
	Control Group	375*	-148*	-523*	
SPA 2	HHP Enrollees	348*	-279*	-627*	-225*
	Control Group	294*	-108*	-402*	
Overall	HHP Enrollees	408*	-321*	-729*	-236*
	Control Group	355*	-138*	-493*	

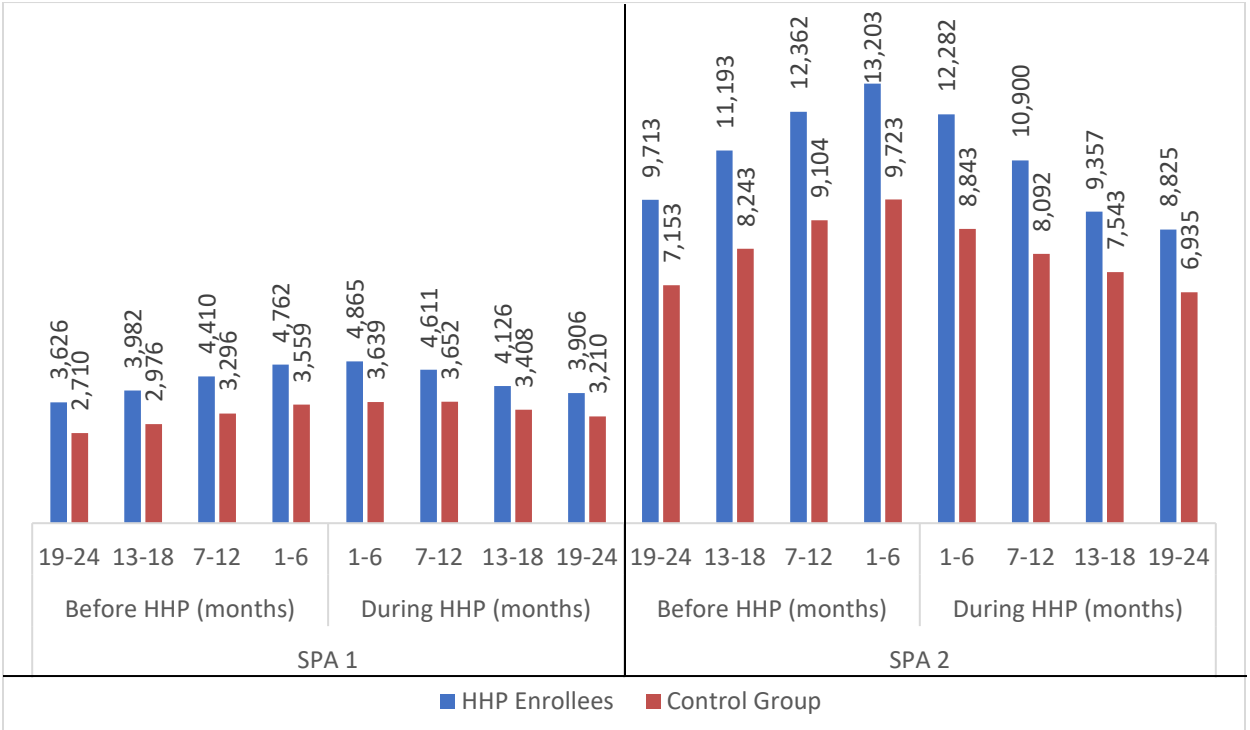
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. Specialty care services were identified as services with a specialty physician, physician assistant, or nurse practitioner per NUCC's Taxonomy code set. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Mental Health Services

UCLA calculated the number of mental health services per 1,000 beneficiaries per year as an optional measure of service utilization under HHP. Mental health services are likely to increase due to unmet need and increased access, but this use is likely to decrease once health needs are addressed.

Exhibit 42 shows that mental health service use was increasing prior to enrollment for SPA 1 enrollees (379 services per 1,000 beneficiaries per year) and continued to increase in the first six months of enrollment. Use of these services than declined during HHP by 320 services per 1,000 beneficiaries per year. Compared to controls, rates of mental health services declined an additional 272 services per 1,000 beneficiaries per year (DD) from before to during HHP. For SPA 2 enrollees, data show overall higher rates of mental health service utilization compared to SPA 1. Rates increased by 1,163 services per 1,000 beneficiaries per year prior to HHP and then declined by 1,152 services per 1,000 beneficiaries per year after enrollment. SPA 2 enrollees had a significantly greater decline from before to during HHP compared to the control group by 823 services per 1,000 beneficiaries per year (DD).

Exhibit 42: Trends in Mental Health Services per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	379*	-320*	-698*	
	Control Group	283*	-143*	-426*	-272*
SPA 2	HHP Enrollees	1,163*	-1,152*	-2,315*	
	Control Group	857*	-636*	-1,493*	-823*
Overall	HHP Enrollees	574*	-527*	-1,101*	
	Control Group	426*	-266*	-692*	-409*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. Mental health services were identified as services with a mental health procedure code. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

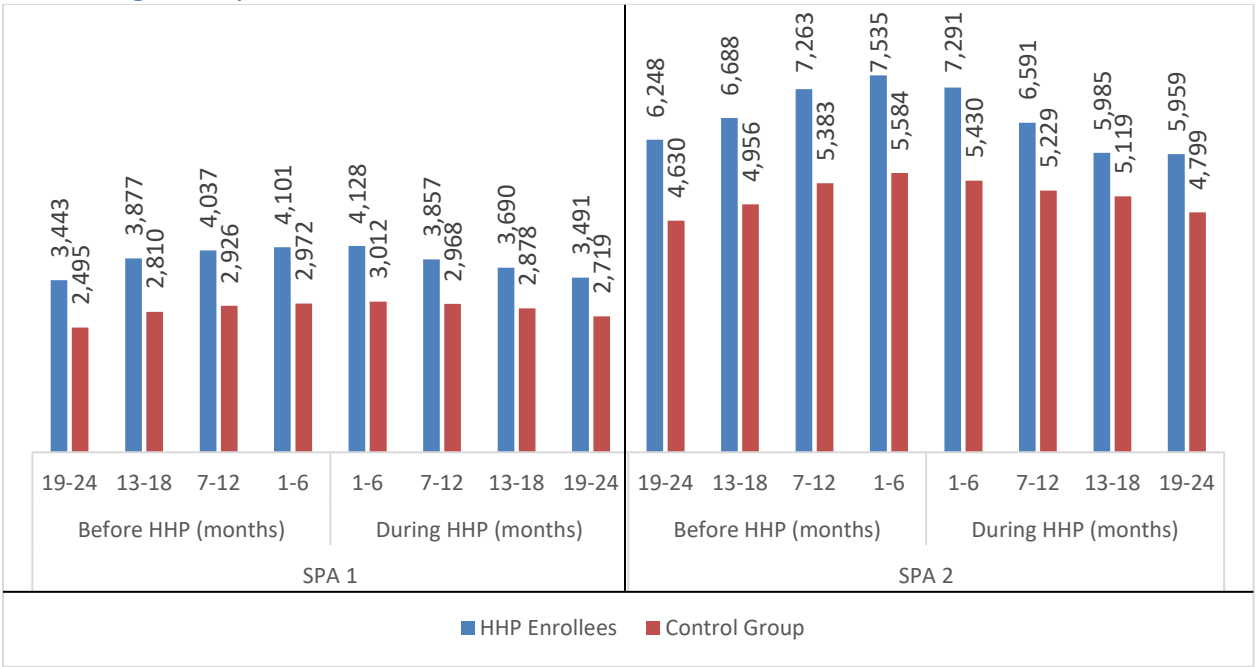
Substance Use Disorder Services

UCLA calculated the number of substance use disorder (SUD) services per 1,000 beneficiaries per year as an optional measure of service utilization under HHP. SUD services are likely to increase due to unmet need and increased access, but this use is likely to decrease once health needs are addressed.

Exhibit 43 shows a significant increasing trend in SUD services before HHP for SPA 1 enrollees (219 services per 1,000 beneficiaries per year). During HHP this rate declined significantly by 212 services per 1,000 beneficiaries per year, and SPA 1 enrollees had a significantly greater decline from before to during HHP compared to the control group by 175 services per 1,000 beneficiaries per year (DD).

A similar pattern was observed for SPA 2 enrollees, though the number of SUD services provided was greater overall and the magnitude of change before and during HHP was greater. There was a significant increasing trend in SUD services before HHP (429 services per 1,000 beneficiaries per year), followed by a significant decrease (210 services per 1,000 beneficiaries per year). The SPA 2 enrollees had a significantly greater decline from before to during HHP compared to the control group by 345 services per 1,000 beneficiaries per year (DD).

Exhibit 43: Trends in Substance Use Disorder Services per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	219*	-212*	-432*	
	Control Group	159*	-98*	-257*	-175*
SPA 2	HHP Enrollees	429*	-444*	-873*	
	Control Group	318*	-210*	-528*	-345*
Overall	HHP Enrollees	272*	-270*	-542*	
	Control Group	199*	-126*	-324*	-217*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SUD services were identified as services with a SUD treatment procedure code or an NDC for pharmacotherapy. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

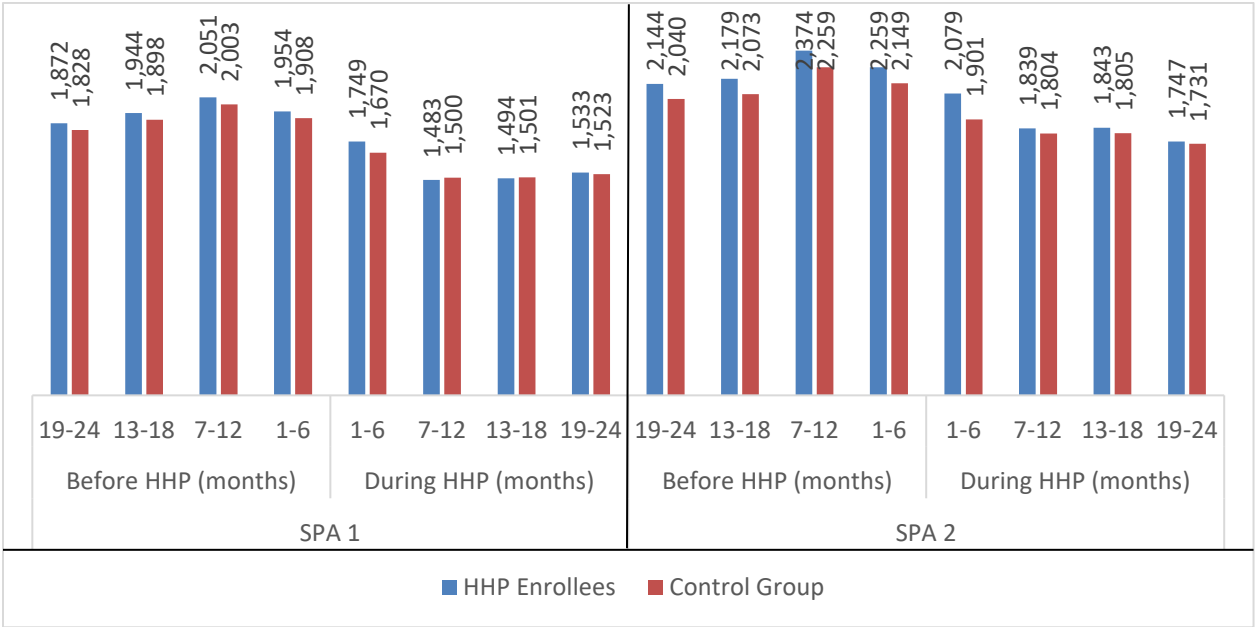
Emergency Department Utilization

Ambulatory Care: Emergency Department Visits

Ambulatory Care: Emergency Department Visits is an HHP core metric that measures the rate of emergency department (ED) visits that do not result in hospitalization per 1,000 beneficiaries per year. The intended direction of the metric and DD is decrease.

Exhibit 44 shows an increase in the number of ED visits before HHP by 27 visits per 1,000 beneficiaries per year for SPA 1 enrollees. This rate declined during HHP by 72 visits and the decline from before to during HHP was significantly greater than the control group by 23 visits (DD). A similar trend was observed for SPA 2 enrollees with a greater decline compared to the control group (56 visits, DD). During the first year of HHP, there was a faster decline in the rate of ED visits for SPA 1 enrollees compared to SPA 2 enrollees.

Exhibit 44: Trends in Ambulatory Care: Emergency Department Visits per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



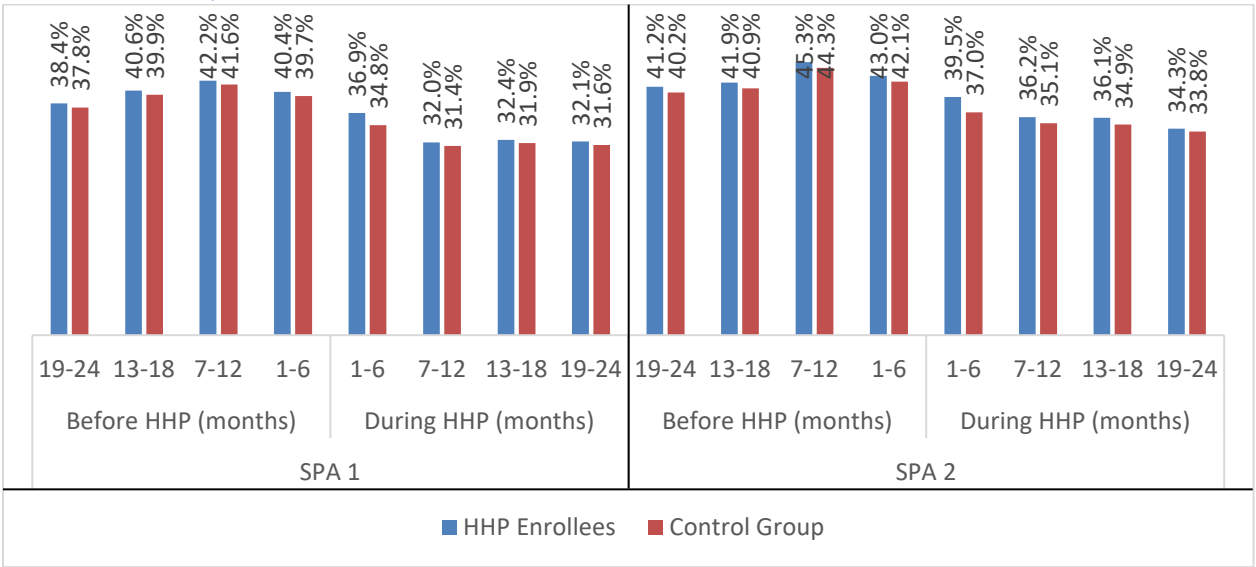
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	27*	-72*	-99*	
	Control Group	27*	-49*	-76*	-23*
SPA 2	HHP Enrollees	38*	-111*	-149*	
	Control Group	36*	-56*	-93*	-56*
Overall	HHP Enrollees	30*	-82*	-111*	
	Control Group	29*	-51*	-80*	-31*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: Includes ED visits that do not result in hospitalization. * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Any Emergency Department Visit

UCLA created a second measure of ED utilization that assessed the likelihood of any ED visit during each six-month period, which is distinct from the HHP core metric of number of ED visits. Exhibit 45 shows a significant decline in the proportion of enrollees with any ED visit during HHP for SPA 1 (-1.6%) and SPA 2 (-1.7%). For SPA 1 enrollees, the decline in this proportion compared to before HHP was greater than that of the control group by 0.5% (DD). A similar trend was observed for SPA 2 enrollees, with a greater decline in this proportion compared to the control group by 0.7% (DD).

Exhibit 45: Trends in Percentage of Patients with Any ED Visits Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	0.6%*	-1.6%*	-2.2%*	
	Control Group	0.6%*	-1.1%*	-1.7%*	-0.5%*
SPA 2	HHP Enrollees	0.6%*	-1.7%*	-2.4%*	
	Control Group	0.6%*	-1.1%*	-1.7%*	-0.7%*
Overall	HHP Enrollees	0.6%*	-1.6%*	-2.3%*	
	Control Group	0.6%*	-1.1%*	-1.7%*	-0.5%*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: Includes ED visits that do not result in hospitalization. * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

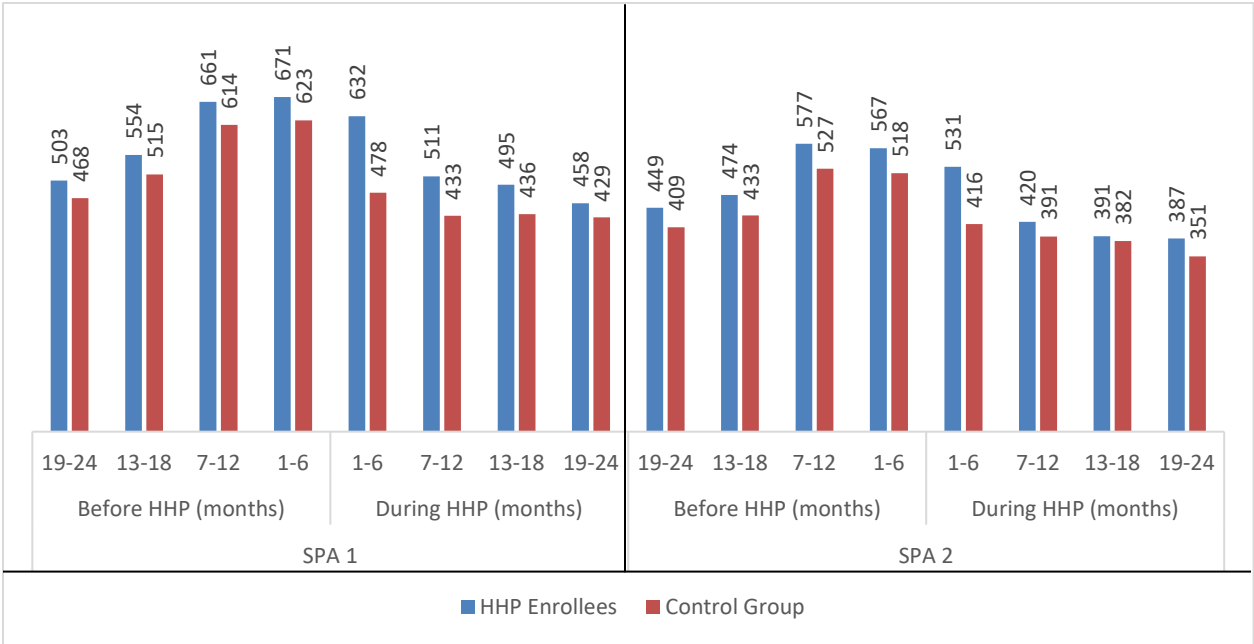
Hospital Utilization

Inpatient Utilization

Inpatient Utilization is an HHP core metric that measures the rate of acute inpatient care and services per 1,000 beneficiaries per year. The intended direction of the metric and DD is decrease.

Exhibit 46 shows an increase in the number of hospitalizations before HHP by 56 stays per 1,000 beneficiaries per year for SPA 1 enrollees. During HHP, this rate declined by 58 stays and the decline from before to during HHP was significantly greater for HHP enrollees as compared to the control group, by 46 stays per year (DD). A similar trend was observed for SPA 2 enrollees; the decline from before to during HHP was significantly greater for HHP enrollees as compared to the control group, by 30 stays per year (DD).

Exhibit 46: Trends in Inpatient Utilization per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



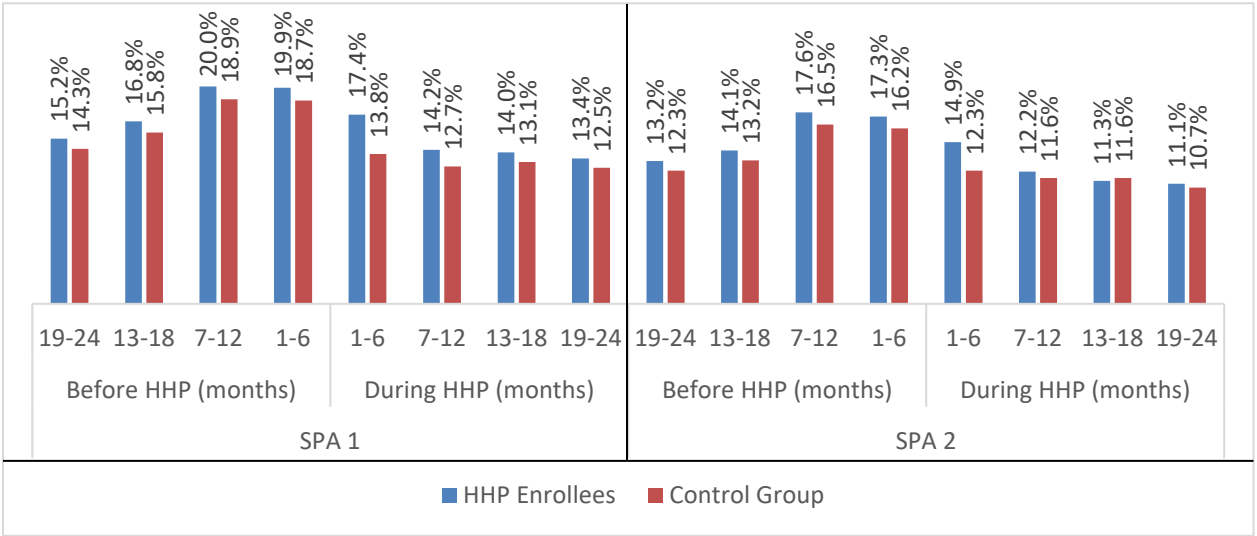
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	56*	-58*	-114*	-46*
	Control Group	52*	-16*	-68*	
SPA 2	HHP Enrollees	40*	-48*	-88*	-30*
	Control Group	36*	-22*	-58*	
Overall	HHP Enrollees	52*	-56*	-107*	-42*
	Control Group	48*	-18*	-66*	

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Any Hospitalization

UCLA created a second measure of inpatient care utilization that assessed the likelihood of any hospitalization during each six-month period, which is distinct from the HHP core metric of the rate of hospitalizations. Exhibit 47 shows a significant decline in the proportion of enrollees with any hospitalization during HHP for SPA 1 (-1.3%) and SPA 2 (-1.3%). The decline in this proportion compared to before HHP was greater than that of the control group by 1.0% (DD) for SPA 1 and 0.8% for SPA 2 enrollees.

Exhibit 47: Trends in Percentage of Patients with Any Hospitalization Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.6%*	-1.3%*	-2.9%*	
	Control Group	1.5%*	-0.4%*	-1.9%*	-1.0%*
SPA 2	HHP Enrollees	1.4%*	-1.3%*	-2.7%*	
	Control Group	1.3%*	-0.5%*	-1.8%*	-0.8%*
Overall	HHP Enrollees	1.5%*	-1.3%*	-2.8%*	
	Control Group	1.4%*	-0.4%*	-1.9%*	-1.0%*

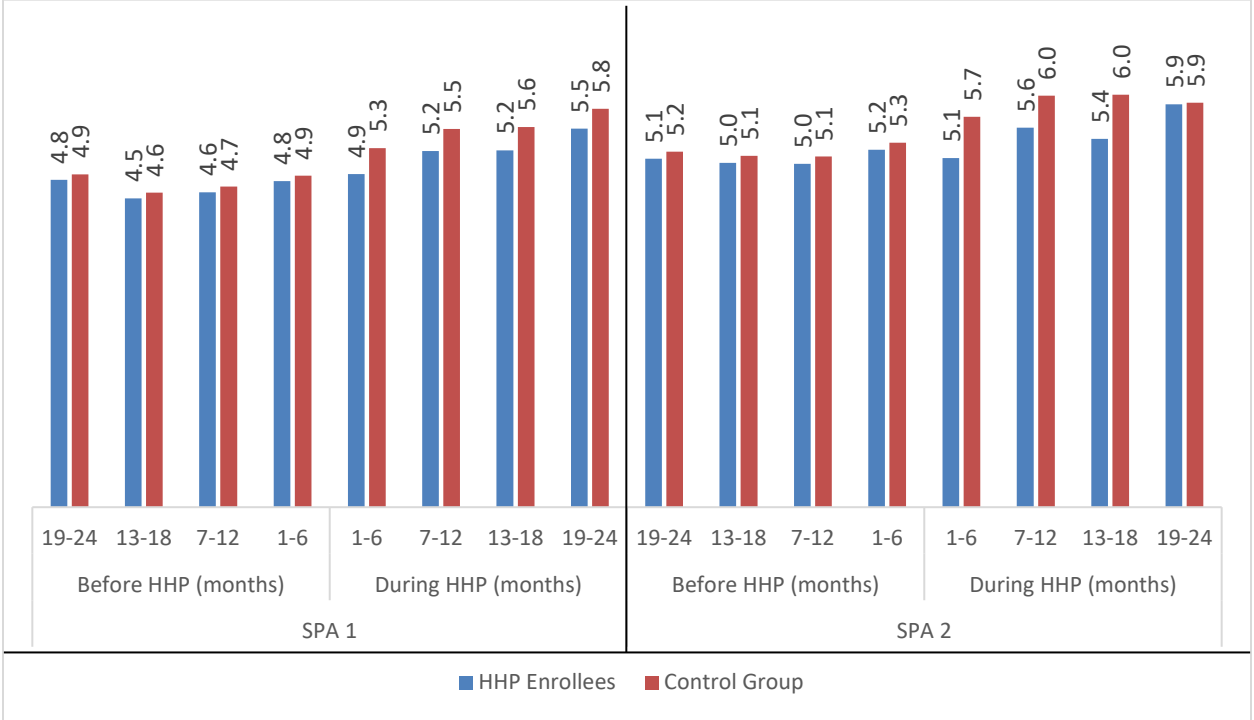
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 –

6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Inpatient Length of Stay

Inpatient Length of Stay is an HHP core metric that measures the average length of stay per hospitalization. The intended direction of the metric and DD is decrease. Exhibit 48 shows that lengths of stay were increasing during HHP for both SPA 1 and SPA 2, but the trends were similar with the control group.

Exhibit 48: Trends in Average Inpatient Length of Stay in Days Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	0	3*	3*	
	Control Group	0	2*	2*	0
SPA 2	HHP Enrollees	1	3*	3	
	Control Group	1	1	0	2
Overall	HHP Enrollees	0	3*	3*	
	Control Group	0	2*	2*	1

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (7 – 12 months of HHP minus 1 – 6 months of HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Institution Utilization

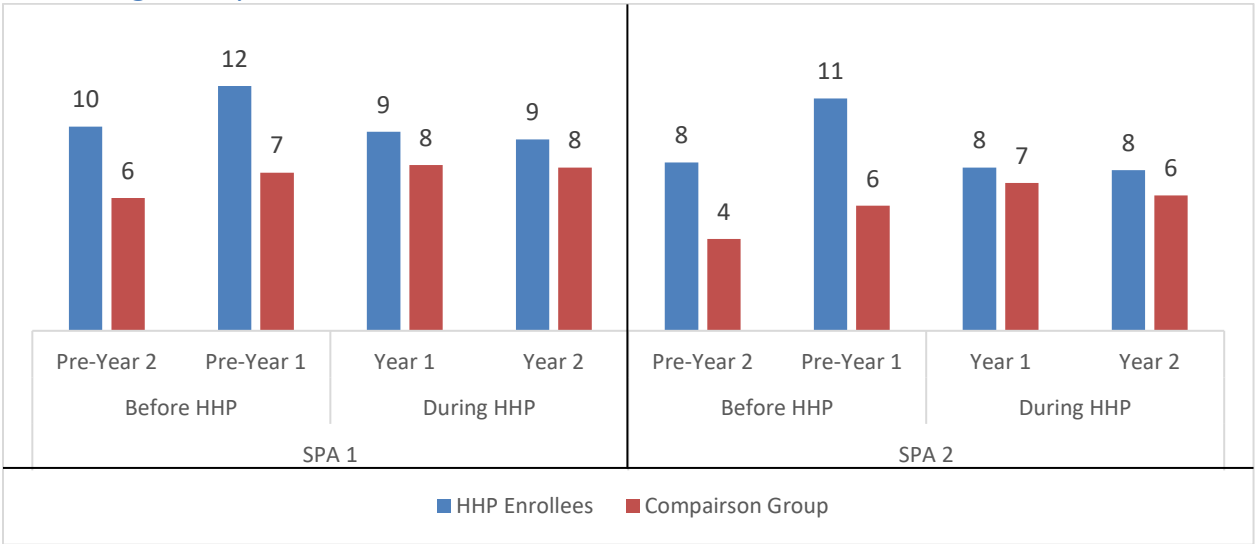
Admission to an Institution from the Community

Admission to an Institution from the Community is an HHP core metric that measures the number of admissions per 1,000 beneficiaries per year to an institutional facility among individuals of age 18 and older residing in the community for at least one month. The rate is reported for short stays (<20 days), medium stays (21-100 days) and long stays (>100 days). The criteria that determine whether admissions come from the community requires a full year of data. The intended direction of the metric and DD is decrease.

Short Term

Exhibit 49 shows no significant change in short-term admissions before or during HHP for either SPA 1 or SPA 2 enrollees or for their respective control groups.

Exhibit 49: Trends in Admissions to an Institution from the Community (Short-Term Stay) Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change Pre-Year 1 to HHP Year 1	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	2	0	-2	
	Control Group	1	0	-1	-1
SPA 2	HHP Enrollees	3	0	-3	
	Control Group	2	-1	-2	-1
Overall	HHP Enrollees	2	0	-3	
	Control Group	1	0	-2	-1

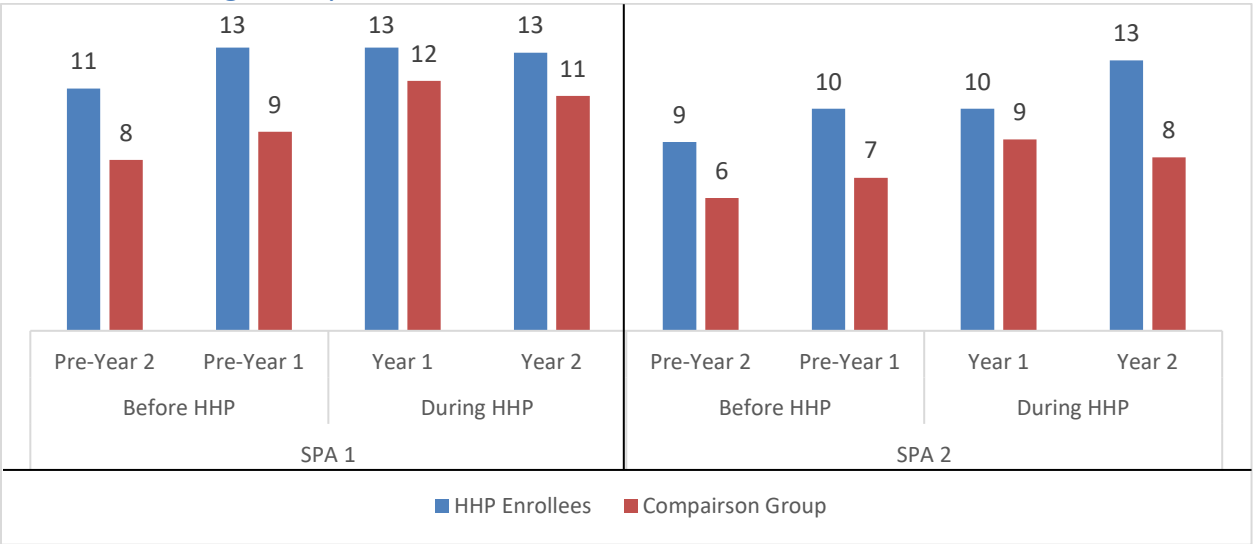
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.

Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change Pre-Year 1 to HHP Year 1 is calculated as: (Year 1 – Pre-Year 1). Difference between changes is calculated as: (Change Pre-Year 1 to HHP Year 1 –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Admission to an Institution from the Community is an HHP core metric that measures the number of admissions per 1,000 beneficiaries per year to an institutional facility among individuals of age 18 and older residing in the community for at least one month. The rate is reported for short stays (<20 days), medium stays (21-100 days) and long stays (>100 days).

Medium Term

Exhibit 50 shows no significant changes in medium-term admissions before or during HHP for either SPA 1 or SPA 2 enrollees or for their respective control groups.

Exhibit 50: Trends in Admissions to an Institution from the Community (Medium-Term Stay) Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change Pre-Year 1 to HHP Year 1	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	2	0	-2	
	Control Group	1	-1	-2	0
SPA 2	HHP Enrollees	2	2	1	
	Control Group	1	-1	-2	3
Overall	HHP Enrollees	2	0	-1	
	Control Group	1	-1	-2	1

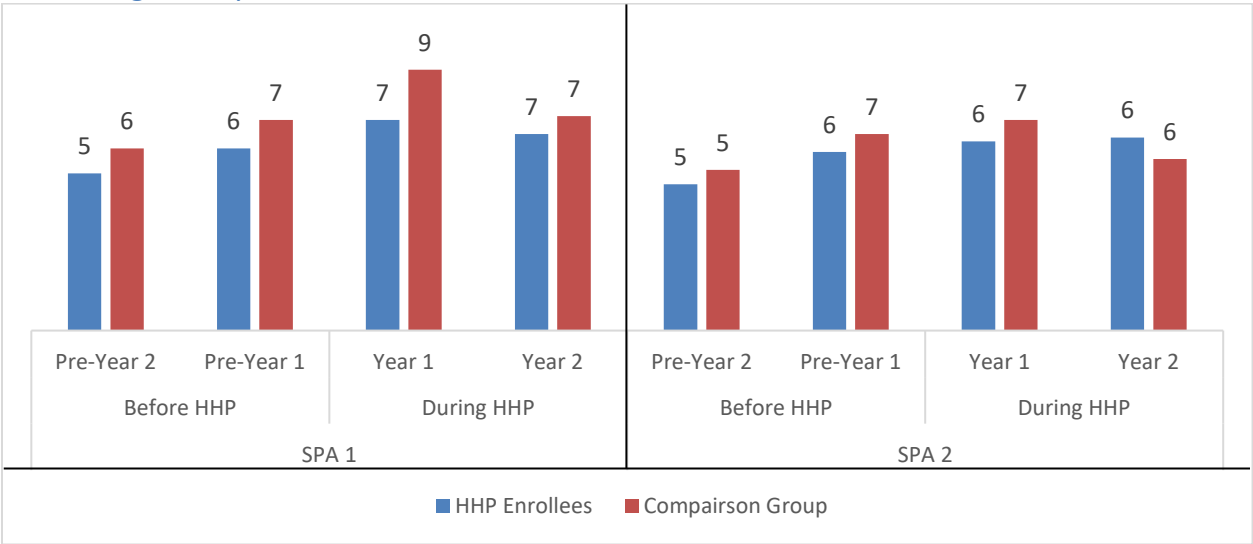
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.

Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change Pre-Year 1 to HHP Year 1 is calculated as: (Year 1 – Pre-Year 1). Difference between changes is calculated as: (Change Pre-Year 1 to HHP Year 1 –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Admission to an Institution from the Community is an HHP core metric that measures the number of admissions per 1,000 beneficiaries per year to an institutional facility among individuals of age 18 and older residing in the community for at least one month. The rate is reported for short stays (<20 days), medium stays (21-100 days) and long stays (>100 days).

Long term

Exhibit 51 shows that HHP enrollees had a significantly increasing rate of long-term admissions before HHP, but no change in this rate during HHP. However, among the controls the rate of long-term admission declined during HHP by 2 admissions per 1,000 beneficiaries per year. As a result, compared to control groups, HHP enrollees had a significant increasing rate in long-term admissions from before to during HHP (1, DD).

Exhibit 51: Trends in Admissions to an Institution from the Community (Long-Term Stay) Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change Pre-Year 1 to HHP Year 1	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1*	0	-1	
	Control Group	1*	-2*	-3*	1
SPA 2	HHP Enrollees	1*	0	-1	
	Control Group	1*	-1	-3*	2
Overall	HHP Enrollees	1*	0	-1	
	Control Group	1*	-2*	-3*	1*

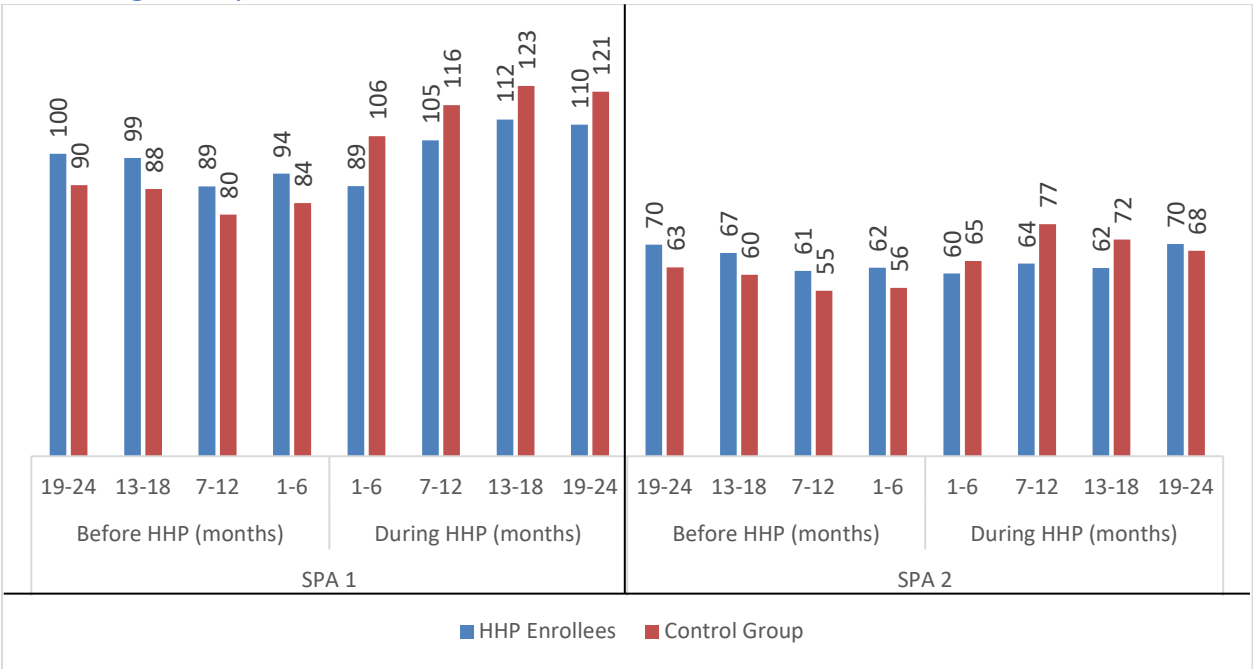
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change Pre-Year 1 to HHP Year 1 is calculated as: (Year 1 – Pre-Year 1). Difference between changes is calculated as: (Change Pre-Year 1 to HHP Year 1 –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Admission to an Institution from the Community is an HHP core metric that measures the number of admissions per 1,000 beneficiaries per year to an institutional facility among individuals of age 18 and older residing in the community for at least one month. The rate is reported for short stays (<20 days), medium stays (21-100 days) and long stays (>100 days).

Utilization of Long-Term Care

UCLA created an additional measure of long-term care facility utilization that examined rate of any long-term care stay regardless of the whether the admission came from the community or another inpatient setting and length of stay. This measure includes all of the stays that were used to estimate the cost of long-term care stays presented in Chapter 8.

Exhibit 52 shows the rate of long-term care stays was decreasing significantly before HHP for both SPA 1 (-2 stays per 1,000 beneficiaries per year) and SPA 2 (-3) enrollees. During HHP, this measure increased significantly for SPA 1 (7) enrollees but did not change significantly for SPA 2 enrollees. The changes in long-term care stays for SPA 1 and SPA 2 enrollees from before to during HHP were not significantly greater when compared to the changes in their respective control groups. The overall increase in this metric for HHP enrollees was significantly greater than that of the control groups overall, by 2 stays per 1,000 beneficiaries per year (DD).

Exhibit 52: Trends in Number of Long-Term Care Stays per 1,000 Beneficiaries per Year Before and During HHP by SPA as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	-2*	7*	9*	
	Control Group	-2*	5*	7*	2
SPA 2	HHP Enrollees	-3*	3	6*	
	Control Group	-2*	1	3*	2
Overall	HHP Enrollees	-2*	6*	8*	
	Control Group	-2*	4*	6*	2*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.

Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19-24 months during HHP minus 1 – 6 months during HHP). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

HHP Process Metrics

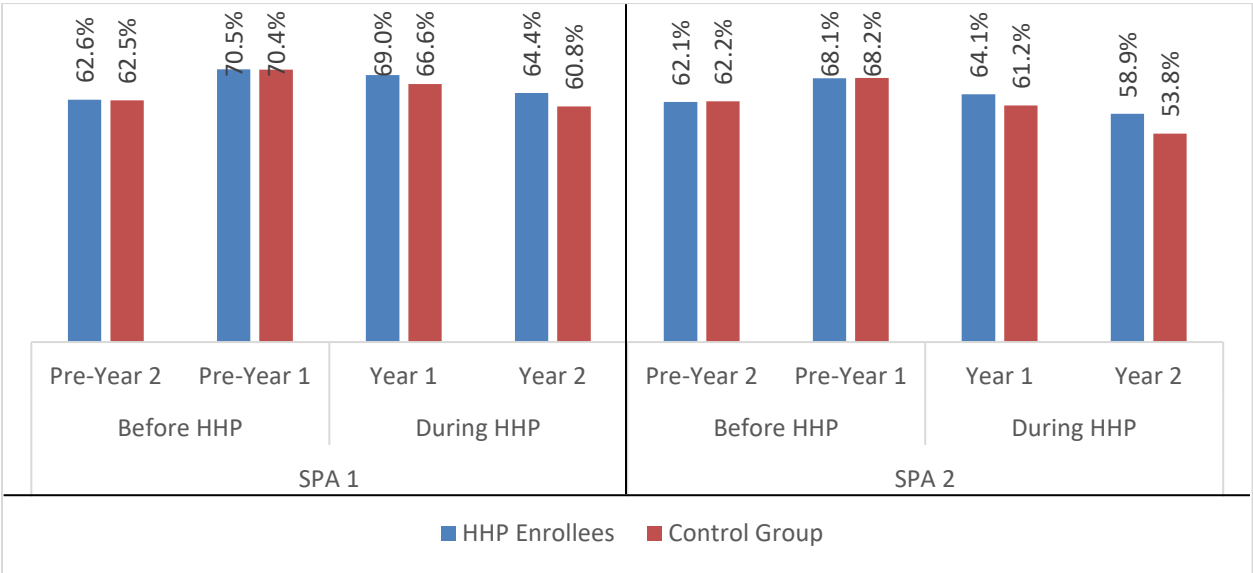
Trends in six HHP specified metrics were examined on an annual basis.

Adult Body Mass Index Assessment

Adult Body Mass Index Assessment is an HHP core metric that measures the percentage of beneficiaries between the ages of 18 and 74 who had an outpatient visit and whose body mass index (BMI) was documented during the measurement year or the year prior to the measurement year. The intended direction of this metric and DD is increase.

Exhibit 53 shows a significant decrease in documented BMI from HHP Year 1 to HHP Year 2 for HHP SPA 1 enrollees (-4.6%) and SPA 2 enrollees (-5.1%). For SPA 1 HHP enrollees, the decline in documented BMI was significantly smaller than the declined observed in the control group (1.2%, DD). The same pattern was observed for SPA 2 enrollees (2.2%, DD).

Exhibit 53: Trends in Adult Body Mass Index Assessment Before and During HHP by SPA for HHP Enrollees and the Control group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	7.9%*	-4.6%*	-12.5%*	
	Control Group	7.9%*	-5.8%*	-13.7%*	1.2%*
SPA 2	HHP Enrollees	6.0%*	-5.1%*	-11.2%*	
	Control Group	6.0%*	-7.3%*	-13.3%*	2.2%*
Overall	HHP Enrollees	7.4%*	-4.7%*	-12.2%*	
	Control Group	7.4%*	-6.2%*	-13.6%*	1.4%*

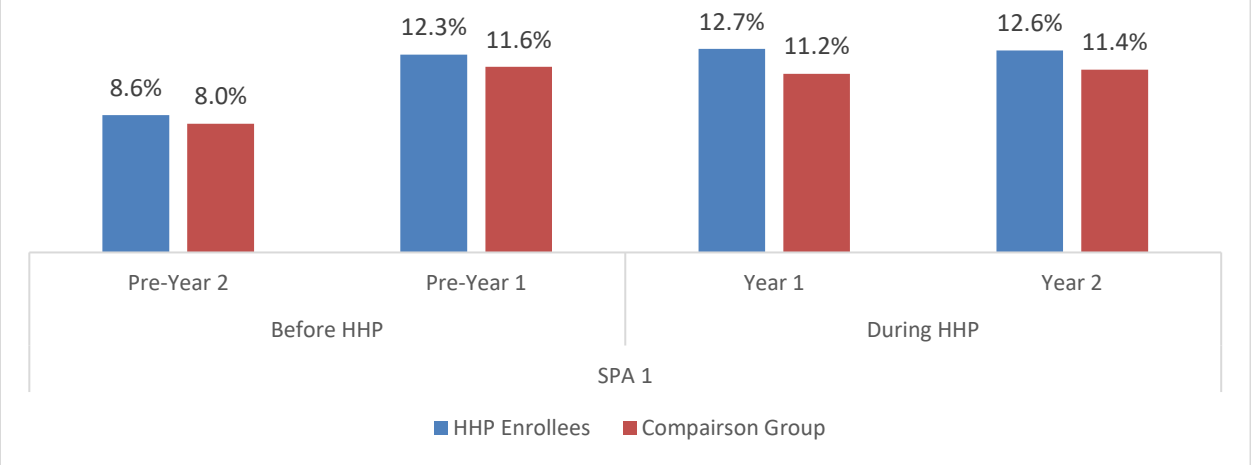
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Adult Body Mass Index Assessment is an HHP core metric that measures the percentage of beneficiaries between the ages of 18 and 74 who had an outpatient visit and whose body mass index (BMI) was documented during the measurement year or the year prior to the measurement year.

Screening for Depression and Follow-Up Plan

Screening for Depression and Follow-Up Plan is an HHP core metric that measures the percentage of beneficiaries aged 12 and older with an outpatient visit in the measurement year who were screened for depression and had a documented follow-up plan on the date of the positive screen. This metric was not reported for SPA 2 because the metric specifications exclude enrollees with an active diagnosis of depression or bipolar disorder, which were very common conditions among the SPA 2 enrollees. An increase in this metric and DD is intended.

Exhibit 54 shows a significant increase in this metric before HHP for SPA 1 enrollees (3.8%) and the control group (3.6%). During HHP there was no significant change in this metric for either SPA 1 or the control group. The change in trend from before to during HHP was not significantly different for HHP enrollees compared to their controls.

Exhibit 54: Trends in Screening for Depression and Follow-Up Plan Before and During HHP for SPA 1 HHP Enrollees and the Control group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	3.8%*	-0.1%	-3.9%*	
	Control Group	3.6%*	0.2%	-3.3%*	-0.5%

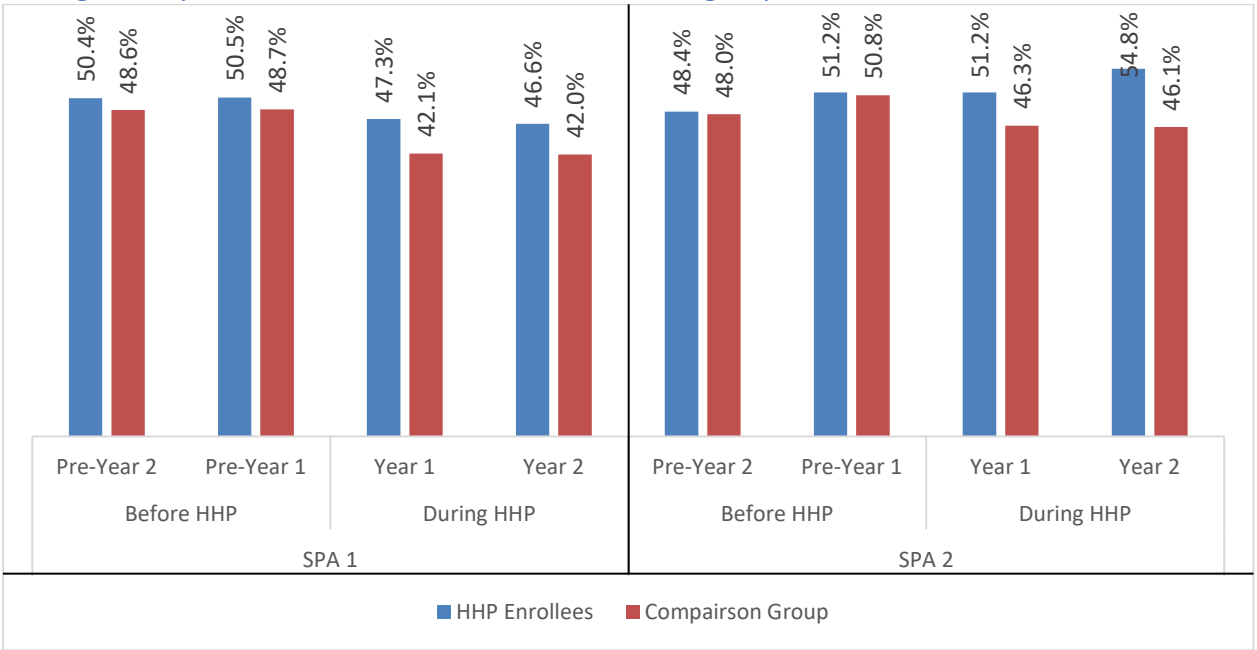
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Screening for Depression and Follow-Up Plan is an HHP core metric that measures the percentage of beneficiaries aged 12 and older with an outpatient visit in the measurement year who were screened for depression and had a documented follow-up plan on the date of the positive screen.

Follow-Up After Hospitalization for Mental Illness

Follow-Up After Hospitalization for Mental Illness is an HHP core metric that measures the percentage of beneficiaries aged 6 and older who were hospitalized for treatment of selected mental illness in the measurement year and who had a follow-up visit within 7 and 30 days with a mental health practitioner. The intended direction of the metric and DD is increase.

Exhibit 55 shows that the trends for 7-day follow-up did not change significantly for SPA 1 or SPA 2 enrollees during HHP or between HHP enrollees and the control group.

Exhibit 55: Trends in Follow-Up After Hospitalization for Mental Illness within 7 Days Before and During HHP by SPA for HHP Enrollees and the Control group as of December 31, 2021



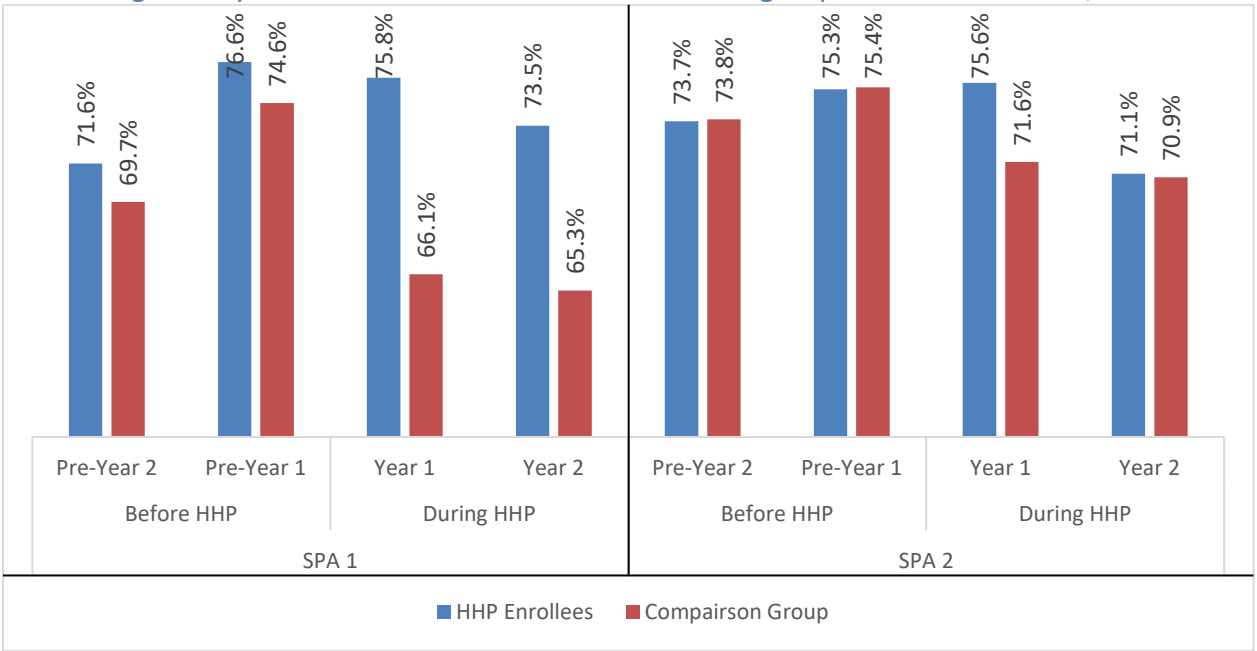
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	0.1%	-0.7%	-0.8%	-0.6%
	Control Group	0.1%	-0.1%	-0.3%	
SPA 2	HHP Enrollees	2.8%	3.5%	0.7%	3.7%
	Control Group	2.8%	-0.2%	-3.0%	
Overall	HHP Enrollees	1.7%	1.8%	0.1%	2.0%
	Control Group	1.7%	-0.2%	-1.9%	

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference

between changes for control group). Follow-Up After Hospitalization for Mental Illness is an HHP core metric that measures the percentage of beneficiaries aged 6 and older who were hospitalized for treatment of selected mental illness in the measurement year and who had a follow-up visit within 7 and 30 days with a mental health practitioner.

Exhibit 56 shows that that the trends for 30-day follow-up also did not change significantly for SPA 1 or SPA 2 enrollees during HHP or between HHP enrollees and the control group. Before HHP, this metric was increasing significantly for SPA 1 HHP enrollees (5.0%).

Exhibit 56: Trends in Follow-Up After Hospitalization for Mental Illness within 30 Days Before and During HHP by SPA for HHP Enrollees and the Control group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	5.0%*	-2.4%	-7.4%	
	Control Group	4.9%*	-0.8%	-5.7%	-1.7%
SPA 2	HHP Enrollees	1.6%	-4.5%	-6.1%	
	Control Group	1.6%	-0.8%	-2.4%	-3.7%
Overall	HHP Enrollees	3.0%*	-3.6%	-6.6%	
	Control Group	2.9%*	-0.8%	-3.7%	-2.9%

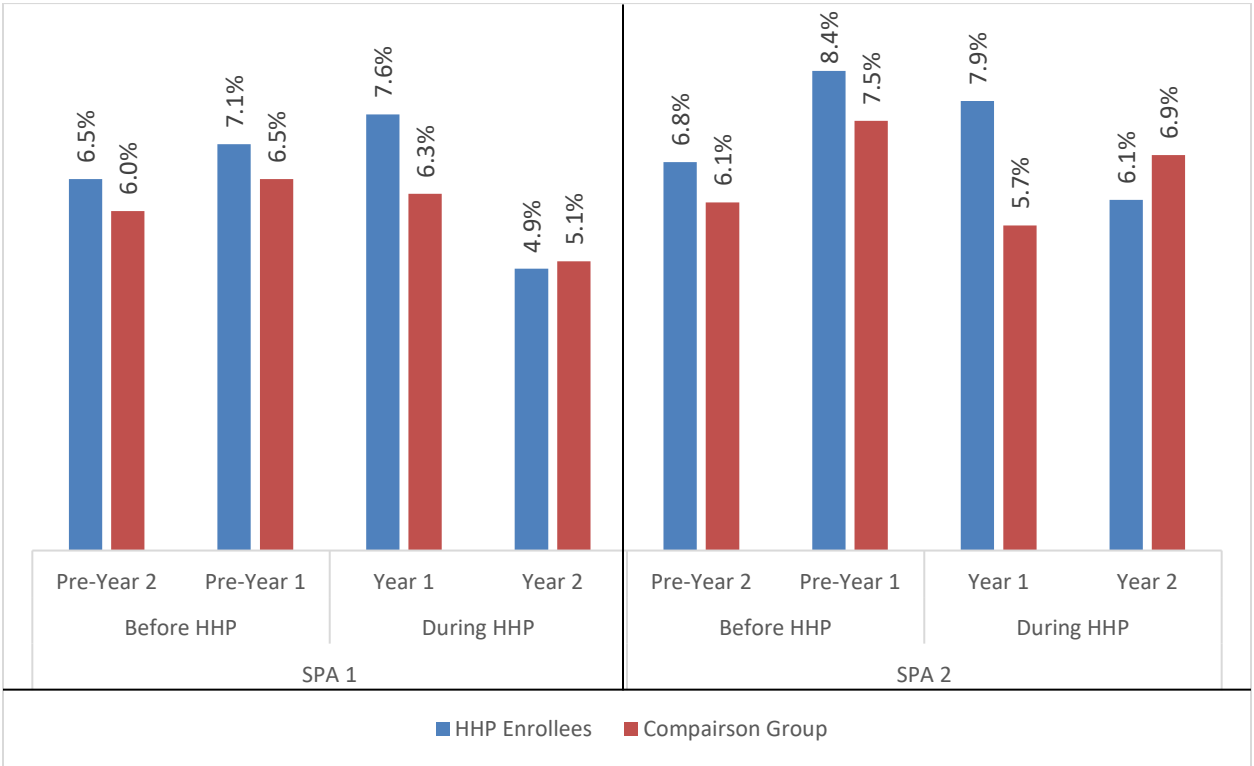
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Follow-Up After Hospitalization for Mental Illness is an HHP core metric that measures the percentage of beneficiaries aged 6 and older who were hospitalized for treatment of selected mental illness in the measurement year and who had a follow-up visit within 7 and 30 days with a mental health practitioner.

Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence

Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence is an HHP core metric that measures the percentage of emergency department (ED) visits in the measurement year among individuals aged 13 and older with a principal diagnosis of alcohol and other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence. The measure is reported for follow-up within 7 days and within 30 days. The intended direction of the metric and DD is increase.

Exhibit 57 shows that for SPA 1, during HHP, there was a significant decrease by 2.7% in follow-ups after ED visits for AOD abuse or dependence within 7 days. For SPA 2 enrollees, no significant trends were observed for this metric during HHP. There were no significant differences in trends for SPA 1 or SPA 2 enrollees when compared to their control groups; however, HHP enrollees overall had a larger decrease in this metric from before to during HHP when compared to the control groups overall (2.23%, DD).

Exhibit 57: Trends in Follow-Up After ED Visit for Alcohol and Other Drug Abuse and Dependence within 7 Days Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021

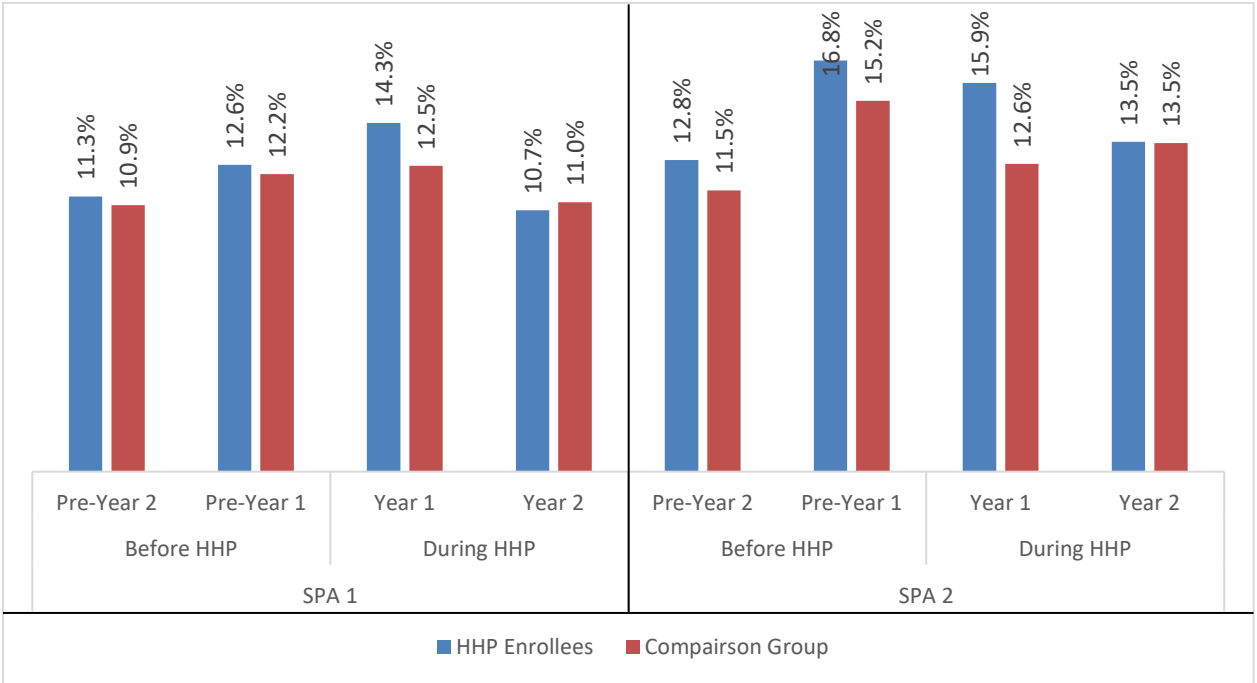


		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	0.6%	-2.7%*	-3.3%*	
	Control Group	0.6%	-1.2%	-1.7%	-1.6%
SPA 2	HHP Enrollees	1.6%*	-1.7%	-3.3%	
	Control Group	1.4%*	1.2%	-0.2%	-3.1%
Overall	HHP Enrollees	1.0%*	-2.3%*	-3.3%*	
	Control Group	0.9%*	-0.2%	-1.1%	-2.2%*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence is an HHP core metric that measures the percentage of emergency department (ED) visits in the measurement year among individuals aged 13 and older with a principal diagnosis of alcohol and other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence.

Exhibit 58 shows that for SPA 1, during HHP, there was a significant decrease (3.4%) in follow-ups after ED visits for AOD abuse or dependence within 30 days. For SPA 2 enrollees, no significant trends were observed for this metric during HHP. There were no significant differences in trends for SPA 1 or SPA 2 enrollees when compared to their control groups.

Exhibit 58: Trends in Follow-Up After ED Visit for Alcohol and Other Drug Abuse and Dependence within 30 Days Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.3%	-3.6%*	-4.9%*	
	Control Group	1.3%	-1.5%	-2.8%*	-2.1%
SPA 2	HHP Enrollees	4.1%*	-2.4%	-6.5%*	
	Control Group	3.7%*	0.9%	-2.8%	-3.7%
Overall	HHP Enrollees	2.5%*	-3.1%*	-5.6%*	
	Control Group	2.3%*	-0.5%	-2.8%*	-2.8%

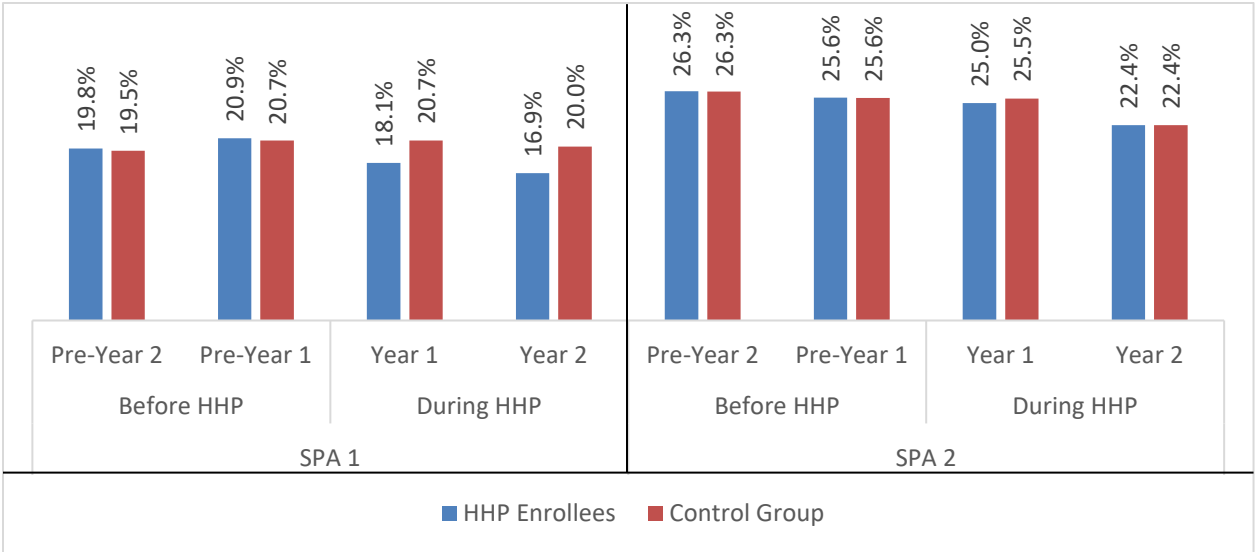
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence is an HHP core metric that measures the percentage of emergency department (ED) visits in the measurement year among individuals aged 13 and older with a principal diagnosis of alcohol and other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence.

Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment

Initiation of AOD Abuse or Dependence Treatment is an HHP core metric that measures the percentage of individuals aged 13 and older with a new episode of AOD abuse or dependence in the measurement year who received initiation of treatment within 14 days of the diagnosis. The intended direction of this metric and DD is increase.

Exhibit 59 shows that for SPA 1 enrollees, initiation of AOD treatment was significantly increasing prior to HHP (1.2%), but the change in this metric during HHP was not significant. For SPA 2 enrollees, there were no significant changes in this metric before or during HHP, and compared to control groups, neither SPA 1 nor SPA 2 had any significant changes in this metric.

Exhibit 59: Trends in Initiation of Alcohol and Other Drug Abuse or Dependence Treatment Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



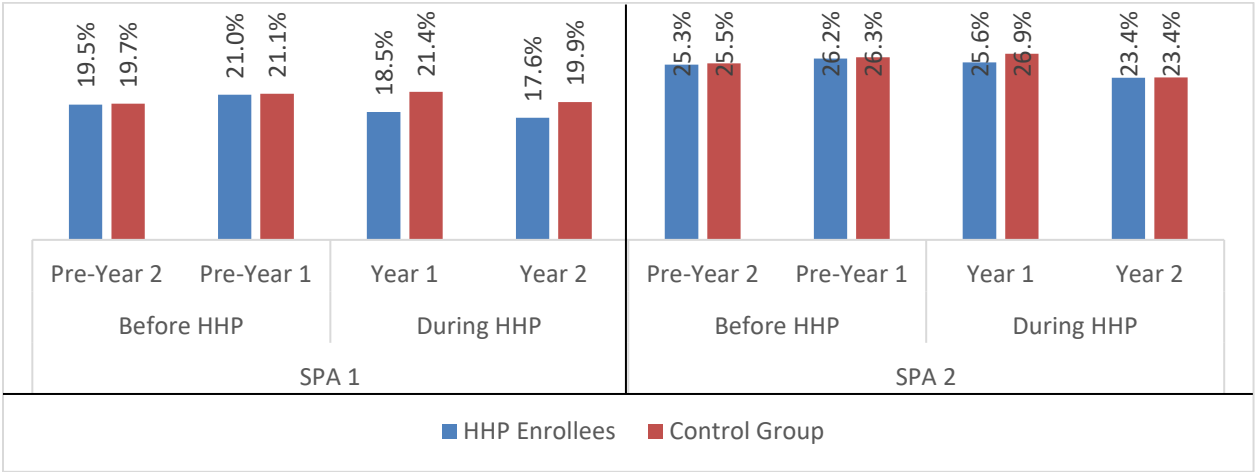
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.2%*	-1.2%	-2.3%*	
	Control Group	1.2%*	-0.7%	-1.8%*	-0.5%
SPA 2	HHP Enrollees	-0.7%	-2.6%	-1.8%	
	Control Group	-0.7%	-3.1%*	-2.3%*	0.5%
Overall	HHP Enrollees	0.5%	-1.6%*	-2.2%*	
	Control Group	0.5%	-1.5%*	-2.0%*	-0.2%

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Initiation of AOD Abuse or Dependence Treatment is an HHP core metric that measures the percentage of individuals aged 13 and older with a new episode of AOD abuse or dependence in the measurement year who received initiation of treatment within 14 days of the diagnosis.

Engagement of AOD Abuse or Dependence Treatment is an HHP core metric that measures the percentage of beneficiaries aged 13 and older that initiated AOD abuse or dependence treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The intended direction of the metric and DD is increase.

Exhibit 60 shows that for SPA 1 enrollees, engagement in AOD treatment was significantly increasing prior to HHP (1.4%), but the change in this metric during HHP was not significant. For SPA 2 enrollees, there were no significant changes in this metric before or during HHP, and compared to control groups, neither SPA 1 nor SPA 2 had any significant changes in this metric.

Exhibit 60: Trends in Engagement of Alcohol and Other Drug Abuse or Dependence Treatment Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.4%*	-0.9%	-2.3%*	
	Control Group	1.4%*	-1.5%*	-2.9%*	0.6%
SPA 2	HHP Enrollees	0.8%	-2.2%	-3.1%*	
	Control Group	0.9%	-3.4%*	-4.3%*	1.2%
Overall	HHP Enrollees	1.2%*	-1.3%	-2.6%*	
	Control Group	1.2%*	-2.2%*	-3.4%*	0.8%

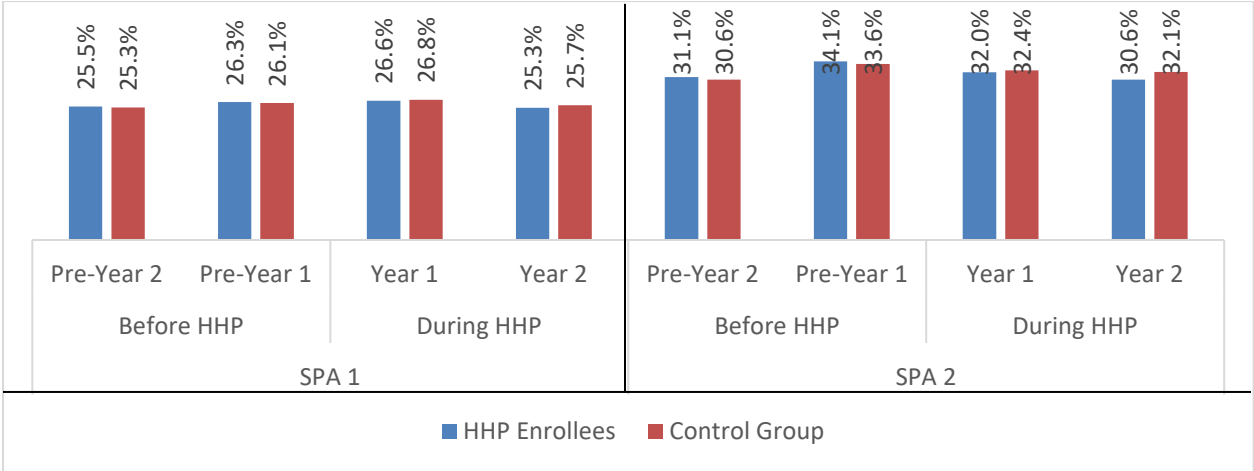
Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Initiation of AOD Abuse or Dependence Treatment is an HHP core metric that measures the percentage of individuals aged 13 and older with a new episode of AOD abuse or dependence in the measurement year who received initiation of treatment within 14 days of the diagnosis.

Use of Pharmacotherapy for Opioid Use Disorder

Use of Pharmacotherapy for Opioid Use Disorder is an HHP core metric that measures the percentage of beneficiaries aged 18 to 64 with an opioid use disorder (OUD) who filled a prescription or were administered a medication for the disorder during the measurement year. The intended direction of the metric and DD is increase.

Exhibit 61 does not show a change in this metric for SPA 1 or SPA 2 enrollees and their control groups during HHP. There were also no significant differences in changes for SPA 1 and SPA 2 enrollees when compared with their control groups.

Exhibit 61: Trends in Use of Pharmacotherapy for Opioid Use Disorder Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	0.9%*	-1.3%	-2.2%*	
	Control Group	0.9%*	-1.1%*	-1.9%*	-0.3%
SPA 2	HHP Enrollees	3.0%*	-1.4%	-4.4%*	
	Control Group	3.0%*	-0.3%	-3.3%*	-1.1%
Overall	HHP Enrollees	1.5%*	-1.4%*	-2.9%*	
	Control Group	1.5%*	-0.8%	-2.4%*	-0.5%

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Use of Pharmacotherapy for Opioid Use Disorder is an HHP core metric that measures the percentage of beneficiaries aged 18 to 64 with an opioid use disorder (OUD) who filled a prescription or were administered a medication for the disorder during the measurement year.

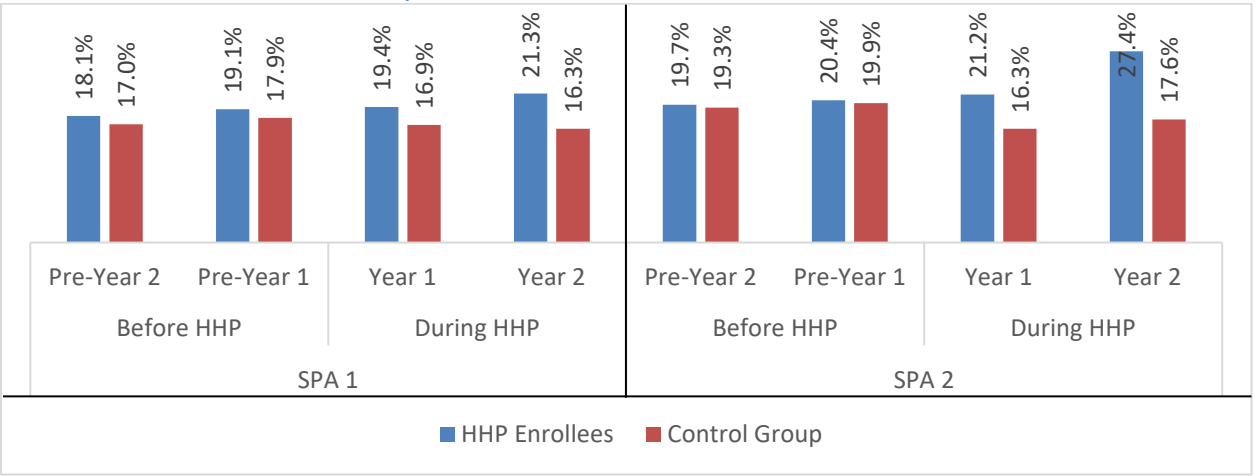
HHP Outcome Metrics

Trends in three HHP specified metrics were examined on an annual basis.

Controlling High Blood Pressure

Controlling High Blood Pressure is an HHP core metric that measures the percentage of beneficiaries aged 18 to 85 who had a diagnosis of hypertension and whose blood pressure was adequately controlled during the measurement year. The intended direction is increase. Exhibit 62 shows that there was a significant increase in SPA 1 HHP enrollees with controlled high blood pressure both before HHP (1.0%) and from Pre-Year 1 to HHP Year 1 (1.9%). Similar trends were observed for SPA 2 for whom there was a significant increase in this metric from Pre-Year 1 to HHP Year 1 (6.2%). Both SPA 1 and SPA 2 enrollees showed an increase in this metric that was significantly greater than that of the control groups, by 2.5% and 4.8% respectively (DD).

Exhibit 62: Trends in Controlling High Blood Pressure Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.0%*	1.9%*	1.0%*	
	Control Group	0.9%*	-0.6%*	-1.5%*	2.5%*
SPA 2	HHP Enrollees	0.6%	6.2%*	5.6%*	
	Control Group	0.6%	1.3%*	0.7%	4.8%*
Overall	HHP Enrollees	0.9%*	2.7%*	1.8%*	
	Control Group	0.9%*	-0.2%	-1.1%*	2.9%*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP –

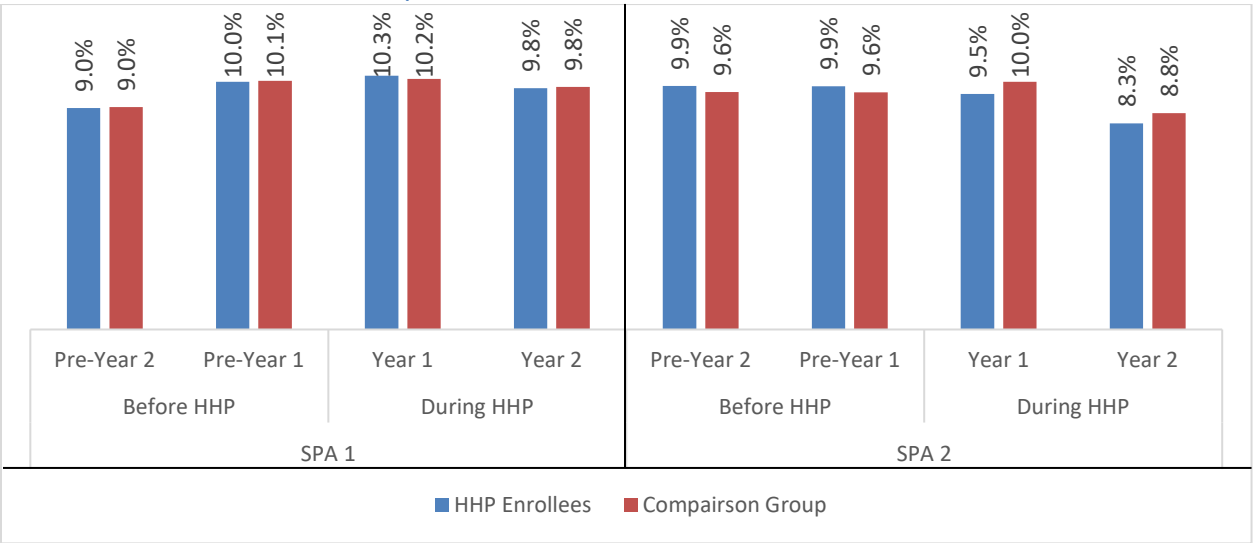
Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Controlling High Blood Pressure is an HHP core metric that measures the percentage of beneficiaries aged 18 to 85 who had a diagnosis of hypertension and whose blood pressure was adequately controlled during the measurement year.

Plan All-Cause Readmission

Plan All-Cause Readmission is an HHP core metric that measures the percentage of acute inpatient and observation stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days for beneficiaries ages 18 to 64. The intended direction is decrease.

Exhibit 63 shows that readmission rates did not significantly change during HHP and the change in rate from before HHP was only significantly different for SPA 1 enrollees (-1.56%). Neither SPA 1 nor SPA 2 enrollees had significantly greater changes in the rates from before to during HHP when compared to the control group.

Exhibit 63: Trends in Plan All-Cause Readmission Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	1.1%*	-0.5%	-1.6%*	
	Control Group	1.1%*	-0.3%	-1.4%*	-0.2%
SPA 2	HHP Enrollees	0%	-1.2%	-1.2%	
	Control Group	0%	-1.3%*	-1.3%*	0.1%
Overall	HHP Enrollees	0.8%*	-0.7%	-1.5%*	
	Control Group	0.8%*	-0.6%*	-1.4%*	-0.1%

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). Plan All-Cause Readmission is an HHP core metric that measures the percentage of acute

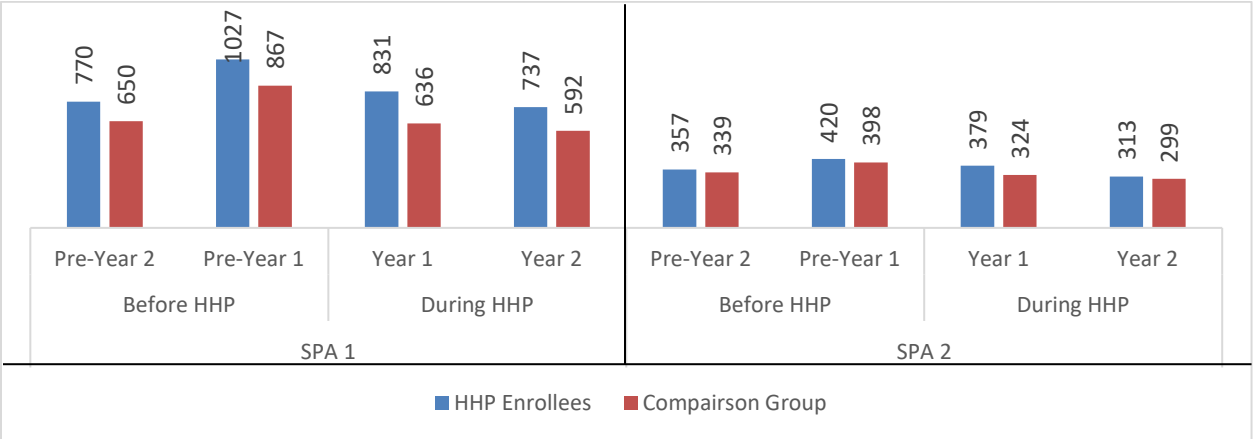
inpatient and observation stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days for beneficiaries ages 18 to 64.

Prevention Quality Indicator (PQI) 92: Chronic Conditions Composite

PQI 92 is an HHP core metric that measures the number of inpatient hospital admissions for ambulatory care sensitive chronic conditions per 100,000 member months for individuals aged 18 and older. The intended direction of the metric and DD is decrease.

Exhibit 64 shows that PQI was significantly increasing before HHP for SPA 1 and SPA 2 enrollees. The rates then declined significantly during HHP for both SPA 1 and SPA 2 enrollees. SPA 1 rates declined significantly from before to during HHP compared to the control group (-90, DD), but SPA 2 rates did not decline more compared to the control group.

Exhibit 64: Trends in Prevention Quality Indicator (PQI) 92: Chronic Conditions Composite Before and During HHP by SPA for HHP Enrollees and the Control Group as of December 31, 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	257*	-95*	-351*	
	Control Group	217*	-44*	-261*	-90*
SPA 2	HHP Enrollees	63*	-65*	-128*	
	Control Group	59*	-25	-85*	-43
Overall	HHP Enrollees	209*	-87*	-296*	
	Control Group	178*	-39*	-217*	-79*

Source: Medi-Cal claims data from July 1, 2016 through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (Pre-Year 1 – Pre-Year 2). Change During HHP is calculated as: (Year 2 – Year 1). Difference between changes is calculated as: (Change During HHP – Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group). PQI 92 is an HHP core metric that measures the number of inpatient hospital admissions for ambulatory care sensitive chronic conditions per 100,000 member months for individuals aged 18 and older.

Estimated Medi-Cal Payments among HHP Enrollees and HHP Costs

This section addresses the following HHP evaluation questions:

1. Did Medi-Cal expenditures for health services decline after HHP implementation?
2. Did Medi-Cal expenditures for needed outpatient services increase?

UCLA calculated estimated payments for all services provided to HHP enrollees and the control group before HHP and during HHP using Medi-Cal claims and encounter data. Payments were estimated by creating mutually exclusive categories of service and attributing a fee to each Medi-Cal claim in that category (Appendix A: Attributing Estimated Medi-Cal Payments to Claims). This methodology allowed UCLA to estimate payments for HHP enrollees and the control group before each enrollee's HHP enrollment and during HHP and assess if payments for HHP enrollees declined more than for the control group using the DD methodology. UCLA developed DD models to measure changes in total estimated payments and in specific categories of services including ED visits, hospitalizations, outpatient medication, and outpatient services.

UCLA examined changes in six month increments up to 24 months (1-6, 7-12, 13-18, and 19-24) before HHP enrollment and up to 24 months (1-6, 7-12, 13-18, and 19-24) during HHP. The DD analysis measured the change from 19-24 vs. 1-6 months before HHP for both HHP enrollees and the control group; the change during HHP from 1-6 to 19-24 months for both HHP enrollees and the control group; and the difference between the changes in HHP enrollees vs. the control group. The shorter timeframe for examining payments allowed for a clearer assessment of change during the early phase of HHP implementation. The findings were not subject to potential seasonality in service utilization due to rolling enrollment throughout the year and measuring change following the date of enrollment per beneficiary.

The payment amounts reported in this section are estimates and are not equivalent to overall Medi-Cal expenditures for multiple reasons, including significant differences between this attribution methodology vs. per member per month payments to managed care plans for enrolled beneficiaries. These estimated payments are primarily intended to compare change in trends between HHP enrollees and the control group. See (Appendix A: Data Sources and Methods) for further detail and limitations.

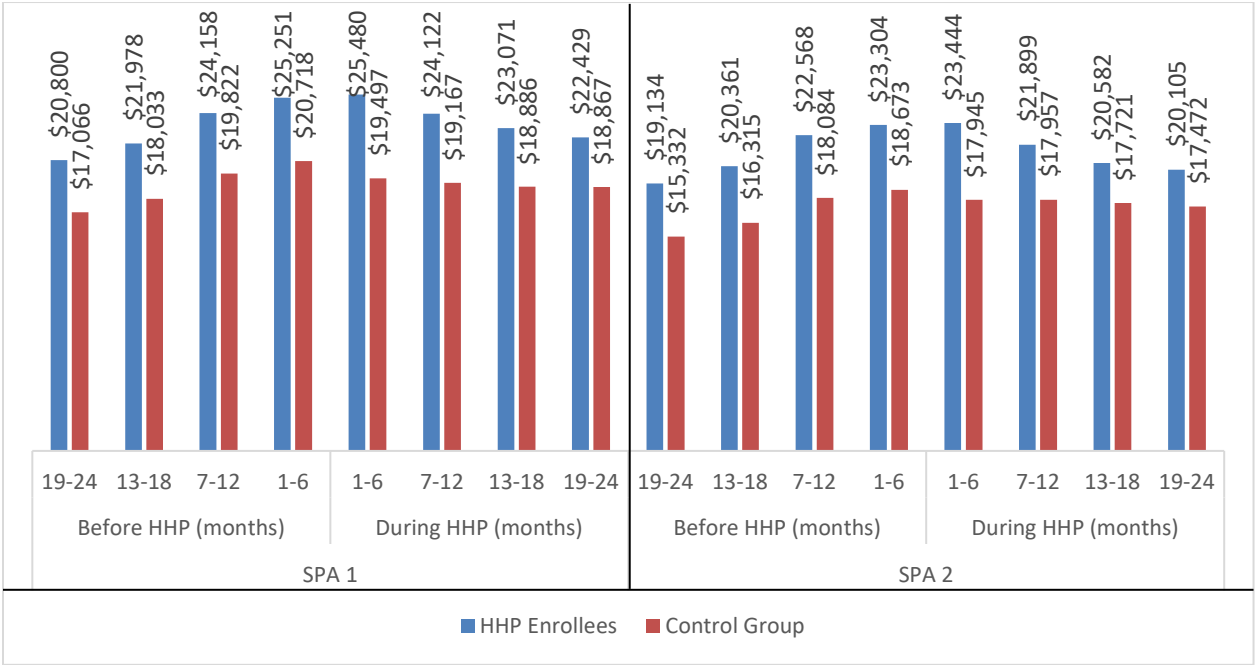
Estimated Payments for HHP Services

Total Estimated Medi-Cal Payments

UCLA measured total estimated Medi-Cal payments before and during HHP. The payment estimates were generated using the methodology described above and detailed further in the Appendix A. These estimates are intended for measuring whether HHP led to efficiencies and do not represent actual Medi-Cal expenditures for HHP enrollees. Examples of Medi-Cal expenditures include inpatient and outpatient services, pharmaceuticals, imaging and laboratory services, behavioral health services, and long-term care stays.

Exhibit 65 shows that total estimated payments were significantly increasing for SPA 1 ($1,484 per beneficiary per year) and for SPA 2 ($1,390) before HHP. The total estimated payments declined during HHP by $1,017 and $1,113 per beneficiary per year for SPA 1 and SPA 2 enrollees, respectively. Compared to control groups, the decrease in payments from before HHP to during HHP was significantly greater for both SPA 1 and SPA 2, by $1,074 (DD) and $1,232 (DD) per beneficiary per year, respectively.

Exhibit 65: Trends in Total Estimated Payments per Beneficiary per Year Before and During HHP by SPA as of December 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$1,484*	-$1,017*	-$2,501*	-$1,074*
	Control Group	$1,217*	-$210*	-$1,427*	
SPA 2	HHP Enrollees	$1,390*	-$1,113*	-$2,503*	-$1,232*
	Control Group	$1,114*	-$158*	-$1,271*	
Overall	HHP Enrollees	$1,460*	-$1,041*	-$2,501*	-$1,113*
	Control Group	$1,191*	-$197*	-$1,388*	

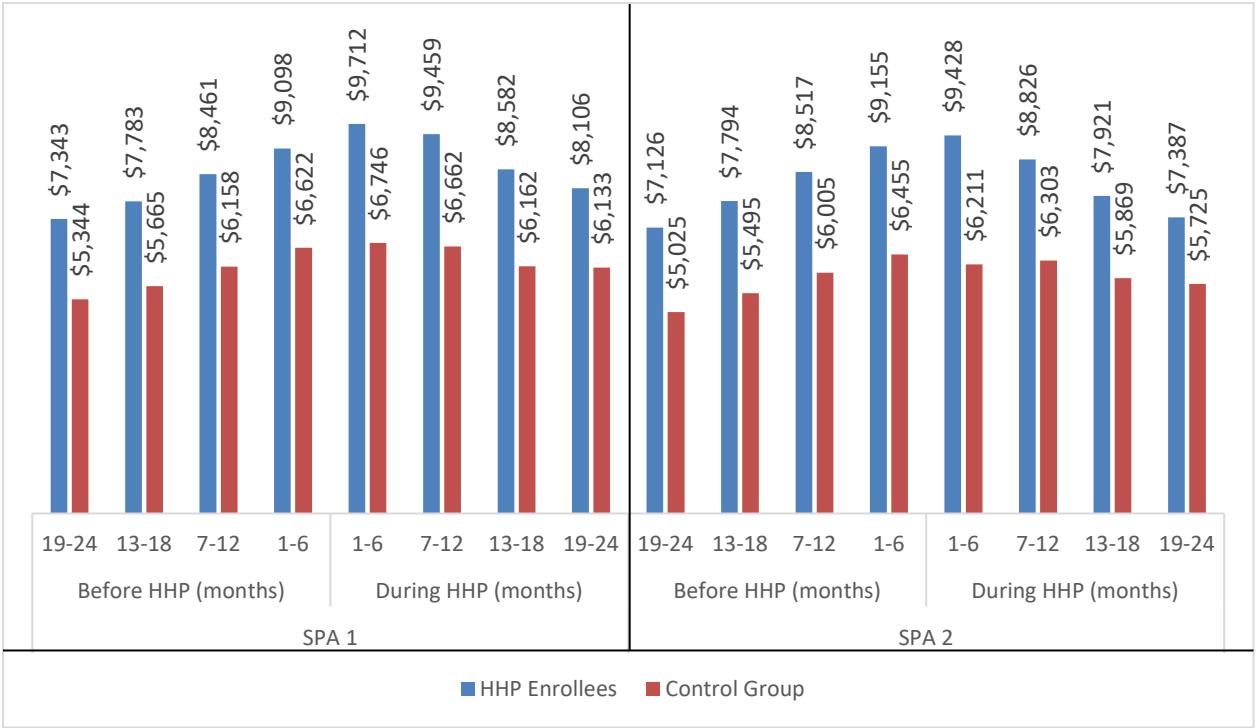
Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Outpatient Services

UCLA estimated Medi-Cal payments for outpatient services. Payments for outpatient services are likely to increase due to unmet need and increased access to these services, but payments are likely to decrease once health needs are addressed and service use declines. Exhibit 66 shows that after an initial increase at the start of HHP, estimated payments decreased significantly for SPA 1 and SPA 2 enrollees during HHP. Compared to control groups, the

decrease in payments from before HHP to during HHP was significantly greater for both SPA 1 and SPA 2, by $490 (DD) and $718 (DD) per beneficiary per year, respectively.

Exhibit 66: Trends in Payments per Beneficiary per Year for Outpatient Services Before and During HHP by SPA as of December 2021



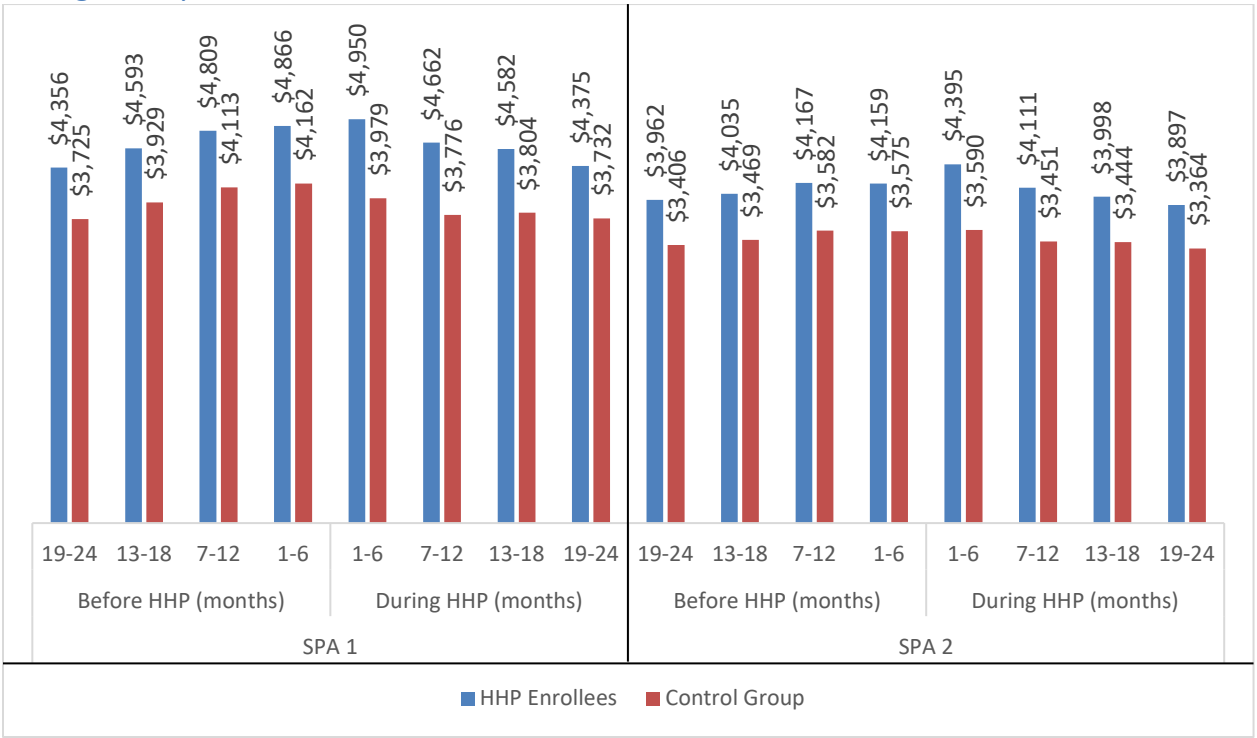
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$585*	-$535*	-$1,120*	-$490*
	Control Group	$426*	-$204*	-$630*	
SPA 2	HHP Enrollees	$676*	-$680*	-$1,356*	-$718*
	Control Group	$477*	-$162*	-$639*	
Overall	HHP Enrollees	$608*	-$572*	-$1,179*	-$547*
	Control Group	$99*	$322*	-$427*	

Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Outpatient Medication

UCLA estimated Medi-Cal payments for outpatient medication. Payments for outpatient medication are likely to increase due to unmet need and increased access to these medications, but payments are likely to stabilize or decrease once health needs are addressed. Exhibit 67 shows a significant increase in estimated payments during the first 6 months of HHP for both SPA 1 and SPA 2, followed by a decrease in payments for the remainder of HHP implementation. Compared to control groups, the decrease in payments from before HHP to during HHP was significantly greater for both SPA 1 and SPA 2, by $134 (DD) and $100 (DD) per HHP enrollee per year, respectively.

Exhibit 67: Trends in Outpatient Medication Payments per Beneficiary per Year Before and During HHP by SPA as of December 2021



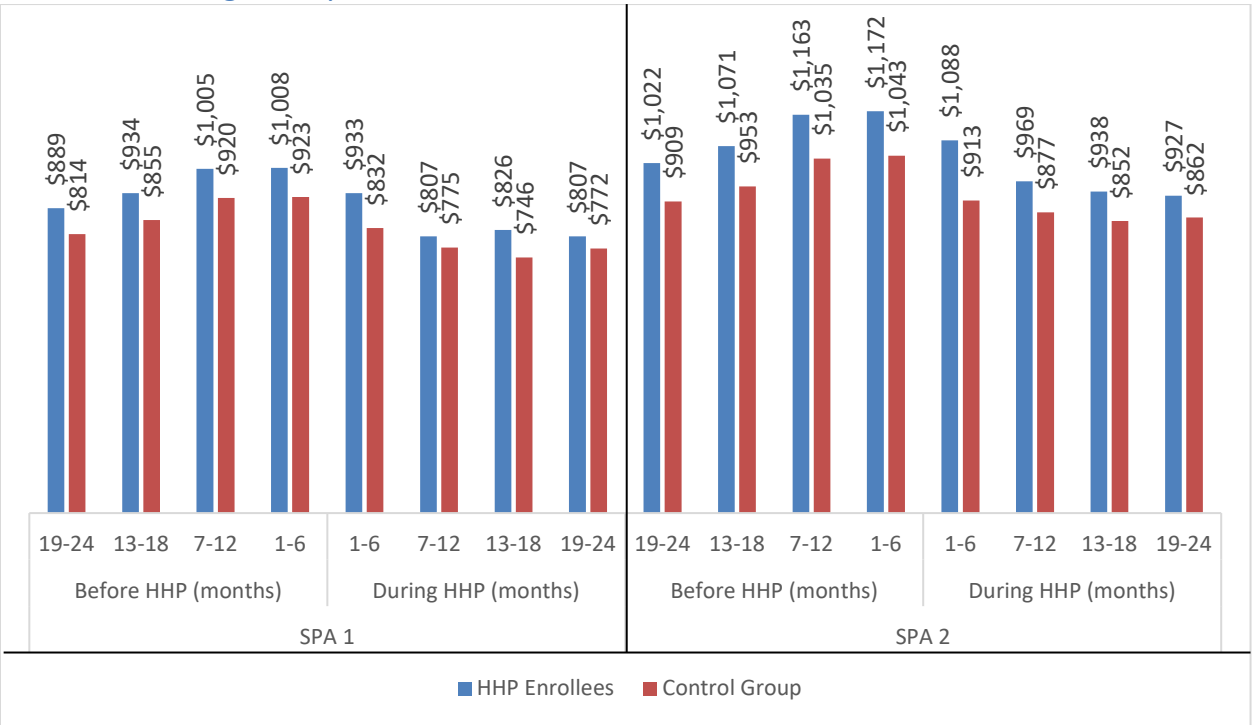
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$170*	-$192*	-$362*	-$134*
	Control Group	$146*	-$82*	-$228*	
SPA 2	HHP Enrollees	$66*	-$166*	-$232*	-$100*
	Control Group	$56*	-$75*	-$132*	
Overall	HHP Enrollees	$144*	-$185*	-$329*	-$126*
	Control Group	$22*	$109*	-$256*	

Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Emergency Department Visits

UCLA estimated Medi-Cal payments for emergency department (ED) visits. Exhibit 68 shows that these estimated payments were increasing significantly before HHP for both SPA 1 (by $39 per beneficiary per year) and for SPA 2 ($50). During HHP, the estimated payments for ED visits decreased by $42 and $54 per SPA 1 and SPA 2 enrollee per year, respectively. For one six-month period, estimated payments for ED visits increased for SPA 1, after which they continued to decline. Compared to control groups, the decrease in payments from before HHP to during HHP was significantly greater for both SPA 1 and SPA 2, by $25 (DD) and $43 (DD) per beneficiary per year, respectively.

Exhibit 68: Trends in Payments for Emergency Department Visits per Beneficiary per Year Before and During HHP by SPA as of December 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$39*	-$42*	-$81*	-$25*
	Control Group	$36*	-$20*	-$56*	
SPA 2	HHP Enrollees	$50*	-$54*	-$104*	-$43*
	Control Group	$45*	-$17*	-$61*	
Overall	HHP Enrollees	$42*	-$45*	-$87*	-$30*
	Control Group	$4*	$34*	-$65*	

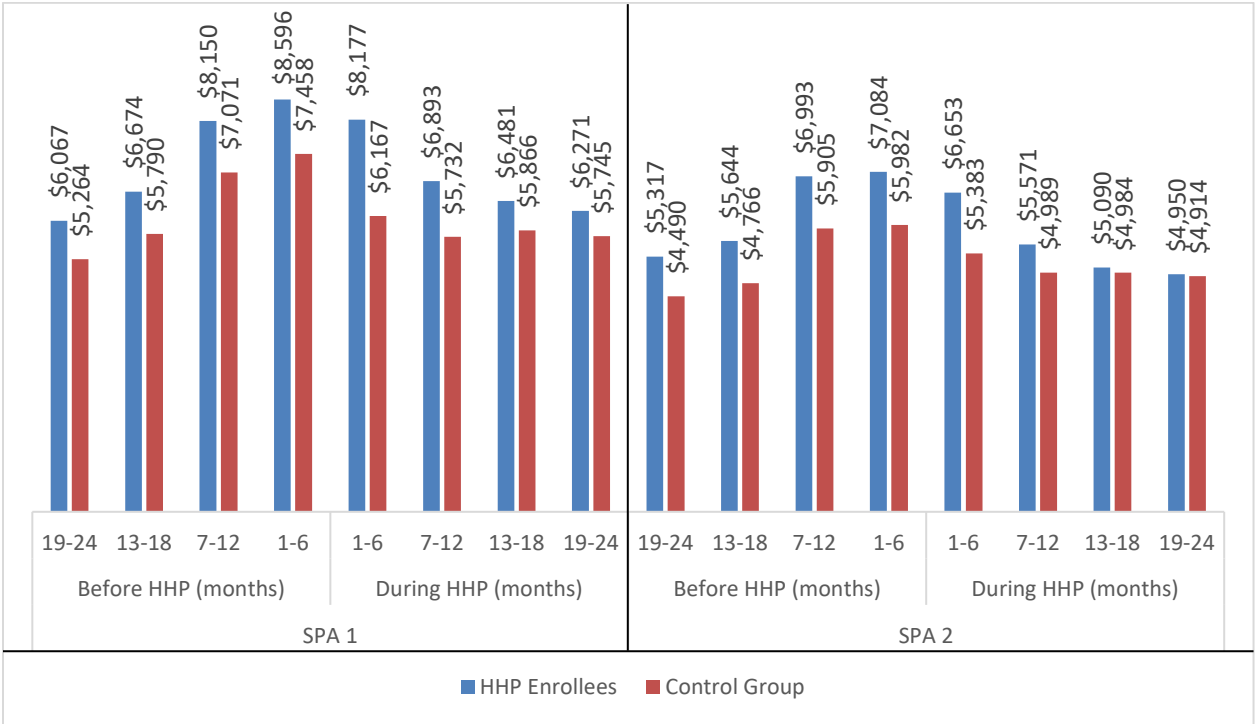
Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance

use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Hospitalizations

UCLA estimated Medi-Cal payments for hospitalizations. Exhibit 69 shows that the estimated payments for hospitalization declined significantly for SPA 1 (by $1,478 per beneficiary per year) and for SPA 2 ($1,157) enrollees from before HHP to during HHP. Compared to control groups, the decrease in payments from before HHP to during HHP was significantly greater for both SPA 1 and SPA 2, by $606 (DD) and $503 (DD) per HHP enrollee per year, respectively.

Exhibit 69: Trends in Payments for Hospitalizations per Beneficiary per Year Before and During HHP by SPA as of December 2021



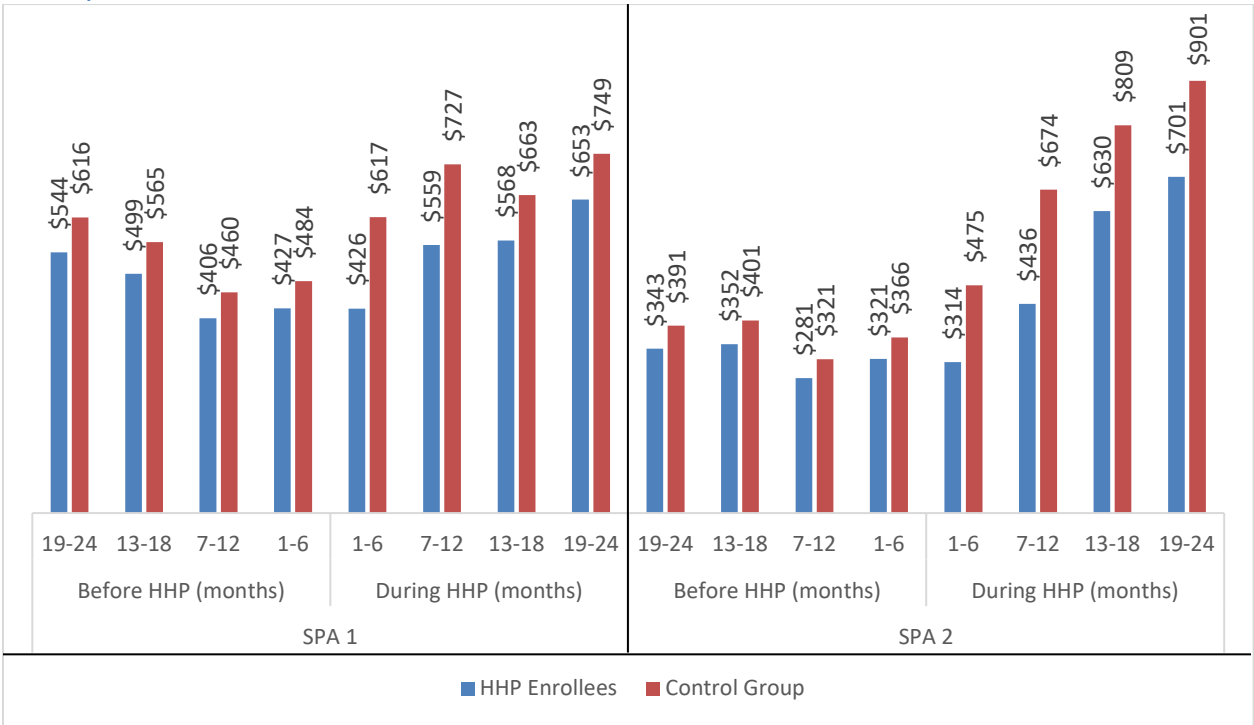
		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$843*	-$635*	-$1,478*	-$606*
	Control Group	$731*	-$141*	-$872*	
SPA 2	HHP Enrollees	$589*	-$568*	-$1,157*	-$503*
	Control Group	$497*	-$156*	-$654*	
Overall	HHP Enrollees	$780*	-$618*	-$1,398*	-$580*
	Control Group	$673*	-$145*	-$817*	

Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Long Term Care

UCLA estimated Medi-Cal payments for long term care services. Exhibit 70 shows that before HHP the estimated payments for long term care were decreasing for both SPA 1 (by $39 per beneficiary per year) and SPA 2 ($7). About a year before HHP implementation, payments began to increase for both SPA 1 and SPA 2. Payments continued to increase after HHP implementation for SPA 1 (by $76 per beneficiary per year) and SPA 2 ($129). Compared to control groups, the increase in payments from before HHP to during HHP was significantly greater for SPA 1 (by $26, DD) and significantly less for SPA 2 (by $14, DD) per beneficiary per year, respectively.

Exhibit 70: Trends in Payments for Long Term Care per Beneficiary per Year Before and During HHP by SPA as of December 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	-$39*	$76*	$115*	
	Control Group	-$44*	$44*	$89*	$26*
SPA 2	HHP Enrollees	-$7*	$129*	$136*	
	Control Group	-$8*	$142*	$150*	-$14*
Overall	HHP Enrollees	-$31*	$89*	$120*	
	Control Group	-$35*	$69*	$104*	$16*

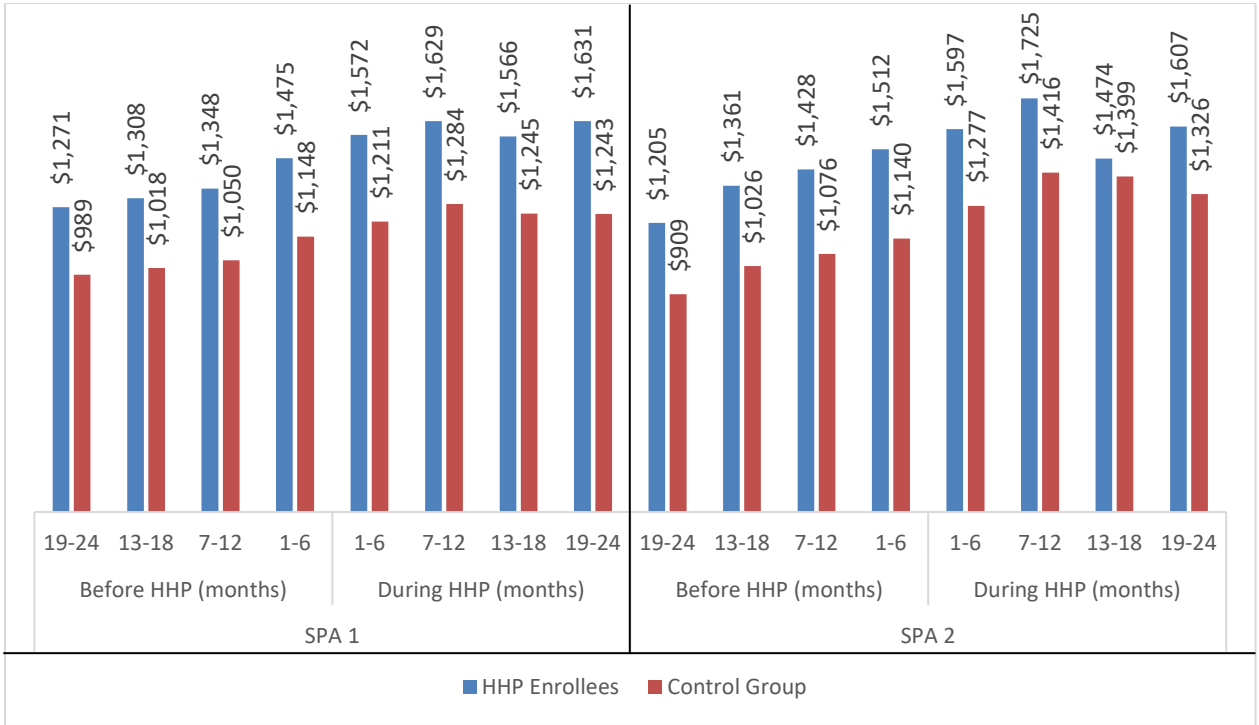
Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.
Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

Estimated Payments for Residual Costs

UCLA estimated Medi-Cal payments for residual costs.

Exhibit 71 shows that for both SPA 1 and SPA 2 estimated payments for residual costs were increasing in the years leading up to HHP and continued to increase for a year after HHP implementation. One year after HHP implementation, payments decreased and subsequently increased again. Overall, payments for residual costs increased before HHP for both SPA 1 (by 68$ per beneficiary per year) and SPA 2 ($102), and also increased after HHP for both SPA 1 (by 19$ per beneficiary per year) and SPA 2 ($4). Despite this, compared to control groups, the increase in payments from before HHP to during HHP was significantly lower for both SPA 1 and SPA 2 by $6 (DD) and $38 (DD) per beneficiary per year, respectively.

Exhibit 71: Trends in Residual Costs per Beneficiary per Year Before and During HHP by SPA as of December 2021



		Change Before HHP	Change During HHP	Difference Between Changes	Difference-in-Difference (DD)
SPA 1	HHP Enrollees	$68*	$19*	-$49*	
	Control Group	$53*	$11*	-$42*	-$6*
SPA 2	HHP Enrollees	$102*	$4*	-$99*	
	Control Group	$77*	$16*	-$61*	-$38*
Overall	HHP Enrollees	$77*	$15*	-$61*	
	Control Group	$59*	$12*	-$47*	-$14*

Source: Medi-Cal claims data from July 1, 2016, through December 31, 2021.

Notes: * Denotes p≤0.05, a statistically significant difference. SPA 1 includes enrollees with chronic conditions and substance use disorders. SPA 2 includes enrollees with severe mental illness. Change Before HHP is calculated as: (1 – 6 months before HHP minus 19 – 24 months before HHP divided by 3). Change During HHP is calculated as: (19 – 24 months during HHP minus 1 – 6 months during HHP divided by 3). Difference between changes is calculated as: (Change During HHP –Change Before HHP). Difference-in-difference is calculated as: (Difference between changes for HHP enrollees – Difference between changes for control group).

HHP Program Expenditures

UCLA examined HHP supplemental payments based on per-member per-month (PMPM) rates to participating MCPs and calculated the estimated total and average per-enrollee HHP expenditures per month from July 1, 2018, to December 31, 2021. PMPM payments varied by MCP and county and were changed each fiscal year. PMPM rates were higher at the start of the

program to account for anticipated start-up costs and were lowered as the program went on. Rates were consistently lower for enrollees covered by both Medicare and Medi-Cal (Duals) compared to those covered by Medi-Cal only.

Exhibit 72 shows that by December 2021 estimated HHP expenditures totaled $403,910,020 and the average expenditure per enrollee per month was $383. The overall estimated expenditures for duals were lower ($9,532,186) than those covered by Medi-Cal only ($394,377,834), and the average monthly per person expenditures were lower as well ($106 for duals, $409 for Medi-Cal only). Group 4 had the highest average expenditure per enrollee per month ($483), while Group 1 had the lowest ($315).

Exhibit 72: Estimated HHP Supplemental Expenditures by Enrollees Type and Implementation Group, as of December 31, 2021

		Total Cumulative Expenditures	Average Expenditure per Enrollee per Month
Total HHP	**Overall**	**$403,910,020**	**$383**
	Group 1	$5,973,141	$315
	Group 2	$90,479,958	$323
	Group 3	$300,208,947	$405
	Group 4	$7,247,975	$483
Duals	**Overall**	**$9,532,186**	**$106**
	Group 1	$191,940	$89
	Group 2	$1,144,353	$102
	Group 3	$8,126,738	$107
	Group 4	$69,156	$116
Medi-Cal only	**Overall**	**$394,377,834**	**$409**
	Group 1	$5,781,201	$344
	Group 2	$89,335,605	$333
	Group 3	$292,082,209	$439
	Group 4	$7,178,819	$499

Source: UCLA Analysis of MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021. Per-member, per-month rates by MCP and dual-status were provided by the California Department of Health Care Services.

Conclusions and Implications

Conclusions

The findings in this report build on the earlier progress under HHP included in the first interim and second interim evaluation reports. The earlier reports described MCP implementation plans and approaches to creation of CB-CME networks by MCPs; delivery of HHP services; enrollment size; health and utilization profile of HHP enrollees prior to enrollment; and initial utilization, process, outcome, and cost outcomes. This final summative report highlighted the status of HHP as of December 30, 2021 when the program was transitioned to Enhanced Care Management (ECM) and Community Supports (CS) programs under the California Advancing and Innovating Medi-Cal (CalAIM) initiative.

HHP Implementation and Infrastructure

The first interim report highlighted evidence that MCPs in all HHP counties participated and had developed comprehensive plans to build the needed infrastructure and deliver HHP services as required by HHP. MCPs further built a diverse network of CB-CMEs using mainly primary care providers as CB-CMEs as preferred by HHP. The second interim report and this final report further indicated a substantial growth in CB-CME networks over time to increase capacity commensurate with growth in enrollment. Assessment of the composition of CB-CME networks and patterns of growth suggested inclusion of organizations that were likely to be responsive to the needs of enrollees.

HHP and COVID-19

The second interim report indicated that the onset of the COVID-19 pandemic and subsequent statewide shelter in place order in mid-March 2020 led to programmatic and enrollment changes. The assessment of the impact of the pandemic on HHP in that report highlighted the changes in the ability of MCPs to enroll and their contracted CB-CMEs to provide HHP services. However, some of this impact was mitigated by MCP efforts to adapt workflows and increase telehealth capacity. Analysis of claims data in this report indicated that providers continued to provide services through telehealth and the burden of COVID-19 diagnosis on service use was similar between HHP enrollees and the control group, allowing for an unbiased measurement of the role of HHP in health care delivery and outcomes of care.

HHP Enrollment and Enrollment Patterns

MCPs collectively succeeded in enrolling a substantial number of high-need high-cost beneficiaries in HHP, commensurate with the service delivery capacity of the CB-CMEs in their network. The greater enrollment in SPA 1, which represented enrollees with a medically complex profile and a subset with substance use disorders, reflected in part the phased approach to enrollment by SPA and lower prevalence of enrollees with serious mental health conditions that were eligible for SPA 2 enrollment. Nevertheless, MCPs succeeded in enrolling significantly more SPA 2 enrollees as well as beneficiaries experiencing homelessness over time.

Examining how enrollees were identified indicated that while MCPs used the TEL for most enrollees, they also used other methods for identifying eligible beneficiaries that were not in the TEL. This approach was consistent with DHCS expectations as there was a six-month lag in availability of TEL and MCPs were more likely to have more recent utilization data or electronic medical records that included more comprehensive demographic and health status data.

The continuous enrollment of most HHP enrollees likely reflected the continuous need for HHP services as well as the success of MCPs or CB-CMEs in engaging HHP enrollees in care. This was consistent with the sustained growth among both enrollees with multiple chronic conditions and substance use disorders in SPA 1, and those with serious mental illness in SPA 2. The complex nature of many HHP enrollees likely required continuous delivery of HHP services to maintain their health through coordination of their care and supportive services that prevent use of acute care.

HHP Enrollee Demographics and Health Status

The health status of HHP enrollees was consistent with the chronic condition criteria set by the program in order to target high-need high-cost beneficiaries. The demographic differences between SPA 1 and SPA 2 enrollees were also consistent with prevalence of medical complexity, substance use disorders, and serious mental illness given age and gender. Further assessment of health conditions of enrollees confirmed higher prevalence of a complex combination of medical conditions such as chronic renal disease, chronic liver disease, and traumatic brain injury among SPA 1 and higher prevalence of depression among SPA 2 enrollees, consistent with the aims of the program. Overall data indicated that MCPs successfully enrolled high-need Medi-Cal beneficiaries who may have benefited the most from HHP services.

HHP Service Utilization among HHP Enrollees

There were gaps in availability of data on HHP service use associated with challenges of CB-CMEs in reporting services they provided to MCPs and an improvement in reporting by the end

of HHP. The higher frequency of delivery of HHP core services in-person likely reflected the needs of HHP enrollees who may have been home-bound, had transportation and mobility barriers, or required assessment of their home environment. The more frequent use of non-clinical staff likely reflected the higher need for navigation services, care coordination, transportation, or health education for better self-care. The successes reported by MCPs in linking enrollees experiencing homelessness and housing some of them may also have been due to the use of non-clinical staff to help engage these enrollees.

HHP Outcomes

Core Performance Metrics

Assessment of core metrics showed success in one process (Adult BMI screening) and one outcome (controlling high blood pressure) overall, with greater gains among SPA 2 enrollees. Information on the mechanisms by which MCP or CB/CMEs succeeded to improve these metrics is not available in the existing evaluation data. Likely mechanisms to promoting process and outcome metrics by MCPs may have been financial incentives in contractual agreements by CB/CMEs, which may have resulted in increasing quality improvement efforts by these organization that included identifying champions to train and encourage providers to follow practice guidelines or included community health workers in provider teams to engage enrollees in self-care.

Gains were reported for some other core process metrics associated with mental illness and substance use treatment; however, they were not greater than that of the control group. Therefore, gains could not be attributed to HHP but progress had occurred. The reasons for lack of greater gains or lack of change in these metrics may have been because of general challenges of engaging these populations in treatment, particularly for those who also have SMI. Lack of greater gains in other outcome metrics such as readmissions and long-term admissions from the community may have been due to the continuing decline in health of the most complex beneficiaries that were not responsive to HHP or other medical interventions.

Health Care Utilization and Associated Payments

Despite the mixed findings in core metrics described above, ED visits and hospitalizations, two important core metrics of HHP, improved consistent with the goals of the program. These declines further extended to nearly all service categories suggesting that HHP enrollees were utilizing more care than was appropriate and provision of non-clinical HHP services reduced the need for avoidable outpatient and ED visits and hospitalization. This may have been accomplished by better assessment of patients medical, behavioral, and social needs soon after enrollment and directing patients to appropriate providers who could provide the needed care

sooner. These assertions were consistent with early increases in utilization of most services, particularly primary care, in the first 6 months of enrollment and a decline in most service use categories afterwards. These conclusions are also aligned with differences in the patterns of change by SPA, where HHP services addressed the different needs of SPA 1 and SPA 2 enrollees. For example, the greater declines in mental health and substance use disorders services among SPA 2 enrollees may have been due to improvements in their status that reduced the need for more frequent visits.

The assessment of the payments associated with service categories above further suggested that decline in service utilization may have been accompanied by a reduction in intensity of care needed or received by HHP enrollees. The greater decline in payments for outpatient services, outpatient medications, and hospitalizations may have been because of better management of care avoided more serious consequences of undiagnosed or untreated conditions.

Implications

Overall, the evaluation findings highlighted the potential impact of providing non-clinical services to high-cost high-need Medi-Cal beneficiaries and what outcomes may be expected as a consequence of this approach to population health management. The findings implied that assessment of enrollees with complex conditions and high utilization of care is likely to result in initial increase of utilization and costs in the short term but a greater reduction over time.

HHP enrollees were transitioned to ECM and CS programs under the CalAIM initiative. The provision of ECM benefit and CS services was delegated to MCPs that were required to build and maintain a provider network to deliver these non-clinical services and report performance metrics to DHCS.

The HHP evaluation did not include a detailed assessment of how MCPs implemented the program and how CB-CMEs delivered care. Despite this limitation, HHP evaluation findings have implications for ECM and CS based on important elements of the program including relatively standard criteria for identification of high-need high-cost eligible beneficiaries and delivery of HHP services by primary care providers and other organization with knowledge and expertise in how to address complexities such as serious mental illness and homelessness. Further research is required to fully understand whether MCPs set CB-CMEs performance criteria and what incentives they used; what were MCP responses and course corrections to high and low CB-CME performance; what were CB-CME approaches to delivery of HHP services to enrollees and associated challenges and successes; and what types of CB-CMEs that achieved greater success in outcomes than others.

In the context of ECM and CS programs, it is important to obtain a greater understanding of MCP contracting arrangements, incentives to providers, and MCP responses to low performance. It is also important to ensure reporting and subsequent availability of information on how providers delivery ECM including intensity of the effort depending on enrollee complexity. Given the complexity of the populations eligible for these programs, it is essential to consider less traditional outcomes such as quality of life and wellbeing, particularly when disease progression can mask other less tangible benefits of better managing patient care.

Appendix A: Data Sources and Analytic Methods

Readiness Documents

UCLA used the readiness documents from 16 MCPs submitted to DHCS to report on MCP implementation of HHP. In these readiness documents, MCPs reported on topics including organizational model, staffing, health information technology, HHP services, HHP network, and HHP operations.

Analytic Methods

UCLA reviewed all readiness documents to answer the UCLA evaluation questions detailed in Exhibit 73**Error! Reference source not found.**. MCPs varied in the level of detail in their documents. UCLA identified and tabulated relevant information to the extent possible given this variation by MCP. Information from readiness documents were cross-checked with other data including MPC Quarterly HHP Reports to improve accuracy when possible.

Exhibit 73: Evaluation Questions and Data Sources

Evaluation Question	Location in Readiness Documents
1. Which HHP network model was employed?	Organizational Model
2. What was the composition of HHP networks?	Organizational Model MCP Duties/Responsibilities
3. What types of staff provide HHP services?	Organizational Model Staffing
4. What was the data sharing approach?	Health Information Technology/Data and Information Sharing
5. What was the approach to targeting patients for enrollment into HHP?	Member Engagement Member Notices Risk Grouping Housing Services

Source: UCLA Health Homes Program Evaluation Design, 2019.

Limitations

The MCP readiness documents represented MCP plans for HHP implementation and may not reflect the final implementation approach by MCPs. Several MCPs submitted periodically revised readiness documents during HHP implementation. These documents included drafts, revisions, and communications with DHCS regarding further revisions and/or clarifications. In addition, MCPs provided variable amounts of detail on planned implementation, which may have led to a limited understanding of MCPs' final approach.

The MCPs maximum estimated HHP enrollment overall and by CB-CME in readiness documents and their responsibilities are unlikely to align with actual quarterly enrollment data.

Enrollment Reports and MCP Quarterly Reports

UCLA used MCP Enrollment Reports and Quarterly HHP Reports to analyze HHP enrollment. Enrollee-level HHP enrollment data was only available in MCP Enrollment Reports prior to July 2019. All four MCPs (Anthem Blue Cross of California Partnership Plan, San Francisco Health Plan, Inland Empire Health Plan, and Molina Healthcare of California Partner Plan) that implemented HHP by July 2019 submitted an Enrollment Report to DHCS in August 2019, covering the period of July 1, 2018 to June 30, 2019. All MCPs submitted Quarterly HHP Reports during the time they had implemented HHP from July 1, 2018 to December 31, 2021. Starting in July 2019, MCP Quarterly HHP Reports included enrollee-level data on both enrollment, homelessness, and housing status.

These two data sources had some differences, which resulted in UCLA only being able to analyze enrollment at a monthly level. Staggered implementation of the program by county resulted in MCPs with different reporting lengths. Homeless and housing statuses on an enrollee-level were examined quarterly, from July 1, 2019 when enrollee-level homeless data was first reported, through December 31, 2021.

Analytic Methods

Exhibit 74 shows the enrollment data obtained from these reports. Monthly enrollment data from the MCP Enrollment Reports and Quarterly HHP Reports were combined to determine monthly enrollment status by individual enrollee. If there were conflicting data for individual enrollees between the two data sources, UCLA used the more recent data from the Quarterly HHP Reports. Forty-three enrollees that switched counties or plans during their enrollment were excluded from further analysis. Beneficiaries who were enrolled on any date during a given month were considered enrolled for the whole month. Beneficiaries that were disenrolled for less than 30 days in between enrolled months were considered enrolled in the program for that month. However, 1,439 beneficiaries who were only enrolled for less than 31 days were excluded from the analyses of enrollment patterns.

UCLA used the MCP Quarterly HHP Reports to analyze data on enrollee's housing status and housing service utilization. Enrollee-level housing services data were included in the Quarterly HHP Reports starting in July 2019, which limited the analysis of housing services to July 1, 2019 through December 31, 2021.

Exhibit 74: Beneficiary-Level Variables

Data Elements	Definitions
SPA	Enrolled in SPA 1 vs. SPA 2.
Dual Status	Ever enrollee in both Medicare and Medi-Cal during HHP enrollment.
County	County in which enrollee is enrolled.
Monthly Enrollment Status	Indicator for HHP enrollment status for a particular month.
Enrollment Date	The date an enrollee starts to enroll in HHP. Enrollment date reported prior to 2019 Quarter 3 always begins on the first day of the initially enrolled month. Enrollment date reported after June 30, 2019 is the exact date.
Disenrollment Date	The date an enrollee disenrolled from HHP. Disenrollment date reported prior to July 1, 2019 is the last day of the month. Disenrollment date reported after June 30, 2019 is an exact date.
Number of Times Disenrolled	The number of times each enrollee disenrolled from the MCP throughout their enrollment.
Length of Enrollment	The differences between disenrollment date and enrollment date. If an enrollee enrolls in and disenrolls from HHP on the same date, the length of enrollment will be one day. Day count was divided by 30 to estimate length of enrollment in months.
Ever Homeless during HHP	Data only available from Quarterly HHP Reports. Indicates whether enrollee was ever homeless during HHP enrollment.
Homeless or at Risk for Homelessness	Data only available from Quarterly HHP Reports. Enrollee is homeless or at risk for homelessness from July 1, 2019 to September 30, 2020.
Received Housing Services	Data only available from Quarterly HHP Reports. Enrollee received housing services from July 1, 2019 to September 30, 2020.
Housed by September 2019	Data only available from Quarterly HHP Reports. Indicator of whether enrollee was housed by September 30, 2020.

Notes: Data from MCP Enrollment Reports from July 1, 2018 to September 30, 2020 and MCP Quarterly HHP Reports from July 1, 2019 to December 31, 2021.

From the MCP Quarterly HHP Reports, UCLA reported on CB-CMEs by organization type as of December 2021. MCPs reported individual CB-CMEs, identified by the National Plan and Provider Enumeration System (NPPES) NPI, serving HHP enrollees and the projected capacity of each CB-CME. UCLA used the NPI Registry to identify characteristics of unique CB-CMEs in MCP networks.

In addition, UCLA reported on the percentage of eligible beneficiaries by implementation group excluded from HHP for seven exclusion rationales defined by DHCS and reported in the MCP Quarterly Reports.

Limitations

UCLA analyzed the enrollment data provided by MCPs. Given that enrollee-level data in the MCP Quarterly Report were not required until July 2019, UCLA had to combine these data with MCP Enrollment Reports from July 1, 2018 to June 30, 2019 to examine enrollment and enrollment patterns. These two data sources had some differences, which resulted in UCLA only being able to analyze enrollment at a monthly level. Staggered implementation of the program by county resulted in MCPs with different reporting lengths.

Medi-Cal Enrollment and Claims Data

UCLA used Medi-Cal enrollment and claims data from July 1, 2016 to December 31, 2021 to create demographic health status indicators, health care utilization indicators, and preliminary metrics used in this report. Claims data included both managed care and fee-for-service encounters.

Analytic Methods

HHP Services

HHP services were reported for all MCPs, although reporting varied by MCP. Kaiser reported that none of their enrollees received services while Alameda Alliance reported that 98% of their enrollees received services. All MCPs reported that less than 100% of their enrollees received any HHP service, although every HHP enrollee should have received at least one service. Exhibit 75 displays indicators of utilization of HHP services reported by MCPs in Medi-Cal claims data.

Exhibit 75: HHP Service Utilization Indicators

Indicators	Definitions
Proportion of enrollees that ever received an HHP service	The percent of enrollees that ever received the service.
Proportion of enrolled months that services were provided per enrollee	The percent months with services received out of the number of months enrolled in HHP among HHP enrollees that have ever received the service.
Average number of units of service per enrollee per month during months that services were provided	The average of each HHP enrollee's monthly average number of service units for the received service each month among HHP enrollees that have ever received the service. Units of service are defined as 15-minutes of service; multiple units of service are possible.
Median number of units of service per enrollee during months that service was provided	The median of each HHP enrollee's monthly number of service units for the received service each month among HHP enrollees that have ever received the service. Units of service are defined as 15-minutes of service; multiple units of service are possible.

UCLA used the HHP designated HCPCS codes and modifiers to identify encounters that included HHP services, defined in Exhibit 76. HCPCS code G0506 and modifier codes U1 to U7 were used July 1, 2018 through September 30, 2018, and HCPCS code G9008 and modifier codes U1 to U7 were used October 1, 2018 through December 31, 2021.

Exhibit 76: HHP Services

Provider Type	Modifier	Modality	Definition
Engagement Services			
Provider Type Not Specified	U7	Not specified	Active outreach such as direct communications with member (e.g., face-to-face, mail, electronic, and telephone), follow-up if the member presents to another partner in the HHP network or using claims data to contact providers the member is known to use. Providers must show active, meaningful, and progressive attempts at member engagement each month until the member is engaged. Examples of acceptable engagement include: (1) letter to member followed by phone call to member; (2) phone call to member, outreach to care delivery partners and social service partners; (3) and street level outreach, including, but not limited to, where the member lives or is accessible.
Core Services			
Provided by Clinical Staff	U1	In-person	Comprehensive care management, care coordination, health promotion, comprehensive transitional care, individual and family support services, and referral to community and social supports
	U2	Telehealth	
Provided by Non-Clinical Staff	U4	In-person	
	U5	Telehealth	
Other Services			
Provided by Clinical Staff	U3	Not specified	Case notes, case conferences, tenant supportive services, and driving to appointments
Provided by Non-Clinical Staff	U6	Not specified	

Demographic Indicators

Exhibit 77 displays demographic indicators created by UCLA using Medi-Cal monthly enrollment data. UCLA calculated age based on an enrollee's HHP enrollment date. On the rare occasion enrollment data included more than one birthday for an enrollee, UCLA used the latest birthday reported. While not common, if the Medi-Cal enrollment data contained conflicting data for gender, race, or language for an HHP enrollee, UCLA used the most frequently reported category.

Exhibit 77: Demographic Indicators

Indicators	Definitions
Age	Enrollee's final age in years at the time of HHP enrollment.
Gender	Indicates whether an enrollee is male or female.
Race	The race label for an enrollee: White, Hispanic, African American, Asian American and Pacific Islander, American Indian and Alaska Native, other, or unknown.
English as Primary Language	Indicating whether an enrollee's primary language is English or not.
Number of Months with Full Scope Coverage	Full scope coverage is defined as at enrollment in at least one dental MCP and another non-dental MCP during the eligible date period. The number of months that an enrollee is full scope is reported for the year prior to the enrollee's initial enrollment in HHP.

Health Status Indicators

UCLA used Medi-Cal claims data from July 1, 2016 to December 31, 2021 to assess health status of HHP enrollees prior to their enrollment in HHP. UCLA followed chronic condition and acuity eligibility criteria developed by DHCS for HHP as described in the HHP Program Guide (Exhibit 78). According to these criteria, chronic conditions were present if an enrollee had two or more services on different dates for the specified condition during the two years prior to HHP enrollment. UCLA also used the criteria set by CMS's Chronic Condition Warehouse to obtain a complete list of chronic condition and potentially chronic or disabling condition categories.

Exhibit 78: Health Status Indicators

Indicators	Definition
Chronic Conditions	
Chronic Condition Criteria 1: Two specific conditions and SUD	The percentage of enrollees that meet chronic condition criteria 1. An enrollee satisfies chronic condition criteria 1 if the enrollee has at least two of the following HHP eligible chronic conditions: chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD), diabetes, traumatic brain injury, chronic or congestive heart failure, coronary artery disease, chronic liver disease, dementia, substance use disorder.
Chronic Condition Criteria 2: Hypertension and another specific comorbidity	The percentage of enrollees that meet chronic condition criteria 2. An enrollee satisfies chronic condition criteria 2 if the enrollee has hypertension and one of the following HHP eligible chronic conditions: chronic obstructive pulmonary disease, diabetes, coronary artery disease, chronic or congestive heart failure.
Chronic Condition Criteria 3: Serious Mental Illness (SMI)	The percentage of enrollees that meet chronic condition criteria 3. An enrollee satisfies chronic condition criteria 3 if the enrollee has one of the following HHP eligible chronic conditions: major depression disorders, bipolar disorder, psychotic disorders (including schizophrenia.
Chronic Condition Criteria 4: Asthma	The percentage of enrollees that meet chronic condition criteria 4. An enrollee satisfies chronic condition criteria 4 if the enrollee has the HHP eligible chronic condition asthma.
Acuity	
Acuity Criteria 1: Three or more chronic conditions	The percentage of enrollees that meet acuity criteria 1. An enrollee satisfies acuity criteria 1 if the enrollee has at least three of the following HHP eligible chronic conditions: chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD), diabetes, traumatic brain injury, chronic or congestive heart failure, coronary artery disease, chronic liver disease, dementia, substance use disorder.

Indicators	Definition
Acuity Criteria 2: One or more Hospitalizations	The percentage of enrollees that meet acuity criteria 2. An enrollee satisfies acuity criteria 2 if the enrollee has at least one inpatient hospital stay during one year prior to HHP enrollment.
Acuity Criteria 3: Three or more ED Visits	The percentage of enrollees that meet acuity criteria 3. An enrollee satisfies acuity criteria 3 if the enrollee has at least three or more emergency department visits during one year prior to HHP enrollment.
Chronic Condition Warehouse (CCW) Conditions	The percentage of enrollees meeting each of the CCW condition category criteria in the period prior to HHP enrollment.
CDPS (Chronic Illness and Disability Payment System Risk Score)	The mean, median, and standard deviation of CDPS among all enrollees. The CDPS is calculated based on the International Classification of Diseases (ICD) diagnosis codes in Medi-Cal claims data.

Healthcare Utilization Indicators

UCLA also created healthcare utilization indicators using Healthcare Effectiveness Data and Information Set (HEDIS) 2019 Volume 2 definitions, National Uniform Claim Committee taxonomy designations, the Chronic Conditions Warehouse, and the American Medical Association's Current Procedure Terminology (CPT) Codebook. Exhibit 79 displays these indicators.

Exhibit 79: Healthcare Utilization Indicators

Indicators	Definitions
Number of Hospitalizations per 1,000 Member Months	The number of inpatient hospitalization visits during the service month.
Length of hospitalization (days)	The total lengths measured in number of total days of all hospitalizations during the service month.
Percentage of Enrollees with Any Hospitalizations	The percentage of enrollees who ever had at least one hospitalization
Number of ED Visits resulting in Discharge per 1,000 Member Months	The number of ED visits resulting in discharge during the service month.
Percentage of Enrollees with Any ED Visits Resulting in Discharge	The percentage of enrollees who ever had at least one ED visit resulting in discharge
Number of Primary Care Services per 1,000 Member Months	The number primary care provider services during the service month.
Number of Specialty Services per 1,000 Member Months	The number of specialty services during the service month.
Number of Mental Health Services per 1,000 Member Months	The number of mental health services during the service month.
Number of Substance Use Disorder Services per 1,000 Member Months	The number of substance use disorder services during the service month.
Number of Long-Term Care Stays per 1,000 Member Months	The number of long-term care stays during the service month.

HHP Metrics and Additional Mesures

HHP metrics were calculated based on HHP metric specifications in CMS's Core Set of Health Care Quality Measures for Medicaid Health Home Programs. HHP metrics were grouped by whether they measured process of care delivery or patient outcomes. All metrics were reported in the aggregate and included data for two years prior to and one year following each individual's enrollment in HHP when possible. UCLA assessed any length of enrollment or required number of months of enrollment on Medi-Cal enrollment rather than HHP enrollment in order to be consistent between HHP enrollees and the control group. A limited number of metrics were reported semi-annually rather than annually in order to calculate the change in the measure during HHP when there was only one year of data. Exhibit 80 includes descriptions of all HHP metrics and how changes in the metric are to be interpreted.

Exhibit 80: HHP Core Metrics, Definitions, and Reporting Status

Metric	Description	Improvement Measured by Increase or Decrease
Adult Body Mass Index (BMI) Assessment	Percentage of Health Home enrollees ages 18 to 74 who had an outpatient visit and whose body mass index (BMI) was documented during the measurement year or the year prior to the measurement year.	Increase
Follow-Up After Hospitalization for Mental Illness within 30 days	Percentage of discharges for Health Home enrollees age 6 and older who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner within 30 days.	Increase
Follow-Up After Hospitalization for Mental Illness within 7 days	Percentage of discharges for Health Home enrollees age 6 and older who were hospitalized for treatment of selected mental illness diagnoses and who had a follow-up visit with a mental health practitioner within 7 days.	Increase
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days	Percentage of ED visits for Health Home enrollees age 13 and older with a principal diagnosis of alcohol or other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence with 7 days.	Increase
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days	Percentage of ED visits for Health Home enrollees age 13 and older with a principal diagnosis of alcohol or other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence with 30 days.	Increase

Metric	Description	Improvement Measured by Increase or Decrease
Screening for Depression and Follow-Up Plan	Percentage of Health Home enrollees age 12 and older screened for clinical depression on the date of the encounter, and if positive, a follow-up plan is documented on the date of the positive screen.	Increase
Initiation of Alcohol and Other Drug Abuse or Dependence Treatment	Percentage of enrollees who initiate treatment through within 14 days of the diagnosis.	Increase
Engagement of Alcohol and Other Drug Abuse or Dependence Treatment	Percentage of enrollees who initiate treatment and who had two or more additional AOD services or MAT within 34 days of the initiation visit.	Increase
Controlling High Blood Pressure	Percentage of Health Home enrollees ages 18 to 85 who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled during the measurement year.	Increase
Plan All-Cause Readmissions	For Health Home enrollees ages 18 to 64, the number of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission.	Decrease
Prevention Quality Indicator (PQI) 92: Chronic Conditions Composite	Number of inpatient hospital admissions for ambulatory care sensitive chronic conditions per 100,000 member months for Health Home enrollees age 18 and older. This measure includes adult hospital admissions for diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, or heart failure without a cardiac procedure.	Decrease
Ambulatory Care: Emergency Department (ED) Visits	Rate of emergency department (ED) visits resulting in discharge per 1,000 member months among Health Home enrollees.	Decrease

Metric	Description	Improvement Measured by Increase or Decrease
Inpatient Utilization	Rate of acute inpatient care and services (total, maternity, mental and behavioral disorders, surgery, and medicine) per 1,000 member months among Health Home enrollees	Decrease
Inpatient Length of Stay	All approved days from admission to discharge.	Decrease
Use of Pharmacotherapy for Opioid Use Disorder	Percentage of enrollees ages 18 to 64 with an opioid use disorder who received buprenorphine, oral naltrexone, long-acting injectable naltrexone, or methadone for the disorder.	Increase
Admission to an Institution from the Community (Short-Term Stay)	The number of admissions to an institutional facility (skilled nursing facility or intermediate care facility) from the community that result in a short-term stay (1 to 20 days) during the measurement year per 1,000 member months.	Decrease
Admission to an Institution from the Community (Medium-Term Stay)	The number of admissions to an institutional facility (skilled nursing facility or intermediate care facility) from the community that result in a medium-term stay (21 to 100 days) during the measurement year per 1,000 member months.	Decrease
Admission to an Institution from the Community (Long-Term Stay)	The number of admissions to an institutional facility (skilled nursing facility or intermediate care facility) from the community that result in a long-term stay (more than 100 days) during the measurement year per 1,000 member months.	Decrease

Source: Detailed information for each metric is available in HHP Metric Specifications.

Control Group Construction

UCLA obtained administrative Medi-Cal monthly enrollment and claims data from July 2016 to December 2021 for 90,038 individuals reported as enrolled into HHP and for 1,089,792 individuals that were potentially eligible for HHP based on their inclusion on the targeted engagement list (TEL). The TEL was produced bi-annually and UCLA used all TELs through May 2021. These data included two years prior to the start of HHP enrollment (July 2016 to June 2018) and up through the end of HHP enrollment (July 2018 to December 2021).

UCLA used 46 indicators and variables describing beneficiaries' demographic, health status, service utilization, and cost characteristics to select the control group (Exhibit 81). Demographic variables were constructed from Medi-Cal enrollment data. Health status variables were constructed from claims data and reflected the HHP chronic condition eligibility criteria and measures of illness burden (e.g., CDPS risk score). The chronic condition eligibility criteria and indicators were constructed following the specifications developed to create the TEL by DHCS (HHP Program Guide). UCLA created and included a measure of acute care utilization by grouping enrollees based on their number of ED visits and hospitalizations.

Exhibit 81: Variables Used to Select the Control Group

Indicator	Description
Demographics and Baseline Description (9 indicators and variables)	
Age Group	Age at the start of HHP enrollment (0-17, 18-34, 35-49, 50-64, or 65+ years)
Gender	Reported Gender in Medi-Cal Enrollment (Male or Female)
Race/Ethnicity	Reported Race/Ethnicity in Medi-Cal (White, Hispanic, Black, Asian or Pacific Islander, or Native American/Other/Unknown)
Language	English as the preferred language
Homelessness	UCLA developed indicator that uses address-based and claim-based indicators to predict homelessness
WPC enrollment	Indicator of whether or not individual was ever enrolled in Whole Person Care
County	County of residence
Number of Baseline Years	Count of baseline years with Medi-Cal enrollment
Full Scope Months in Medi-Cal	Number of months in the reported as having full-scope Medi-Cal coverage
Health Status (5 indicators)	
HHP Chronic Condition Eligibility Criteria 1	At least two of the following: Chronic Obstructive Pulmonary Disease (COPD), Chronic Kidney Disease (CKD), Diabetes, Traumatic Brain Injury, Chronic or Congestive Heart Failure, Coronary Artery Disease, Chronic Liver Disease, Dementia, Substance Use Disorder.
HHP Chronic Condition Eligibility Criteria 2	Hypertension and one of the following: COPD, Diabetes, Coronary Artery Disease, Chronic or Congestive Heart Failure.
HHP Chronic Condition Eligibility Criteria 3	One of the following: Major Depression Disorders, Bipolar Disorder, or Psychotic Disorders (including Schizophrenia).
HHP Chronic Condition Eligibility Criteria 4	Asthma
CDPS Risk Score	Risk score that measures illness burden
Service Utilization (18 indicators and variables)	
Acute Care Utilization Group	UCLA created indicators that groups individuals by their baseline emergency department and hospital utilization: super utilization, high utilization, moderate utilization, low utilization or at-risk-for high utilization
Utilization Slopes (7 variables)*	Slope of monthly service utilization in the baseline period for emergency department visits, hospitalizations, primary care services, specialty care

	services, long-term care stays, mental health services, and substance use disorder services.
Utilization Intercepts (7 variables)*	Intercept of monthly service utilization in the baseline period for emergency department visits, hospitalizations, primary care services, specialty care services, long-term care stays, mental health services, and substance use disorder services.
Primary Care Organization type (3 variables)	Number of primary care services by organization type: health centers, group organizations, and individual practices
Cost (14 variables)	
Estimated Payment Slopes (7 variables)	Slope of monthly estimated Medi-Cal payments in the baseline period for total costs, emergency department visits, hospitalizations, outpatient services, outpatient prescriptions, long term care stays, and residual services.
Estimated Payment Intercepts (7 variables)	Intercept of monthly estimated Medi-Cal payments in the baseline period for total costs, emergency department visits, hospitalizations, outpatient services, outpatient prescriptions, long term care stays, and residual services.

Using the above variables, the control group was first identified by developing a propensity score that indicated the similarity between an enrollee and a beneficiary on the TEL. Due to the phased implementation of HHP, UCLA grouped HHP enrollees into 14 cohorts based on the quarter in which they enrolled and selected control beneficiaries for each cohort. This method ensured that the control group beneficiaries had a similar baseline period to their matched enrollee.

UCLA constructed two separate control groups for analysis of utilization and cost measures, because of limited sample sizes for individuals with similar levels and trends in utilization of services and estimated payments prior to HHP enrollment. The control group selection generalized additive models were set to require an exact match for chronic condition eligibility criteria and acute care utilization categories and the closest possible match for the pre-year 1 and pre-year 2 difference in utilization or cost in addition to the propensity score developed as described above. UCLA aimed to create a matched sample with a 1:2 ratio (1 HHP enrollee to 2 control beneficiaries) by MCP and county, allowing for sampling with replacement.

The sampling with replacement approach was because of unavailability of similar matches per MCP and led to the final control group to HHP enrollee ratio of 1.6. To balance the sample, each control group beneficiary was matched to multiple HHP enrollees. Exhibit 82 shows the characteristics of the final utilization-based control group for the largest HHP SPA 1 enrollee cohort (cohort 5; n=6,184), which consisted of those enrolled from July to September 2019 from Groups 1, 2, and 3 for SPA 1. Data show that the control group was similar to the HHP enrollees for all indicators and measures.

Exhibit 82: Comparison of Select Characteristics of HHP SPA 1 Cohort 5 Enrollees (Enrolled July to September 2019) and Matched Control Beneficiaries

		SPA 1 HHP Enrollees in Cohort 5	Before Match Control Group	After Match Control Group
Age (at time of enrollment)	% 0-17	6%	19%	9%
	% 18-34	12%	18%	14%
	% 35-49	23%	16%	19%
	% 50-64	51%	31%	42%
	% 65+	8%	16%	16%
Gender	% Male	41%	43%	42%
Race/Ethnicity	% White	21%	21%	24%
	% Latinx	44%	43%	42%
	% African American	20%	13%	15%
	% Asian	6%	11%	8%
	% Other or Unknown	9%	12%	10%
Language	% English proficient	73%	67%	70%
Medi-Cal full-scope months	Average number of months in the year prior to enrollment	11.5	11.2	11.4
Homelessness	UCLA-constructed indicator	20%	14%	16%
WPC enrollment	Enrollment in WPC	7%	6%	7%
HHP Chronic Condition Criteria	Two specific conditions (Criteria 1)	51%	24%	51%
	Hypertension and another specific condition (Criteria 2)	61%	34%	61%
	Serious mental health conditions (Criteria 3)	42%	30%	41%
	Asthma (Criteria 4)	31%	23%	31%
Select Chronic Conditions	Hypertension	72%	44%	68%
	Diabetes	57%	34%	53%
	Major Depressive Disorders	36%	25%	34%
	Substance Use Disorders	12%	8%	12%
Emergency Department Utilization	ED Intercept	0.185	0.114	0.178
	ED Slope	0.001	-0.001	0.002
Inpatient Utilization	Hospitalization Intercept	0.047	0.024	0.039
	Hospitalization Slope	0.005	0.000	0.002
Outpatient Services Utilization	PCP slope	0.063	0.013	0.023
	PCP intercept	0.565	0.352	0.451
	Specialty slope	0.051	0.020	0.027
	Specialty intercept	0.432	0.240	0.303
Acute Care Utilization Categories	At-Risk	14%	33%	14%
	Low Utilization	33%	40%	33%
	Moderate Utilization	35%	20%	35%
	High Utilization	13%	6%	13%
	Super Utilization	5%	2%	5%

Additionally, UCLA developed unique matched control groups for those HHP core metrics that restricted the sample to specific subpopulations. For example, for follow-up after hospitalization for mental illness, UCLA developed a control group within groups based on whether individuals met the denominator criteria (i.e., hospitalized for mental illness) before HHP, during HHP or is both time periods. The same methodology described above was employed to create these metric-specific matches.

Difference-in-Difference Models

UCLA assessed changes in the outcomes of interest before and during HHP, and in contrast to the control group in difference-in-difference (DD) models. UCLA assessed the impact of HHP for the overall HHP enrollees and for SPA 1 and SPA 2 enrollees in DD models using an interaction term for SPA. All models were controlled for demographics (gender, age, race/ethnicity, primary language, months of Medi-Cal enrollment), utilization indicators (acute care utilization group), and health status indicators (baseline CDPS risk scores and HHP chronic condition eligibility criteria). The models additionally included an indicator for having at least one primary or secondary diagnosis of COVID-19 in the claims data and the number of months spent enrolled in HHP during the pandemic. The baseline and enrollment periods for each HHP enrollee and their matched controls were based on the beneficiaries' date of enrollment, and the enrollee sample included only HHP enrollees with at least one year of baseline data and at least one month of enrollment in HHP per year.

UCLA used logistic regression models for binary metrics (e.g., Controlling High Blood Pressure) and count models with Poisson distribution for count metrics (e.g., Primary Care Visits per 1,000 Member-Months, Specialty Care Visits per 1,000 Members-Months) and estimated Medi-Cal payments (outpatient payments per member per year). The exposure option within a Generalized Linear Model (GLM) was used to adjust for different number of months of Medi-Cal enrollment and the subsequent different lengths of exposure to HHP. All analyses of individual-level metrics were analyzed based on Medi-Cal member months.

The DD analyses differed for HHP specified metrics that required one year of observation from metrics that did not require one year of observation and for optional measures. For HHP specified metrics that required one year of observation, the DD analyses measured changes from the Pre-HHP Year 2 to Pre-HHP Year 1 for both HHP enrollees and the control group; the change from HHP Year 1 to the HHP Year 2 for both HHP enrollees and the control group; and the difference between the changes for HHP enrollees vs. the control group.

For the remaining metrics and measures, UCLA examined changes in six month increments up to 24 months (1-6, 7-12, 13-18, and 19-24) before HHP enrollment and up to 24 months (1-6, 7-

12, 13-18, and 19-24) during HHP. For these, the DD analysis measured the change from 19-24 vs. 1-6 months before HHP for both HHP enrollees and the control group; the change during HHP from 19-24 vs. 1-6 months for both HHP enrollees and the control group; and the difference between the changes in HHP enrollees vs. the control group. The shorter timeframe for examining metrics allowed for a clearer assessment of change during the early phase of HHP implementation. The findings were not subject to potential seasonality in service utilization due to rolling enrollment throughout the year and measuring change following the date of enrollment per beneficiary.

Limitations

One of the acuity criteria set by DHCS in the HHP Program Guide was chronic homelessness. However, Medi-Cal Enrollment and Claims data do not include an indicator of chronic homelessness. As a result, UCLA created an indicator of homelessness based on Medi-Cal eligibility and claims data, which is likely subject to estimation error. The identification of chronic conditions relied on the primary and secondary diagnoses associated with each service. Any error in original reporting of these diagnoses by providers may have resulted in under- or over-reporting of chronic conditions. HHP services may have been underreported due to missing HCPCS code modifiers by MCPs. As a result, the HHP services analysis reflects an estimation of HHP service use and was likely to under-report the actual number of HHP services delivered. Using separate control groups for measurement of utilization and payments was not optimal and may have led to discrepancies in between these findings.

Attributing Estimated Medi-Cal Payments to Claims

Background

The great majority of services under Medi-Cal are provided by managed care plans that receive a specific capitation amount per member per month and do not bill for individual services received by Medi-Cal beneficiaries. While managed care plans are required to submit claims to Medi-Cal, these claims frequently include payment amounts of unclear origin that are different from the Medi-Cal fee schedule. A small and unique subset of Medi-Cal beneficiaries are not enrolled in managed care and receive care under the fee-for-service (FFS) reimbursement methodology and have claims with actual charges and paid values. FFS claims are reimbursed primarily using fee schedules developed by Medi-Cal. The capitation amounts for managed care plans are developed using the same fee schedules by Mercer annually, using complex algorithms and other data not included in claims.

To address the gaps in reliable and consistent payment data for all claims, UCLA estimated the amount of payment per Medi-Cal claim under HHP using various Medi-Cal fee schedules for services covered under the program. The methodology included (1) specifying categories of service observed in the claims data, (2) classifying all adjudicated claims into these service categories, (3) attributing a dollar payment value to each claim using available fee schedules and drug costs, and (4) examining differences between these and available external estimates. UCLA estimated payments for both managed care and FFS claims to promote consistency in payments across groups and to avoid discrepancies due to different methodologies.

The payment estimates generated using this methodology are not actual Medi-Cal expenditures for health care services delivered during HHP. Rather, they represent the estimated amount of payment for services and are intended for measuring whether HHP led to efficiencies by reducing the total payments for HHP enrollees before and after the program, and in comparison, to a group of comparison patients in the same timeframe.

Service Category Specifications

Data Sources

UCLA used definitions from multiple sources to categorize and define different types of services. These sources included Medi-Cal provider manuals, HEDIS value set, DHCS 35C File, American Medical Association's CPT Codebook, National Uniform Code Committee's taxonomy code set, and other available sources.

- DHCS's Medi-Cal provider manuals included billing and coding guidelines for provider categories and some services.

- The HEDIS Value Set by the National Committee for Quality Assurance used procedure codes (CPT and HCPCS), revenue codes (UBREV), place of service codes (POS), and Systematized Nomenclature of Medicine-Clinical Terms (SNOMED CT) to define value sets that measure performance in health care. For example, the HEDIS value set "ED" is a combination of procedure codes that describe emergency department services and revenue codes specifying that services were provided in the emergency room.

- DHCS Paid Claims and Encounters Standard 35C File (DHCS 35C File) provided specifications to managed care plans on how claims must be submitted and contained detailed information about claims variables and their meaning and utility, such as vendor codes describing the location of services and taxonomy codes describing the type of provider and their specializations.

- The American Medical Association's Current Procedure Terminology (CPT) Codebook contained a list of all current procedural terminology (CPT) codes and descriptions that are used by providers to bill for services.

- The National Uniform Claim Committee's (NUCC's) Health Care Provider Taxonomy code set identified provider types such as Allopathic and Osteopathic Physician and medical specialties such as Addiction Medicine defined by taxonomy codes.

UCLA also used other resources to address gaps in definitions. For example, hospice codes that were used in claims submitted before 2016 were not included in the Medi-Cal provider manual, but UCLA collected the pre-2016 hospice codes from other DHCS guidelines.

Methods

UCLA constructed eighteen mutually exclusive categories of service (Exhibit 83). Available claims data included managed care, fee-for-service, and Short-Doyle. Some categories were defined using complementary definitions from more than one source.

UCLA assigned claims to only one of the eighteen service categories to avoid duplication when calculating total estimated HHP payments. The outpatient services category may include claims included in other categories and therefore is not included in calculation of the total estimated payment in this report. UCLA assigned claims to the first service category a claim meets the criteria for as ordered in **Error! Reference source not found.**. All services, apart from primary care visits, provided on the day of an ED visit were grouped as part of the ED visit to represent the total cost of the visit. For example, patients may have received transportation to an emergency department and laboratory tests during the emergency department visit, and these services were included in the ED category rather than the transportation or laboratory services categories. This approach may have included lab or transportation services in the ED category that were not part of the ED visit, and may have undercounted lab and transportation in their respective categories. However, this was necessary because claims data lacked information on the specific time of day when services were rendered. Similarly, all claims for services received during a hospitalization were counted as part of the same stay and were excluded from other categories of service, except for primary care visits on the day of admission. Other categories were identified solely by the procedure code or place of service and were not bundled with other services occurring on the same day, such as long-term care, home health/ home and community-based services, community-based adult services, FQHC services, labs, imaging, outpatient medication, transportation, and urgent care.

Some claims lacked the information necessary to be categorized and were classified under an "Other Services" category. These frequently included physician claims without a defined provider taxonomy and durable medical equipment codes that were billed separately and could not be associated with an existing category.

Exhibit 83: Description of Mutually Exclusive Categories of Service*

Order	Service category	Definition source	Description
1	Emergency Department Visits (ED)	HEDIS	Place of service is hospital emergency room and procedure code is emergency service

Order	Service category	Definition source	Description
2	Hospitalizations	DHCS 35C File	Place of service is inpatient and admission and discharge dates are present and are on different days
3	Hospice Care	DHCS 35C File, HEDIS, and DHCS Medi-Cal Provider Manuals	Provider is hospice or procedure code is hospice service
4	Long-Term Care (LTC) Stays	DHCS 35C File	Claim is identified as LTC or provider is LTC organization; stays one day apart are counted as one visit, stays two or more days apart are separate stays
5	Home Health and Home and Community-Based Services (HH/HCBS)	DHCS 35C File and DHCS Medi-Cal Provider Manuals	Provider is a home health agency or home and community-based service waiver provider, procedure is home health or home and community-based service
6	Community-Based Adult Services (CBAS)	DHCS 35C File and DHCS Medi-Cal Provider Manuals	Provider is adult day health care center or procedure code is community-based adult service, which are health, therapeutic and social services in a community-based day health care program
7	Federally Qualified (FQHC) and Rural Health Center (RHC) Services	DHCS 35C File	Provider is an FQHC or RHC
8	Laboratory Services	DHCS 35C File	Claim is identified as clinical laboratory, laboratory & pathology services, or laboratory tests
9	Imaging Services	DHCS 35C File	Claim is identified as portable x-ray services or imaging/ nuclear medicine services
10	Outpatient Medication	DHCS 35C File	Claim is identified as pharmacy
11	Transportation Services	DHCS 35C File	Claim is identified as medically required transportation
12	Primary Care Services	National Uniform Claim Committee	Provider is allopathic and osteopathic physician (with specialization in adult medicine, adolescent medicine, or geriatric medicine, family medicine,

Order	Service category	Definition source	Description
			internal medicine, pediatrics, or general practice), or physician assistant or nurse practitioner (with specialization in medical, adult health, family, pediatrics, or primary care)
13	Specialty Care Services	National Uniform Claim Committee	Provider is allopathic and osteopathic physician or physician assistant or nurse practitioner (with all specializations not captured in the Primary Care Services category)
14	Outpatient Facility Services	DHCS 35C File	Claim is identified as outpatient facility
15	Dialysis Services	DHCS 35C File and CPT Codebook	Provider is a dialysis center and procedure is dialysis
16	Therapy Services	DHCS Medi-Cal Provider Manual	Procedure code is occupational, physical, speech, or respiratory therapy
17	Urgent Care Services	National Uniform Claim Committee	Provider is ambulatory urgent care facility
18	Other Services	N/A	Provider, procedure, or place of service is not captured above
N/A	Outpatient Services	HEDIS	Claim type is outpatient and procedure code, revenue code, or place of service code is outpatient

Source: UCLA Methodology.

Notes: * indicates categories are mutually exclusive except for outpatient services category

UCLA examined the above categories and found that four of these categories, outpatient services, hospitalizations, outpatient medications, and emergency department visits, accounted for 93% of total payments for HHP claims in 2019 (Exhibit 84).

Exhibit 84: Percentage of 2019 Total Estimated Payments by Category of Service for HHP Medi-Cal Claims

Category of Service	Percentage of Total Estimated Payment
All Categories	**100%**
Outpatient Services	35%
Outpatient Medication	21%

Emergency Department Visits	5%
Hospitalizations	32%
All other categories	7%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2018 to September 30, 2020

Attributing Payments to Specific Services

To attribute payments to each category of service, UCLA developed methods to calculate an estimated payment for each category based on available data. Exhibit 85 displays the categories of service and what is included in the calculation of estimated payments for each category.

Exhibit 85: Category of Service and Payment Descriptions

Category of Service	Calculation of Estimated Payment
Emergency Department Visits (ED)	Payments for all services taking place in the emergency department of a hospital, including services on the same day of the ED visit, excluding services by PCPs and FQHCs and RHCs. Two sub-categories are reported: ED visits followed by hospitalizations and all other ED visits that are followed by discharge.
Hospitalizations	Payments for all services that take place during a hospitalization, excluding visits with primary care providers on the first or last day of the stay, FQHC visits on the first or last day of the stay, or ED visits that preceded hospitalization
Hospice Care	Payments for hospice services in an LTC facility or Home Health setting, excluding hospice services rendered during a hospitalization
Long-Term Care (LTC) Stays	Institutional fees billed by LTC facilities; the per diem rate includes supplies, drugs, equipment, and services such as therapy
Home Health and Home and Community-Based Services (HH/HCBS)	Payments for services provided by a home health agency (HHA) and services provided through the home and community-based services (HCBS) waiver
Community-Based Adult Services /(CBAS)	Payments for community-based adult services and for services rendered at an adult day health care center
Federally Qualified (FQHC) and Rural Health Center (RHC) Services	Payments for all services provided in an FQHC or RHC
Laboratory Services	Payments for laboratory services, except those provided during a hospitalization or ED visit
Imaging Services	Payment for imaging services, except those provided during a hospitalization, ED visit, or LTC stay

Category of Service	Calculation of Estimated Payment
Outpatient Medication	Payments for outpatient drug claims, excluding prescriptions filled on the same day as an ED visit or on the day of discharge from a hospitalization
Transportation Services	Payments for medically required transportation, excluding transportation on the same day as an inpatient admission or an emergency department visit
Primary Care Services	Payments for services provided by a primary care physician
Specialty Care Services	Payments for services provided by a specialist, excluding services provided during an inpatient stay or an emergency department visit, and excluding facility fees
Outpatient Facility Services	Facility fees paid to hospital outpatient departments and ambulatory surgical centers
Dialysis Services	Payments for dialysis services rendered in a dialysis center
Therapy Services	Payments for occupational, speech, physical, and respiratory therapy services
Urgent Care Services	Payments for services provided in an urgent care setting
Other Services	Payments for services not captured above
Outpatient Services	Payments for all services delivered in an outpatient setting

Source: UCLA Methodology.

UCLA used all available Medi-Cal fee schedules and supplemented this data with other data sources as needed. Payment data sources, brief descriptions, and the related categories of services they were attributed to are provided in Exhibit 86.

Exhibit 86: Payment Data Sources

Source	Description	Applicable Service Categories
Medi-Cal Physician Fee Schedule Annual files 2013 to 2020 inflated/ deflated to 2019	Contains rates set by DHCS for all Level I procedure codes that are reimbursable by Medi-Cal for services and procedures rendered by physicians and other providers	ED, Hospitalizations, Hospice, LTC, HH/HCBS, CBAS, Imaging, Transportation, Primary Care, Specialty Care, Dialysis, Urgent Care, Other, and Outpatient Services

Source	Description	Applicable Service Categories
Durable Medical Equipment (DME) Fee Schedule Annual files 2017 to 2020 inflated/ deflated to 2019	Contains rates set by CMS for Level II procedure codes for durable medical equipment such as hospital beds and accessories, oxygen and related respiratory equipment, and wheelchairs	ED, Hospitalizations, Hospice, LTC, HH/HCBS, CBAS, Transportation, Primary Care, Specialty Care, Dialysis, Urgent Care, and Other
Medical Supplies Fee Schedules October 2019	Contains rates set by DHCS for supplies such as needles, bandages, and diabetic test strips	ED, Hospitalizations, Hospice, LTC, HH/HCBS, CBAS, Transportation, Primary Care, Specialty Care, Dialysis, Urgent Care, and Other
Average Sales Price Data (ASP) for Medicare Part B Drugs Annual files 2014 to 2020 inflated/ deflated to 2019	Contains rates set by CMS for procedure codes for physician-administered drugs covered by Medicare Part B	ED, Hospitalizations, Hospice, LTC, Primary Care, Specialty Care, and Other
CMS MS-DRG grouping software, DHCS's APR-DRG Pricing Calculator 12/1/2019	Contains Diagnostic Related Grouping (DRG) codes used for hospitalizations (CMS), base rate per DRG (DHCS) and DRG weights (CMS)	Hospitalizations, LTC
FQHC and RHC Rates 12/19/2018 inflated to 2019	Contains rates set by DHCS for services provided by FQHCs and RHCs	FQHC and RHC
Hospice per diem rates 9/28/2020 deflated to 2019	Contains rates set by DHCS for hospice stays and services	Hospice
Nursing Facility Level A per diem rates 8/1/2019	Contains per diem rates set by DHCS per county for Freestanding Level A Nursing Facilities	LTC, Hospice
Distinct Part Nursing Facilities, Level B 8/1/2019	Contains per diem rates set by DHCS for nursing facilities that are distinct parts of acute care hospitals	LTC, Hospice

Source	Description	Applicable Service Categories
Home Health Services Rates 8/1/2020 deflated to 2019	Contains billing codes and reimbursement rates set by DHCS for procedure codes reimbursable by home health agencies	Home health
Home and Community-Based Services Rates 8/1/2020 deflated to 2019	Contains billing codes and reimbursement rates set by DHCS for the home and community-based services program	Home and community-based services
Community-Based Adult Services Rates 8/1/2020 deflated to 2019	Contains billing codes and reimbursement rates set by DHCS for community-based adult services	Community-based adult services
National Average Drug Acquisition Cost (NADAC) File 12/30/2019	Contains per unit prices for drugs dispensed through an outpatient pharmacy setting based on the approximate price paid by pharmacies, calculated by CMS	Outpatient medication
Clinical Laboratory Fee Schedule 12/30/2019	Contains rates set by CMS for clinical lab services	Laboratory
Therapy Rates 8/1/2020 deflated to 2019	Contains billing codes and reimbursement rates set by DHCS for physical, occupational, speech, and respiratory therapy	Therapy
Ambulatory Surgical Center (ASC) Fee Schedule January 2019	Contains billing codes and reimbursement rates set by CMS for facility fees for ASCs	ED, Hospitalizations, Outpatient Facility
Outpatient Prospective Payment System (OPPS) File October 2019	Contains billing codes and reimbursement rates set by CMS for facility fees for hospital outpatient departments	ED, Hospitalizations, Outpatient Facility

Payments were attributed based on available service and procedures codes included in each claim. A specific visit may have included a physician claim from the providers for their medical

services and a facility claim for use of the facility and resources (e.g., medical/ surgical supplies and devices) where service was provided.

The Medi-Cal Physician Fee Schedule contained monthly updated rates for all procedures that were reimbursable by Medi-Cal to providers and hospital outpatient departments. Each procedure code had multiple rates that varied based on provider type (e.g. physician, podiatrist, hospital outpatient department, ED, community clinic) and patient age. UCLA distinguished between these rates, but the paid amount for FFS still varied within the same procedure code, likely due to the directly negotiated rates between the providers and DHCS. For the purpose of HHP cost evaluation, UCLA used the procedure code with the most expensive rate when adequate information was lacking.

UCLA also included a payment augmentation of 43.44% for claims for physician services provided in county and community hospital outpatient departments following DHCS guidelines. UCLA did not include any other reductions or augmentations that may have been applied by Medi-Cal due to limited information in claims data. Some procedures such as those performed by a qualified physical therapist in the home health or hospice setting did not have a fee in the Medi-Cal physician fee schedule but had fees in the Medi-Cal Provider Manual and UCLA used these fees when applicable.

A number of claims lacked procedure codes but had a revenue code such as “Emergency Room-General” or “Freestanding Clinic- Clinic visit by member to RHC/FQHC”. UCLA obtained documentation from DHCS that enabled identification of a price using outpatient revenue codes alone.

CMS’s Durable Medical Equipment (DME) Fee Schedule included billing codes that are reimbursable by Medi-Cal for DMEs such as hospital beds and accessories, oxygen and related respiratory equipment, and wheelchairs. Rates for other medical supplies such as needles, bandages, and diabetic test strips were found in DHCS’s Medical Supplies Fee Schedules.

FQHCs and RHCs consist of a parent organization with one or more clinic sites and are paid a bundled rate for all services during a visit. DHCS publishes FQHC and RHC Rates for each clinic within the parent organization.

Payments for outpatient medication claims were calculated using the national drug acquisition cost (NADAC), which contains unit prices for drugs. UCLA calculated the drug cost by multiplying the unit price by the number of units seen on the claim. Drugs administered by physicians were priced using CMS’s Average Sales Price Data (ASP) for Medicare Part B drugs.

Facility fees were priced based on the ambulatory surgical center (ASC) fee schedule or the outpatient prospective payment system (OPPS) depending on whether the billing facility was an ASC or an outpatient department.

Medi-Cal paid most LTC institutions such as nursing and intermediate care facilities for the developmentally disabled on a per-diem rate, while long-term care hospital stays were reimbursed via diagnosis related group (DRG) payments. Per diem rates for LTC facilities were obtained directly from DHCS's long-term care reimbursement webpage, and these rates varied by type of facility. Rates for hospice services were based on DHCS's hospice care site and hospice room and board rates were based on the Nursing Facility/ Intermediate Care facility fee schedule. UCLA lacked some variables in claims data that were needed to calculate some LTC and hospice payments, such as accommodation code which specifies different rates for each nursing facility depending on the type of program including the "nursing facility level B special treatment program for the mentally disordered" or "nursing facility level B rural swing bed program". In these cases, UCLA used the rates associated with accommodation code 1: "nursing facility level B regular", which were higher than other accommodation code rates.

Hospitalizations are paid based on diagnosis related groups (DRGs), a bundled prospective payment methodology that is inclusive of all services provided during a hospitalization, except for physician services. Identification and pricing of DRGs varies by payers such as Medi-Cal and Medicare. In California, DHCS uses 3M's proprietary APR-DRG Core Grouping Software to assign DRGs and 3M's APR-DRG Pricing Calculator to calculate prices for Medi-Cal DRG hospitals. APR-DRGs have more specific DRGs for Medicaid populations such as pediatric patients and services such as labor and delivery, and incorporate four levels of illness severity.

However, UCLA did not have access to this software and used 3M's publicly available CMS MS-DRG grouping software for the Medicare population, which includes Medicare-Severity DRGs (MS-DRGs) and their corresponding weights. MS-DRGs only include two levels of severity of illness, with complications or without complications. UCLA used this software to assign a DRG to each hospitalization based on procedure code, diagnosis, length of stay, payer type, patient discharge status, and patient age and gender. Although CMS uses the Inpatient Prospective Payment System to assign hospital prices based on the MS-DRGs, UCLA used available data and publicly available prices for DHCS's APR-DRG Pricing Calculator to calculate payments for each DRG. DHCS's APR-DRG Pricing Calculator used multiple hospital and patient-level variables to calculate the final payment for hospitals, and UCLA incorporated some of these variables into the estimated payment (such as patient age and hospital status of rural vs. urban) but could not incorporate other modifiers due to data limitations (such as other health coverage and whether or not the hospital was an NICU facility).

UCLA calculated the estimated payment by starting with the base rate from DHCS's APR-DRG Calculator, which was $12,832 for rural hospitals and $6,507 for urban hospitals. This base rate was multiplied by the weight assigned to each MS-DRG, which modified the base rate to account for resources needs for a given DRG. For example, more severe hospitalizations such as "Heart Transplant or Implant of Heart Assist System with major complications" had a high weight of 25.4241 but "Poisoning and Toxic Effects of Drugs without major complication" had a lower weight of 0.7502. This rate was further modified by one available policy adjuster, which increased the payment amount by patient age and was higher for those under 21 (1.25) than those 21 and older (1). Overall payment for a hospitalization was calculated by adding the estimated payments for physician specialist services that occurred during the hospitalization.

When no fees were found for procedure codes in any payment data sources, UCLA used the most frequent paid amount seen in fee-for-service claims for the procedure code. These included procedures such as tattooing/ intradermal introduction of pigment to correct color defects of skin and excision of excessive skin. When outlying units of service were found on the claim, UCLA used the 90th percentile value of units for the procedure code rather than the observed units. All claims were included in a category of service and were assigned a price.

For dual beneficiaries, Medi-Cal is the secondary payer (payer of last resort) and covers a portion of the costs of the service. However, UCLA lacked information on percentage of services paid for by Medi-Cal for dual managed care beneficiaries. Therefore, UCLA used Medi-Cal claims data to calculate payments for these dual beneficiaries using the same methodology as non-dual managed care beneficiaries. Dual beneficiaries made up 7% of the HHP enrollee population.

For the purpose of evaluation, all payments were calculated using the 2019 fee schedules when available. In the absence of 2019 data, UCLA inflated or deflated payment amounts using the paid amounts for similar FFS claims in available data. Using the 2019 fees removed the impact of inflation and pricing changes in subsequent analyses.

Comparison of Estimated Payments with Medi-Cal Paid Amounts

UCLA examined the potential bias that may have resulted due to the methodology used to estimate payments by comparing the estimated FFS payments with Medi-Cal paid amounts in FFS claims. Exhibit 87 shows that the estimated FFS payments were 5% higher than paid amounts for all services. There was underlying variation by category of services. For example, estimated ED payments were 8% higher, estimated payments for hospitalizations were 10% higher, and estimated payments for outpatient medication were 8% lower.

Exhibit 87: Comparison of Estimated Fee-for Service Payments and Paid Amounts for 2019 HHP Medi-Cal Claims

Category of Service	Difference Between Estimated Payment and Medi-Cal Payment
All Categories	**5%**
Outpatient Services	13%
Outpatient Medication	-8%
Emergency Department Visits	8%
Hospitalizations	10%
All other categories	-13%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2018 to September 30, 2020

UCLA further compared the difference in estimated payments for FFS and managed care claims and found that managed care payments were 3% lower than the FFS claims ($194 vs $188; Exhibit 88).

Exhibit 88: Comparison of Average Fee- for-Service and Managed Care Payments per Claim for 2019 HHP Medi-Cal Claims

Average Medi-Cal Payment per Claim for FFS Claims	Average Estimated Payment per Claim for Managed Care Claims	Estimated Payment Compared to Medi-Cal Payment
$194	$188	-3%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2018 to September 30, 2020

Limitations

There were three types of limitations associated with UCLA's cost analysis including the availability of needed variables in the claims data and access to fee schedules and other pricing resources. The goal of the cost analysis was not to calculate exactly what DHCS paid for claims, but rather to calculate estimated payments and measure the impact of HHP by comparing changes in estimated payments over time. The limitations below describe why UCLA results may be different from DHCS reimbursements for certain services and categories.

The first limitation was related to estimating payments for hospitalizations. First, the MS-DRG relative weights reflected Medicare payments, which were higher than Medi-Cal. This likely led to higher estimated payments for hospitalization. Second, MS-DRG only identified those levels of severity, with and without complication, but APR-DRG includes four severity levels. Third, DHCS uses multiple criteria to adjust hospital payments but UCLA was only able to adjust for urban and rural rates.

A second limitation was related to availability of fee schedules for accurate pricing. The HHP evaluation required analysis of multiple years of claims data and UCLA used all available fee schedules to price procedures, supplies, and facilities from multiple years and inflated prices to 2019 dollars whenever necessary. UCLA always used the most recent rate for a procedure. The inflation rates used were based on medical care Consumer Price Index provided by US Bureau of Labor Statistics without adjusting for regional-specific inflation rates. Not all procedures that appeared in the claims data had corresponding rates in all the available fee schedules. Procedures that required Treatment Authorization Requests (TARs) lacked a fee-schedule and are frequently more expensive than covered services. Some specific procedures had no fees in the Medi-Cal fee-schedule. When fee schedules were missing, UCLA attributed the most frequently observed price from the paid amount for a similar FFS claim. If the procedure did not appear in any FFS claims, UCLA assigned the median allowed amount from all managed care claims for the given procedure code.

A third limitation was related to outlier values for service units, some of which were extremely high. UCLA attributed the 95th percentile value instead of the original value in the claim, potentially underestimating payments for some claims.

HHP Rates

UCLA used the Medi-Cal Health Homes Program Rate Range Summary, which provided per member per month (PMPM) HHP rates, to calculate total expenditures per quarter and average per enrollee expenditures. Rates varied by MCP and County, and whether the enrollee was dual (covered by Medi-Cal and Medicare) or non-dual (covered only by Medi-Cal).

Appendix B: UCLA HHP Evaluation Design

Introduction

The Health Homes Program (HHP) is created and implemented under the statutory authority of California AB 361. The legislation authorizes the California Department of Health Care Services (DHCS) to create HHP under the Section 2703 of the 2010 Patient Protection and Affordable Care Act. Section 2703 allows states to create Medicaid health homes to coordinate the full range of physical health, behavioral health, and community-based long-term services and supports needed by members with chronic conditions. The program is subject to cost-neutrality requirements regarding the State General Funds and federal financial participation. AB 361 requires an evaluation of the program. AB 361 also required that DHCS submit a report to the Legislature within two years after implementation of the program.

The overarching goal of HHP is to achieve the Triple Aim of Better Care, Better Health, and Lower Costs. These goals are to be achieved by providing (1) comprehensive care management, (2) care coordination, (3) health promotion, (4) comprehensive transitional care, (5) individual and family support services, and (6) referrals to community and social support services. The program is implemented by Medi-Cal managed care plans (MCPs) to their members. MCPs form contractual or non-contractual relationships with Community-Based organizations or entities, forming an HHP network for delivery of services. HHP is scheduled to be implemented in 14 California counties, with four groups of counties implanting HHP in five consecutive time periods. In addition to staggered implementation by county, MCPs incorporate the subset of patients with serious mental illness (SMI) and serious emotional disturbance (SED) six months after the program start date (phase 2) for other eligible populations with program criterion of physical health/substance use disorder (SUD) (phase 1). The first county has implemented the first phase of the program in July 2018 and the last counties will implement the second phase in July 2020.

The target population of the program is a small subset (3-5%) of the state's Medi-Cal population. This subset requires an intensive set of services and the highest levels of care coordination. Eligibility for HHP includes having chronic conditions that fit one of several predetermined categories and evidence of high acuity/complexity. There are program exclusions criteria for those receiving care management such as: (1) hospice recipients and skilled nursing home residents, (2) enrollees in specialized MCPs (e.g., Program of All-Inclusive Care for the Elderly (PACE), Senior Care Action Network (SCAN) and AIDS Healthcare Foundation (AHF)), (3) MCP members sufficiently well managed through self-management or

another program, and (4) members determined to be more appropriate for alternative care management programs, etc.

HHP Evaluation Conceptual Framework and Questions

The UCLA Center for Health Policy Research (UCLA) is the evaluator of the HHP program. UCLA has developed a conceptual framework for the evaluation of HHP (Exhibit 89). According to the framework, better care is achieved when HHP network providers establish the necessary infrastructure and deliver HHP services. Delivery of HHP services will in turn lead to better health indicated by reduced utilization of health care services that are associated with negative health outcomes as well as improvements in population health indicators. Better care and better health will lead to lower overall health care expenditures.

Exhibit 89: Evaluation Conceptual Framework

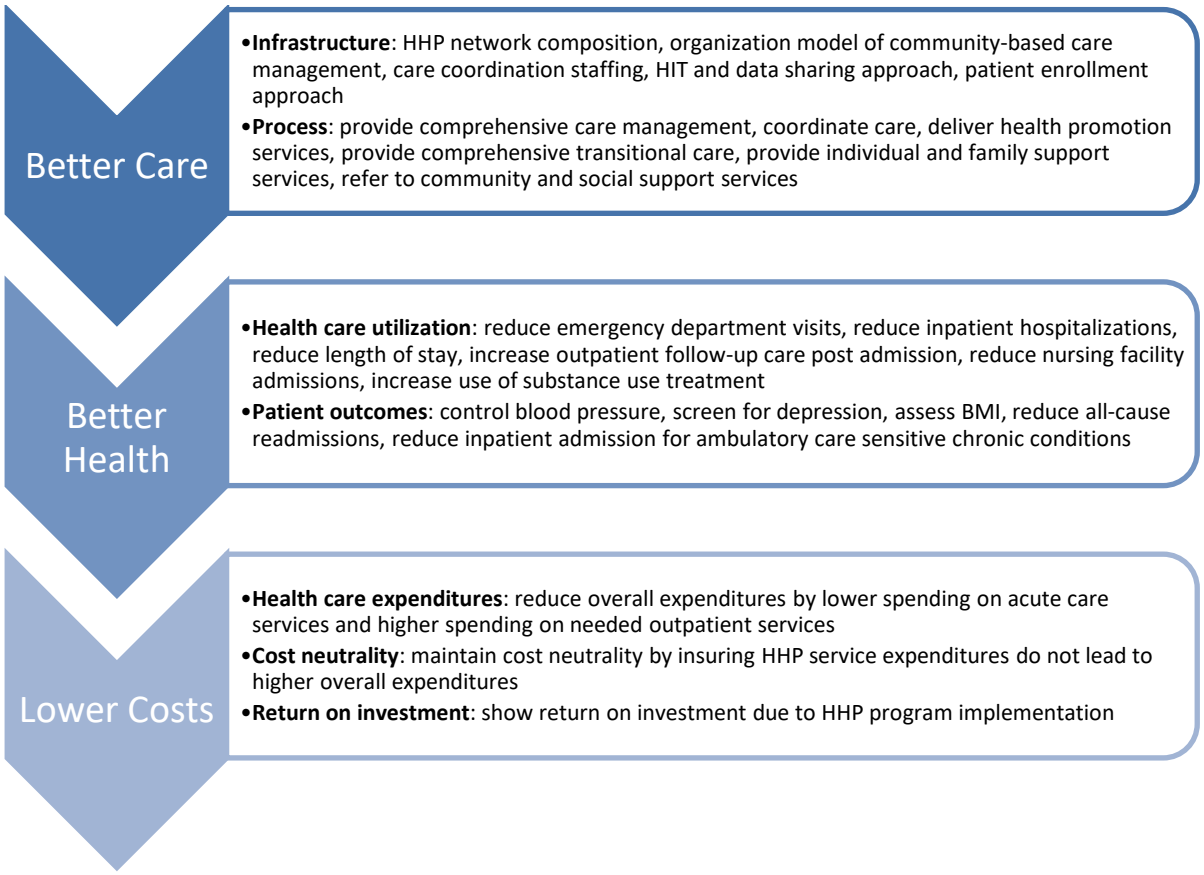


Exhibit 90 displays the evaluation questions and data sources that will be used to answer those questions. The evaluation questions are aligned with the components of the conceptual framework. Questions 1-7 examine the infrastructure established by HHP networks, population enrolled, and the services delivered. Questions 8-13 examine the impact of HHP service delivery

on multiple indicators of healthcare service utilization as well as patient health indicators. Question 14-17 examine the impact of HHP on lowering costs or cost savings for the Medi-Cal program.

Exhibit 90: Evaluation Questions and Data Sources

Evaluation Questions	Data Sources
Better Care	
Infrastructure	
16. What was the composition of HHP networks? 17. Which HHP network model was employed? 18. When possible, what types of staff provided HHP services? 19. What was the data sharing approach? 20. What was the approach to targeting patients for enrollment per HHP network?	MCP Reports
Process	
21. What were the demographics of program enrollees? What was the acuity level of the enrollees including health and health risk profile indicators, such as aggregate inpatient, ED, and rehab SNF utilization? What proportion of eligible enrollees were enrolled? How did enrollment patterns change over time? What proportion of enrollees are homeless?	MCP Reports TEL: demographic and eligibility criteria of targeted MCP members Medi-Cal Claims and Encounter Data: demographics and service use Quarterly HHP Enrolled CIN File: HHP enrollees
22. Were Health Home services provided in-person or telephonically? Were Health Home services provided by clinical or non-clinical staff? How many enrollees received engagement services? How many homeless enrollees received housing services?	
Better Health	
Health care utilization	
23. How did patterns of health care service use among HHP enrollees change before and after HHP implementation? 24. Did rates of acute care services, length of stay for hospitalizations, nursing home admissions and length of stay decline? 25. Did rates of other services such as substance use treatment or outpatient visits increase?	TEL: demographic and eligibility criteria of targeted MCP members Medi-Cal Claims and Encounter Data: demographics and service use
Patient outcomes	
26. How did HHP core health quality measures improve before and after HHP implementation? 27. Did patient outcomes (e.g., controlled blood pressure, screening for clinical depression) improve before and after HHP implementation? 28. How many homeless enrollees were housed?	MCP Reports: core measures Medi-Cal Claims and Encounter Data: conditions and service use
Lower Costs	
Health care expenditures	

Evaluation Questions	Data Sources
29. Did Medi-Cal expenditures for health services decline after HHP implementation?	Medi-Cal Claims and Encounter Data: conditions and service use
30. Did Medi-Cal expenditures for needed outpatient services increase?	HHP Payment Files: HHP services and payments for those services
Cost neutrality	
31. When possible, did HHP have the opportunity during the time period studied to achieve cost neutrality in the delivery of HHP services, in that the overall Medi-Cal expenditures after HHP implementation remained in line with the expected patterns of growth in utilization and cost prior to HHP program implementation?	Medi-Cal Claims and Encounter Data: Service use and expenditures HHP Payment Files: HHP services and payments for those services
Return on Investment	
32. When possible, did HHP program operations lead to cost savings? What was the ratio of program expenditures to cost savings?	Medi-Cal Claims and Encounter Data: Service use and expenditures HHP Payment Files: HHP services and payments for those services

Notes: TEL is Targeted Engagement List.

Data Sources

As indicated in Exhibit 90, UCLA will receive four data sources from DHCS including (1) reports filed by each MCP, (2) TEL (Targeted Engagement List) created every six months by DHCS, (3) Medi-Cal Claims and Encounter Data for all program beneficiaries and comparison group, and (4) monthly HHP payments files submitted by MCPs. These data sources allow for a qualitative and quantitative approach to the HHP evaluation. The ability of UCLA to address the evaluation questions is dependent on the content of these datasets and the type of analyses will be dependent on availability of data.

MCP reports include the readiness deliverables and required quarterly reporting. The readiness deliverables include HHP policies and procedures describing infrastructure, services, network and operations, engagement plans, and HHP network composition. The quarterly reporting will include aggregate semi-annual and annual health outcome measures. The quarterly reports will also identify enrollees that are experiencing homelessness and whether or not they received housing services and were successfully housed.

TEL is created every six months by DHCS to identify enrollees of participating MCPs who are potentially eligible for enrollment in HHP based on the HHP inclusion and exclusion criteria. These data include patient demographics and health status indicators.

Medi-Cal fee-for-service (FFS) claims and managed care encounter data include comprehensive information on use of services by eligible and enrolled HHP patients. UCLA will receive two years of data prior to implementation of HHP to establish baseline trends, and a minimum of one year of data during HHP implementation. These data include diagnoses, service use, and provider payments for fee-for-service (FFS) claims.

HHP payment files will be submitted monthly by the MCPs to DHCS. They are expected to include enrollment lists, the enrollee's State Plan Amendment (SPA) assignment, enrollee's status as a dual-enrollee and monthly DHCS payments to MCPs.

UCLA will maintain all data in a secure environment. UCLA anticipates receiving a preliminary enrollment and encounter data from DHCS within six months of program implementation to evaluate the data for completeness and accuracy and to conduct preliminary analyses. The final and complete data for the first year of the program are anticipated no later than six months after the end of the first year of program implementation.

Methods

UCLA will analyze all available data to evaluate HHP impact. The evaluation will include a quantitative assessment of program impact on enrollment, health care utilization, and cost indicators. In addition, the evaluation will also include a qualitative assessment of HHP infrastructure and implementation process through analysis of the HHP readiness deliverables.

The quantitative analyzes will range from more descriptive analyses of enrollees, enrollment trends, self-reported metrics, and health outcomes, to advanced methods to assess changes in utilization and costs. The descriptive analyses will use descriptive statistics to examine basic enrollee demographics, health conditions and acuity, and healthcare utilization both historically and during the period of the program. The advanced methods include use of regression models and quasi-experimental analytic design including pre-post, intervention-comparison group design and difference-in-difference (DD) methodology when possible. The quasi-experimental design is desirable due to its rigor in isolating the impact of HHP services. In order to study the impact of the HHP by county and MCP, the evaluation will use small area estimation to stratify all relevant outcomes by county and MCP combinations. This will be accomplished by including MCP and county as random effects in the models, thereby allowing for the measurement of these factors on the overall estimate even among small counties and MCPs. The final measures will be presented for the overall program and stratified by these groups.

Selection of the comparison group is necessary for the quasi-experimental design and allows for elimination of the impact of contextual determinants of health care utilization and costs. UCLA has identified two possible methods of identifying a comparison group including: 1)

participating MCP members that are on the TEL but either were not targeted or yet to be targeted by MCPs or did not opt-in; and 2) MCP members in counties not implementing HHP that fit the TEL criteria. As enrollment in HHP will change over the course of the program and inclusion on the TEL will also change over time, the comparison group will have to be created during multiple time points during the course of the evaluation. If needed to create a sufficiently large enough group, the comparison group may be composed of individuals from both methods.

Both methods to identify the comparison group have significant limitations. HHP enrollment among the eligible beneficiaries is not random as MCPs target beneficiaries based on additional criteria and their knowledge of patient utilization and costs. In addition, HHP enrollees have to choose to opt-in and those who do not are likely to have different characteristics. Therefore, the first comparison group is subject to selection bias. UCLA will be unable to identify which members on the TEL chose not to opt-in versus those that were not contacted. The second comparison group is not subject to selection bias, but there are potential differences in health system characteristics, population demographics, and patterns of health care utilization in other counties. For both comparison groups, HHP eligible patients may be enrolled in the Whole Person Care pilot programs which provides a number of similar services to HHP. Enrollment in WPC will not be known among either the treatment or comparison group members. UCLA will create these comparison groups and will closely examine the size and characteristics of each group to assess the utility of each group for the DD analyses, in addition to exploring modeling tools that account for selection bias.

If an appropriate comparison group is not possible, an alternative strategy to assess the impact of HHP is to compare pre- and post-trends in health care utilization and expenditures for HHP enrollees, using regression models to project trends in the post period assuming no HHP services are provided (counterfactual trends), and measure the change between the observed and projected trends in the post period. The difference in these trends will estimate the potential reduction in utilization or expenditures that can be attributed to HHP.

The Medi-Cal managed care encounter data used for assessing HHP impact does not have enough information on expenditures, which will be needed to demonstrate potential savings, cost neutrality and return-on-investment. Possible methods that UCLA will use to attribute expenditures to managed care encounters include using FFS expenditure data and the Medi-Cal Fee Schedule. If possible, the Medi-Cal fee schedule will be used to attribute a fee to each service provided during managed care encounters. UCLA will also compare the fee schedule to the FFS claims to assess the accuracy of using the fee schedule. If the fee schedule does not have sufficient information, ULCA will examine the patterns of care among FFS beneficiaries and managed care HHP enrollees to assess whether the FFS claims will be suitable for

estimating expenditures. UCLA anticipates population and health care use differences between the two groups. UCLA's ability to estimate cost neutrality and return-on-investment is dependent on being able to estimate expenditures for managed care encounters. If the FFS data and fee schedule do not provide all necessary estimated expenditures, UCLA will calculate the individual acuity factors over time based on the prospective Medicaid Rx model for the HHP enrollees and derive change over time to draw inference on how HHP works. UCLA will collaborate with DHCS to examine the HHP encounter submissions.

UCLA will use the DD analytic technique when available to measure potential reduction in total expenditures that can be attributed to HHP. Total expenditures will include the HHP payments. The potential reduction in expenditures will represent the savings associated with delivery of HHP services. UCLA will then calculate the return on investment by assessing the amount of savings per each dollar spent on the HHP program.

In addition to calculating changes in HHP enrollee utilization and expenditures, UCLA will independently assess changes in self-reported HHP metrics during the program when possible. UCLA will also independently assess the CMS recommended Core Set of health care quality measures for HHP using Medi-Cal data whenever possible. These measures include both health outcome and utilizations measures that are endorsed by organizations such as National Quality Forum (NQF), Agency for Healthcare Research and Quality (AHRQ), National Committee for Quality Assurance (NCQA), and/or CMS that have detailed measure specifications.

The evaluation will further focus on creating metrics and utilization measures that are likely to be the outcome of HHP services. For example, care coordination and wrap around services are likely to reduce hospital and emergency department visits because of availability of timely and appropriate outpatient care. Therefore, UCLA will assess the changes in the annual rates of emergency department and hospital visits in the pre- and post-periods and compare these changes to the comparison groups or the counterfactual trends. Alternatively, care coordination services are likely to increase use of outpatient medical and substance use services for some enrollees. Therefore, UCLA will examine the change in delivery of these services using the same methodology. HHP interventions to improve care transitions are expected to increase the rate of post-admission outpatient follow up and reduce readmissions. Thus, UCLA will assess the delivery of outpatient follow up post-discharge, number of hospital readmissions, and potential association of outpatient follow ups on readmissions.

UCLA will also create additional measures that are specific to common subpopulations in HHP when possible. For example, many of the HHP enrollees will have common chronic conditions such as diabetes or asthma or will be homeless. UCLA will use Medi-Cal data to create measures that evaluate the program impact on subgroups with conditions such as asthma or diabetes or

the homeless. Examples of the measures may include frequency of HbA1c lab tests among patients with diabetes and the rate of asthma prescriptions filled among patients with asthma. UCLA will also create metrics and measures for homeless patients including the most common conditions and service use patterns among the homeless. Other subpopulations of interest may include pediatric patients, SPA groups and recent Medi-Cal enrollees.

Limitations

External contextual factors may impact individual MCP results, such as other local or state initiatives that were ongoing or newly embarked on in the geographic areas that are served by HHP networks. These challenges will be met through use of DD analyses and comparing the HHP enrollee results with selected comparison groups or the counterfactual trends.

There are limitations to UCLA's ability to independently assess all HHP self-reported metrics. UCLA anticipates that metrics such as all-cause hospitalizations and emergency department visits can be independently assessed using Medi-Cal enrollment and claims data. However, measures of use of some services such as screening for clinical depression are only available in self-reported data. Similarly, information on implementation of care coordination policies and procedures are limited to self-reported data.

UCLA anticipated some error in attributing expenditures to managed care encounters due to anticipated differences in characteristics of FFS and managed care enrollees, systematic differences in health care delivery, and potential lack of detailed encounter data or fee schedule data. These limitations will lead to under or overestimates of actual expenditures attributed to encounter data but do not negatively impact estimates of changes in utilizations or savings. This is because the error in attributing expenditures is consistently and systematically applied to all encounters.

Due to the staggered rollout of the program, with the majority of counties implementing SPA 2 in January 2020, UCLA anticipates that enrollment numbers will be low for the initial June 2020 report and that there will be insufficient time to observe the comprehensive impact of the program. Furthermore, due to a lag of at least six months in adjudicated Medi-Cal claims data, the data available for the first evaluation report will be limited to the first county to implement the program, San Francisco County. Two additional reports will follow this first report (Exhibit 91), which allows for all counties to implement HHP and an adequate time period to observe an impact of HHP on health and utilization trends and outcomes. For some of the outcomes of interest, UCLA anticipates that HHP's impact may not be realized during the evaluation timeframe.

Timeline

Exhibit 91 indicates the evaluation deliverables and anticipated dates.

Exhibit 91: Evaluation Timeline and Deliverables

Deliverable	Description	Due Date(s)
Draft evaluation design and methods	Draft evaluation methodology for managed care plan/stakeholder review and comment	September 30, 2018
Revised evaluation design and methods	Revised evaluation methodology	November 16, 2018
Final evaluation design and methods	Final evaluation methodology	December 31, 2018
First draft interim evaluation report	First draft interim evaluation report to be completed after the first 18 months of HHP implementation	May 22, 2020
Final first interim evaluation report	Final first interim evaluation report	June 20, 2020
Second draft interim evaluation report	Second draft interim evaluation report to be completed after 30 months of HHP implementation	August 22, 2021
Final second interim evaluation report	Final second interim evaluation report	September 30, 2021
Draft Final Evaluation Report	Draft final evaluation report	May 1, 2023
Final Evaluation Report	Final evaluation report	June 23, 2023

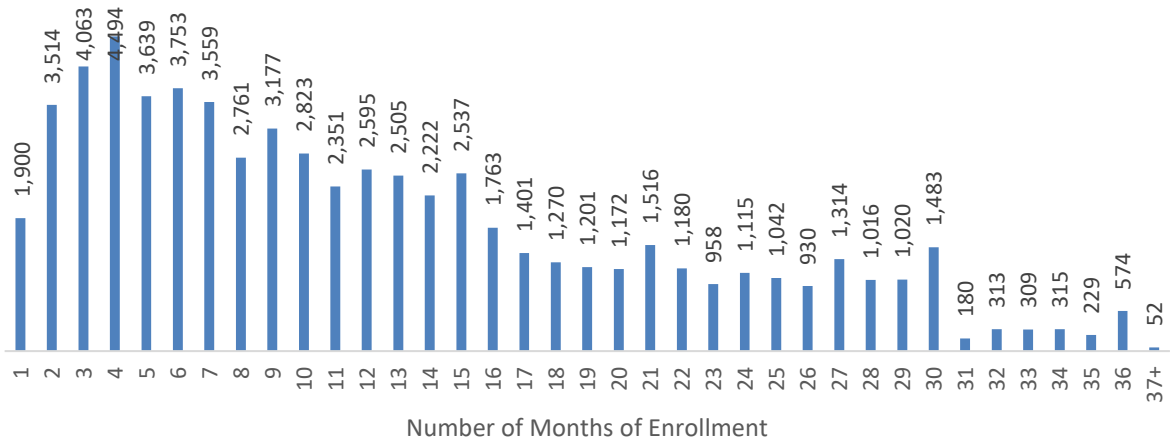
Appendix C: HHP Enrollees Enrolled Less Than 31 Days

There were 2,758 HHP enrollees enrolled for less than 31 days due to unsuccessful engagement among other unknown factors. This group was reported exclusively in this appendix. MCPs received PMPM payments for one month for these enrollees, but payments ceased when those individuals were no longer be enrolled in the program. MCPs did not provide other services to this group. Comparison of these enrollees with those enrolled for longer than 30 days during the first interim evaluation report indicated these groups had similar demographics, health status, and health care utilization prior to HHP (data not shown). Of the 2,758 HHP enrollees enrolled for less than 31 days, 1,900 came from SPA 1 and 858 came from SPA 2.

Appendix D: Enrollees with More than One Year of HHP Enrollment

UCLA restricted analysis of HHP metrics and measure during HHP for the final report to two years of enrollment due to the limited number of enrollees with more than two year of enrollment. Exhibit 92 shows that 8,777 (13%) of SPA 1 enrollees had 25 or more months of enrollment. Of that 8,777, 61% have less than six months of enrollment in the second year.

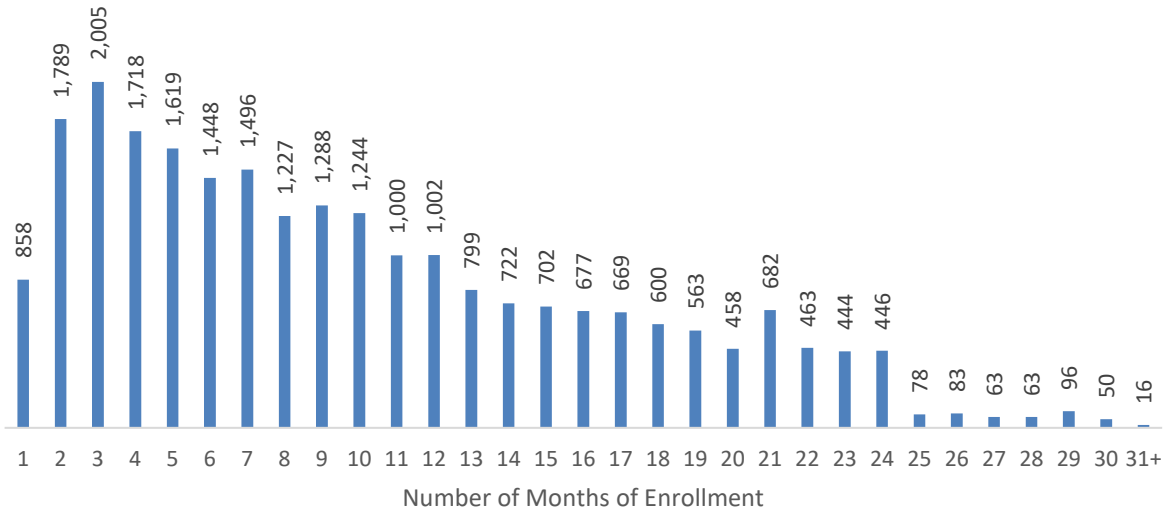
Exhibit 92: Count of SPA 1 Enrollees by Number of Months of HHP Enrollment as of December 2021



Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.

Exhibit 93 shows that 449 (2%) of SPA 2 enrollees had 25 or more months of enrollment. Of that 449, 85% had less than six months of enrollment in the second year.

Exhibit 93: Count of SPA 2 Enrollees by Number of Months of HHP Enrollment as of September 2020



Source: MCP Enrollment Reports from August 2019 and Quarterly HHP Reports from September 2019 to December 2021.

Appendix E: Survey: COVID-19 Impact on the Health Homes Program (HHP)

In the late fall of 2020, the UCLA Center for Health Policy Research conducted the following survey on HHP MCPs. The brief survey focused on (1) how HHP infrastructure and integrated care delivery approaches may have helped with local response to COVID-19, and (2) the potential impact of the COVID-19 pandemic on HHP. The survey instrument is included in this appendix.

1) On a scale of 0-10, please rate the impact of the COVID-19 pandemic on your organization's (or your contracted CB-CME's) ability to perform the following HHP-related activities. Please briefly describe the changes and impact.

Process/Procedure/ Policy	Process/procedure/ policy changed?	Degree of Impact											Briefly describe the changes and impact
		0 = Not at all Impacted	1	2	3	4	5 = Somewhat Impacted	6	7	8	9	10 = Extremely Impacted	
a. Identifying eligible HHP enrollees (e.g., administrative data, referrals)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
b. Engagement and enrollment of eligible beneficiaries into HHP (e.g., outreach)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
c. Communications with HHP enrollees (e.g., telephonic, telehealth, in-person)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
d. Frontline staffing policies and procedures (e.g.,	SPA 1 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Process/Procedure/ Policy	Process/procedure/ policy changed?	Degree of Impact											Briefly describe the changes and impact
		0 = Not at all Impacted	1	2	3	4	5 = Somewhat Impacted	6	7	8	9	10 = Extremely Impacted	
shift to telework, protocols for in-person visits and use of PPE, recruitment or retention policies and practices)	SPA 2 – Yes / No												
e. Delivery of comprehensive care management by frontline staff (e.g., frequency, modality, location in which provided)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
f. Delivery of care coordination by frontline staff (e.g., implementation of Health Action	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Process/Procedure/ Policy	Process/procedure/ policy changed?	Degree of Impact											Briefly describe the changes and impact
		0 = Not at all Impacted	1	2	3	4	5 = Somewhat Impacted	6	7	8	9	10 = Extremely Impacted	
Plan, case conferences)													
g. Ability to provide health promotion and individual/family support services (e.g., effective health education, referrals to resources such as smoking cessation)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
h. Comprehensive transitional care (e.g., admission notifications, coordinating with hospital discharge planners, transportation)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Process/Procedure/ Policy	Process/procedure/ policy changed?	Degree of Impact											Briefly describe the changes and impact
		0 = Not at all Impacted	1	2	3	4	5 = Somewhat Impacted	6	7	8	9	10 = Extremely Impacted	
i. Housing and homeless support services	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
j. Referral by MCP and/or CB-CMEs to community and social supports (e.g., housing, food resources)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
k. Contracts with CB-CMEs (e.g., challenges contracting with new CB-CMEs, revisions to existing CB-CME contracts in response to policy/process changes)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
l. Reporting (e.g., delays in receiving data	SPA 1 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Process/Procedure/ Policy		Process/procedure/ policy changed?	Degree of Impact											Briefly describe the changes and impact
			0 = Not at all Impacted	1	2	3	4	5 = Somewhat Impacted	6	7	8	9	10 = Extremely Impacted	
	from CB-CMEs, accuracy or comprehensiveness of data)	SPA 2 – Yes / No												
m.	MCP monitoring and oversight of CB-CMEs	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
n.	Other (please specify: _____)	SPA 1 – Yes / No SPA 2 – Yes / No	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

2) Did COVID-19 impacts on HHP processes, procedures, and/or policies ***vary by County***?

☐Yes

☐No

☐Not applicable

If yes, please briefly explain:

3) Briefly describe COVID-19 impact on your plan's ability to achieve desired HHP outcomes.

4) Please comment on if and how HHP helped with your plan's overall COVID-19 response and in what ways.

5) Are you using telehealth to deliver HHP services in response to COVID-19?

☐Yes

☐No

Please describe the type of services telehealth is used for and the effectiveness of these strategies.

6) In addition to telehealth, what other mitigation strategies (e.g., street medicine) has your organization used to respond to COVID-19? Please list and briefly describe the effectiveness of any strategies used.

7) Have there been any unexpected positive impacts due to COVID-19 (e.g., ability to use telehealth or other mitigation strategies, changing utilization patterns, or changes to your policies or your arrangements with CB-CMEs)? Please describe.

8) Are there any mitigation strategies or other changes that you are considering maintaining after the COVID-19 emergency ends? (e.g., increased use of telehealth, etc.) Please describe.

9) Is there anything we haven't asked that you think is important to know about your experience with the COVID-19 pandemic? Please denote N/A if not applicable.

Appendix F: MCP-Level Descriptives and Unadjusted HHP Core Metrics

UCLA used HHP Quarterly Reports from July 1, 2018, to December 31, 2021 and Medi-Cal enrollment and claims data from July 1, 2016 to December 31, 2021 to create descriptives and outcomes by MCP at the County- and SPA-level in the following areas:

- HHP Implementation and Enrollee Demographics
- Health Status and Utilization
- HHP Metric Trends
- Estimated Medi-Cal Payment Trends

The following exhibits are broken up by MCP:

- Exhibits 94 - 97: Aetna, Alameda Alliance, Blue Shield, and CA Health and Wellness
- Exhibits 98 - 101: Anthem Blue Cross
- Exhibits 102 - 105: LA Care, Community Health Group, Kern Health Systems, and CalOptima
- Exhibits 106 - 109: Inland Empire Health Plan and Kaiser
- Exhibits 110 - 113: Molina Healthcare Plan
- Exhibits 114 - 117: Health Net
- Exhibits 118 - 121: San Francisco Health Plan, Santa Clara Family Health Plan, and United Healthcare

Exhibit 94: HHP Implementation and Enrollee Demographics for Aetna, Alameda Alliance, Blue Shield, and CA Health and Wellness as of December 31, 2021

MCP	Aetna				Alameda Alliance		Blue Shield		California Health & Wellness	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Program Implementation and Enrollment										
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	148	27	184	69	696	63	1403	470	1328	200
% Of enrollees from TEL	79%		64%		78%		74%		83%	
Avg Length of Enrollment (Months)	12	15	11	13	15	11	11	9	7	9
Enrollee Demographics										
% 0-17	--	--	10%	--	0%	0%	3%	3%	9%	6%
% 18-34	10%	--	15%	33%	8%	--	10%	25%	12%	26%
% 34-49	28%	--	23%	29%	21%	29%	16%	27%	19%	28%
% 49-64	51%	44%	43%	29%	50%	52%	47%	37%	53%	36%
% 65+	--	--	9%	--	22%	--	24%	8%	7%	--
% Male	49%	--	46%	46%	49%	35%	47%	38%	36%	23%
% White	31%	44%	24%	19%	10%	17%	33%	35%	4%	--
% Hispanic	12%	--	28%	26%	20%	21%	28%	20%	91%	90%
% African American	20%	--	10%	--	37%	27%	11%	10%	1%	--
% Asian American and Pacific Islander	11%	0%	8%	--	16%	--	5%	3%	--	--
% American Indian and Alaskan Native	--	0%	0%	0%	--	0%	--	--	--	--
% Other	19%	--	29%	41%	14%	24%	17%	28%	--	0%
% Unknown	--	--	--	--	4%	--	5%	4%	3%	--
% Speak English	86%	100%	80%	88%	76%	87%	74%	85%	37%	52%
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	12	12	12
# Enrollees with Homeless Information Available	148	27	184	69	696	63	1403	470	1328	200
Proportion ever homeless during HHP enrollment	--	--	--	--	21%	21%	19%	23%	1%	--

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to December 2021, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 95: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for Aetna, Alameda Alliance, Blue Shield, and CA Health and Wellness as of December 31, 2021

MCP	Aetna				Alameda Alliance		Blue Shield		California Health & Wellness	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Health Status and Utilization Prior to Enrollment										
Two specific conditions (criteria 1)	42%	--	41%	23%	67%	60%	60%	33%	39%	22%
Hypertension and another specific condition (criteria 2)	58%	--	39%	--	71%	57%	57%	25%	64%	26%
Serious mental health condition (criteria 3)	51%	96%	47%	90%	39%	92%	45%	90%	27%	92%
Asthma (criteria 4)	26%	--	27%	--	25%	40%	24%	16%	29%	18%
Average number of ED visits	5.1	3.4	4.3	2.9	9.3	9.5	4.9	5.5	3.4	4.5
Average number of hospitalizations	0.9	0.5	1.0	0.4	2.4	1.8	1.3	1.1	0.4	0.4
HHP Services Delivered to HHP Enrollees										
Total number of units of service provided	3,735	939	3,478	1,305	45,899	1,604	56,960	19,659	1,765	379
Average number of units of service per enrollee	2.0	2.0	1.4	1.4	2.8	3.1	2.7	3.6	2.6	2.4
Median number of units of service per enrollee	1.0	1.0	1.0	1.0	2.0	3.0	2.0	3.0	2.0	2.0
Average number of engagement services provided	1.1	1.1	1.4	1.3	1.3	1.7	1.4	1.3	1.4	1.8
Average number of core services provided	1.9	1.8	1.3	1.2	2.5	3.1	1.9	2.4	2.4	2.2
Average number of other HHP services provided	1.6	1.4	1.1	1.2	3.0	2.4	2.2	2.6	1.7	1.8
Average number of in-person services provided	1.1	1.3	1.2	1.0	1.6	1.9	1.2	1.2	1.3	1.2
Average number of phone/ telehealth services provided	1.8	1.8	1.3	1.2	2.4	2.9	1.9	2.4	2.3	2.1
Average number of services provided by clinical staff	1.0	1.1	1.0	1.0	2.7	0.0	1.9	1.8	1.0	0.0
Average number of services provided by non-clinical staff	2.0	1.9	1.3	1.3	2.6	3.1	2.5	3.5	2.5	2.4

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 96: Trends in HHP Metrics for Aetna, Alameda Alliance, Blue Shield, and CA Health and Wellness as of December 31, 2021

MCP	Aetna				Alameda Alliance		Blue Shield		California Health & Wellness	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Adult BMI Assessment										
Baseline year 1	53%	32%	59%	44%	33%	45%	55%	48%	89%	91%
Baseline year 2	70%	64%	63%	58%	39%	66%	60%	53%	88%	90%
HHP year 1	70%	74%	61%	52%	40%	52%	59%	49%	72%	80%
HHP year 2	68%	58%	59%	50%	34%	37%	56%	43%	64%	56%
Follow-Up After Hospitalization for Mental Illness within 30 Days										
Baseline year 1	100%	--	100%	--	56%	--	90%	71%	100%	0%
Baseline year 2	100%	0%	100%	67%	90%	100%	86%	80%	100%	100%
HHP year 1	100%	--	100%	--	67%	--	65%	92%	--	--
HHP year 2	--	0%	--	100%	60%	75%	90%	50%	--	--
Follow-Up After Hospitalization for Mental Illness within 7 Days										
Baseline year 1	100%	--	57%	--	33%	--	64%	54%	100%	0%
Baseline year 2	0%	0%	67%	33%	60%	100%	53%	61%	100%	80%
HHP year 1	0%	--	50%	--	33%	--	43%	83%	--	--
HHP year 2	--	0%	--	100%	60%	75%	60%	50%	--	--
Screening for Depression and Follow-Up Plan										
Baseline year 1	2%	0%	3%	4%	0%	0%	4%	6%	0%	0%
Baseline year 2	2%	0%	14%	0%	0%	0%	11%	5%	0%	0%
HHP year 1	3%	0%	2%	0%	0%	--	17%	30%	0%	0%
HHP year 2	0%	--	16%	0%	0%	--	19%	33%	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days										
Baseline year 1	25%	--	0%	0%	8%	0%	15%	7%	7%	0%
Baseline year 2	0%	0%	33%	0%	15%	0%	1%	12%	20%	57%
HHP year 1	25%	--	0%	0%	24%	0%	14%	11%	25%	100%
HHP year 2	--	0%	--	0%	9%	0%	6%	0%	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days										
Baseline year 1	38%	--	0%	33%	17%	0%	23%	22%	13%	0%
Baseline year 2	0%	0%	44%	0%	21%	0%	7%	22%	30%	57%
HHP year 1	25%	--	25%	0%	37%	17%	27%	11%	25%	100%
HHP year 2	--	0%	--	0%	18%	0%	11%	0%	0%	0%
Initiation of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	32%	0%	34%	42%	25%	33%	24%	31%	28%	47%
Baseline year 2	25%	0%	34%	50%	25%	60%	25%	27%	34%	41%
HHP year 1	21%	100%	11%	25%	30%	20%	26%	18%	29%	53%
HHP year 2	10%	50%	27%	25%	29%	67%	20%	24%	25%	0%
Engagement of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	50%	--	50%	60%	30%	25%	38%	44%	57%	47%
Baseline year 2	33%	--	58%	20%	17%	50%	32%	42%	46%	56%
HHP year 1	50%	0%	0%	50%	26%	67%	38%	40%	18%	30%
HHP year 2	100%	0%	33%	100%	22%	50%	50%	33%	0%	--
Use of Pharmacotherapy for Opioid Use Disorder										
Baseline year 1	70%	100%	67%	0%	58%	55%	35%	44%	34%	25%

MCP	Aetna				Alameda Alliance		Blue Shield		California Health & Wellness	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Baseline year 2	88%	100%	56%	50%	65%	71%	32%	40%	38%	45%
HHP year 1	63%	50%	50%	40%	72%	36%	34%	45%	42%	45%
HHP year 2	67%	100%	20%	100%	85%	33%	35%	29%	50%	33%
All-Cause Readmission										
Baseline year 1	13%	0%	30%	33%	12%	6%	11%	7%	6%	6%
Baseline year 2	16%	0%	14%	0%	13%	13%	6%	6%	9%	13%
HHP year 1	10%	--	14%	14%	15%	10%	11%	9%	8%	0%
HHP year 2	0%	0%	9%	0%	13%	22%	13%	7%	17%	0%
Controlling High Blood Pressure										
Baseline year 1	20%	14%	7%	13%	0%	0%	11%	9%	8%	3%
Baseline year 2	18%	29%	6%	15%	0%	0%	22%	20%	7%	6%
HHP year 1	32%	14%	5%	0%	0%	0%	31%	38%	6%	8%
HHP year 2	28%	33%	11%	0%	0%	0%	38%	40%	3%	0%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year										
Baseline year 1	4,927	3,811	4,703	3,827	7,515	7,885	6,689	7,106	9,456	8,973
Baseline year 2	6,417	6,000	6,508	6,808	10,163	12,468	8,838	10,328	10,699	10,435
HHP year 1	7,628	5,492	9,434	9,147	15,311	15,811	10,632	10,954	12,766	12,071
HHP year 2	5,604	5,702	8,951	7,027	12,430	12,978	9,869	10,464	11,290	7,887
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year										
Baseline year 1	2,839	2,068	4,061	2,958	4,575	3,151	6,439	5,453	4,510	3,699
Baseline year 2	2,399	2,886	5,070	3,886	5,842	5,475	7,327	6,831	4,784	3,789
HHP year 1	3,168	3,649	6,624	4,543	6,947	5,331	7,432	6,537	4,841	3,269
HHP year 2	3,518	4,840	7,599	3,532	5,873	5,543	7,327	5,825	5,938	3,849
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year										
Baseline year 1	4,935	6,851	4,850	6,508	5,915	12,671	4,640	10,464	3,661	10,560
Baseline year 2	4,278	10,747	5,983	8,811	5,750	18,040	5,044	12,816	3,940	13,409
HHP year 1	4,755	6,809	5,091	7,240	7,045	20,870	5,895	11,689	3,832	12,143
HHP year 2	3,227	8,884	3,770	8,613	6,021	20,348	4,830	11,418	2,794	10,113
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year										
Baseline year 1	9,120	2,554	2,263	4,179	15,480	26,359	3,579	5,897	3,434	8,458
Baseline year 2	9,027	3,570	3,981	3,189	14,689	23,758	3,129	6,792	4,516	10,335
HHP year 1	9,471	3,009	3,156	3,008	14,374	14,132	3,040	5,025	4,848	7,181
HHP year 2	6,722	5,635	2,628	3,748	11,726	7,696	2,898	4,228	5,957	6,151
Emergency Department Visits per 1,000 Beneficiaries per Year										
Baseline year 1	2,385	1,662	2,182	1,498	3,412	2,600	1,957	2,303	1,674	2,516
Baseline year 2	2,173	1,671	1,861	1,350	3,833	5,314	1,912	2,535	1,345	1,701
HHP year 1	1,436	940	1,790	1,101	3,297	3,289	1,378	1,768	1,354	1,399
HHP year 2	1,293	2,718	1,186	649	2,462	3,391	1,142	1,381	1,449	1,849
Inpatient Stays per 1,000 Beneficiaries per Year										
Baseline year 1	487	243	612	203	875	499	633	525	237	217
Baseline year 2	540	266	558	267	1,639	1,341	693	643	184	206
HHP year 1	471	75	437	372	1,429	1,225	516	446	170	86
HHP year 2	198	133	511	180	989	848	333	256	218	75
PQI 92 (per 1,000 Beneficiaries per Year)										
Baseline year 1	117	--	67	--	264	138	82	39	24	5

MCP	Aetna				Alameda Alliance		Blue Shield		California Health & Wellness	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Baseline year 2	103	--	107	30	455	210	104	30	20	--
HHP year 1	112	--	55	--	388	227	73	53	17	--
HHP year 2	70	--	75	--	223	--	41	23	19	--
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)										
Baseline year 1	--	41	15	--	21	34	22	10	5	--
Baseline year 2	--	--	17	15	41	48	27	19	1	--
HHP year 1	8	--	7	16	24	45	18	18	1	--
HHP year 2	--	--	30	--	26	--	24	8	9	--
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)										
Baseline year 1	17	--	--	--	19	17	23	10	2	10
Baseline year 2	7	--	6	--	44	65	31	13	2	--
HHP year 1	8	--	--	--	40	91	14	15	3	--
HHP year 2	--	--	30	--	41	130	19	39	--	--
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)										
Baseline year 1	17	--	7	--	11	--	9	2	1	--
Baseline year 2	--	--	--	15	19	32	10	9	1	--
HHP year 1	--	--	7	--	29	23	12	--	3	--
HHP year 2	--	--	--	--	3	--	10	8	--	--

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 97: Trends in Estimated Payments for Aetna, Alameda Alliance, Blue Shield, and CA Health and Wellness as of December 31, 2021

MCP	Aetna				Alameda Alliance		Blue Shield		CA H&W	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year										
Baseline year 1	$17,424	$ 8,943	$24,670	$19,436	$30,053	$20,570	$24,100	$24,768	$18,448	$21,143
Baseline year 2	$16,978	$11,998	$21,193	$22,313	$42,520	$43,794	$27,188	$29,358	$18,619	$17,371
HHP year 1	$16,432	$13,560	$19,388	$17,651	$49,599	$40,786	$27,047	$23,791	$17,404	$16,910
HHP year 2	$10,844	$12,143	$18,867	$14,180	$38,064	$49,473	$23,263	$20,474	$18,333	$12,202
% Change Year 1*	-3%	13%	-9%	-21%	17%	-7%	-1%	-19%	-7%	-3%
% Change Year 2*	-36%	1%	-11%	-36%	-10%	13%	-14%	-30%	-2%	-30%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year										
Baseline year 1	$1,092	$488	$1,186	$977	$2,127	$2,676	$1,236	$1,191	$881	$1,519
Baseline year 2	$1,188	$598	$1,224	$631	$2,370	$3,352	$1,136	$1,487	$727	$895
HHP year 1	$728	$368	$1,058	$819	$2,576	$1,945	$931	$944	$687	$725
HHP year 2	$559	$866	$991	$627	$1,987	$2,897	$805	$614	$790	$1,037
% Change Year 1*	-39%	-38%	-14%	30%	9%	-42%	-18%	-37%	-6%	-19%
% Change Year 2*	-53%	45%	-19%	-1%	-16%	-14%	-29%	-59%	9%	16%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year										
Baseline year 1	$6,767	$1,743	$13,902	$7,840	$9,408	$4,118	$7,968	$7,577	$3,823	$4,153
Baseline year 2	$6,281	$3,552	$7,888	$5,044	$18,349	$17,475	$9,937	$8,346	$3,467	$2,904
HHP year 1	$5,441	$1,332	$5,251	$5,154	$16,046	$15,708	$7,450	$5,755	$3,052	$1,753
HHP year 2	$2,564	$1,274	$5,417	$2,251	$11,049	$12,832	$4,481	$2,719	$3,664	$1,585
% Change Year 1*	-13%	-63%	-33%	2%	-13%	-10%	-25%	-31%	-12%	-40%
% Change Year 2*	-59%	-64%	-31%	-55%	-40%	-27%	-55%	-67%	6%	-45%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year										
Baseline year 1	$768	$9	$88	--	$434	$398	$1,655	$560	$77	$85

MCP	Aetna				Alameda Alliance		Blue Shield		CA H&W	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
Baseline year 2	$417	--	$173	$191	$664	$551	$1,681	$957	$23	--
HHP year 1	$275	--	$56	$4	$2,056	$1,460	$1,875	$573	$59	--
HHP year 2	--	--	$277	--	$3,219	$1,055	$1,922	$1,190	$86	--
% Change Year 1*	-34%	-	-68%	-98%	210%	165%	12%	-40%	154%	-
% Change Year 2*	-	-	60%	-	385%	91%	14%	24%	273%	-
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year										
Baseline year 1	$3,938	$3,680	$5,115	$7,509	$11,638	$7,486	$7,176	$9,616	$5,672	$9,445
Baseline year 2	$4,395	$6,020	$6,465	$12,507	$14,222	$14,544	$8,412	$12,407	$6,958	$7,699
HHP year 1	$4,516	$10,648	$7,536	$7,268	$20,538	$12,649	$10,176	$10,799	$6,350	$8,435
HHP year 2	$3,095	$7,989	$5,902	$6,743	$14,079	$22,898	$9,186	$8,123	$6,198	$6,117
% Change Year 1*	3%	77%	17%	-42%	44%	-13%	21%	-13%	-9%	10%
% Change Year 2*	-30%	33%	-9%	-46%	-1%	57%	9%	-35%	-11%	-21%
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year										
Baseline year 1	$3,959	$2,753	$3,358	$2,214	$4,839	$4,320	$4,826	$4,544	$6,999	$5,013
Baseline year 2	$4,075	$1,321	$4,236	$3,031	$5,153	$5,031	$4,930	$4,508	$6,280	$4,430
HHP year 1	$4,618	$891	$3,457	$3,275	$6,057	$6,553	$5,324	$4,551	$6,003	$4,773
HHP year 2	$3,887	$1,413	$3,287	$2,145	$5,676	$5,854	$5,752	$6,043	$5,732	$2,613
% Change Year 1*	13%	-33%	-18%	8%	18%	30%	8%	1%	-4%	8%
% Change Year 2*	-5%	7%	-22%	-29%	10%	16%	17%	34%	-9%	-41%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year										
Baseline year 1	$778	$246	$822	$689	$1,335	$1,389	$1,039	$1,094	$864	$852
Baseline year 2	$470	$476	$1,043	$835	$1,278	$2,350	$882	$1,405	$1,033	$1,281
HHP year 1	$780	$296	$1,940	$906	$1,848	$1,997	$1,147	$1,063	$1,171	$1,138
HHP year 2	$699	$574	$2,861	$2,396	$1,729	$3,638	$1,025	$1,691	$1,702	$824
% Change Year 1*	66%	-38%	86%	9%	45%	-15%	30%	-24%	13%	-11%

MCP	Aetna				Alameda Alliance		Blue Shield		CA H&W	
Group	Group 3				Group 3		Group 3		Group 3	
County	Sacramento		San Diego		Alameda		San Diego		Imperial	
SPA	1	2	1	2	1	2	1	2	1	2
% Change Year 2*	49%	21%	174%	187%	35%	55%	16%	20%	65%	-36%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 98: HHP Implementation and Enrollee Demographics for Anthem Blue Cross as of December 31, 2021

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Program Implementation and Enrollment										
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	211	61	282	79	1145	590	511	296	794	330
% of enrollees from TEL	59%		70%		71%		58%		70%	
Avg Length of Enrollment (Months)	12	9	10	9	13	11	15	12	17	14
Enrollee Demographics										
% 0-17	--	--	6%	--	8%	1%	10%	6%	8%	--
% 18-34	<13%	33%	11%	34%	21%	28%	19%	30%	17%	22%
% 34-49	21%	18%	22%	24%	26%	30%	18%	21%	25%	32%
% 49-64	44%	38%	47%	29%	36%	35%	32%	33%	39%	40%
% 65+	23%	--	14%	--	9%	5%	22%	11%	11%	--
% Male	57%	49%	54%	42%	38%	33%	42%	36%	36%	25%
% White	22%	21%	12%	--	25%	41%	18%	34%	28%	29%
% Hispanic	12%	--	17%	14%	19%	12%	45%	33%	60%	55%
% African American	29%	26%	48%	43%	27%	22%	7%	6%	3%	4%
% Asian American and Pacific Islander	15%	--	6%	--	7%	3%	19%	8%	1%	--
% American Indian and Alaskan Native	--	0%	--	--	--	--	--	--	--	--
% Other	18%	26%	12%	22%	16%	16%	9%	14%	5%	8%
% Unknown	--	--	<5%	--	4%	4%	3%	4%	<5%	--
% Speak English	79%	92%	88%	89%	85%	93%	68%	86%	71%	74%
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	12	12	12
# Enrollees with Homeless Information Available	197	61	282	79	1145	590	511	296	794	330
Proportion ever homeless during HHP enrollment	8%	--	17%	16%	6%	11%	8%	10%	10%	8%

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 99: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for Anthem Blue Cross as of December 31, 2021

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment										
Two specific conditions (criteria 1)	48%	16%	49%	20%	39%	28%	36%	24%	48%	31%
Hypertension and another specific condition (criteria 2)	49%	15%	49%	19%	39%	28%	42%	22%	55%	39%
Serious mental health condition (criteria 3)	31%	79%	29%	70%	35%	77%	20%	71%	26%	72%
Asthma (criteria 4)	22%	--	26%	--	33%	19%	26%	8%	31%	19%
Average number of ED visits	4.9	5.8	6.4	4.6	6.8	7.9	4.3	5.0	4.7	5.3
Average number of hospitalizations	1.4	1.2	1.8	1.1	1.3	0.9	0.9	0.7	1.1	1.2
HHP Services Delivered to HHP Enrollees										
Total number of units of service provided	2,375	606	2,341	535	8,950	5,523	4,391	2,518	22,681	6,302
Average number of units of service per enrollee	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.0	1.0	1.0
Median number of units of service per enrollee	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of engagement services provided	1.0	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of core services provided	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of other HHP services provided	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Average number of in-person services provided	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of phone/ telehealth services provided	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of services provided by clinical staff	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average number of services provided by non-clinical staff	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 100: Trends in HHP Metrics for Anthem Blue Cross as of December 31, 2021

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Adult BMI Assessment										
Baseline year 1	16%	8%	31%	23%	51%	55%	31%	29%	53%	53%
Baseline year 2	23%	8%	34%	17%	73%	71%	40%	35%	66%	73%
HHP year 1	23%	6%	32%	15%	79%	68%	43%	37%	78%	77%
HHP year 2	24%	14%	28%	35%	77%	66%	40%	42%	79%	77%
Follow-Up After Hospitalization for Mental Illness within 30 Days										
Baseline year 1	100%	50%	--	100%	33%	100%	100%	89%	83%	77%
Baseline year 2	100%	100%	100%	100%	100%	85%	100%	88%	86%	69%
HHP year 1	100%	--	--	100%	83%	100%	100%	67%	86%	91%
HHP year 2	--	100%	--	--	100%	67%	100%	--	86%	100%
Follow-Up After Hospitalization for Mental Illness within 7 Days										
Baseline year 1	60%	50%	--	75%	22%	75%	80%	67%	33%	46%
Baseline year 2	80%	100%	100%	80%	50%	54%	100%	63%	50%	63%
HHP year 1	100%	--	--	100%	33%	80%	0%	67%	57%	73%
HHP year 2	--	0%	--	--	100%	67%	100%	--	29%	0%
Screening for Depression and Follow-Up Plan										
Baseline year 1	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Baseline year 2	0%	0%	0%	0%	2%	0%	3%	0%	0%	0%
HHP year 1	1%	0%	1%	0%	1%	0%	6%	0%	0%	0%
HHP year 2	0%	--	0%	--	0%	0%	4%	0%	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days										
Baseline year 1	31%	40%	4%	33%	9%	9%	6%	10%	14%	20%
Baseline year 2	13%	14%	10%	--	11%	7%	8%	0%	13%	0%
HHP year 1	33%	50%	0%	0%	8%	5%	0%	0%	25%	11%
HHP year 2	0%	0%	0%	--	0%	0%	0%	--	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days										
Baseline year 1	50%	60%	15%	67%	18%	24%	19%	25%	23%	20%
Baseline year 2	50%	43%	10%	--	19%	7%	15%	7%	13%	8%
HHP year 1	40%	50%	0%	0%	17%	8%	17%	11%	42%	11%
HHP year 2	9%	50%	50%	--	18%	9%	0%	--	0%	0%
Initiation of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	18%	13%	21%	22%	26%	24%	24%	35%	25%	15%
Baseline year 2	16%	13%	22%	43%	20%	18%	23%	29%	17%	25%
HHP year 1	34%	22%	13%	40%	16%	30%	17%	36%	16%	41%
HHP year 2	15%	33%	27%	100%	13%	25%	15%	11%	18%	29%
Engagement of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	50%	0%	67%	0%	37%	32%	33%	65%	40%	40%
Baseline year 2	43%	0%	36%	0%	34%	52%	25%	41%	46%	30%
HHP year 1	45%	50%	20%	0%	29%	42%	29%	44%	33%	15%
HHP year 2	0%	0%	0%	100%	20%	44%	0%	100%	0%	0%
Use of Pharmacotherapy for Opioid Use Disorder										
Baseline year 1	56%	90%	58%	50%	56%	69%	29%	77%	72%	64%
Baseline year 2	63%	100%	51%	40%	56%	61%	22%	50%	59%	44%
HHP year 1	80%	75%	56%	0%	60%	80%	20%	50%	58%	50%

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
HHP year 2	56%	100%	75%	--	58%	69%	25%	71%	55%	45%
All-Cause Readmission										
Baseline year 1	12%	0%	14%	7%	9%	6%	14%	3%	12%	20%
Baseline year 2	10%	0%	13%	0%	13%	5%	6%	10%	8%	10%
HHP year 1	14%	0%	23%	25%	12%	10%	10%	6%	13%	15%
HHP year 2	0%	0%	9%	0%	13%	6%	16%	20%	6%	25%
Controlling High Blood Pressure										
Baseline year 1	0%	0%	1%	0%	10%	12%	5%	3%	2%	0%
Baseline year 2	1%	7%	1%	0%	23%	29%	7%	3%	8%	7%
HHP year 1	8%	13%	1%	0%	29%	25%	16%	19%	28%	48%
HHP year 2	2%	17%	3%	0%	25%	32%	18%	28%	54%	61%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year										
Baseline year 1	5,120	5,320	6,015	4,908	5,228	6,208	3,995	5,311	8,166	9,240
Baseline year 2	5,928	6,402	8,301	7,182	6,807	7,388	5,263	5,879	9,852	10,586
HHP year 1	7,258	7,736	11,353	9,917	7,155	8,922	6,115	5,730	10,975	11,641
HHP year 2	7,078	9,260	10,183	8,643	6,508	7,406	5,704	5,159	10,107	11,478
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year										
Baseline year 1	2,781	2,297	3,952	2,779	3,659	3,778	2,770	2,414	2,978	3,239
Baseline year 2	3,287	5,187	4,738	3,353	4,707	4,222	3,415	2,924	3,691	4,045
HHP year 1	3,478	4,681	4,859	4,032	4,992	4,614	2,971	3,226	4,116	3,928
HHP year 2	2,939	4,346	5,415	2,434	4,843	4,970	2,934	3,316	3,506	3,171
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year										
Baseline year 1	6,951	11,470	4,606	11,253	3,248	7,458	2,545	9,914	1,375	3,427
Baseline year 2	7,627	13,773	6,059	14,544	3,740	8,803	3,772	12,484	1,724	3,690
HHP year 1	7,228	14,198	7,230	13,510	3,741	8,911	5,088	11,875	2,351	4,081
HHP year 2	5,633	13,606	6,063	9,734	3,797	7,162	3,681	7,038	2,285	3,081
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year										
Baseline year 1	18,473	24,053	12,413	2,751	9,110	16,181	1,435	6,080	7,411	7,892
Baseline year 2	14,679	17,237	11,679	2,904	9,646	16,397	1,900	5,976	7,939	7,570
HHP year 1	10,813	9,802	9,352	2,561	8,992	16,866	2,086	6,823	8,424	8,095
HHP year 2	8,939	10,110	8,996	2,266	8,980	11,161	2,796	3,955	6,114	5,349
Emergency Department Visits per 1,000 Beneficiaries per Year										
Baseline year 1	2,105	2,474	2,382	1,935	2,865	3,540	1,707	2,357	1,732	2,182
Baseline year 2	1,689	2,298	2,460	1,889	2,792	3,608	1,791	2,333	2,000	1,967
HHP year 1	1,680	1,385	2,388	1,643	1,934	3,258	1,363	1,875	1,467	1,492
HHP year 2	1,469	3,213	1,313	587	1,745	2,440	1,484	1,535	1,147	1,792
Inpatient Stays per 1,000 Beneficiaries per Year										
Baseline year 1	656	619	688	484	658	496	416	301	521	629
Baseline year 2	823	640	1,132	617	728	470	563	422	639	630
HHP year 1	558	571	989	325	451	377	414	347	427	449
HHP year 2	380	189	630	168	397	313	444	184	320	290
PQI 92 (per 1,000 Beneficiaries per Year)										
Baseline year 1	132	35	90	41	124	59	81	30	52	125
Baseline year 2	129	49	196	116	155	74	99	24	71	76
HHP year 1	89	--	188	38	73	39	83	24	60	73

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
HHP year 2	159	--	90	--	67	30	73	61	46	26
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)										
Baseline year 1	--	--	26	14	11	12	9	4	--	10
Baseline year 2	5	--	46	--	15	7	16	10	6	21
HHP year 1	18	--	22	38	8	14	23	8	8	--
HHP year 2	12	--	72	--	14	9	13	--	2	6
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)										
Baseline year 1	15	--	15	14	12	18	13	27	15	13
Baseline year 2	24	--	21	--	11	14	32	21	23	9
HHP year 1	12	--	28	19	5	6	14	--	15	13
HHP year 2	24	--	36	--	11	4	17	25	9	--
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)										
Baseline year 1	10	--	4	--	6	--	9	4	1	--
Baseline year 2	10	--	11	--	4	3	4	7	5	6
HHP year 1	6	--	17	--	5	2	11	8	4	7
HHP year 2	--	--	--	--	1	4	9	--	6	--

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 101: Trends in Estimated Payments for Anthem Blue Cross as of December 31, 2021

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year										
Baseline year 1	$33,034	$26,116	$36,191	$21,052	$20,470	$20,062	$16,083	$16,992	$20,291	$23,259
Baseline year 2	$35,362	$26,478	$46,322	$30,128	$24,292	$21,217	$21,446	$21,469	$23,489	$22,110
HHP year 1	$34,680	$28,964	$43,949	$19,562	$21,113	$22,363	$18,952	$19,471	$23,123	$22,600
HHP year 2	$18,344	$20,801	$25,471	$30,022	$21,439	$23,427	$18,289	$15,658	$22,962	$18,357
% Change Year 1*	-2%	9%	-5%	-35%	-13%	5%	-12%	-9%	-2%	2%
% Change Year 2*	-48%	-21%	-45%	0%	-12%	10%	-15%	-27%	-2%	-17%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year										
Baseline year 1	$1,142	$1,169	$1,238	$1,066	$1,334	$1,510	$616	$995	$879	$1,145
Baseline year 2	$800	$1,747	$1,103	$1,212	$1,361	$1,605	$647	$924	$987	$1,215
HHP year 1	$1,038	$916	$1,200	$846	$1,006	$1,493	$480	$894	$866	$896
HHP year 2	$513	$1,759	$592	$1,420	$931	$1,287	$621	$501	$816	$796
% Change Year 1*	30%	-48%	9%	-30%	-26%	-7%	-26%	-3%	-12%	-26%
% Change Year 2*	-36%	1%	-46%	17%	-32%	-20%	-4%	-46%	-17%	-35%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year										
Baseline year 1	$9,408	$6,875	$9,464	$8,471	$8,641	$6,478	$4,846	$3,750	$6,742	$7,964
Baseline year 2	$11,559	$6,981	$15,157	$13,769	$9,859	$6,343	$6,515	$4,500	$10,174	$7,679
HHP year 1	$8,961	$7,867	$14,013	$3,807	$6,361	$4,694	$4,838	$3,429	$6,044	$5,904
HHP year 2	$4,636	$1,842	$8,500	$6,635	$5,843	$4,586	$4,716	$2,288	$5,824	$3,542
% Change Year 1*	-22%	13%	-8%	-72%	-35%	-26%	-26%	-24%	-41%	-23%
% Change Year 2*	-60%	-74%	-44%	-52%	-41%	-28%	-28%	-49%	-43%	-54%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year										
Baseline year 1	$292	--	$370	$112	$360	$207	$519	$978	$184	$380
Baseline year 2	$252	--	$562	$187	$365	$256	$587	$802	$321	$226

MCP	Anthem Blue Cross Partnership Plan									
Group	Group 1		Group 3							
County	San Francisco		Alameda		Sacramento		Santa Clara		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
HHP year 1	$589	--	$872	$204	$239	$198	$743	$598	$452	$403
HHP year 2	$309	--	$2,365	--	$571	$457	$587	$299	$600	$123
% Change Year 1*	134%	-	55%	9%	-35%	-22%	27%	-25%	41%	78%
% Change Year 2*	23%	-	321%	-100%	56%	79%	0%	-63%	87%	-46%
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year										
Baseline year 1	$18,102	$10,832	$12,077	$8,222	$5,853	$6,833	$6,821	$7,781	$8,195	$9,368
Baseline year 2	$17,948	$9,671	$18,403	$9,954	$7,924	$7,852	$8,848	$11,290	$7,183	$8,444
HHP year 1	$17,894	$13,273	$19,110	$10,920	$8,281	$10,832	$8,322	$9,947	$10,218	$10,413
HHP year 2	$7,796	$13,120	$8,493	$10,852	$8,225	$11,849	$8,372	$8,690	$10,200	$9,286
% Change Year 1*	0%	37%	4%	10%	5%	38%	-6%	-12%	42%	23%
% Change Year 2*	-57%	36%	-54%	9%	4%	51%	-5%	-23%	42%	10%
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year										
Baseline year 1	$3,064	$6,711	$4,078	$2,464	$3,137	$4,078	$2,353	$2,753	$3,421	$3,415
Baseline year 2	$3,663	$7,119	$3,632	$2,939	$3,556	$4,108	$2,762	$2,382	$3,761	$3,560
HHP year 1	$4,638	$5,763	$4,297	$1,827	$3,758	$4,167	$2,789	$3,053	$4,402	$3,890
HHP year 2	$3,661	$2,642	$4,205	$2,165	$3,878	$4,217	$2,675	$2,912	$4,260	$3,675
% Change Year 1*	27%	-19%	18%	-38%	6%	1%	1%	28%	17%	9%
% Change Year 2*	0%	-63%	16%	-26%	9%	3%	-3%	22%	13%	3%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year										
Baseline year 1	$848	$433	$8,754	$540	$924	$789	$815	$658	$698	$712
Baseline year 2	$924	$723	$7,104	$1,887	$977	$885	$1,897	$1,446	$869	$753
HHP year 1	$1,392	$1,021	$4,147	$1,814	$1,316	$873	$1,678	$1,464	$1,006	$953
HHP year 2	$1,247	$1,216	$1,113	$8,854	$1,901	$914	$1,211	$935	$1,168	$836
% Change Year 1*	51%	41%	-42%	-4%	35%	-1%	-12%	1%	16%	27%
% Change Year 2*	35%	68%	-84%	369%	95%	3%	-36%	-35%	34%	11%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.
Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 102: HHP Implementation and Enrollee Demographics for LA Care, Community Health Group, Kern Health Systems, and CalOptima as of December 31, 2021

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
Program Implementation and Enrollment								
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	22361	7715	1768	509	4663	670	1194	411
% of TEL enrolled	70%		98%		74%		92%	
Avg Length of Enrollment (Months)	11	10	12	10	16	9	10	8
Enrollee Demographics								
% 0-17	8%	4%	7%	7%	3%	3%	7%	12%
% 18-34	11%	21%	8%	22%	13%	29%	10%	33%
% 34-49	18%	24%	22%	26%	27%	30%	24%	29%
% 49-64	49%	44%	57%	42%	50%	36%	55%	26%
% 65+	14%	7%	7%	4%	7%	2%	5%	--
% Male	44%	37%	35%	33%	36%	29%	51%	36%
% White	11%	16%	22%	29%	28%	30%	31%	30%
% Hispanic	54%	52%	38%	33%	54%	55%	44%	42%
% African American	22%	21%	10%	7%	11%	9%	4%	7%
% Asian American and Pacific Islander	7%	4%	6%	5%	2%	--	6%	<5%
% American Indian and Alaskan Native	--	--	--	--	--	--	0%	--
% Other	2%	2%	20%	22%	1%	0%	9%	9%
% Unknown	4%	5%	4%	3%	5%	4%	6%	5%
% Speak English	61%	72%	64%	75%	72%	78%	73%	83%
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	12
# Enrollees with Homeless Information Available	22361	7715	1768	509	4663	670	1194	411
Proportion ever homeless during HHP enrollment	6%	9%	6%	10%	2%	2%	23%	21%

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 103: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for LA Care, Community Health Group, Kern Health Systems, and CalOptima as of December 31, 2021

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment								
Two specific conditions (criteria 1)	47%	27%	57%	40%	52%	29%	67%	19%
Hypertension and another specific condition (criteria 2)	62%	36%	61%	34%	63%	40%	67%	8%
Serious mental health condition (criteria 3)	26%	80%	53%	83%	40%	79%	45%	96%
Asthma (criteria 4)	29%	16%	32%	22%	29%	22%	37%	10%
Average number of ED visits	4.3	5.0	4.7	4.6	4.6	4.2	9.7	7.5
Average number of hospitalizations	1.1	1.1	1.1	0.9	0.9	0.9	2.7	1.4
HHP Services Delivered to HHP Enrollees								
Total number of units of service provided	540,600	3,736	36,138	9,493	104,039	8,973	50,277	8,748
Average number of units of service per enrollee	1.7	1.7	1.0	1.0	1.5	1.5	2.2	2.0
Median number of units of service per enrollee	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
Average number of engagement services provided	1.1	1.2	1.0	1.0	1.2	1.1	0.0	0.0
Average number of core services provided	1.5	1.6	1.0	1.0	1.5	1.5	1.8	1.6
Average number of other HHP services provided	1.6	1.5	1.0	1.0	1.1	1.1	2.1	2.0
Average number of in-person services provided	1.1	1.1	1.0	1.0	1.2	1.2	1.8	1.5
Average number of phone/ telehealth services provided	1.5	1.6	1.0	1.0	1.3	1.3	1.7	1.6
Average number of services provided by clinical staff	1.5	1.5	1.0	1.0	1.4	1.5	1.5	1.6
Average number of services provided by non-clinical staff	1.7	1.7	1.0	1.0	1.2	1.1	2.2	2.1

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 104: Trends in HHP Metrics for LA Care, Community Health Group, Kern Health Systems, and CalOptima as of December 31, 2021

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
Adult BMI Assessment								
Baseline year 1	72%	69%	78%	75%	51%	49%	74%	63%
Baseline year 2	75%	73%	78%	72%	60%	60%	77%	62%
HHP year 1	71%	70%	71%	65%	60%	62%	71%	60%
HHP year 2	67%	65%	67%	58%	60%	60%	63%	55%
Follow-Up After Hospitalization for Mental Illness within 30 Days								
Baseline year 1	69%	71%	84%	82%	86%	82%	67%	85%
Baseline year 2	77%	75%	86%	73%	96%	87%	72%	80%
HHP year 1	71%	72%	82%	88%	100%	89%	75%	61%
HHP year 2	59%	63%	60%	100%	100%	--	69%	67%
Follow-Up After Hospitalization for Mental Illness within 7 Days								
Baseline year 1	49%	42%	67%	64%	57%	45%	52%	54%
Baseline year 2	52%	51%	68%	53%	78%	70%	61%	48%
HHP year 1	42%	45%	64%	69%	87%	56%	48%	45%
HHP year 2	43%	48%	40%	100%	83%	--	31%	33%
Screening for Depression and Follow-Up Plan								
Baseline year 1	5%	5%	3%	4%	0%	0%	7%	9%
Baseline year 2	5%	5%	17%	17%	1%	0%	9%	0%
HHP year 1	5%	6%	20%	23%	3%	5%	7%	0%
HHP year 2	7%	10%	14%	64%	2%	0%	2%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days								
Baseline year 1	5%	3%	9%	0%	6%	0%	3%	0%
Baseline year 2	8%	7%	11%	9%	19%	0%	4%	4%
HHP year 1	3%	8%	5%	20%	7%	0%	4%	9%
HHP year 2	7%	5%	0%	0%	7%	50%	9%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days								
Baseline year 1	8%	7%	20%	0%	13%	13%	6%	0%
Baseline year 2	12%	12%	13%	31%	30%	20%	11%	11%
HHP year 1	7%	14%	14%	28%	12%	0%	15%	16%
HHP year 2	11%	8%	33%	50%	18%	100%	9%	0%
Initiation of Alcohol and Other Drug Dependence Treatment								
Baseline year 1	19%	24%	28%	28%	16%	20%	25%	36%
Baseline year 2	20%	23%	25%	25%	16%	27%	27%	38%
HHP year 1	16%	24%	21%	18%	15%	26%	28%	33%
HHP year 2	17%	23%	15%	21%	11%	41%	21%	23%
Engagement of Alcohol and Other Drug Dependence Treatment								
Baseline year 1	37%	47%	44%	37%	41%	31%	25%	45%
Baseline year 2	33%	40%	33%	52%	32%	55%	41%	51%
HHP year 1	34%	39%	41%	62%	41%	50%	41%	45%

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
HHP year 2	29%	31%	18%	50%	29%	36%	52%	60%
Use of Pharmacotherapy for Opioid Use Disorder								
Baseline year 1	38%	37%	43%	42%	34%	41%	23%	38%
Baseline year 2	37%	41%	45%	49%	38%	42%	27%	42%
HHP year 1	34%	42%	44%	54%	46%	56%	35%	35%
HHP year 2	32%	41%	39%	70%	44%	44%	31%	47%
All-Cause Readmission								
Baseline year 1	8%	10%	10%	7%	8%	11%	12%	13%
Baseline year 2	9%	10%	8%	6%	12%	11%	12%	10%
HHP year 1	10%	11%	12%	11%	13%	17%	13%	6%
HHP year 2	12%	10%	9%	0%	13%	21%	12%	8%
Controlling High Blood Pressure								
Baseline year 1	19%	21%	6%	4%	4%	6%	23%	16%
Baseline year 2	22%	23%	11%	12%	3%	4%	34%	19%
HHP year 1	23%	24%	21%	20%	2%	1%	29%	24%
HHP year 2	28%	32%	21%	10%	2%	2%	20%	25%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year								
Baseline year 1	6,210	6,304	8,917	8,536	8,760	7,557	6,175	4,093
Baseline year 2	7,587	7,554	10,559	10,443	10,568	10,751	7,917	5,897
HHP year 1	8,845	8,763	15,256	14,589	15,148	14,012	7,936	6,005
HHP year 2	7,509	7,437	13,128	12,639	14,066	10,753	6,923	4,797
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year								
Baseline year 1	4,043	3,771	7,714	5,933	7,418	5,210	7,291	4,972
Baseline year 2	4,967	4,426	9,229	7,586	8,380	6,603	9,463	5,558
HHP year 1	5,123	4,789	9,836	8,269	10,170	9,976	9,659	5,992
HHP year 2	5,127	4,550	9,084	8,401	8,760	7,614	9,606	5,229
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year								
Baseline year 1	3,398	9,753	4,976	8,380	4,018	5,760	4,374	14,010
Baseline year 2	4,071	11,864	5,902	10,533	5,267	8,585	5,080	17,077
HHP year 1	4,055	11,161	5,911	9,918	5,837	8,797	5,224	13,549
HHP year 2	4,166	8,369	5,527	6,560	5,381	7,075	3,949	11,342
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year								
Baseline year 1	2,799	5,255	2,529	4,053	5,796	5,741	6,712	12,679
Baseline year 2	2,962	6,101	2,832	4,197	6,324	6,736	7,545	12,747
HHP year 1	2,611	5,989	2,755	3,954	6,909	6,960	5,130	6,405
HHP year 2	2,560	4,306	2,421	2,753	6,230	6,266	1,869	6,701
Emergency Department Visits per 1,000 Beneficiaries per Year								
Baseline year 1	1,723	2,065	1,880	1,809	1,971	1,713	3,545	2,781
Baseline year 2	1,806	2,154	1,833	2,084	1,981	2,078	3,667	3,549
HHP year 1	1,313	1,626	1,564	1,637	1,629	1,411	2,555	2,592
HHP year 2	1,163	1,477	1,441	1,385	1,559	1,253	2,453	3,186

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
Inpatient Stays per 1,000 Beneficiaries per Year								
Baseline year 1	492	511	528	395	421	318	1,308	571
Baseline year 2	621	593	656	550	466	595	1,523	911
HHP year 1	468	396	489	477	440	309	1,025	627
HHP year 2	369	353	476	240	399	288	816	554
PQI 92 (per 1,000 Beneficiaries per Year)								
Baseline year 1	82	45	71	38	60	34	223	8
Baseline year 2	107	49	80	51	61	37	249	25
HHP year 1	83	42	80	59	54	31	148	12
HHP year 2	66	46	94	50	54	50	150	--
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)								
Baseline year 1	5	6	7	13	6	2	28	10
Baseline year 2	6	7	19	12	7	12	35	5
HHP year 1	4	5	19	12	8	6	17	6
HHP year 2	7	10	20	17	12	--	29	--
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)								
Baseline year 1	8	7	5	4	5	10	30	3
Baseline year 2	9	9	8	10	8	8	40	15
HHP year 1	8	7	11	7	11	--	24	19
HHP year 2	10	10	17	--	8	6	20	17
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)								
Baseline year 1	4	4	1	2	3	--	9	5
Baseline year 2	4	6	5	6	3	6	12	5
HHP year 1	5	7	7	2	3	2	13	6
HHP year 2	7	7	3	--	5	6	18	--

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 105: Trends in Estimated Payments for LA Care, Community Health Group, Kern Health Systems, and CalOptima as of December 31, 2021

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year								
Baseline year 1	$18,746	$19,328	$24,580	$20,057	$23,244	$14,341	$36,285	$20,834
Baseline year 2	$22,256	$22,495	$29,631	$27,031	$26,162	$20,615	$47,740	$29,480
HHP year 1	$21,637	$20,918	$27,681	$24,991	$26,400	$18,297	$41,167	$32,482
HHP year 2	$20,394	$19,283	$26,603	$20,147	$24,916	$17,042	$41,586	$23,317
% Change Year 1*	-3%	-7%	-7%	-8%	1%	-11%	-14%	10%
% Change Year 2*	-8%	-14%	-10%	-25%	-5%	-17%	-13%	-21%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year								
Baseline year 1	$747	$929	$872	$875	$1,224	$1,058	$2,027	$1,367
Baseline year 2	$806	$965	$1,042	$1,144	$1,322	$1,389	$2,453	$1,791
HHP year 1	$620	$767	$911	$1,095	$1,201	$1,016	$1,854	$1,893
HHP year 2	$585	$710	$879	$1,014	$1,199	$888	$1,926	$1,415
% Change Year 1*	-23%	-21%	-13%	-4%	-9%	-27%	-24%	6%
% Change Year 2*	-27%	-26%	-16%	-11%	-9%	-36%	-21%	-21%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year								
Baseline year 1	$5,493	$5,686	$6,476	$4,415	$4,697	$4,151	$13,165	$5,805
Baseline year 2	$7,811	$7,262	$7,793	$6,830	$6,313	$7,953	$17,464	$9,239
HHP year 1	$6,509	$5,182	$5,197	$5,195	$6,137	$4,214	$11,431	$6,457
HHP year 2	$5,270	$4,532	$5,558	$2,468	$5,389	$4,443	$9,664	$5,525
% Change Year 1*	-17%	-29%	-33%	-24%	-3%	-47%	-35%	-30%
% Change Year 2*	-33%	-38%	-29%	-64%	-15%	-44%	-45%	-40%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year								
Baseline year 1	$305	$237	$92	$71	$177	$69	$651	$624
Baseline year 2	$345	$319	$260	$213	$149	$151	$904	$285
HHP year 1	$472	$443	$484	$257	$174	$45	$1,190	$496
HHP year 2	$896	$972	$672	$139	$207	$32	$2,586	$867
% Change Year 1*	37%	39%	86%	21%	17%	-70%	32%	74%
% Change Year 2*	160%	205%	159%	-35%	39%	-79%	186%	204%
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year								
Baseline year 1	$6,600	$6,507	$9,367	$8,116	$11,339	$5,120	$11,369	$7,935
Baseline year 2	$7,505	$7,880	$11,579	$11,763	$11,828	$6,978	$16,181	$11,440
HHP year 1	$8,198	$8,454	$11,799	$10,640	$12,484	$8,177	$15,963	$10,723
HHP year 2	$7,854	$7,151	$10,832	$8,440	$12,194	$7,286	$15,502	$5,756
% Change Year 1*	9%	7%	2%	-10%	6%	17%	-1%	-6%

MCP	LA Care		Community Health Group		Kern Health Systems		CalOptima	
Group	Group 3		Group 3		Group 3		Group 4	
County	Los Angeles		San Diego		Kern		Orange	
SPA	1	2	1	2	1	2	1	2
% Change Year 2*	5%	-9%	-6%	-28%	3%	4%	-4%	-50%
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year								
Baseline year 1	$4,366	$4,721	$6,884	$5,534	$4,865	$3,238	$7,340	$3,186
Baseline year 2	$4,267	$4,484	$7,899	$6,074	$5,347	$3,171	$7,841	$4,334
HHP year 1	$4,009	$4,258	$8,244	$6,808	$5,146	$3,964	$8,310	$4,095
HHP year 2	$3,803	$4,122	$7,510	$7,304	$4,519	$3,022	$7,994	$5,077
% Change Year 1*	-6%	-5%	4%	12%	-4%	25%	6%	-6%
% Change Year 2*	-11%	-8%	-5%	20%	-15%	-5%	2%	17%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year								
Baseline year 1	$1,108	$1,092	$706	$911	$813	$599	$1,327	$1,738
Baseline year 2	$1,376	$1,395	$840	$847	$1,076	$816	$2,484	$2,101
HHP year 1	$1,728	$1,702	$860	$805	$1,134	$805	$2,073	$8,627
HHP year 2	$1,895	$1,712	$957	$696	$1,297	$1,284	$3,676	$4,549
% Change Year 1*	26%	22%	2%	-5%	5%	-1%	-17%	311%
% Change Year 2*	38%	23%	14%	-18%	21%	57%	48%	117%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.
Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 106: HHP Implementation and Enrollee Demographics for Inland Empire Health Plan and Kaiser as of December 31, 2021

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Program Implementation and Enrollment								
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	7204	2596	6240	2065	546	317	<30	N/A
% of TEL enrolled	84%		85%		86%		73%	
Avg Length of Enrollment (Months)	15	10	15	11	11	10	9	N/A
Enrollee Demographics								
% 0-17	2%	1%	5%	2%	15%	10%	0%	N/A
% 18-34	12%	25%	12%	24%	19%	28%	--	N/A
% 34-49	23%	29%	25%	31%	24%	24%	--	N/A
% 49-64	59%	43%	54%	41%	36%	35%	56%	N/A
% 65+	5%	2%	4%	2%	6%	--	--	N/A
% Male	42%	33%	39%	32%	42%	30%	--	N/A
% White	29%	34%	24%	31%	26%	32%	--	N/A
% Hispanic	49%	45%	49%	43%	13%	16%	--	N/A
% African American	12%	11%	18%	18%	38%	28%	--	N/A
% Asian American and Pacific Islander	3%	2%	3%	1%	8%	<5%	--	N/A
% American Indian and Alaskan Native	--	--	--	--	--	--	--	N/A
% Other	1%	1%	1%	1%	11%	12%	--	N/A
% Unknown	6%	7%	5%	5%	4%	6%	0%	N/A
% Speak English	77%	83%	81%	88%	93%	93%	85%	N/A
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	N/A
# Enrollees with Homeless Information Available	6987	2596	6038	2065	546	317	27	N/A
Proportion ever homeless during HHP enrollment	9%	12%	9%	13%	28%	34%	--	N/A

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 107: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for Inland Empire Health Plan and Kaiser as of December 31, 2021

MCP	Inland Empire Health Plan	Kaiser

Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment								
Two specific conditions (criteria 1)	55%	24%	55%	25%	34%	24%	70%	N/A
Hypertension and another specific condition (criteria 2)	66%	26%	65%	27%	35%	25%	78%	N/A
Serious mental health condition (criteria 3)	38%	85%	37%	83%	17%	90%	67%	N/A
Asthma (criteria 4)	26%	13%	33%	16%	50%	30%	--	N/A
Average number of ED visits	5.5	5.1	6.7	5.5	7.7	7.5	6.0	N/A
Average number of hospitalizations	1.3	1.0	1.6	1.0	1.0	1.2	1.6	N/A
HHP Services Delivered to HHP Enrollees								
Total number of units of service provided	174,966	48,006	177,563	53,157	378	165	145	N/A
Average number of units of service per enrollee	1.6	1.7	1.7	1.8	1.2	1.2	1.4	N/A
Median number of units of service per enrollee	1.0	1.0	1.0	1.0	1.0	1.0	1.0	N/A
Average number of engagement services provided	1.1	1.2	1.2	1.3	1.0	0.0	0.0	N/A
Average number of core services provided	1.6	1.6	1.6	1.7	1.0	0.0	1.4	N/A
Average number of other HHP services provided	1.2	1.3	1.3	1.3	1.2	1.2	0.0	N/A
Average number of in-person services provided	1.2	1.2	1.2	1.1	0.0	0.0	0.0	N/A
Average number of phone/ telehealth services provided	1.6	1.6	1.6	1.7	1.0	0.0	1.4	N/A
Average number of services provided by clinical staff	1.6	1.6	1.6	1.7	1.1	1.1	1.4	N/A
Average number of services provided by non-clinical staff	1.5	1.5	1.5	1.6	1.0	1.1	0.0	N/A

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 108: Trends in HHP Metrics for Inland Empire Health Plan and Kaiser as of December 31, 2021

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Adult BMI Assessment								
Baseline year 1	54%	60%	61%	61%	44%	37%	57%	N/A
Baseline year 2	67%	72%	72%	71%	48%	45%	58%	N/A
HHP year 1	75%	69%	75%	68%	42%	41%	63%	N/A
HHP year 2	74%	65%	71%	62%	38%	30%	64%	N/A
Follow-Up After Hospitalization for Mental Illness within 30 Days								
Baseline year 1	81%	62%	76%	72%	100%	68%	100%	N/A
Baseline year 2	80%	86%	83%	73%	79%	54%	40%	N/A
HHP year 1	70%	86%	72%	73%	80%	63%	50%	N/A
HHP year 2	58%	67%	82%	88%	0%	57%	--	N/A
Follow-Up After Hospitalization for Mental Illness within 7 Days								
Baseline year 1	46%	42%	45%	41%	57%	39%	0%	N/A
Baseline year 2	56%	52%	48%	51%	50%	29%	20%	N/A
HHP year 1	49%	57%	33%	52%	20%	31%	0%	N/A
HHP year 2	33%	33%	43%	63%	0%	43%	--	N/A
Screening for Depression and Follow-Up Plan								
Baseline year 1	16%	23%	18%	20%	0%	0%	0%	N/A
Baseline year 2	42%	30%	37%	25%	0%	0%	0%	N/A
HHP year 1	48%	34%	46%	37%	0%	0%	0%	N/A
HHP year 2	38%	25%	46%	32%	0%	0%	0%	N/A
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days								
Baseline year 1	5%	4%	5%	6%	10%	11%	0%	N/A
Baseline year 2	6%	7%	4%	6%	29%	21%	0%	N/A
HHP year 1	9%	5%	3%	1%	0%	0%	0%	N/A
HHP year 2	8%	13%	0%	0%	0%	0%	--	N/A
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days								
Baseline year 1	8%	12%	9%	12%	30%	16%	0%	N/A
Baseline year 2	12%	15%	7%	10%	35%	29%	0%	N/A
HHP year 1	16%	10%	8%	8%	0%	0%	0%	N/A
HHP year 2	17%	21%	3%	0%	0%	0%	--	N/A
Initiation of Alcohol and Other Drug Dependence Treatment								
Baseline year 1	18%	25%	18%	23%	20%	30%	25%	N/A
Baseline year 2	22%	33%	18%	22%	22%	38%	33%	N/A
HHP year 1	18%	27%	15%	22%	19%	16%	0%	N/A
HHP year 2	20%	25%	17%	15%	20%	29%	0%	N/A
Engagement of Alcohol and Other Drug Dependence Treatment								
Baseline year 1	42%	41%	29%	41%	0%	33%	0%	N/A
Baseline year 2	37%	51%	27%	24%	21%	27%	0%	N/A
HHP year 1	38%	49%	30%	45%	33%	50%	--	N/A

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
HHP year 2	34%	45%	20%	27%	40%	33%	--	N/A
Use of Pharmacotherapy for Opioid Use Disorder								
Baseline year 1	22%	25%	19%	27%	53%	60%	--	N/A
Baseline year 2	22%	30%	18%	29%	48%	32%	0%	N/A
HHP year 1	23%	30%	18%	32%	50%	31%	0%	N/A
HHP year 2	24%	29%	18%	41%	70%	29%	--	N/A
All-Cause Readmission								
Baseline year 1	9%	10%	10%	9%	8%	11%	0%	N/A
Baseline year 2	10%	9%	11%	11%	10%	13%	14%	N/A
HHP year 1	11%	11%	13%	9%	14%	15%	50%	N/A
HHP year 2	13%	13%	11%	12%	13%	20%	0%	N/A
Controlling High Blood Pressure								
Baseline year 1	9%	20%	16%	26%	1%	0%	0%	N/A
Baseline year 2	13%	21%	21%	27%	3%	1%	11%	N/A
HHP year 1	16%	26%	26%	34%	10%	25%	20%	N/A
HHP year 2	25%	31%	30%	39%	37%	44%	0%	N/A
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year								
Baseline year 1	6,880	5,891	6,715	5,285	4,703	4,908	9,592	N/A
Baseline year 2	7,367	7,529	7,435	6,328	4,956	4,585	10,345	N/A
HHP year 1	11,549	13,304	13,466	13,223	4,787	4,968	9,540	N/A
HHP year 2	10,914	11,259	11,558	10,929	4,210	4,699	7,469	N/A
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year								
Baseline year 1	6,343	6,463	5,221	4,693	4,973	7,561	7,264	N/A
Baseline year 2	8,568	7,975	6,731	6,022	5,621	7,399	8,389	N/A
HHP year 1	9,454	8,492	7,841	8,188	5,164	7,440	7,732	N/A
HHP year 2	8,136	7,610	6,696	6,942	5,536	7,801	8,327	N/A
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year								
Baseline year 1	3,860	9,120	3,582	9,060	1,179	4,494	1,686	N/A
Baseline year 2	5,404	11,585	4,988	12,267	1,613	4,709	3,724	N/A
HHP year 1	6,177	11,180	6,038	13,612	1,339	5,338	3,715	N/A
HHP year 2	5,053	9,050	5,470	12,239	1,034	4,244	2,939	N/A
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year								
Baseline year 1	4,391	6,372	3,940	6,093	5,357	4,290	1,284	N/A
Baseline year 2	4,658	7,078	3,883	6,811	5,166	4,321	3,197	N/A
HHP year 1	5,116	7,087	3,793	6,607	4,567	2,552	6,075	N/A
HHP year 2	4,290	5,995	3,009	6,060	3,795	917	122	N/A
Emergency Department Visits per 1,000 Beneficiaries per Year								
Baseline year 1	2,202	2,095	2,565	2,185	3,324	3,206	2,488	N/A
Baseline year 2	2,219	2,290	2,580	2,372	3,806	3,291	2,520	N/A
HHP year 1	1,903	1,915	2,230	2,062	3,039	3,124	2,460	N/A
HHP year 2	1,436	1,521	1,783	1,770	2,789	2,532	1,469	N/A
Inpatient Stays per 1,000 Beneficiaries per Year								

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Baseline year 1	538	426	717	448	437	463	682	N/A
Baseline year 2	790	588	952	636	554	706	978	N/A
HHP year 1	787	627	935	641	515	502	502	N/A
HHP year 2	525	469	612	388	373	308	122	N/A
PQI 92 (per 1,000 Beneficiaries per Year)								
Baseline year 1	80	22	117	44	83	49	201	N/A
Baseline year 2	148	50	179	58	87	29	263	N/A
HHP year 1	109	41	142	45	88	35	--	N/A
HHP year 2	78	27	108	35	31	26	--	N/A
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)								
Baseline year 1	17	10	13	6	4	3	40	N/A
Baseline year 2	22	11	14	11	8	6	38	N/A
HHP year 1	15	9	13	8	10	14	--	N/A
HHP year 2	8	5	9	5	9	--	--	N/A
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)								
Baseline year 1	13	10	15	10	6	3	--	N/A
Baseline year 2	22	15	24	21	9	3	--	N/A
HHP year 1	25	19	24	24	4	7	50	N/A
HHP year 2	15	20	18	20	9	--	--	N/A
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)								
Baseline year 1	6	9	5	5	2	--	--	N/A
Baseline year 2	12	11	13	12	4	--	-	N/A
HHP year 1	11	11	13	10	10	--	--	N/A
HHP year 2	13	16	12	12	--	--	--	N/A

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 109: Trends in Estimated Payments for Inland Empire Health Plan and Kaiser as of December 31, 2021

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year								
Baseline year 1	$23,758	$19,776	$24,344	$20,174	$15,347	$18,246	$24,503	$15,809
Baseline year 2	$33,221	$27,258	$33,819	$25,932	$21,892	$23,923	$35,284	$29,640
HHP year 1	$36,169	$29,313	$37,529	$29,121	$23,451	$25,560	$34,695	$16,741
HHP year 2	$30,045	$24,077	$30,604	$22,526	$24,119	$29,671	$17,380	--
% Change Year 1*	9%	8%	11%	12%	7%	7%	-2%	-44%
% Change Year 2*	-10%	-12%	-10%	-13%	10%	24%	-51%	-
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year								
Baseline year 1	$983	$929	$1,136	$1,004	$1,282	$1,167	$2,141	$429
Baseline year 2	$1,180	$1,158	$1,356	$1,321	$1,875	$1,732	$2,103	$6,976
HHP year 1	$1,075	$1,089	$1,318	$1,237	$1,967	$2,244	$1,591	$396
HHP year 2	$886	$830	$1,085	$1,179	$2,059	$2,105	$937	--
% Change Year 1*	-9%	-6%	-3%	-6%	5%	30%	-24%	-94%
% Change Year 2*	-25%	-28%	-20%	-11%	10%	22%	-55%	-
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year								
Baseline year 1	$6,892	$5,486	$8,593	$5,727	$5,197	$4,489	$7,892	--
Baseline year 2	$10,753	$8,415	$12,812	$8,802	$8,849	$7,653	$13,696	$5,852
HHP year 1	$10,946	$9,146	$12,571	$8,731	$6,516	$6,123	$8,652	--
HHP year 2	$7,455	$6,999	$8,604	$5,436	$6,166	$5,853	$1,794	--
% Change Year 1*	2%	9%	-2%	-1%	-26%	-20%	-37%	-
% Change Year 2*	-31%	-17%	-33%	-38%	-30%	-24%	-87%	-
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year								
Baseline year 1	$334	$375	$238	$328	$123	$269	$73	--
Baseline year 2	$494	$465	$558	$462	$282	$195	$111	--
HHP year 1	$585	$442	$683	$487	$470	$128	$402	--
HHP year 2	$732	$826	$758	$806	$758	$437	--	--
% Change Year 1*	18%	-5%	22%	5%	67%	-34%	262%	-
% Change Year 2*	48%	78%	36%	74%	169%	124%	-	-
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year								
Baseline year 1	$7,858	$6,792	$7,064	$7,060	$4,911	$8,210	$9,837	$7,171
Baseline year 2	$12,040	$10,135	$10,409	$8,452	$6,549	$10,587	$14,023	$9,075
HHP year 1	$14,104	$10,294	$13,595	$10,924	$9,049	$12,937	$19,736	$6,379
HHP year 2	$12,173	$8,380	$11,392	$8,388	$9,232	$16,770	$10,704	--
% Change Year 1*	17%	2%	31%	29%	38%	22%	41%	-30%
% Change Year 2*	1%	-17%	9%	-1%	41%	58%	-24%	-

MCP	Inland Empire Health Plan				Kaiser			
Group	Group 2				Group 3			
County	Riverside		San Bernardino		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year								
Baseline year 1	$5,819	$4,191	$5,526	$4,174	$3,218	$3,123	$2,830	$7,867
Baseline year 2	$6,420	$4,753	$6,366	$4,564	$3,331	$2,485	$3,341	$5,462
HHP year 1	$6,880	$5,670	$6,772	$5,333	$3,859	$2,617	$2,649	$9,732
HHP year 2	$6,578	$4,780	$6,171	$4,796	$4,048	$3,351	$3,280	--
% Change Year 1*	7%	19%	6%	17%	16%	5%	-21%	78%
% Change Year 2*	2%	1%	-3%	5%	22%	35%	-2%	-
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year								
Baseline year 1	$1,721	$1,854	$1,562	$1,746	$515	$878	$1,478	$342
Baseline year 2	$2,066	$2,099	$1,969	$2,083	$852	$1,045	$1,882	$2,196
HHP year 1	$2,311	$2,407	$2,267	$2,189	$1,419	$1,334	$1,521	$233
HHP year 2	$2,037	$2,073	$2,393	$1,764	$1,089	$1,079	$664	--
% Change Year 1*	12%	15%	15%	5%	67%	28%	-19%	-89%
% Change Year 2*	-1%	-1%	22%	-15%	28%	3%	-65%	-

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 110: HHP Implementation and Enrollee Demographics for Molina Healthcare Plan as of December 31, 2021

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Program Implementation and Enrollment										
Implementation Date	1/1/19	7/1/19	1/1/19	7/1/19	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	945	674	807	447	239	218	605	609	1651	2172
% of TEL enrolled	76%		75%		82%		85%		83%	
Avg Length of Enrollment (Months)	12	11	12	11	11	7	12	11	10	9
Enrollee Demographics										
% 0-17	20%	10%	17%	7%	8%	--	10%	2%	19%	5%
% 18-34	10%	26%	12%	26%	8%	23%	9%	22%	9%	18%
% 34-49	20%	30%	20%	23%	24%	25%	22%	27%	16%	26%
% 49-64	44%	32%	44%	42%	52%	47%	53%	47%	47%	48%
% 65+	6%	2%	8%	2%	8%	--	6%	2%	9%	4%
% Male	53%	36%	50%	42%	52%	32%	52%	42%	51%	36%
% White	22%	30%	15%	20%	3%	11%	25%	30%	21%	33%
% Hispanic	46%	42%	52%	53%	92%	77%	17%	12%	35%	23%
% African American	14%	13%	18%	18%	--	7%	29%	36%	8%	9%
% Asian American and Pacific Islander	<10%	--	8%	3%	--	0%	10%	4%	7%	3%
% American Indian and Alaskan Native	0%	--	0%	--	--	--	--	2%	--	--
% Other	--	--	--	--	--	0%	13%	12%	25%	27%
% Unknown	10%	12%	6%	6%	--	--	--	5%	4%	4%
% Speak English	74%	84%	71%	79%	40%	58%	82%	91%	59%	71%
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	12	12	12
# Enrollees with Homeless Information Available	847	648	739	443	242	219	604	610	1640	2159
Proportion ever homeless during HHP enrollment	2%	--	3%	--	--	6%	11%	16%	6%	6%

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 111: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for Molina Healthcare Plan as of December 31, 2021

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment										
Two specific conditions (criteria 1)	43%	22%	46%	25%	48%	27%	50%	35%	48%	37%
Hypertension and another specific condition (criteria 2)	51%	27%	56%	32%	64%	32%	60%	36%	56%	39%
Serious mental health condition (criteria 3)	6%	84%	8%	79%	7%	77%	12%	85%	8%	82%
Asthma (criteria 4)	40%	16%	37%	17%	25%	23%	36%	20%	37%	21%
Average number of ED visits	4.6	5.5	4.2	5.5	3.4	3.2	6.1	7.6	3.8	4.8
Average number of hospitalizations	0.9	0.9	0.9	1.2	0.5	0.3	1.3	1.3	0.9	0.9
HHP Services Delivered to HHP Enrollees										
Total number of units of service provided	5,355	2,134	9,905	3,864	592	--	2,421	10	865	105
Average number of units of service per enrollee	1.9	2.1	2.2	2.4	3.1	0.0	2.5	1.3	1.8	1.4
Median number of units of service per enrollee	1.0	2.0	2.0	2.0	2.0	0.0	2.0	1.0	1.0	1.0
Average number of engagement services provided	1.2	1.1	1.2	1.2	1.3	0.0	1.5	0.0	1.4	1.5
Average number of core services provided	1.9	2.0	2.1	2.4	3.0	0.0	2.2	1.0	1.8	1.2
Average number of other HHP services provided	1.0	1.0	1.0	1.0	1.0	0.0	1.3	0.0	1.2	1.3
Average number of in-person services provided	1.1	1.4	1.1	1.6	1.4	0.0	1.3	0.0	2.0	0.0
Average number of phone/ telehealth services provided	1.9	2.0	2.1	2.4	2.9	0.0	2.0	1.0	1.6	1.2
Average number of services provided by clinical staff	2.3	2.2	2.4	2.7	2.3	0.0	2.5	0.0	2.1	1.5
Average number of services provided by non-clinical staff	1.7	1.8	1.7	1.9	2.5	0.0	2.2	1.0	1.8	1.3

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 112: Trends in HHP Metrics for Molina Healthcare Plan as of December 31, 2021

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Adult BMI Assessment										
Baseline year 1	55%	59%	62%	68%	80%	85%	58%	56%	75%	75%
Baseline year 2	74%	76%	77%	77%	80%	80%	73%	71%	75%	72%
HHP year 1	76%	73%	80%	77%	81%	70%	74%	70%	69%	65%
HHP year 2	70%	68%	76%	73%	91%	74%	72%	64%	64%	61%
Follow-Up After Hospitalization for Mental Illness within 30 Days										
Baseline year 1	--	79%	--	84%	--	--	--	69%	80%	79%
Baseline year 2	--	73%	100%	70%	--	--	0%	70%	67%	78%
HHP year 1	100%	56%	100%	83%	--	--	0%	67%	83%	80%
HHP year 2	--	22%	--	75%	--	--	--	100%	100%	50%
Follow-Up After Hospitalization for Mental Illness within 7 Days										
Baseline year 1	--	41%	--	64%	--	--	--	31%	60%	52%
Baseline year 2	--	33%	100%	48%	--	--	0%	52%	33%	57%
HHP year 1	0%	38%	50%	56%	--	--	0%	42%	67%	63%
HHP year 2	--	22%	--	63%	--	--	--	100%	50%	40%
Screening for Depression and Follow-Up Plan										
Baseline year 1	11%	10%	8%	8%	0%	0%	1%	2%	10%	10%
Baseline year 2	20%	19%	20%	20%	1%	0%	2%	0%	15%	15%
HHP year 1	24%	47%	30%	38%	0%	0%	1%	0%	15%	20%
HHP year 2	29%	13%	34%	18%	0%	--	1%	0%	19%	20%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days										
Baseline year 1	0%	0%	0%	0%	0%	20%	0%	4%	0%	9%
Baseline year 2	4%	4%	0%	0%	--	0%	0%	13%	4%	12%
HHP year 1	6%	0%	0%	0%	33%	--	13%	4%	17%	13%
HHP year 2	14%	0%	0%	0%	100%	--	0%	6%	0%	19%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days										
Baseline year 1	0%	0%	0%	0%	0%	20%	7%	5%	5%	21%
Baseline year 2	4%	4%	0%	6%	--	0%	0%	22%	7%	24%
HHP year 1	12%	14%	0%	7%	33%	--	13%	16%	33%	26%
HHP year 2	14%	0%	0%	0%	100%	--	17%	11%	0%	38%
Initiation of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	16%	22%	15%	27%	25%	21%	28%	15%	13%	28%
Baseline year 2	27%	36%	13%	24%	36%	31%	20%	22%	19%	26%
HHP year 1	24%	34%	21%	19%	0%	23%	15%	24%	17%	24%
HHP year 2	23%	14%	9%	25%	0%	0%	17%	23%	22%	12%
Engagement of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	46%	48%	13%	35%	67%	67%	15%	28%	17%	49%
Baseline year 2	24%	43%	30%	32%	25%	64%	20%	27%	27%	35%
HHP year 1	44%	42%	0%	36%	--	67%	18%	25%	33%	42%
HHP year 2	11%	63%	33%	30%	--	--	25%	33%	27%	67%

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Use of Pharmacotherapy for Opioid Use Disorder										
Baseline year 1	24%	13%	19%	21%	48%	18%	65%	58%	56%	43%
Baseline year 2	26%	22%	21%	19%	40%	18%	48%	56%	52%	50%
HHP year 1	30%	19%	24%	27%	40%	18%	70%	57%	56%	59%
HHP year 2	42%	23%	25%	11%	57%	33%	55%	69%	54%	64%
All-Cause Readmission										
Baseline year 1	7%	10%	7%	11%	7%	5%	10%	10%	13%	10%
Baseline year 2	12%	11%	10%	6%	9%	13%	13%	10%	9%	12%
HHP year 1	14%	14%	9%	6%	10%	17%	18%	12%	16%	15%
HHP year 2	14%	4%	11%	15%	0%	0%	12%	22%	10%	7%
Controlling High Blood Pressure										
Baseline year 1	15%	18%	21%	24%	4%	9%	20%	20%	14%	13%
Baseline year 2	25%	28%	32%	36%	8%	11%	35%	36%	13%	13%
HHP year 1	28%	19%	34%	32%	20%	7%	31%	27%	16%	17%
HHP year 2	27%	17%	27%	32%	29%	13%	29%	29%	19%	23%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year										
Baseline year 1	4,805	5,002	4,622	4,303	6,742	7,060	3,611	4,431	5,658	7,567
Baseline year 2	5,541	6,076	5,247	5,690	8,103	7,694	5,015	6,659	6,035	8,555
HHP year 1	6,292	6,703	7,336	7,377	10,139	9,074	7,255	7,843	5,825	8,799
HHP year 2	5,257	5,607	5,800	6,470	10,769	10,168	5,893	7,575	6,068	7,902
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year										
Baseline year 1	3,883	4,084	3,995	3,739	6,372	5,144	3,428	2,974	5,601	5,952
Baseline year 2	4,748	4,643	4,764	4,497	6,777	6,212	3,656	3,385	6,710	6,582
HHP year 1	5,235	4,856	5,228	4,854	7,642	6,264	4,650	4,461	6,847	6,972
HHP year 2	4,296	4,345	4,781	4,328	6,453	6,600	4,786	4,318	6,551	6,654
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year										
Baseline year 1	1,036	8,507	1,158	6,271	1,557	8,356	1,556	7,441	1,139	8,968
Baseline year 2	1,637	11,248	1,330	7,695	1,755	8,797	1,726	9,202	1,566	9,860
HHP year 1	2,207	9,704	1,877	8,222	2,457	9,099	1,913	10,171	2,051	9,289
HHP year 2	2,869	7,869	1,979	7,852	2,448	7,768	2,388	8,984	2,301	7,651
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year										
Baseline year 1	1,746	4,317	3,299	3,598	5,772	4,944	6,927	12,481	875	4,820
Baseline year 2	2,476	5,851	3,218	4,802	6,227	6,023	7,234	13,198	1,188	4,868
HHP year 1	3,182	5,733	2,984	4,311	8,682	9,000	6,264	14,139	1,029	4,394
HHP year 2	3,567	5,652	1,548	3,512	18,184	12,189	6,116	14,268	1,455	4,235
Emergency Department Visits per 1,000 Beneficiaries per Year										
Baseline year 1	1,819	2,360	1,706	2,004	1,363	1,855	2,262	3,029	1,498	1,983
Baseline year 2	2,051	2,332	1,775	2,317	1,705	1,237	2,653	3,261	1,500	2,016
HHP year 1	1,493	1,803	1,300	2,060	1,245	1,372	2,207	2,942	1,078	1,840
HHP year 2	1,200	1,585	971	1,514	1,175	1,137	1,920	2,642	1,122	1,971
Inpatient Stays per 1,000 Beneficiaries per Year										

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Baseline year 1	390	404	353	590	226	119	505	536	426	464
Baseline year 2	585	558	573	692	288	138	820	762	513	470
HHP year 1	478	531	528	666	272	83	921	939	444	484
HHP year 2	337	387	300	382	113	126	624	599	498	494
PQI 92 (per 1,000 Beneficiaries per Year)										
Baseline year 1	75	45	81	56	27	9	128	96	65	44
Baseline year 2	135	56	99	105	46	14	237	188	75	45
HHP year 1	68	37	96	72	33	8	207	184	65	51
HHP year 2	78	40	80	94	14	32	165	122	89	46
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)										
Baseline year 1	8	5	3	7	--	--	9	22	14	16
Baseline year 2	18	8	18	9	8	5	18	40	14	27
HHP year 1	5	6	4	11	13	--	23	17	22	19
HHP year 2	7	3	2	--	--	--	15	11	17	24
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)										
Baseline year 1	13	12	--	2	--	--	11	21	8	12
Baseline year 2	16	8	5	11	8	5	17	10	9	8
HHP year 1	14	13	10	5	13	--	23	21	13	9
HHP year 2	11	6	7	4	14	--	25	34	15	17
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)										
Baseline year 1	8	--	3	7	--	--	5	9	3	9
Baseline year 2	4	5	3	2	4	--	7	12	4	5
HHP year 1	12	7	4	8	--	--	17	23	7	10
HHP year 2	--	3	2	4	--	--	--	--	6	7

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 113: Trends in Estimated Payments for Molina Healthcare Plan as of December 31, 2021

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year										
Baseline year 1	$15,526	$16,392	$14,590	$19,254	$18,006	$16,199	$15,952	$18,295	$18,913	$22,970
Baseline year 2	$19,338	$19,455	$19,738	$19,964	$19,925	$15,723	$23,794	$22,515	$23,682	$24,858
HHP year 1	$20,609	$21,421	$19,712	$23,616	$26,978	$18,773	$27,086	$29,864	$25,866	$27,105
HHP year 2	$17,319	$21,442	$15,174	$15,821	$19,561	$17,609	$21,595	$22,346	$23,698	$25,618
% Change Year 1*	7%	10%	0%	18%	35%	19%	14%	33%	9%	9%
% Change Year 2*	-10%	10%	-23%	-21%	-2%	12%	-9%	-1%	0%	3%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year										
Baseline year 1	$679	$1,195	$668	$1,004	$595	$1,258	$1,042	$1,469	$643	$1,112
Baseline year 2	$830	$1,135	$816	$1,101	$683	$684	$1,173	$1,857	$737	$1,323
HHP year 1	$718	$1,044	$579	$1,139	$682	$1,080	$1,173	$2,046	$764	$1,190
HHP year 2	$624	$1,120	$533	$769	$569	$429	$1,208	$1,878	$535	$1,103
% Change Year 1*	-13%	-8%	-29%	3%	0%	58%	0%	10%	4%	-10%
% Change Year 2*	-25%	-1%	-35%	-30%	-17%	-37%	3%	1%	-27%	-17%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year										
Baseline year 1	$5,058	$5,092	$4,410	$7,520	$4,172	$2,395	$5,911	$6,101	$6,161	$5,846
Baseline year 2	$7,901	$6,298	$8,433	$8,451	$5,307	$1,952	$11,421	$8,395	$6,831	$6,421
HHP year 1	$8,040	$6,671	$7,196	$11,939	$3,906	$1,218	$12,344	$12,187	$6,412	$6,562
HHP year 2	$5,230	$4,821	$4,592	$4,649	$2,100	$2,020	$8,427	$6,851	$7,143	$6,032
% Change Year 1*	2%	6%	-15%	41%	-26%	-38%	8%	45%	-6%	2%
% Change Year 2*	-34%	-23%	-46%	-45%	-60%	3%	-26%	-18%	5%	-6%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year										
Baseline year 1	$215	$116	$89	$155	--	$45	$409	$479	$161	$351
Baseline year 2	$195	$122	$132	$119	$134	$2	$263	$299	$183	$279

MCP	Molina Healthcare Plan of California									
Group	Group 2		Group 3							
County	Riverside		San Bernardino		Imperial		Sacramento		San Diego	
SPA	1	2	1	2	1	2	1	2	1	2
HHP year 1	$441	$270	$403	$299	$129	--	$1,412	$1,281	$573	$648
HHP year 2	$221	$351	$324	$198	$116	--	$897	$1,081	$844	$955
% Change Year 1*	126%	122%	206%	152%	-4%	-	438%	328%	214%	132%
% Change Year 2*	13%	188%	146%	66%	-13%	-	241%	261%	362%	242%
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year										
Baseline year 1	$5,079	$5,336	$5,661	$5,749	$6,298	$7,177	$4,612	$5,095	$6,675	$8,587
Baseline year 2	$5,681	$6,896	$6,025	$5,542	$8,632	$6,616	$6,736	$7,121	$9,789	$9,403
HHP year 1	$6,508	$8,242	$6,956	$5,115	$16,013	$7,338	$7,161	$8,653	$11,892	$11,178
HHP year 2	$6,283	$10,212	$5,454	$4,940	$9,532	$5,790	$7,018	$7,200	$9,257	$10,407
% Change Year 1*	15%	20%	15%	-8%	86%	11%	6%	22%	21%	19%
% Change Year 2*	11%	48%	-9%	-11%	10%	-12%	4%	1%	-5%	11%
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year										
Baseline year 1	$3,466	$3,565	$3,168	$3,665	$4,433	$4,632	$3,361	$4,446	$4,134	$5,295
Baseline year 2	$3,464	$3,498	$3,443	$3,263	$4,410	$5,784	$2,966	$3,756	$4,287	$5,409
HHP year 1	$3,297	$3,786	$3,400	$3,480	$5,391	$7,424	$3,572	$4,376	$4,463	$5,395
HHP year 2	$3,457	$3,713	$3,047	$3,099	$5,954	$8,021	$3,009	$4,392	$4,122	$5,080
% Change Year 1*	-5%	8%	-1%	7%	22%	28%	20%	17%	4%	0%
% Change Year 2*	0%	6%	-12%	-5%	35%	39%	1%	17%	-4%	-6%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year										
Baseline year 1	$890	$930	$459	$974	$2,408	$566	$481	$500	$1,016	$1,614
Baseline year 2	$1,073	$1,327	$709	$1,264	$619	$593	$950	$814	$1,707	$1,856
HHP year 1	$1,454	$1,175	$1,051	$1,424	$805	$1,672	$1,141	$1,046	$1,630	$1,969
HHP year 2	$1,413	$1,060	$1,149	$2,036	$1,268	$1,311	$890	$752	$1,666	$1,875
% Change Year 1*	36%	-11%	48%	13%	30%	182%	20%	28%	-5%	6%
% Change Year 2*	32%	-20%	62%	61%	105%	121%	-6%	-8%	-2%	1%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.
Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 114: HHP Implementation and Enrollee Demographics for Health Net as of December 31, 2021

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Program Implementation and Enrollment										
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	447	163	7893	1849	584	258	285	130	377	123
% of TEL enrolled	95%		87%		96%		82%		94%	
Avg Length of Enrollment (Months)	12	11	12	8	12	11	9	9	13	11
Enrollee Demographics										
% 0-17	8%	--	12%	9%	4%	--	16%	--	8%	--
% 18-34	11%	29%	11%	30%	14%	33%	12%	35%	10%	34%
% 34-49	24%	29%	19%	27%	24%	33%	20%	21%	26%	37%
% 49-64	53%	35%	49%	32%	53%	31%	46%	35%	49%	24%
% 65+	5%	--	9%	2%	4%	--	5%	--	7%	--
% Male	40%	29%	42%	35%	39%	28%	49%	41%	36%	20%
% White	28%	44%	10%	16%	26%	37%	19%	28%	20%	24%
% Hispanic	50%	36%	53%	53%	20%	14%	40%	27%	69%	64%
% African American	15%	13%	23%	19%	32%	23%	7%	12%	3%	--
% Asian American and Pacific Islander	--	--	8%	5%	5%	--	6%	--	1%	--
% American Indian and Alaskan Native	0%	--	--	--	--	--	--	0%	--	--
% Other	0%	--	2%	2%	12%	17%	25%	27%	5%	--
% Unknown	5%	--	4%	5%	3%	--	--	--	--	--
% Speak English	77%	90%	64%	75%	89%	95%	67%	85%	59%	72%
Medi-Cal full-scope months baseline year 1	12	12	12	12	12	12	12	12	12	12
# Enrollees with Homeless Information Available	447	163	7893	1849	584	258	285	130	377	123
Proportion ever homeless during HHP enrollment	3%	--	8%	9%	14%	22%	7%	11%	29%	52%

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 115: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for Health Net as of December 31, 2021

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment										
Two specific conditions (criteria 1)	50%	15%	48%	18%	54%	18%	48%	16%	54%	24%
Hypertension and another specific condition (criteria 2)	66%	12%	63%	19%	61%	9%	51%	10%	67%	16%
Serious mental health condition (criteria 3)	38%	93%	32%	88%	40%	94%	26%	92%	36%	95%
Asthma (criteria 4)	40%	13%	37%	11%	38%	12%	40%	12%	43%	15%
Average number of ED visits	5.2	5.2	5.1	5.1	7.4	6.9	4.8	4.9	5.6	8.3
Average number of hospitalizations	1.0	0.6	1.3	1.1	1.3	0.6	1.2	1.2	1.5	1.2
HHP Services Delivered to HHP Enrollees										
Total number of units of service provided	19	--	43,734	5,483	56	14	1,313	730	34	--
Average number of units of service per enrollee	1.0	0.0	1.5	1.6	1.2	1.2	3.0	3.5	1.0	0.0
Median number of units of service per enrollee	1.0	0.0	1.0	1.0	1.0	1.0	2.0	3.0	1.0	0.0
Average number of engagement services provided	0.0	0.0	1.1	1.2	1.0	1.0	1.3	1.4	1.0	0.0
Average number of core services provided	1.0	0.0	1.4	1.4	1.1	1.2	2.6	3.2	1.0	0.0
Average number of other HHP services provided	1.0	0.0	1.6	1.6	1.2	1.0	2.3	2.2	0.0	0.0
Average number of in-person services provided	0.0	0.0	1.1	1.0	1.0	1.0	1.4	1.9	0.0	0.0
Average number of phone/ telehealth services provided	1.0	0.0	1.4	1.4	1.2	1.1	2.5	3.0	1.0	0.0
Average number of services provided by clinical staff	1.0	0.0	1.2	1.2	1.0	0.0	1.3	1.0	1.0	0.0
Average number of services provided by non-clinical staff	1.0	0.0	2.0	2.0	1.1	1.2	3.0	3.6	1.0	0.0

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 116: Trends in HHP Metrics for Health Net as of December 31, 2021

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Adult BMI Assessment										
Baseline year 1	60%	42%	75%	70%	59%	42%	77%	65%	65%	53%
Baseline year 2	59%	43%	78%	71%	73%	58%	77%	69%	76%	70%
HHP year 1	58%	38%	73%	64%	74%	59%	72%	62%	85%	77%
HHP year 2	52%	35%	65%	58%	67%	50%	68%	52%	82%	71%
Follow-Up After Hospitalization for Mental Illness within 30 Days										
Baseline year 1	100%	80%	60%	74%	67%	67%	86%	58%	75%	63%
Baseline year 2	100%	78%	66%	74%	83%	89%	100%	63%	100%	88%
HHP year 1	67%	0%	72%	67%	67%	100%	100%	33%	100%	89%
HHP year 2	100%	--	71%	64%	0%	67%	--	0%	100%	100%
Follow-Up After Hospitalization for Mental Illness within 7 Days										
Baseline year 1	100%	50%	43%	49%	33%	53%	86%	33%	63%	31%
Baseline year 2	50%	44%	43%	49%	67%	33%	100%	42%	71%	65%
HHP year 1	67%	0%	51%	46%	33%	50%	100%	11%	100%	89%
HHP year 2	100%	--	49%	45%	0%	67%	--	0%	0%	67%
Screening for Depression and Follow-Up Plan										
Baseline year 1	0%	0%	7%	6%	0%	0%	16%	9%	0%	0%
Baseline year 2	0%	0%	7%	2%	0%	0%	19%	11%	0%	0%
HHP year 1	0%	0%	6%	0%	0%	0%	14%	0%	0%	0%
HHP year 2	0%	0%	7%	0%	0%	0%	23%	--	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days										
Baseline year 1	0%	0%	7%	6%	5%	9%	8%	10%	0%	0%
Baseline year 2	0%	0%	2%	5%	7%	9%	0%	0%	25%	0%
HHP year 1	14%	0%	5%	10%	13%	6%	13%	33%	14%	11%
HHP year 2	0%	--	9%	0%	0%	0%	0%	0%	--	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days										
Baseline year 1	11%	18%	11%	10%	13%	20%	15%	20%	17%	33%
Baseline year 2	11%	0%	6%	9%	7%	18%	7%	8%	33%	14%
HHP year 1	43%	0%	8%	18%	25%	6%	13%	33%	43%	22%
HHP year 2	0%	--	18%	0%	0%	0%	33%	0%	--	25%
Initiation of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	18%	31%	21%	26%	23%	23%	17%	45%	28%	36%
Baseline year 2	14%	24%	22%	25%	18%	31%	32%	37%	17%	20%
HHP year 1	17%	22%	17%	25%	27%	33%	41%	16%	26%	19%
HHP year 2	17%	0%	14%	17%	21%	15%	20%	36%	25%	25%
Engagement of Alcohol and Other Drug Dependence Treatment										
Baseline year 1	20%	70%	31%	44%	48%	45%	14%	22%	20%	20%
Baseline year 2	17%	22%	31%	32%	25%	40%	19%	35%	60%	67%
HHP year 1	17%	25%	25%	43%	25%	43%	18%	50%	20%	33%
HHP year 2	0%	--	54%	57%	14%	67%	0%	40%	67%	100%

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Use of Pharmacotherapy for Opioid Use Disorder										
Baseline year 1	23%	42%	35%	27%	61%	53%	57%	14%	55%	17%
Baseline year 2	33%	55%	39%	39%	59%	71%	57%	45%	42%	13%
HHP year 1	33%	45%	43%	38%	53%	71%	71%	29%	50%	25%
HHP year 2	30%	63%	46%	73%	74%	77%	100%	0%	83%	25%
All-Cause Readmission										
Baseline year 1	8%	8%	9%	10%	10%	6%	0%	21%	8%	13%
Baseline year 2	12%	3%	8%	11%	8%	12%	8%	0%	6%	13%
HHP year 1	13%	7%	11%	15%	11%	0%	11%	14%	7%	17%
HHP year 2	7%	0%	10%	10%	18%	16%	38%	0%	5%	7%
Controlling High Blood Pressure										
Baseline year 1	5%	2%	27%	26%	9%	3%	19%	29%	2%	0%
Baseline year 2	3%	2%	27%	24%	28%	49%	16%	13%	11%	17%
HHP year 1	6%	11%	25%	19%	28%	28%	15%	5%	50%	55%
HHP year 2	19%	16%	22%	20%	34%	37%	10%	11%	57%	54%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year										
Baseline year 1	7,805	7,051	6,751	5,518	6,735	6,595	5,640	5,967	11,270	11,923
Baseline year 2	8,456	7,928	6,903	5,888	7,443	7,671	7,177	6,709	12,048	11,870
HHP year 1	9,162	8,205	6,624	5,879	8,128	7,674	11,209	11,645	11,965	12,856
HHP year 2	8,998	7,694	6,132	5,543	6,918	6,136	6,646	7,376	11,425	11,136
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year										
Baseline year 1	5,685	3,500	4,405	3,071	4,770	4,134	5,078	4,053	3,765	3,004
Baseline year 2	6,082	4,294	5,148	3,984	4,108	4,212	6,836	4,406	4,174	3,672
HHP year 1	6,598	4,323	5,513	3,968	4,527	4,454	7,840	4,946	4,546	3,252
HHP year 2	7,338	3,919	5,284	3,910	4,711	3,904	5,510	3,518	3,517	2,861
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year										
Baseline year 1	3,273	8,696	4,617	15,182	5,081	9,165	3,479	9,936	1,876	7,311
Baseline year 2	3,535	10,257	5,249	17,101	4,375	10,932	3,973	14,472	2,453	8,727
HHP year 1	4,108	9,881	5,366	15,408	4,585	10,328	3,821	13,784	2,719	10,874
HHP year 2	3,068	7,790	5,705	11,451	4,504	9,233	3,051	7,177	2,460	7,968
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year										
Baseline year 1	3,053	12,614	3,560	6,351	9,882	12,735	1,434	4,479	4,145	3,251
Baseline year 2	3,797	11,920	3,800	7,217	9,542	14,683	1,839	6,778	3,648	3,761
HHP year 1	3,930	12,913	3,984	7,266	9,067	13,126	1,875	5,885	3,563	6,216
HHP year 2	2,072	12,984	3,994	6,333	9,300	12,395	1,494	3,631	3,839	6,278
Emergency Department Visits per 1,000 Beneficiaries per Year										
Baseline year 1	2,366	2,652	2,148	2,134	3,463	3,622	1,872	2,006	2,212	3,379
Baseline year 2	2,012	2,125	1,889	2,020	2,723	2,943	2,041	1,979	1,998	3,867
HHP year 1	1,761	2,126	1,436	1,587	2,246	2,086	1,733	1,753	1,324	2,901
HHP year 2	1,766	1,677	1,272	1,494	2,188	1,828	1,323	1,645	1,075	3,245
Inpatient Stays per 1,000 Beneficiaries per Year										
Baseline year 1	520	304	664	564	707	370	534	643	831	698

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Baseline year 2	500	351	667	552	668	268	741	570	675	578
HHP year 1	514	228	547	384	558	247	512	637	438	405
HHP year 2	511	226	503	354	460	272	420	369	299	288
PQI 92 (per 1,000 Beneficiaries per Year)										
Baseline year 1	87	--	98	23	172	12	92	25	194	17
Baseline year 2	76	18	111	26	183	16	103	--	162	24
HHP year 1	85	7	89	13	138	9	117	31	99	18
HHP year 2	113	--	94	11	92	--	62	--	57	19
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)										
Baseline year 1	5	13	5	2	13	8	4	8	--	--
Baseline year 2	--	--	10	4	14	4	14	--	3	8
HHP year 1	8	--	9	3	4	--	10	10	6	9
HHP year 2	7	--	4	4	10	--	--	--	--	--
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)										
Baseline year 1	5	--	7	6	16	4	12	17	11	--
Baseline year 2	9	6	8	4	10	--	18	15	8	8
HHP year 1	5	--	6	4	15	4	15	10	6	--
HHP year 2	7	--	9	4	30	8	16	--	11	--
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)										
Baseline year 1	7	--	3	2	5	--	--	8	--	9
Baseline year 2	--	--	5	2	5	--	11	--	5	--
HHP year 1	--	--	5	2	--	--	--	21	6	9
HHP year 2	7	--	5	--	--	--	--	--	--	--

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 117: Trends in Estimated Payments for Health Net as of December 31, 2021

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year										
Baseline year 1	$21,128	$13,471	$20,663	$17,797	$25,244	$18,896	$20,459	$29,366	$ 32,397	$ 24,900
Baseline year 2	$22,057	$16,870	$22,791	$19,768	$24,983	$16,325	$29,418	$29,225	$ 30,375	$ 25,826
HHP year 1	$21,558	$12,754	$22,776	$18,268	$25,917	$14,848	$26,490	$26,360	$ 29,520	$ 18,811
HHP year 2	$22,881	$11,110	$21,875	$17,344	$22,595	$13,770	$20,403	$16,516	$ 19,742	$ 18,733
% Change Year 1*	-2%	-24%	0%	-8%	4%	-9%	-10%	-10%	-3%	-27%
% Change Year 2*	4%	-34%	-4%	-12%	-10%	-16%	-31%	-43%	-35%	-27%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year										
Baseline year 1	$1,136	$1,083	$856	$822	$1,754	$1,516	$872	$1,121	$1,015	$1,562
Baseline year 2	$941	$902	$829	$907	$1,411	$1,327	$1,012	$1,340	$1,510	$1,798
HHP year 1	$771	$879	$713	$741	$1,232	$1,062	$1,146	$1,142	$913	$1,451
HHP year 2	$587	$560	$654	$568	$1,357	$924	$763	$870	$660	$1,686
% Change Year 1*	-18%	-2%	-14%	-18%	-13%	-20%	13%	-15%	-40%	-19%
% Change Year 2*	-38%	-38%	-21%	-37%	-4%	-30%	-25%	-35%	-56%	-6%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year										
Baseline year 1	$6,319	$3,061	$7,481	$6,192	$8,403	$4,493	$8,245	$9,196	$12,952	$6,755
Baseline year 2	$8,058	$4,277	$7,761	$6,479	$7,914	$2,976	$11,563	$7,256	$9,982	$7,688
HHP year 1	$6,072	$2,239	$7,014	$4,610	$9,351	$3,186	$7,190	$8,656	$6,744	$5,123
HHP year 2	$6,429	$2,649	$7,117	$4,839	$6,939	$2,872	$6,112	$3,796	$4,079	$3,880
% Change Year 1*	-25%	-48%	-10%	-29%	18%	7%	-38%	19%	-32%	-33%
% Change Year 2*	-20%	-38%	-8%	-25%	-12%	-4%	-47%	-48%	-59%	-50%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year										
Baseline year 1	$349	$136	$289	$130	$322	$125	$188	$235	$130	$55
Baseline year 2	$284	$49	$363	$139	$211	$76	$551	$358	$193	$74

MCP	Health Net									
Group	Group 3									
County	Kern		Los Angeles		Sacramento		San Diego		Tulare	
SPA	1	2	1	2	1	2	1	2	1	2
HHP year 1	$74	$21	$484	$233	$166	$92	$244	$637	$377	$186
HHP year 2	$241	$112	$612	$233	$328	$85	$65	$1,213	$187	--
% Change Year 1*	-74%	-58%	33%	68%	-22%	20%	-56%	78%	95%	150%
% Change Year 2*	-15%	127%	69%	68%	55%	11%	-88%	239%	-4%	-
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year										
Baseline year 1	$6,067	$5,323	$5,707	$6,374	$7,178	$9,295	$6,898	$13,194	$11,650	$12,228
Baseline year 2	$5,321	$7,425	$7,227	$7,795	$7,471	$7,609	$10,626	$14,228	$11,171	$10,949
HHP year 1	$7,006	$6,077	$7,886	$8,332	$7,898	$6,045	$12,373	$9,537	$13,102	$7,109
HHP year 2	$9,606	$5,374	$7,680	$7,138	$6,510	$5,433	$8,095	$4,214	$7,748	$8,581
% Change Year 1*	32%	-18%	9%	7%	6%	-21%	16%	-33%	17%	-35%
% Change Year 2*	81%	-28%	6%	-8%	-13%	-29%	-24%	-70%	-31%	-22%
Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year										
Baseline year 1	$6,235	$3,024	$5,357	$3,224	$6,552	$2,597	$3,517	$3,784	$5,541	$3,285
Baseline year 2	$6,435	$3,353	$5,344	$3,077	$6,875	$3,187	$4,567	$3,965	$6,290	$4,045
HHP year 1	$6,360	$2,364	$5,116	$2,896	$6,115	$3,575	$4,448	$4,089	$6,646	$3,400
HHP year 2	$4,810	$1,962	$4,196	$3,404	$6,170	$3,577	$3,959	$4,423	$5,900	$2,673
% Change Year 1*	-1%	-30%	-4%	-6%	-11%	12%	-3%	3%	6%	-16%
% Change Year 2*	-25%	-41%	-21%	11%	-10%	12%	-13%	12%	-6%	-34%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year										
Baseline year 1	$894	$787	$789	$848	$852	$769	$619	$1,671	$840	$730
Baseline year 2	$934	$777	$1,092	$1,172	$935	$1,069	$908	$1,930	$1,020	$1,025
HHP year 1	$1,162	$1,106	$1,420	$1,322	$960	$836	$965	$2,075	$1,613	$1,359
HHP year 2	$1,070	$384	$1,474	$1,047	$1,181	$753	$1,307	$1,952	$1,092	$1,746
% Change Year 1*	24%	42%	30%	13%	3%	-22%	6%	8%	58%	32%
% Change Year 2*	15%	-51%	35%	-11%	26%	-30%	44%	1%	7%	70%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.
Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

Exhibit 118: HHP Implementation and Enrollee Demographics for San Francisco Health Plan, Santa Clara Family Health Plan, and United Healthcare as of December 31, 2021

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	Group 1		Group 3		Group 3	
County	San Francisco		Santa Clara		San Diego	
SPA	1	2	1	2	1	2
Program Implementation and Enrollment						
Implementation Date	7/1/19	1/1/20	7/1/19	1/1/20	7/1/19	1/1/20
Total Enrollment (12/2021)	764	512	879	662	143	121
% of enrollees from TEL	94%		79%		66%	
Avg Length of Enrollment (Months)	13	11	13	11	8	8
Enrollee Demographics						
% 0-17	10%	2%	7%	<21%	--	0%
% 18-34	6%	13%	10%	33%	16%	25%
% 34-49	13%	25%	22%	23%	23%	38%
% 49-64	56%	54%	44%	24%	51%	32%
% 65+	14%	6%	16%	--	--	--
% Male	59%	49%	49%	39%	55%	42%
% White	9%	22%	17%	19%	22%	24%
% Hispanic	15%	16%	39%	45%	23%	19%
% African American	23%	21%	6%	7%	10%	17%
% Asian American and Pacific Islander	34%	18%	24%	8%	13%	--
% American Indian and Alaskan Native	--	--	--	--	--	--
% Other	16%	19%	10%	13%	28%	30%
% Unknown	2%	4%	<5%	7%	--	--
% Speak English	57%	73%	69%	80%	79%	83%
Medi-Cal full-scope months baseline year 1	12	12	12	12	11	11
# Enrollees with Homeless Information Available	645	495	879	662	143	121
Proportion ever homeless during HHP enrollment	6%	10%	14%	13%	--	9%

Source: MCP Enrollment Reports from August 2019, Quarterly HHP Reports from September 2019 to September 2020, and Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 119: HHP Enrollee Health Status and Utilization Prior to Enrollment and Service Delivery for San Francisco Health Plan, Santa Clara Family Health Plan, and United Healthcare as of December 31, 2021

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	Group 1		Group 3		Group 3	
County	San Francisco		Santa Clara		San Diego	
SPA	1	2	1	2	1	2
Health Status and Utilization 24 Months Prior to Enrollment						
Two specific conditions (criteria 1)	65%	44%	55%	32%	57%	24%
Hypertension and another specific condition (criteria 2)	63%	36%	63%	21%	55%	21%
Serious mental health condition (criteria 3)	16%	97%	13%	92%	25%	86%
Asthma (criteria 4)	35%	19%	33%	18%	21%	--
Average number of ED visits	7.1	9.7	5.0	6.0	4.3	4.5
Average number of hospitalizations	2.3	1.7	1.3	1.4	1.3	0.8
HHP Services Delivered to HHP Enrollees						
Total number of units of service provided	31,801	21,706	19,727	12,909	2,950	2,798
Average number of units of service per enrollee	2.3	2.7	1.7	1.7	1.8	1.8
Median number of units of service per enrollee	1.0	1.0	1.0	1.0	1.0	1.0
Average number of engagement services provided	1.6	1.7	1.1	1.0	1.2	1.3
Average number of core services provided	2.0	2.5	1.4	1.5	1.5	1.5
Average number of other HHP services provided	1.8	1.7	1.4	1.4	1.7	1.7
Average number of in-person services provided	1.6	1.5	1.1	1.1	1.1	1.0
Average number of phone/ telehealth services provided	1.9	2.4	1.4	1.5	1.6	1.5
Average number of services provided by clinical staff	1.8	2.2	1.1	1.2	1.3	1.4
Average number of services provided by non-clinical staff	2.1	2.4	1.6	1.6	1.9	1.8

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. At risk for high utilization is defined as no ED utilization or hospitalizations 24 months prior to enrollment, low utilization is less than 2 ED visits and less than 1 hospitalizations per year, moderate utilization is 2 or more ED visits or 1 or more hospitalizations per year, high utilization is 5 or more ED visits or 2 or more hospitalizations per year, and super utilization is 10 or more ED visits or 4 or more hospitalizations per year.

Exhibit 120: Trends in HHP Metrics for San Francisco Health Plan, Santa Clara Family Health Plan, and United Healthcare as of December 31, 2021

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	Group 1		Group 3		Group 3	
County	San Francisco		Santa Clara		San Diego	
SPA	1	2	1	2	1	2
Adult BMI Assessment						
Baseline year 1	18%	18%	31%	35%	51%	47%
Baseline year 2	29%	24%	38%	41%	63%	50%
HHP year 1	34%	27%	36%	37%	60%	50%
HHP year 2	40%	29%	34%	36%	60%	47%
Follow-Up After Hospitalization for Mental Illness within 30 Days						
Baseline year 1	--	79%	75%	92%	100%	50%
Baseline year 2	100%	91%	100%	92%	100%	86%
HHP year 1	100%	83%	50%	86%	100%	67%
HHP year 2	100%	88%	100%	63%	100%	50%
Follow-Up After Hospitalization for Mental Illness within 7 Days						
Baseline year 1	--	50%	25%	71%	80%	0%
Baseline year 2	100%	79%	100%	77%	0%	50%
HHP year 1	50%	67%	50%	70%	100%	67%
HHP year 2	100%	75%	100%	63%	0%	50%
Screening for Depression and Follow-Up Plan						
Baseline year 1	0%	0%	0%	0%	5%	2%
Baseline year 2	3%	2%	1%	0%	7%	14%
HHP year 1	11%	9%	3%	0%	8%	0%
HHP year 2	17%	19%	4%	0%	13%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 7 days						
Baseline year 1	2%	13%	8%	6%	17%	27%
Baseline year 2	7%	15%	17%	22%	14%	10%
HHP year 1	5%	13%	17%	18%	33%	33%
HHP year 2	4%	9%	10%	25%	0%	0%
Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence within 30 days						
Baseline year 1	9%	22%	8%	19%	33%	27%
Baseline year 2	13%	31%	22%	41%	29%	20%
HHP year 1	5%	33%	17%	24%	33%	50%
HHP year 2	12%	24%	10%	25%	0%	100%
Initiation of Alcohol and Other Drug Dependence Treatment						
Baseline year 1	27%	26%	20%	24%	38%	31%
Baseline year 2	30%	23%	22%	23%	19%	21%
HHP year 1	23%	27%	17%	28%	21%	31%
HHP year 2	12%	40%	20%	23%	11%	0%
Engagement of Alcohol and Other Drug Dependence Treatment						
Baseline year 1	17%	26%	20%	26%	38%	56%
Baseline year 2	22%	50%	39%	68%	67%	50%
HHP year 1	24%	46%	36%	48%	0%	40%

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	Group 1		Group 3		Group 3	
County	San Francisco		Santa Clara		San Diego	
SPA	1	2	1	2	1	2
HHP year 2	13%	38%	33%	43%	0%	--
Use of Pharmacotherapy for Opioid Use Disorder						
Baseline year 1	64%	62%	43%	59%	25%	38%
Baseline year 2	70%	72%	50%	47%	36%	53%
HHP year 1	71%	71%	67%	39%	18%	62%
HHP year 2	71%	65%	62%	40%	50%	57%
All-Cause Readmission						
Baseline year 1	11%	13%	11%	13%	19%	13%
Baseline year 2	12%	7%	10%	15%	13%	16%
HHP year 1	15%	11%	11%	10%	19%	0%
HHP year 2	11%	10%	20%	17%	20%	22%
Controlling High Blood Pressure						
Baseline year 1	6%	2%	2%	1%	0%	0%
Baseline year 2	15%	9%	9%	4%	0%	3%
HHP year 1	26%	14%	11%	15%	8%	3%
HHP year 2	23%	16%	23%	9%	22%	25%
Outpatient Services: Primary Care per 1,000 Beneficiaries per Year						
Baseline year 1	7,999	8,171	6,012	6,177	5,187	5,029
Baseline year 2	10,441	10,520	7,005	7,824	8,230	9,873
HHP year 1	10,777	11,559	10,299	11,237	20,722	24,257
HHP year 2	8,411	8,867	8,574	8,376	13,961	18,022
Outpatient Services: Specialty Care per 1,000 Beneficiaries per Year						
Baseline year 1	2,816	2,493	3,905	2,426	3,008	2,902
Baseline year 2	3,292	2,706	5,165	2,941	4,007	5,085
HHP year 1	3,381	2,892	5,392	2,878	5,847	4,972
HHP year 2	3,081	2,568	5,335	2,130	4,680	3,101
Outpatient Services: Mental Health per 1,000 Beneficiaries per Year						
Baseline year 1	2,259	21,531	1,811	18,805	2,615	6,960
Baseline year 2	2,997	25,775	2,206	24,394	6,382	13,672
HHP year 1	3,270	23,129	3,026	23,417	6,650	18,026
HHP year 2	3,182	19,079	3,443	19,637	5,699	8,899
Outpatient Services: Substance Use Disorder per 1,000 Beneficiaries per Year						
Baseline year 1	17,458	27,615	2,123	5,159	1,339	4,289
Baseline year 2	17,081	31,232	2,485	6,674	2,041	6,372
HHP year 1	15,015	29,785	2,145	6,733	2,929	7,901
HHP year 2	14,200	25,964	2,571	4,091	2,327	8,180
Emergency Department Visits per 1,000 Beneficiaries per Year						
Baseline year 1	2,306	4,024	1,940	2,486	1,796	1,931
Baseline year 2	2,684	4,109	2,240	2,550	2,056	2,608
HHP year 1	1,974	3,234	1,577	1,993	2,093	2,351
HHP year 2	1,616	2,846	1,614	1,702	2,379	1,573
Inpatient Stays per 1,000 Beneficiaries per Year						

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	**Group 1**		**Group 3**		**Group 3**	
County	**San Francisco**		**Santa Clara**		**San Diego**	
SPA	**1**	**2**	**1**	**2**	**1**	**2**
Baseline year 1	977	722	498	628	531	266
Baseline year 2	1,395	1,033	831	850	1,009	604
HHP year 1	1,065	695	575	483	793	334
HHP year 2	846	567	498	341	471	494
PQI 92 (per 1,000 Beneficiaries per Year)						
Baseline year 1	267	64	118	43	85	12
Baseline year 2	321	87	199	40	163	35
HHP year 1	287	77	100	24	95	--
HHP year 2	238	31	102	22	26	--
Admission to an Institution from the Community - Short (per 1,000 Beneficiaries per Year)						
Baseline year 1	7	4	4	5	--	12
Baseline year 2	4	12	8	6	--	18
HHP year 1	3	4	5	5	11	--
HHP year 2	6	12	6	9	--	45
Admission to an Institution from the Community - Medium (per 1,000 Beneficiaries per Year)						
Baseline year 1	4	6	9	2	11	--
Baseline year 2	3	6	14	8	30	--
HHP year 1	4	7	14	11	32	--
HHP year 2	6	25	6	4	26	--
Admission to an Institution from the Community - Long (per 1,000 Beneficiaries per Year)						
Baseline year 1	6	4	1	--	--	--
Baseline year 2	4	2	3	3	--	--
HHP year 1	3	2	4	7	--	--
HHP year 2	6	--	2	4	--	--

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report.

Exhibit 121: Trends in Estimated Payments for San Francisco Health Plan, Santa Clara Family Health Plan, and United Healthcare as of December 31, 2021

MCP	San Francisco Health Plan		Santa Clara Family Health Plan		United Healthcare	
Group	Group 1		Group 3		Group 3	
County	San Francisco		Santa Clara		San Diego	
SPA	1	2	1	2	1	2
Total Estimated Medi-Cal Payment per Beneficiary per Year						
Baseline year 1	$24,985	$34,109	$20,110	$27,899	$19,318	$22,821
Baseline year 2	$35,552	$38,518	$28,520	$37,901	$26,286	$27,958
HHP year 1	$32,454	$33,016	$28,203	$36,329	$26,206	$22,916
HHP year 2	$28,474	$29,418	$26,738	$29,828	$18,232	$20,357
% Change Year 1*	-9%	-14%	-1%	-4%	0%	-18%
% Change Year 2*	-20%	-24%	-6%	-21%	-31%	-27%
Estimated Medi-Cal Payment for Emergency Department Visits per Beneficiary per Year						
Baseline year 1	$1,121	$2,536	$740	$1,231	$932	$905
Baseline year 2	$1,403	$2,455	$1,116	$1,331	$1,036	$1,531
HHP year 1	$1,105	$2,031	$814	$1,095	$1,107	$1,600
HHP year 2	$1,094	$1,703	$907	$879	$1,343	$718
% Change Year 1*	-21%	-17%	-27%	-18%	7%	4%
% Change Year 2*	-22%	-31%	-19%	-34%	30%	-53%
Estimated Medi-Cal Payment for Inpatient Stays per Beneficiary per Year						
Baseline year 1	$10,318	$7,751	$7,175	$7,367	$6,750	$3,882
Baseline year 2	$16,017	$11,262	$10,419	$10,122	$14,272	$7,487
HHP year 1	$13,087	$8,756	$7,517	$5,816	$12,437	$3,556
HHP year 2	$10,978	$8,002	$6,315	$4,173	$5,149	$5,490
% Change Year 1*	-18%	-22%	-28%	-43%	-13%	-53%
% Change Year 2*	-31%	-29%	-39%	-59%	-64%	-27%
Estimated Medi-Cal Payment for Long-Term Care Stays per Beneficiary per Year						
Baseline year 1	$212	$169	$108	$69	$290	$39
Baseline year 2	$234	$73	$114	$152	$454	$296
HHP year 1	$269	$333	$168	$160	$303	--
HHP year 2	$1,006	$1,105	$364	$688	$376	$130
% Change Year 1*	15%	358%	47%	5%	-33%	-
% Change Year 2*	329%	1419%	220%	352%	-17%	-56%
Estimated Medi-Cal Payment for Outpatient Services per Beneficiary per Year						
Baseline year 1	$6,726	$16,361	$7,320	$13,644	$8,501	$14,735
Baseline year 2	$9,902	$16,964	$10,857	$19,382	$6,399	$13,890
HHP year 1	$10,011	$14,260	$13,268	$22,492	$7,457	$10,304
HHP year 2	$7,484	$11,907	$13,518	$19,758	$5,720	$7,272
% Change Year 1*	1%	-16%	22%	16%	17%	-26%
% Change Year 2*	-24%	-30%	25%	2%	-11%	-48%

Estimated Medi-Cal Payment for Outpatient Pharmacy per Beneficiary per Year						
Baseline year 1	$5,838	$6,067	$4,092	$4,080	$1,811	$1,789
Baseline year 2	$7,002	$6,329	$4,960	$4,995	$2,367	$2,820
HHP year 1	$6,774	$6,090	$5,078	$4,592	$2,834	$3,890
HHP year 2	$6,763	$5,033	$4,347	$3,096	$4,073	$5,059
% Change Year 1*	-3%	-4%	2%	-8%	20%	38%
% Change Year 2*	-3%	-20%	-12%	-38%	72%	79%
Estimated Medi-Cal Payment for Residual Services per Beneficiary per Year						
Baseline year 1	$551	$857	$535	$1,344	$909	$1,362
Baseline year 2	$656	$1,041	$822	$1,688	$1,492	$1,759
HHP year 1	$905	$1,292	$1,195	$1,986	$1,900	$3,405
HHP year 2	$860	$1,506	$1,114	$1,142	$1,414	$1,565
% Change Year 1*	38%	24%	45%	18%	27%	94%
% Change Year 2*	31%	45%	35%	-32%	-5%	-11%

Source: UCLA analysis of Medi-Cal Claims data from July 1, 2016 to December 31, 2021.

Notes: -- indicates data is not reported due to small cell size. N/A indicates there are no enrollees to report. *The percentage changes for Year 1 and 2 are calculated using Baseline Year 2 as the reference.

The views expressed in this report are those of the authors and do not necessarily represent the UCLA Center for Health Policy Research, the Regents of the University of California, or collaborating organizations or funders.

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