Research Report

Evaluation of the Global Payment Program

Midpoint Report

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Preface

In July 2015, California initiated the Global Payment Program (GPP), a pilot program to support efforts of California's public health care system (PHCS) to deliver more cost-effective and higher-value care to the state's remaining uninsured individuals. The GPP seeks to improve care to the uninsured and to transform payments by allocating GPP funds to address the needs of PHCS patients, including expanding preventive services, mental health, and patient education and the use of non-traditional services (e.g., case management or nurse advice lines), to improve care in more-appropriate settings.

The RAND Corporation is conducting the midpoint and final evaluations of California's GPP.

This midpoint report focuses on two research questions:

- Did the GPP allow PHCS to build or strengthen primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured?
- Across the majority of PHCS, did the utilization of non-inpatient non-emergent services increase?

We used a mixed-methods approach to address these questions.

This is the first of two reports that RAND analysts will prepare during the course of the evaluation.

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Summary

California has a rich history of providing services to millions of Medi-Cal enrollees and uninsured individuals through county-based public health care systems (PHCS). Practical experiences in PHCS and academic literature have demonstrated that access to outpatient services, particularly among the uninsured, must improve in order to reduce long-term costs and improve health outcomes. Expanding the types of providers who care for uninsured patients, the venues in which patients receive care, and the array of services patients receive represents an important opportunity for improving patient and population access to services and quality of care at lower costs (Antonisse et al., 2018).

With approximately 2.8 million uninsured in California (Martinez, Zammitti, and Cohen, 2018; U.S. Census Bureau, undated) and recognizing that the uninsured often have limited access to cost-effective preventive care and mental health services, the California Department of Health Care Services (DHCS) and the state's PHCS worked together to formulate a new program to improve care for the uninsured. In July 2015, California initiated the Global Payment Program (GPP), a pilot program to support PHCS efforts to deliver more cost-effective and higher-value care to the state's remaining uninsured individuals. With the GPP, *remaining uninsured* is defined to include both uninsured individuals and individuals whose insurance excludes certain services (e.g., Medi-Cal enrollees with restricted scope benefits, such as for family planning services or emergency care only).[1]

The GPP seeks to improve care to the uninsured by transforming two existing funds—Medicaid Disproportionate Share Hospital (DSH) funds and California's Safety Net Care Pool (SNCP)—into GPP funds that can be used to pay for a broader set of services. Prior to the GPP, DSH funds were only for hospital-based services, and SNCP funds were for all uninsured services: inpatient and outpatient, hospital and nonhospital. GPP funding can be used to reimburse providers for non-traditional services and services in non-traditional settings, including a wider range of preventive and mental health services delivered outside of the hospital (such as patient education, case management, and nurse advice lines). The goal is to address the needs of PHCS patients by more appropriately using services and settings that deliver cost-effective care.

[1] GPP funding can be used to provide services to people who are uninsured for a given service. This excludes people who might be underinsured because of high deductibles or have limits that do not cover the full expenses of a claim.

The GPP aims to balance value of care and high costs of care by supplementing the traditional reimbursement of services provided by physicians and nurses in hospitals, emergency rooms (ERs), and ambulatory settings when needed, with the reimbursement of non-traditional venues of care (e.g., phone, video, group, community health worker visits) and services (e.g., acupuncture to treat and prevent chronic pain, mental health care, patient education) delivered by non-traditional providers (e.g., PharmD [doctor of pharmacy], complex care manager, community health worker, case manager).

Under the GPP, PHCS receive GPP payments that are calculated using a point methodology that reflects resource use; the potential to improve patient decisions, health status, and future costs; and other criteria (California Association of Public Hospitals and Health Systems [CAPH] and California Health Care Safety Net Institute, 2016). The point system might incentivize a shift in the overall delivery of services for the uninsured to more-appropriate settings and could help reinforce structural changes to the care delivery system that could improve the options for treating uninsured patients. Each PHCS receives points for providing each of the 50 GPP services (see Exhibit 1.5 in Chapter One for the point value for each service). The 50 GPP patient care services are grouped into four GPP categories and 15 GPP tiers as a means of aggregating services that are similar with respect to the venue, provider type, and traditional or non-traditional nature of the service.[2] A key feature of the new payment system is that interim payments to PHCS are made on a quarterly basis based on point thresholds established at the beginning of each program year. These quarterly payments are then reconciled at year's end. Prior to the GPP, payments to PHCS were made primarily on a pro rata basis of Medi-Cal and uninsured uncompensated costs given available funding, which meant that the total amount of funding for these services was not known in advance and fluctuated based on other hospitals' uncompensated costs. In contrast, under the GPP, PHCS benefit from the greater predictability of funding, which is expected to facilitate PHCS planning for service delivery and other infrastructure investments.

Overview of the Evaluation

Central to the GPP pilot are midpoint and final evaluations to assess the degree to which the program has achieved the intended goals and improved care for uninsured patients accessing care in California's PHCS. The terms of the GPP outlined in the Centers for Medicare

[2] The 50 GPP patient care services are divided into four mutually exclusive categories: Category 1 is outpatient services in traditional settings, category 2 is complementary patient support and care services, category 3 is technology-based outpatient services, and category 4 is inpatient services.

and Medicaid Services (CMS) special terms and conditions for the program demonstration are explicit about certain aspects of the evaluation:

> [The] two evaluations will monitor the implementation and impact of the demonstration to inform how improvements to the GPP can be made following the expiration of the Demonstration.
>
> Both evaluations will examine the purpose and aggregate impact of the GPP [and] care provided by PHCS and patients' experience, with a focus on understanding the benefits and challenges of this innovative payment approach. (CMS, 2018, p. 138, Special Terms and Conditions 177[b]–[c])

On July 26, 2017, DHCS issued the final CMS-approved evaluation design, including GPP evaluation requirements, which formulated specific research questions to be addressed in the evaluation.

For the midpoint evaluation, CMS and DHCS specified two research questions:

- Did the GPP allow PHCS to build or strengthen primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured?
- Across the majority of PHCS, did the utilization of non-inpatient non-emergent services increase?

Both the midpoint and final evaluations seek to assess whether changing the payment methodology results in

- more services delivered at a lower level of care
- expanded use of non-traditional services
- reorganized care teams to include primary care and mental health providers
- better use of data collection
- improved coordination between mental health and primary care
- avoided costs
- additional investments in infrastructure to improve ambulatory care.

DHCS specified three hypotheses to be addressed in the midpoint evaluation. For each hypothesis, we examine multiple performance measures. Taken together, the performance measures provide evidence in support of or against each hypothesis. The hypotheses are as follows:

- **Hypothesis 1:** *Since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.* To address hypothesis 1, we considered health system improvement strategies PHCS adopted to enhance their responses to the GPP and changes PHCS made in the provision of GPP patient care services for the remaining uninsured. All of these changes are expected to lead to improvements in patient access and quality in lower-cost settings.

- **Hypothesis 2:** *The majority of PHCS improved the utilization of non-inpatient non-emergent services.* To address hypothesis 2, we focused on two service-related measures: (1) improvements in ambulatory care services, excluding behavioral health and emergency services, and (2) improvements in behavioral health services, particularly in non-emergent settings. For each of these two service-related measures, we assessed changes in utilization across program years, using three methods. First, we measured changes in the utilization of services (e.g., number of ambulatory visits, number of ER visits). Second, we assessed changes in the proportion of total utilization that is associated with each service's utilization (e.g., the proportion of all visits that occur in the ER). Third, we examined changes in GPP points associated with each service (e.g., change across program years in points associated with outpatient visits).
- **Hypothesis 3:** *PHCS are putting a strong foundation in place to deliver care for the remaining uninsured.* To address hypothesis 3, we examined multiple dimensions related to the development of a foundation for delivering care for the remaining uninsured. We examined the self-reported number of uninsured served by PHCS for specific services (including those for physical and behavioral health and through contracted providers). We also assessed changes in achievement of GPP point thresholds, total GPP points earned, uninsured costs, and the ratio of federal payments to uninsured uncompensated costs.

In this report, we supplement these analyses with PHCS perspectives on how PHCS have made changes to infrastructure and to services provided for the uninsured. We describe variations in health system adoption of strategies to support the developing GPP foundation and specific services provided by PHCS. We also examine the relationships between PHCS reports of service utilization, modification, and achievements of GPP goals. Finally, we explore PHCS accounts of the quality of services PHCS currently provide and changes in the quality of services they have provided to the remaining uninsured since the onset of the GPP.

Data Sources

In this midpoint evaluation, we used a survey of PHCS to describe the infrastructure investments the PHCS have made in the first two years of the GPP. We used 24 months of utilization data from program years 1 and 2 to examine early trends in service use in both high- and low-intensity care settings. Because program year 2 data are not yet available, we used data on the cost of services to the uninsured and federal payments to each PHCS to cover its uncompensated costs from both the baseline year and year 1. The Medi-Cal 2020 waiver was not approved until December 2015 (six months into program year 1), and the GPP was retroactively implemented. It is important to note that the majority of the GPP details were approved in March 2016 (DHCS, 2018), so the data from program year 1 reflect nine months prior to the approval of the program details and three months after.

Methods and Limitations

We applied primarily descriptive statistical methods in our analysis of utilization, survey, and cost data. The evaluation was a pre–post evaluation, with the goal of understanding changes that occurred as a consequence of the GPP. One limitation in drawing conclusions from the data is that we did not have a control group of nonparticipating sites and so could not know whether changes were actually due to the GPP. Additionally, because only 12 PHCS participate in the GPP, statistical significance testing would generally not be able to provide sufficient evidence that the observed changes were not due to random chance. This is one reason that our methods were primarily descriptive and we did not perform formal hypothesis testing. Instead, we examined a variety of performance measures for each of the three hypotheses, and, taken together, these provide evidence for or against each hypothesis. Refer to Chapter One and Appendix A for more details on statistical methods and limitations.

Key Findings

Since the Beginning of the GPP, PHCS Have Built and Strengthened Primary Care, Data Collection and Integration, and Care Coordination to Deliver Care to the Remaining Uninsured

Although the GPP provides new funding streams to PHCS to transform practice, it leaves the mechanism of practice change to each health care system to decide how to best transform itself to provide better care for remaining uninsured patients. To understand how PHCS are building and strengthening primary care, data collection and integration, and care coordination, in February 2018, we surveyed PHCS leaders and their GPP teams about their most important priorities for changing their health systems to meet GPP goals, the health system strategies for change that they adopted, and the services they provide for patient care. We defined *strategies* as specific health system improvement actions that PHCS pursued to enhance their responses to the GPP since the program was initiated. We clustered strategies targeting similar types of health system change into domains. *Service* refers to any of 50 GPP patient care services that are assigned points in the GPP payment system.[3]

[3] Under the GPP, PHCS receive GPP payments that are calculated using a point methodology that reflects resource use; the potential to improve patient decisions, health status, and future costs; and other criteria (CAPH and California Health Care Safety Net Institute, 2016). Each PHCS receives points for provision of each of the 50 GPP patient care services.

Measures of Primary Care Building and Strengthening

Strategies and services, respectively, represent two broad categories of responses that PHCS are making to enhance care delivery. To measure how PHCS are building and strengthening themselves to deliver care to the remaining uninsured, we examined the patterns of priorities for change, adopted health system change strategies, and types of patient care services that PHCS provided to patients.

PHCS Adoption of Strategies to Enhance Their Responses to the GPP

On the midpoint GPP survey in February 2018, PHCS rated the importance of health system improvements that their organizations thought would be most important in meeting GPP goals. PHCS identified improving access to care and the completeness of data capture of services across settings as most important in meeting GPP goals. They also endorsed the importance of increasing infrastructure, aligning PHCS culture with GPP goals, and transforming workforce roles and responsibilities.

In their responses to and ratings on the GPP midpoint evaluation survey, PHCS indicated that, overall, since the onset of the GPP, their actions have been consistent with their stated priorities. With the survey, PHCS provided information about health system improvement activities that their organizations have adopted in response to the GPP. From six domains known to be important in primary care transformation,[4] PHCS indicated adopting a mean of 38 of the 49 assessed strategies to enhance their responses to the GPP. This level of activity is supportive of hypothesis 1 that, since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.

This pattern highlights that all 12 PHCS addressed or tackled improvement efforts across all six improvement domains used in primary care transformation. These data also underscore the variability of the specific strategies that PHCS chose within the given domains, suggesting that PHCS are considering their local resources and challenges uniquely in order to move forward with their GPP goals. With hypothesis 3, we resumed discussion of the adoption of specific strategies within each change domain, PHCS reports of the extent to which implementation of the strategies was associated with successes and challenges in achieving GPP goals, and the extent to which adopted strategies have now become part of each PHCS' overall culture.

[4] These six domains are improving data collection and tracking, improving coordination of care, improving access to care, improving staffing, improving team-based care, and improving the delivery system.

PHCS' Provision of Services to Deliver Care to the Remaining Uninsured

For PHCS prioritization and adoption of health care improvement strategies to translate into the delivery of better care and better outcomes for the remaining uninsured, PHCS need to provide more and an expanded mix of services for patients. However, the GPP methodology does not require that PHCS offer *all* services listed by the GPP. Instead, GPP goals highlight the importance of each PHCS enhancing opportunities to improve patient access and quality in lower-cost settings. We next turned to an assessment of services PHCS provide for patient care to further understand PHCS activities associated with building and strengthening primary care, data collection and integration, and care coordination.

At the time the PHCS completed the midpoint survey, in late February 2018, PHCS reported providing a mean of 33 of the 50 GPP patient care services defined by the GPP model, although there was variation across PHCS, with some providing as few as 20 and others providing as many as 43 services. Nine of the 50 GPP services were provided for patients across all 12 PHCS. This is consistent with the GPP goal that each PHCS offer a menu of services for the patients it serves.

In light of GPP goals for each PHCS to enhance opportunities for the patients it serves, we would expect to observe variation in the types of services that PHCS offer. In fact, we did observe variation by PHCS in utilization of services across the four GPP patient service categories. The mean number of reported services used per category was highest for category 1, outpatient services in traditional settings.[5] Across all 12 PHCS, 89 percent of the 13 services in this category were provided, including six services that were used by all PHCS.[6] For category 2, complementary patient support and care services, PHCS provided 64 percent of 17 services, but health education was the only category 2 service provided by all 12 PHCS. Fewer patient care services, 39 percent of 11 services, were provided for category 3, technology-based outpatient services. No service for this category was provided by all PHCS. For category 4, inpatient services, PHCS reported use of 69 percent of nine patient care services, including two services, medical or surgical inpatient and intensive care unit or cardiac care unit services that were provided by all 12 PHCS. However, as noted above, it is not necessarily expected that all PHCS will eventually provide all or even a certain percentage of services. Some services, such as inpatient burn and trauma, are highly specialized and often provided by only one hospital in a large regional service area. Non-traditional services include

[5] Services were reported by PHCS leaders with the midpoint survey fielded in late February 2018.

[6] In GPP category 1, outpatient services in traditional settings, six GPP patient care services were provided by all 12 participating PHCS: registered nurse–only visits, outpatient primary or specialty (benchmark), mental health outpatient, outpatient ER, mental health ER or crisis stabilization, and outpatient surgery.

many relatively novel services, and it would be difficult for PHCS to use or commence all of them simultaneously.

Modifications to Patterns of Service That PHCS Made

After identifying all GPP patient care services that PHCS currently use, PHCS characterized whether, since GPP initiation, each service remained the same or had been modified through a reduction in services, an increase in existing services, or the development of new services. Across all GPP patient care services reported to have been used by participating PHCS, eleven services remained the same—five in category 1, outpatient services in traditional settings, and six in category 4, inpatient services. One category 4 service was reported as reduced. More than half of the possible 48 category-level service-use modifications (27 of [12 PHCS × four categories = 48]) were associated with an increase in existing services. This included 24 services that were described as increased and 28 services that were described as newly developed. These latter two types of enhanced services were well distributed across all four GPP service use categories. Overall, 18 of the 50 GPP patient care services were characterized by more than one modification type.[7]

PHCS were more likely to increase existing services, develop new services, or do both for non-traditional than for traditional services.[8] This is consistent with multiple studies of primary care transformation that have indicated that changes in infrastructure need to be implemented in advance of the successful delivery of new patient care services (Quigley et al., 2017; Friedberg et al., 2015; Wagner, Gupta, and Coleman, 2014; Sugarman et al., 2014; Jackson et al., 2013; Stellefson et al., 2013; Ferlie and Shortell, 2001; Institute of Medicine, 2001). Because of the newness of the systematic provision of non-traditional services across many PHCS, the health system infrastructures required to deliver non-traditional services are likely to take more time to initiate than the time that health systems require to apply existing infrastructures to the delivery of modified traditional services.

In terms of support (staff, time, and dollars) allocated by PHCS to modifications of GPP services used, PHCS reported that complementary patient support and care services (category 2) received the most support, while the least support for modifications was allocated to category 4, inpatient services.

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[7] One of these was reported as both keeping the same and developing new services, 12 GPP services were associated with both increasing the number of services and developing new services, and one service was associated with all three of these modification types. Additional details of this analysis are described in Exhibit 2.8 in Chapter Two.

[8] Because a PHCS can implement multiple modifications within a category, the number of PHCS-reported modifications is greater than the number of PHCS (12).

The Majority of PHCS Improved the Utilization of Non-Inpatient Non-Emergent Services

We next examined the hypothesis that the majority of PHCS improved the utilization of non-inpatient non-emergent services (hypothesis 2). One of the main goals of the GPP is to encourage a shift in the delivery of services from high-intensity to low-intensity care settings by allowing PHCS to use federal DSH funding for the first time to provide a wider range of outpatient visits and to provide a new mechanism for PHCS to claim federal matching dollars for providing technology-enhanced services and other supportive services. We considered two performance measures in this part of the midpoint evaluation:

- improvements in ambulatory care services, excluding behavioral health and emergency services
- improvements in behavioral health services, particularly in non-emergent settings.

Increases in utilization can occur because of new services being provided or because of shifts in care from one setting to another. We looked at utilization for different service groups and settings separately as defined by the GPP model to include category 1, outpatient services in traditional settings; category 2, complementary patient support and care services; category 3, technology-based outpatient services; and category 4, inpatient services.

Early trends in GPP aggregate data reported during the first two years of the program suggest changes in utilization of services that align with the goals and hypotheses specified for the GPP. These findings include the following:

- A 3-percent increase in points earned for outpatient non-emergent utilization of non–behavioral health services overall was driven largely by increases in outpatient surgery and greater use of outpatient non-traditional services. Eight of 12 PHCS experienced increases in outpatient non-emergent services.
- The increase in points earned for outpatient non-traditional services—7 percent in the first two years—was driven primarily by greater provision of recuperative and respite care days, case management, mobile clinic visits, visits from PharmDs, eConsults, and store-and-forward telehealth.[9]
- A decrease in points earned for ER and inpatient non–behavioral health services of 8 percent overall included a 9-percent reduction for ER visits and a 10-percent decrease for medical and surgical stays. Among the 12 PHCS, seven experienced decreases in ER visits and six had decreases in inpatient medical and surgical stays.

Patterns in utilization for behavioral health services were mixed, which is contrary to expectations. Further exploration of these patterns is needed to better understand whether

[9] *Store-and-forward telehealth* refers to medical information (such as documents, images, and videos) that is stored and then electronically transmitted elsewhere for evaluation but does not involve real-time interaction.

they represent an important change in the availability of needed care for patients. This topic will be explored in the coming months. Thus far, analyses reveal the following:

- The number of points earned for outpatient mental health and substance use services decreased by 10 percent and 15 percent, respectively. Ten of the 12 PHCS experienced reductions in outpatient utilization for these services.
- Although mental health inpatient points increased by 2 percent overall (and decreased for seven of 12 PHCS), points earned for mental health ER and crisis stabilization services increased by 15 percent overall and for five PHCS. In future interviews with PHCS representatives, we will probe these findings.

When we examined shifts across groups of services, we documented several notable patterns:

- a 0.9-percentage-point increase in the share of services that were non-traditional and a 0.9-percentage-point increase in the share of services that were furnished by contracted providers
- a 1.4-percentage-point increase in the share of outpatient non-ER services relative to all services; six of 12 PHCS increased their shares of outpatient non-ER services by more than 1 percentage point. However, when examining non–behavioral health services only, we saw that a larger number of PHCS (eight of 12) improved their outpatient non-ER shares of services by more than 1 percentage point.

Further understanding of the shifts in utilization will be possible with additional data collection as the GPP demonstration progresses. For the final evaluation, utilization data from program year 3 will be available, and encounter data will be reported by the PHCS and will contain more-granular information about patient characteristics (age, gender, race, ethnicity, and diagnoses) and the types of services and settings used to provide GPP patient care.

PHCS Are Putting a Strong Foundation in Place to Deliver Care for the Remaining Uninsured

As part of the GPP, PHCS gained the ability to use all their federal matching dollars to support the provision of services in a wide range of settings and through a broader range of provider types and care delivery strategies—including non-traditional services. We hypothesized that these changes would enhance each PHCS' capacity to provide more cost-effective primary, preventive, and specialty care that could prevent future utilization in high-intensity care settings. Demonstrating increases in the number of uninsured patients served and reductions in the cost of ER and inpatient hospital costs would support the hypothesis that the GPP is achieving these aims.

To address hypothesis 3, that PHCS are putting a strong foundation in place to deliver care for the remaining uninsured, we began by examining how the number of uninsured served by

each PHCS changed over the course of the GPP demonstration. We then focused on the question of whether the GPP has provided PHCS with a strong financial foundation to support delivery system transformation, by examining the cost of providing services to the uninsured, as well as the level of payments relative to costs both before and during the first year of the GPP. To address implementation challenges that arose during the first two program years, we assessed whether PHCS have developed strategies to help ensure that the GPP achieves its aims of expanding access to high-quality, integrated care that is delivered in appropriate settings. The midpoint evaluation provides evidence to support the hypothesis that the GPP has provided PHCS with a strong financial foundation to support delivery system transformation.

We examined several indicators of performance supporting the hypothesis that the GPP was accomplishing its aims:

- Although PHCS were not overwhelmingly more likely to report serving more uninsured patients, they reported changing their *mixes* of services in a way that emphasized the provision of non-traditional and preventive services to the uninsured. This change appeared to be well aligned with GPP goals, with 83 percent of PHCS reporting that they served a greater share of their uninsured with non-traditional services, 75 percent reporting using a greater share of preventive services, and 58 percent reporting serving more with contracted services.
- Seven PHCS exceeded their point thresholds in year 1, while five reached their thresholds in year 2. A single PHCS earned lower-than-expected points relative to its threshold in both years, but this is likely the result of errors calculating points in the baseline year.
- In program year 1, PHCS provided a total of $1.29 billion in uninsured services—an increase of less than $26 million relative to the baseline year. When eligible uninsured uncompensated costs are inflated to 175 percent, total spending was $1.78 billion in year 1. These changes could be due to increases in the number of patients served or public health emergencies. Uninsured costs decreased for nine PHCS and increased for only three.
- Federal payments to PHCS totaled $1.1 billion during program year 1, while uninsured uncompensated care costs totaled $1.2 billion (or $1.6 billion when eligible costs are inflated to 175 percent). Overall, federal payments covered 88.8 percent of uninsured uncompensated care costs in program year 1, which was an improvement from 86.5 percent in the baseline year. When eligible uninsured uncompensated costs are inflated to 175 percent, federal payments covered 64.8 percent of uninsured uncompensated care costs in program year 1, which was an increase from 63.6 percent in the baseline year.
- When examining payment adequacy for individual PHCS, we found that federal payments covered the full cost of uninsured uncompensated care for six of 12 PHCS in program year 1.

Perspectives from Participating PHCS

We now introduce perspectives of participating PHCS' leaders about their contributions to the developing GPP foundation for delivering care for the remaining uninsured. To evaluate this component of hypothesis 3, we conducted a more in-depth analysis of health system change adoption strategies, modifications of service utilization for patient care, and reports of quality of care delivered to the remaining uninsured. We assessed successes and challenges associated with the adoption of strategies to increase PHCS service delivery by a broad range of provider types spanning multiple venues. To evaluate the effectiveness and sustainability of these strategies, we assessed the incorporation of change strategies into PHCS culture, the extent to which service modification was associated with PHCS reports of achievement of GPP goals, and, finally, PHCS reports of quality of care and services delivered to the remaining uninsured.

Inputs from the survey suggest substantial successful efforts by PHCS to use strategies adopted to further develop PHCS infrastructures capable of supporting GPP goals. Although challenges using health system change strategies are notable for their prevalence, challenges implementing health system change strategies do not appear to deter PHCS from incorporating change strategies into PHCS culture. The latter is important because embedded strategies are those most likely to be sustainable (National Health Service, 2002; Stange et al., 2003; Wallin, Profetto-McGrath, and Levers, 2005; Davies et al., 2006). PHCS modification of services through an increase in existing services or the development of new services is associated with PHCS reports of an enhanced achievement of GPP goals, another suggestion that GPP-induced changes are becoming well integrated into PHCS structures. PHCS reports of implementation challenges remain positively associated with support for service modification, suggesting that PHCS are committed to those strategies that they supported and those that they persisted using even while they worked through challenges. Another metric supporting the development of a strong foundation is that PHCS reported substantial progress made to date compared with the period prior to the GPP to improve care delivered to the remaining uninsured as measured by reports of their current ratings of care. Although these ratings acknowledge that care for the remaining uninsured has room for improvement, the higher scores for improvement in quality now compared with that prior to GPP indicates broad PHCS engagement and satisfaction with GPP implementation at the time of the midpoint evaluation.

Despite this evidence in support of the development of a strong foundation, several ongoing challenges should be noted and will likely benefit from additional attention so that they will not slow the emerging progress in building the GPP foundation:

- PHCS reports advise that they have moderate to substantial strategies associated with improving data collection and tracking. This is notable because PHCS named this domain as the most important one for change to achieve GPP goals.

- The lowest-rated strategy in terms of both success in achieving GPP goals and incorporating this strategy into overall PHCS culture is associated with the use of more contracted providers for behavioral health. This is important given hypothesis 2 findings of a decrease in points earned for outpatient mental health and substance use services of 10 percent and 30 percent, respectively, with reductions in outpatient utilization for these services noted by ten of the 12 PHCS.
- Despite improvements in PHCS self-ratings of good progress made to date to improve the coordination of care delivered, current ratings of PHCS coordination of care remain fair to less than good. Timely achievement of GPP goals to deliver more-effective primary, preventive, and specialty care that could reduce future utilization of high-cost services is unlikely if coordination of care is not prioritized and improved.

In the rest of this section, we present evidence supporting the hypothesis that PHCS are putting a strong foundation in place to deliver care for the remaining uninsured and identify areas that will benefit from additional exploration.

Strategies That Were Most Successful for Achieving the Aims of the GPP

Overall, the health system change strategy reported to be most successful across any domain or strategy was co-location of behavioral health and primary care, a strategy for improving coordination of care, followed closely by prioritizing preventive services, a strategy for improving the delivery system. Across all six improvement domains, the domains most successful in achieving GPP goals were improving team-based care and collecting and tracking data. The most-successful strategies within the domain of improving team-based care involved reorganizing care teams to include new positions or roles and delivering more non-traditional services. The domains of collecting and tracking data and improving team-based care tied for the second-most successful collection of strategies for achieving GPP goals. In the domain of collecting and tracking data, PHCS rated the enhancement of data capture so that utilization rendered is consistently claimed as most successful.

The least successful strategy in achieving GPP goals as reported by PHCS leaders was improving staffing by using more contracted providers for behavioral health. Of note is that five other strategies associated with contracting were characterized as less successful than most other strategies in achieving GPP goals. Only the strategy of using more contracted providers for data management was associated with a mean rating of at least moderately successful.

Strategies That Were Challenging to Implement

In the survey, respondents indicated experiencing the greatest challenges in implementing strategies in the domain of improving data collection and tracking, which they found to be moderately to substantially challenging. In that domain, PHCS reported that the most challenging strategy to implement was enhancement of data capture of services so that

utilization rendered is consistently, claimed they found to be moderately to substantially challenging. This challenging rating was assigned to this strategy even though it was the highest-rated strategy in the data-collection and tracking domain. The next-most challenging strategies were improving systems of data transfer so the right information is in the right place at the right time and improving data coding associated with the tracking and utilization of services to facilitate billing and claiming.

PHCS described improving access to care and improving staffing as the least challenging domains to implement. Although making services accessible and improving staffing in the short term might be easier to implement than other strategies, without pairing the improved access to services and expanded staffing with improvements in data systems, coding, and billing and claiming, the improving-access and improving-staffing strategies are likely to outrun their fiscal support and not remain sustainable strategies for change.

Strategies That Successfully Became Part of Overall PHCS Culture

Across all six domains of health system improvement, PHCS reported a score consistent with strategies now being at least moderately part of overall PHCS culture. This was most notable for domains of collecting and tracking data and improving the delivery system, which shared a tied high score. PHCS reported that the specific strategies most frequently part of the overall PHCS culture were changing staff ratios and teams in terms of providers and nonprovider staff to satisfy GPP elements, part of the domain or improving team-based care, and improving data sharing across all sites within PHCS, from the coordination-of-care domain. The strategy reported as least integrated into overall PHCS culture was using more contracted providers for behavioral health, part of the improving-staffing domain.

Concluding Comments

Our next and final report will supplement the data we now have with additional utilization and cost data from program year 3 and with newly available encounter data. These data sources will allow a more granular analysis and allow us to better assess the direction and magnitude of changes across three years. Additionally, for the final report, we will have the benefit of analyses from a follow-up (final) PHCS GPP survey and a series of interviews with a representative from each of the PHCS. The interviews will focus on the outstanding questions that remain for PHCS following the analyses presented in this midpoint report. For example, thus far, we have used utilization and cost analyses paired with the midpoint survey to understand the modifications PHCS have made in terms of services they offer and utilize for patients in response to the GPP. We plan to use the existing data and findings from this

midpoint evaluation to design interview questions for PHCS leaders, which will further our understanding of changes made in response to the GPP and the impact of those changes.

Abbreviations

ACA	Patient Protection and Affordable Care Act
CAPH	California Association of Public Hospitals and Health Systems
CCU	cardiac care unit
CHIS	California Health Interview Survey
CMS	Centers for Medicare and Medicaid Services
DHCS	California Department of Health Care Services
DSH	disproportionate-share hospital
ER	emergency room
FFP	federal financial participation
FQHC	federally qualified health center
GPP	Global Payment Program
ICU	intensive care unit
N/A	not applicable
PCP	primary care provider
PharmD	doctor of pharmacy
PHCS	public health care system
RN	registered nurse
SD	standard deviation
SFY	state fiscal year
SNCP	safety-net care pool
SNF	skilled nursing facility
STC	special term or condition

Chapter One. Introduction

California has a rich history of providing services to millions of Medi-Cal enrollees and uninsured residents through county-based public health care systems (PHCS). The state's commitment to ensuring a health care safety net dates from a 1933 state law (Section 17000 of the California Welfare and Institutions Code) that requires counties to "relieve and support" their indigent residents who have no other source of care. Currently, the county-based systems (along with University of California medical centers) account for just 6 percent of the state's hospitals but provide more than 40 percent of hospital care to the state's remaining uninsured (California Association of Public Hospitals and Health Systems [CAPH] and California Health Care Safety Net Institute, 2016).

Recent studies—including several conducted after passage of the Patient Protection and Affordable Care Act (Pub. L. No. 111-148, 2010) (commonly known as the Affordable Care Act or ACA)—have demonstrated that improvements in access to outpatient services, particularly among the uninsured, can reduce health care costs and improve health outcomes (Antonisse et al., 2018; Golberstein, Gonzales, and Sommers, 2015; Miller and Wherry, 2017; Sommers, Baicker, and Epstein, 2012; Sommers, Gunja, et al., 2015; Simon, Soni, and Cawley, 2017; Sommers, Blendon, et al., 2016). Furthermore, evidence indicates that people with serious mental health conditions die, on average, 25 years earlier than the general population, and a significant proportion of these deaths are due to preventable conditions, such as high blood pressure, high cholesterol, diabetes, and heart disease (CAPH and California Health Care Safety Net Institute, 2016).

Despite the importance of a strong primary care delivery system, traditional health care service delivery has focused primarily on the treatment of symptomatic diseases with high-cost interventions often delivered by high-cost providers in emergency rooms (ERs) or hospitals. This is particularly true among uninsured individuals, who sometimes use ERs to obtain care for advanced health conditions—many of which might be the result of inadequate access to continuous and coordinated primary care. These ER visits can be associated with hospital stays because the uninsured often lack access to the post discharge follow-up care that is critical to optimal management of their complex clinical and social needs. Furthermore, uninsured people sometimes use ERs as an accessible source of care to meet their physical, behavioral, and social service needs (Zhou et al., 2017).

Leading hospitals and health systems across the country have been transforming their care delivery models to be more responsive to the full spectrum of their patients' needs

(Schoenberg et al., 2015; Bodenheimer and Pham, 2010; Franks and Fiscella, 1998; Starfield and Shi, 2004; Starfield and Shi, 2002). These changes often include expanding the types of providers who care for patients, the venues in which patients receive care, the range of supportive services available, and the number of alternative methods of communicating with providers (Shipman and Sinsky, 2013; Bashshur et al., 2014). These new care delivery models are designed to provide greater access to timely services while educating and empowering patients to improve their health, which might improve quality and lower the cost of care.

In recognition that the uninsured often have limited access to cost-effective preventive care and mental health services, the California Department of Health Care Services (DHCS) and the state's 12 PHCS worked together to formulate and test a new program to improve care to the uninsured as part of the state's Section 1115 Medicaid demonstration waiver, also known as the Medi-Cal 2020 waiver.[10] The Global Payment Program (GPP), initiated in July 2015, allowed PHCS to receive federal matching funds for a much wider range of services than they previously could, including those provided by staff other than licensed physicians and services provided in non-traditional settings (such as in a patient's home or in the community). Although the GPP continues to reimburse PHCS for traditional services, such as diagnosis and treatment of diseases, it supplements these with reimbursement for prevention and supportive services that can better meet patients' health care needs and can ultimately limit the use of services provided in high-intensity care settings.

The GPP aims to optimize the value of care provided to the uninsured by providing reimbursement for non-traditional venues of care (e.g., phone, video, group visits) and services (e.g., acupuncture to treat and prevent chronic pain, mental health care, patient education) delivered by non-traditional providers (e.g., PharmD [doctor of pharmacy], complex care manager, community health worker, case manager). One goal of the GPP is to provide flexibility to PHCS to be able to more appropriately match the services delivered to each patient with a provider whose skill set and setting meet the patient's needs in a manner consistent with clinical effectiveness and cost-effectiveness. Accordingly, the GPP is expected to encourage a shift in the overall delivery of services to the uninsured from care provided in high-intensity care settings, such as hospitals and ERs, toward greater use of primary, preventive, and supportive services delivered in more cost-effective care settings.

[10] *Section 1115* is a reference to the section number as Public Law 87-543, 1962, § 122, added it to the Social Security Act; it is now codified at 42 U.S.C. § 1315.

The Remaining Uninsured in California

The expansion of Medicaid eligibility and the establishment of Covered California (the state's health insurance marketplace), which were authorized by the ACA, significantly expanded access to health insurance in California. In 2013, the year prior to the establishment of these new coverage initiatives, approximately 5.59 million residents were uninsured (15 percent of the state's population), but, just two years later, the number of uninsured fell to 2.98 million residents (8 percent) (Henry J. Kaiser Family Foundation, undated).[11]

Beyond the population of residents who lack any form of insurance, a large percentage of California residents are enrolled in restricted scope Medi-Cal coverage, which is available without condition for anyone experiencing an emergency health condition or who is pregnant (DHCS, 2016c). For example, a woman who is enrolled in restricted scope Medi-Cal because of pregnancy is eligible for medically necessary pregnancy-related services, which include services for conditions that might complicate the pregnancy, but she is not eligible for primary, specialty, or hospital care unrelated to these conditions. Notably, in May 2016, California's SB 75 (Health for All Kids legislation) went into effect, providing eligibility for full-scope Medi-Cal to all children in the state under 19 years of age regardless of immigration status, whereas previously they were eligible only for restricted scope coverage.

Estimating the size of the combined population of uninsured and restricted scope Medi-Cal enrollees is challenging because of the frequency of transitions in coverage, differences in the duration of episodes of uninsurance, and the reluctance of California residents without satisfactory immigration status to respond to surveys designed to collect this information. With these caveats in mind, we estimated the size of this population living in the 12 counties whose PHCS were participating in the GPP to be between 3.1 million and 3.5 million people at any point in time during calendar year 2016 (Exhibit 1.1). Using the upper-bound estimates, we estimate that 37 percent were uninsured without other forms of coverage for the full year, 14 percent were enrolled in restricted scope Medi-Cal for the full year, and 49 percent were both uninsured and enrolled in restricted scope Medi-Cal at different points in time during 2016.

[11] The source for these estimates is the U.S. Census Bureau's March supplement to the Current Population Survey.

Exhibit 1.1. Estimates of the Remaining Uninsured, by County, 2016

	Estimated Number (Percentage of Total Population)					
	Uninsured		Medi-Cal Enrollees with Restricted Scope Benefits		Estimated Total (Part Year or Full Year)[a]	
County	**Part Year**	**Full Year**	**Part Year**	**Full Year**	**Lower Bound**	**Upper Bound**
Alameda	60,000 (4%)	61,000 (4%)	21,219 (1%)	17,320 (1%)	138,320 (9%)	159,539 (10%)
Contra Costa	54,000 (5%)	23,000 (2%)	11,517 (1%)	10,258 (1%)	87,258 (7%)	98,775 (8%)
Kern	59,000 (7%)	55,000 (6%)	14,538 (2%)	18,005 (2%)	132,005 (14%)	146,543 (16%)
Los Angeles	601,000 (6%)	713,000 (7%)	269,544 (3%)	301,355 (3%)	1,615,355 (16%)	1,884,899 (19%)
Monterey	25,000 (6%)	36,000 (9%)	8,911 (2%)	17,480 (4%)	78,480 (20%)	87,391 (22%)
Riverside	121,000 (5%)	105,000 (4%)	21,714 (1%)	28,936 (1%)	254,936 (11%)	276,650 (12%)
San Bernardino	170,000 (8%)	120,000 (6%)	22,827 (1%)	29,285 (1%)	319,285 (15%)	342,112 (16%)
San Francisco	39,000 (5%)	38,000 (4%)	9,040 (1%)	8,312 (1%)	85,312 (9%)	94,352 (10%)
San Joaquin	21,000 (3%)	28,000 (4%)	8,422 (1%)	12,337 (2%)	61,337 (9%)	69,759 (10%)
San Mateo	59,000 (8%)	19,000 (3%)	13,037 (2%)	16,232 (2%)	94,232 (13%)	107,269 (14%)
Santa Clara	45,000 (2%)	71,000 (4%)	23,017 (1%)	32,323 (2%)	148,323 (8%)	171,340 (10%)
Ventura	40,000 (5%)	20,000 (3%)	12,036 (1%)	14,479 (2%)	74,479 (9%)	86,515 (10%)
GPP counties	**1,293,000 (6%)**	**1,289,000 (6%)**	**435,822 (2%)**	**506,322 (2%)**	**3,088,322 (13%)**	**3,524,144 (15%)**
Non-GPP counties	**689,000 (5%)**	**752,000 (5%)**	**206,966 (1%)**	**203,375 (1%)**	**1,644,375 (11%)**	**1,851,341 (13%)**
All counties	**1,982,000 (5%)**	**2,041,000 (5%)**	**642,788 (2%)**	**709,697 (2%)**	**4,732,697 (12%)**	**5,375,485 (14%)**

SOURCES: The estimated number of uninsured and the total population are from the California Health Interview Survey (CHIS). The number of Medi-Cal enrollees with restricted scope benefits is from DHCS Medi-Cal enrollment data.

NOTE: Estimates might not sum to the totals because of rounding. Estimates include adults and children. Part-year status indicates one to 11 months of uninsurance or restricted scope benefits; full-year status indicates 12 months of uninsurance or restricted scope benefits. For Medi-Cal enrollees, the county shown reflects enrollees' county of residence. Medi-Cal restricted scope enrollees who change their counties of residence are classified as having part-year benefits in multiple counties. Except for Los Angeles County, CHIS county-level estimates of the uninsured are not statistically stable in a single year.

[a] The lower bound of this estimate assumes that the part-year Medi-Cal enrollees with restricted scope benefits are also included in the part-year uninsured estimates (3,088,322 = 1,293,000 + 1,289,000 + 506,322). The upper-bound estimate assumes that the part-year Medi-Cal enrollees with restricted scope benefits are not double-counted in the part-year uninsured estimates (3,524,144 = 1,293,000 + 1,289,000 + 435,822 + 506,322).

Most of the uninsured and restricted scope Medi-Cal enrollees are adults ages 18 through 64 (Exhibit 1.2). The Medi-Cal restricted scope enrollees might be eligible through multiple programs, and most have benefits restricted to emergency and pregnancy-related services and sometimes long-term care services (Exhibit 1.3).

Exhibit 1.2. Ages of the Remaining Uninsured in the 12 GPP Counties, 2016

	Estimated Number (Percentage of Total Population)					
	Uninsured		Medi-Cal Enrollees with Restricted Scope Benefits		People Who Might Receive GPP Services	
Age	**Part Year**	**Full Year**	**Part Year**	**Full Year**	**Lower Bound**	**Upper Bound**
0–1	1,000 (<1%)	N/A	89 (<1%)	2 (<1%)	1,002 (<1%)	1,091 (<1%)
2–17	114,000 (9%)	27,000 (2%)	31,821 (7%)	105 (<1%)	141,105 (5%)	172,926 (5%)
18–34	580,000 (45%)	508,000 (39%)	152,403 (36%)	167,035 (33%)	1,255,035 (41%)	1,407,438 (40%)
35–49	293,000 (23%)	450,000 (35%)	166,853 (39%)	258,813 (51%)	1,001,813 (32%)	1,168,666 (33%)
50–64	274,000 (21%)	282,000 (22%)	55,758 (13%)	68,694 (13%)	624,694 (20%)	680,452 (19%)
65+	33,000 (3%)	21,000 (2%)	17,955 (4%)	15,584 (3%)	69,584 (2%)	87,539 (2%)
Total	**1,295,000**	**1,288,000**	**424,879**	**510,233**	**3,093,233**	**3,518,112**

SOURCES: The estimated number of uninsured and the total population is from CHIS. The number of Medi-Cal enrollees with restricted scope benefits is from DHCS Medi-Cal enrollment data.
NOTE: N/A = not applicable. Estimates might not sum to total because of rounding. Estimates include adults and children. Part-year status indicates one to 11 months of uninsurance or restricted scope benefits; full-year status indicates 12 months of uninsurance or restricted scope benefits.

Exhibit 1.3. Medi-Cal Restricted Scope Enrollees in the 12 GPP Counties, by Program Category, 2016

Program Category	Number of Medi-Cal Enrollees with Restricted Scope Benefits (Percentage of Total)	
	Part Year	Full Year
Parents and caretaker relatives	292,583 (40%)	213,964 (56%)
Adults 19–64	226,877 (31%)	124,780 (33%)
Medically needy	154,161 (21%)	38,506 (10%)
Pregnant women	22,813 (3%)	4,220 (1%)
Children	19,191 (3%)	409 (<1%)
All other aid codes for restricted scope benefits	15,300 (2%)	1,379 (<1%)
Total restricted scope enrollees	**730,925**	**383,258**

SOURCES: The number of Medi-Cal enrollees with restricted scope benefits is from DHCS Medi-Cal enrollment data; DHCS, 2016b, 2017b; Covered California, 2017.
NOTE: Parents and caretaker relatives includes aid code M4 (those at or below 125 percent of the federal poverty level; who are undocumented; and who have benefits restricted to emergency, pregnancy-related, and long-term care services) and 3V (Section 1931[b] coverage for certain undocumented people for emergency and pregnancy-related services; the section number is the section number added by Public Law 104-193, 1996, § 114[a] to what was then Title XiX of the Social Security Act and now codified at 42 U.S.C. § 1396u-1). Adults ages 19 to 64 includes aid code M2 (those at or below 138 percent of the federal poverty level; who are undocumented; and who have benefits restricted to emergency and pregnancy-related services) and N8 (new ACA adult group for inpatient hospital emergency-related services off the grounds of the correctional facility). Medically needy aid codes include C1 through C9 and 58. Restricted scope aid codes for pregnant women are M0, M8, 48, 5F, 76, D8, and D9. Aid codes for children are M6, T6 through T9, T0, 7C, 8N, 8T, and D1. The other aid codes for restricted scope benefits include those for transitional programs and inmates. A given person can qualify for more than one aid code or switch aid codes within a year.

Safety-Net Financing and Delivery System Reform in California

Historically, California has used two federal funding sources to help finance services for the uninsured: the Medicaid Disproportionate Share Hospital (DSH) program and the state's Safety Net Care Pool (SNCP). This section provides an overview of these programs. We then provide an overview of delivery system reform activities in the state that preceded the GPP.

Medicaid DSH payments were originally designed to protect safety-net hospitals from any adverse effects resulting from the move away from cost-based payment systems for hospital care in the early 1980s. As part of the DSH program, the federal government provides matching funds for payments that states make to their hospitals for providing uncompensated care. The federal match, known as the federal medical assistance percentage, is 50 percent for California. In contrast to some other states, California requires its PHCS to finance the state's contribution in order to claim federal DSH funding. That is, the PHCS received federal matching payments, in accordance with a methodology devised by the state. These payments were based primarily on

each PHCS' share of the uncompensated costs of hospital care it provided to Medi-Cal and uninsured patients relative to those of other PHCS in the state.[12] Currently, California receives approximately $1.2 billion in federal funds through the DSH program, and, although the ACA authorized cuts to Medicaid DSH funding beginning in 2014, these cuts have been delayed repeatedly, including most recently in the February 2018 budget resolution. As part of that agreement, Medicaid DSH payments will be reduced nationally by $4 billion starting in FY 2019/2020, which includes the final year of the GPP, and for each of the subsequent five years by $8 billion—a nearly two-thirds reduction of DSH funding nationwide.

Beginning with California's 2005 Medicaid Section 1115 demonstration waiver, PHCS gained access to a second source of federal funding, known as the SNCP. The SNCP helps offset both hospital and nonhospital costs for uninsured services through its SNCP Uncompensated Care Pool. PHCS finance the nonfederal share of payments, which is similar to what the DSH program requires. This program was both renewed and expanded in California's 2010 Bridge to Reform Section 1115 demonstration waiver to help finance California's Low-Income Health Program, a transitional program that served as a bridge to health care coverage for uninsured residents between 2010 and December 2013, when eligible enrollees transitioned into either Medi-Cal (through the state's Medicaid expansion) or Covered California (Pourat et al., 2016).[13] California's PHCS receive approximately $236 million annually in federal funds through the SNCP program and will continue to do so through 2020, when the current waiver ends.

These federal funding sources have allowed several counties in the state to operate health care programs for the indigent who are not otherwise eligible for public health insurance coverage. These programs allow eligible county residents to obtain primary, specialty, and hospital care at low to no cost, primarily from PHCS-affiliated providers but also from other community partners. For example, the Healthy San Francisco program provides services to any San Francisco resident age 18 or older with income up to 500 percent of the federal poverty level who is uninsured and ineligible for Medi-Cal or Medicare. Similarly, the My Health LA program provides care to uninsured county residents who have incomes below 138 percent of the poverty level. Medicaid DSH and SNCP funding have been critical to expanding access to needed health care services for millions of uninsured California residents.

California's Bridge to Reform waiver went beyond these efforts by including new initiatives that sought to transform the delivery system in the state—especially for PHCS. A key element of

[12] As part of the process to draw down federal DSH funding, PHCS are eligible to report uncompensated costs up to the Omnibus Budget Reconciliation Act of 1993 (Pub. L. 103-66) limit (175 percent), which allows PHCS to claim a larger share of DSH funding than other hospitals and health systems in the state can.

[13] Unlike the DSH program, for which uninsured *hospital* costs are eligible for claiming at 175 percent, California can claim federal matching funds for the SNCP based on *all uninsured costs*, regardless of setting, at 100 percent of costs.

the 2010 waiver was the Delivery System Reform Incentive Payments program—a program that authorized additional federal matching payments to PHCS (as well as the University of California medical centers) to develop new system infrastructure and implement new population-focused care strategies in both ambulatory and inpatient settings. The Delivery System Reform Incentive Payments program also allowed PHCS to qualify for incentive payments after achieving key transformation milestones (Henry J. Kaiser Family Foundation, undated). Ultimately, each PHCS was engaged in 15 simultaneous projects, on average, which included expansion of primary care access, greater use of team-based care, improved delivery of preventive health services, and co-location of physical and behavioral health services (CAPH and California Health Care Safety Net Institute, 2015).

California's Medi-Cal 2020 waiver built on the Bridge to Reform waiver by authorizing four new programs designed to continue to drive quality and efficiency improvements throughout the state. Among these programs, the largest is the Public Hospital Redesign and Incentives in Medi-Cal, which will provide $3.3 billion over five years to the 12 PHCS participating in the GPP (as well as the University of California medical centers) to undertake projects that focus primarily on outpatient delivery system transformation, high-risk populations, and resource utilization efficiency. A second program, Whole Person Care, will make up to $1.5 billion in federal funding over five years available to provider organizations (including PHCS) to undertake pilot projects whose goals are to improve coordination of physical health, behavioral health, and social services, using patient-centered care design principles. A third program, the Dental Transformation Initiative, will provide up to $750 million in incentive payments to promote increased use of preventive dental services and improved continuity of dental care. The fourth key program is the GPP, whose key features we describe in the next section.

The GPP

The GPP implements a new payment system that provides federal matching payments to incentivize transformations in care delivery and expand non-emergent outpatient services, including primary care services for the uninsured. According to the waiver's special terms and conditions (STCs), under the GPP, care is "considered uninsured for individuals for whom there is no source of third party coverage for the specific service furnished by the PHCS."[14] As noted

[14] The STCs are explicit with regard to the eligibility for claiming of non-traditional services under the GPP—many of which might not be covered by health insurers in the state. The STCs state that

> an individual will not be considered uninsured with regard to a non-traditional service (as identified in Attachment FF, GPP Valuation Methodology Protocol) he or she receives from the PHCS if the individual has a source of third party coverage for the category of service for which the non-traditional service is being used as a substitute. (CMS, 2017, pp. 131–132)

previously, the vast majority of people who are “uninsured for a specific service” are patients with restricted scope Medi-Cal coverage. For these patients, the GPP provides a key source of financing for a wide range of non-emergency services.

The GPP is a voluntary program in which 12 of the state’s PHCS chose to participate. The PHCS differ in their sizes and composition (Exhibit 1.4). Although most PHCS operate one or two hospitals, Los Angeles County Health System and Alameda Health System operate four and five hospitals, respectively. All PHCS operate teaching hospitals; all but two operate a level I, II, or III trauma center; and three of 12 operate burn beds. All PHCS work closely with federally qualified health centers (FQHCs) in their communities, and nine of the 12 PHCS also operate their own FQHCs.

Exhibit 1.4. Characteristics of PHCS Participating in the GPP

PHCS	Short Name	Location	Number of Hospitals	Teaching Hospital?	Trauma Center?	Staffed Burn Beds?	FQHC?
Alameda Health System	Alameda	Oakland, Alameda County	5	Yes	Level I	No	Yes
Arrowhead Regional Medical Center	Arrowhead	Colton, San Bernardino County	1	Yes	Level II	Yes	No
Contra Costa Regional Medical Center	Contra Costa	Martinez, Contra Costa County	1	Yes	None	No	Yes
Kern Medical	Kern	Bakersfield, Kern County	1	Yes	Level I	No	No
Los Angeles County Health System	Los Angeles	Los Angeles, Los Angeles County	4	Yes	Level I	Yes	No
Natividad Medical Center	Natividad	Salinas, Monterey County	1	Yes	Level II	No	Yes
Riverside University Health System–Medical Center	Riverside	Moreno Valley, Riverside County	2	Yes	Level II	No	Yes
San Joaquin General Hospital	San Joaquin	French Camp, San Joaquin County	1	Yes	Level III	No	Yes
San Mateo County Medical Center	San Mateo	San Mateo, San Mateo County	1	Yes	None	No	Yes
Santa Clara Valley Medical Center	Santa Clara	San Jose, Santa Clara County	1	Yes	Level I	Yes	Yes
Ventura County Medical Center	Ventura	Ventura, Ventura County	2	Yes	Level II	No	Yes
Zuckerberg San Francisco General Hospital and Trauma Center	San Francisco	San Francisco, San Francisco County	2	Yes	Level I	No	Yes

SOURCE: Adapted from PHCS communication with the RAND team, spring 2018.

The GPP was authorized for a period of five years and started at the beginning of state fiscal year (SFY) 2015–2016 (July 1, 2015). However, many of the provisions of the program, including the valuation of services and the establishment of PHCS point thresholds (discussed in the next section), were not completed until March 2016 (nearly three-quarters of the way through the first program year). As of the writing of this report, the GPP is nearing completion of its third year.

The GPP Payment Structure

The GPP combined federal DSH and SNCP funding into a single pool and established a new payment structure that seeks to reward the provision of care in lower-intensity settings and discourage overreliance on care provided in the ER or inpatient settings. Previously, PHCS could claim Medicaid DSH funding only for services provided in hospitals, which provided few incentives for PHCS to invest in advanced primary care delivery models. The GPP eliminated the site-of-service requirements associated with DSH funding and gave PHCS flexibility to use program funds to provide services in a wide range of care settings.

Another key feature of the new payment system is that interim payments to PHCS are made on a quarterly basis based on a budget that is established at the beginning of each program year. These quarterly payments are then reconciled at year's end. Prior to the GPP, payments to PHCS were made on a pro rata basis given available funding, which meant that the total amount of funding for these services was not known in advance. In contrast, under the GPP, PHCS benefit from the greater predictability of funding, which is expected to encourage PHCS to make investments that can transform their delivery systems over the five-year demonstration period.

The GPP Point Methodology

Each PHCS' budget is calculated using a point methodology that DHCS developed exclusively for the GPP. The point system covers 50 services that are organized into four categories and 15 tiers of services (Exhibit 1.5).

Exhibit 1.5. GPP Initial Point Values, by Category, Tier, and Service

Category	Tier	Service Code	Description	Traditional or Non-Traditional	Initial Point Value
1. Outpatient services in traditional settings	A. Care by other licensed or certified practitioners	1A01	RN-only visit	NT	50
		1A02	PharmD visit	NT	75
		1A03	Complex care manager	NT	75
	B. Primary, specialty, and other non-emergent care (physicians or other licensed independent practitioners)	1B04	Dental	T	62
		1B05	OP Primary/Specialty	T	100
		1B06	Contracted Prim/Spec	T	19
		1B07	MH Outpatient	T	38
		1B08	SU Outpatient	T	11
		1B09	SU Methadone	T	2

Category	Tier	Service Code	Description	Traditional or Non-Traditional	Initial Point Value
	C. Emergent care	1C10	OP ER	T	160
		1C11	Contracted ER	T	70
		1C12	MH ER/Crisis Stabilization	T	250
	D. High-intensity outpatient services	1D13	OP Surgery	T	776
2. Complementary patient support and care services	A. Preventive health, education, and patient support services	2A14	Wellness	NT	15
		2A15	Patient support group	NT	15
		2A16	Community health worker	NT	15
		2A17	Health coach	NT	15
		2A18	Panel management	NT	15
		2A19	Health education	NT	25
		2A20	Nutrition education	NT	25
		2A21	Case management	NT	25
		2A22	Oral hygiene	NT	30
	B. Chronic and integrative care services	2B23	Group medical visit	NT	50
		2B24	Integrative therapy	NT	50
		2B25	Palliative care	NT	50
		2B26	Pain management	NT	50
	C. Community-based face-to-face encounters	2C27	Home nursing visit	NT	75
		2C28	Paramedic treat and release	NT	75
		2C29	Mobile clinic visit	NT	90
		2C30	Physician home visit	NT	125
3. Technology-based outpatient services	A. Non-provider care team telehealth	3A31	Texting	NT	1
		3A32	Video-observed therapy	NT	10
		3A33	Nurse advice line	NT	10
		3A34	RN e-Visit	NT	10
	B. eVisits	3B35	Email consultation with Provider	NT	30
	C. Store-and-forward telehealth[a]	3C36	Telehealth (patient–provider)—Store & Forward	NT	50
		3C37	Telehealth (provider–provider)—eConsult/eReferral	NT	50
		3C38	Telehealth—Other Store & Forward	NT	65

Category	Tier	Service Code	Description	Traditional or Non-Traditional	Initial Point Value
	D. Real-time telehealth	3D39	Telephone consultation with Provider	NT	75
		3D40	Telehealth (patient–provider)—real time	NT	90
		3D41	Telehealth (provider–provider)—real time	NT	90
4. Inpatient services	A. Residential, SNF, and other recuperative services, low intensity	4A42	MH/SU Residential	T	23
		4A43	Sobering center days	NT	50
		4A44	Recuperative/respite care days	NT	85
		4A45	SNF	T	141
	B. Acute inpatient, moderate intensity	4B46	Med/surg, etc.	T	634
		4B47	MH Inpatient	T	341
	C. Acute inpatient, high intensity	4C48	ICU/CCU	T	964
	D. Acute inpatient, critical community services	4D49	Trauma	T	863
		4D50	Transplant/Burn	T	1,131

NOTE: OP = outpatient. Prim/Spec = primary or specialty. MH = mental health. SU = substance use. RN = registered nurse. SNF = skilled nursing facility. Med/surg = medical or surgical. ICU = intensive care unit. CCU = cardiac care unit.

[a] Medical information (such as documents, images, and videos) that is stored and then electronically transmitted elsewhere for evaluation but does not involve real-time interaction.

Point values for traditional services were determined by estimating the average cost of providing each service to the uninsured relative to the cost of providing an outpatient primary care or specialty visit prior to the start of the GPP. For example, acute inpatient medical and surgical stays were valued at 634 points, while primary care and specialty visits were valued at 100 points, indicating that a medical and surgical inpatient day provided to the uninsured is 6.34 times more costly than a primary care or specialty visit. For non-traditional services, points were assigned based on a consideration of each service's relative value, determined jointly by DHCS and key stakeholder groups (DHCS, 2017b).

Prior to the start of each program year, DHCS established a budget for each PHCS based on the program funds available in each year and each PHCS' share of points earned for providing uninsured services during the year prior to the start of the GPP.[15] DHCS also assigned a point

[15] To calculate the number of points each PHCS earned in the baseline year, DHCS counted the number of units of each uninsured service in the baseline year for each PHCS and then multiplied these counts by the initial point values associated with each service, then summed across all services.

threshold to each PHCS—a target number of points that the PHCS would need to accumulate to earn 100 percent of the PHCS' budget in each program year. Point thresholds were set in the first program year to correspond to budgets equivalent in dollar value to the cost of providing the same level of services in the year prior to the GPP so as to minimize any disruption to PHCS operations. However, over time, point values for inpatient medical, surgical, and mental health stays decrease in value by 3 percent and ER encounters decrease in value by 5 percent by program year 4 to encourage reductions in utilization of services in these settings.

The intent of the GPP framework is to provide flexibility in the provision of services while encouraging a broad shift to more cost-effective care. As such, each PHCS can use any mix of services to reach its point threshold. Any PHCS that does not earn sufficient points to reach its point threshold will be paid less than its full budget, whereas any PHCS that exceeds its point threshold is eligible for additional program funds that will be redirected from the PHCS that did not reach their thresholds.

Overview of the Evaluation

The waiver's STC 177 states that DHCS is required to conduct two evaluations of the GPP to assess the degree to which the program achieved its intended goals and improved care for uninsured patients accessing care in California's PHCS. A midpoint evaluation is designed to assess "early trends and describe the infrastructure investments the PHCS have made" (Centers for Medicare and Medicaid Services [CMS], 2018) and a final evaluation "will determine whether and to what extent changing the payment methodology resulted in a more patient-centered system of care" (DHCS, 2017a, p. 2). Collectively, the evaluations are required to report on indicators of improved delivery of cost-effective and higher-value care as measured by

> delivering more services at lower level of care . . . , expansion of the use of non-traditional services, reorganization of care teams to include primary care and mental health providers, better use of data collection, improved coordination between mental health and primary care, costs that could have been avoided, and additional investments in infrastructure to improve ambulatory care. (DHCS, 2017a, p. 2)

DHCS contracted with the RAND Corporation to conduct both evaluations. RAND analysts are evaluating the GPP's implementation and impact to identify the extent to which the GPP is achieving its goal of promoting the use of high-value care and to assess the benefits to and challenges faced by participating PHCS. This evaluation will inform ways in which the GPP might be adjusted to further its goals in subsequent years. This report contains the results of the

midpoint evaluation using 24 months of data from GPP program years 1 and 2.[16] In the next section, we list the specific research questions and proposed hypotheses for both the midpoint and final evaluations. We then describe our approach for addressing the midpoint evaluation hypotheses.

Research Questions and Hypotheses for the Midpoint and Final Evaluations

For the midpoint evaluation, CMS and DHCS specified two research questions and three hypotheses:

- midpoint evaluation research questions
  - Did the GPP allow PHCS to build or strengthen primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured?
  - Across the majority of PHCS, did the utilization of non-inpatient non-emergent services increase?
- midpoint evaluation hypotheses
  - Since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.
  - The majority of PHCS improved the utilization of non-inpatient non-emergent services.
  - PHCS are putting a strong foundation in place to deliver care for the remaining uninsured.

For the final evaluation, CMS and DHCS specified three research questions and five hypotheses:

- final evaluation research questions
  - Was the GPP successful in driving a shift in provision of services from inpatient to outpatient settings (including non-traditional services)?
  - Did the GPP allow PHCS to leverage investments in primary care, behavioral health, data collection and integration, and care coordination to deliver care to the remaining uninsured?
  - Did the percentage of dollars earned based on non-inpatient non-emergent services increase across PHCS?
- final evaluation hypotheses
  - Since the beginning of the GPP, PHCS overall increased the use of outpatient services.
  - PHCS improved care to the uninsured.

[16] We will produce a second report as part of the final evaluation at the end of GPP program year 4.

- The GPP promoted allocating resources wisely and is more effectively tailoring care to the appropriate settings.
- The GPP promoted the most-efficient use of investments in improved care teams, behavioral health integration, robust data tracking, and improved care coordination.
- The percentage of dollars earned based on non-inpatient non-emergent services increased across PHCS.

Conceptual Model for Assessing the GPP's Impact on Patient Care

Both the midpoint and final evaluations seek to assess whether changing the way in which PHCS are paid for providing services to the uninsured results in new investments in infrastructure and changes to the number and mix of services in a manner that promotes high-value care. Building on Avedis Donabedian's classic quality-of-care model (Donabedian, 1980, 1982, 1988), we conceptualized that California's PHCS would achieve GPP goals by making changes in infrastructure and organizational processes of care. This model supports the notion that infrastructure and process-of-care changes implemented in response to patients' needs are expected to improve care and outcomes. The model includes the following components:

- *Structure* conveys the attributes of the settings in which health care occurs. Structure includes material resources (facilities, equipment, and funding) and human resources, including practice organization, quality review, and reimbursement methods.
- *Process* describes services provided for patients related to diagnostics or therapeutics.
- *Outcomes* indicate what happens to patients, as defined by the effects that care has on health status for patients and populations.

Donabedian's model specifies that enhanced structure improves the reliability of care processes, which then increases the realization of valued outcomes. In this evaluation, we aimed to identify changes that PHCS made in the first two years of the GPP to build and strengthen the structures they use to support utilization, the delivery of services needed by their patients. Ultimately, it is expected that improvements in organizational structures and processes will translate into more-robust health care systems with improved patient and population health at lower costs.

Although the midpoint evaluation report does and the final GPP evaluation report will focus primarily on changes in care and utilization of services by the remaining uninsured, this midpoint report focuses on early organizational changes in infrastructure, process of care, and the mix of provided services that PHCS adopted to move the quality cascade toward improved care and outcomes. For both evaluations, CMS and DHCS specified performance measures as a means to estimate the progress the GPP is making toward its goals. We describe these performance measures in the next section.

General Approach for Addressing Midpoint Evaluation Hypotheses

The three hypotheses for the midpoint report focus on what is expected with the GPP approximately halfway through its implementation. The midpoint evaluation addressed the three hypotheses as follows:

- Hypothesis 1: To assess whether PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured, we considered changes PHCS made in the adoption of health system improvement strategies and in the provision of GPP services. Our approach focused on how PHCS used these two broad responses to GPP initiatives to further the efficiency of their health system operations and to improve the mix of services used to provide care for the uninsured.
- Hypothesis 2: To determine whether the majority of PHCS improved the utilization of non-inpatient non-emergent services, we assessed (1) improvements in outpatient service utilization, excluding behavioral health and emergency services, and (2) improvements in behavioral health service utilization, particularly in non-emergent settings.
- Hypothesis 3: To evaluate the extent to which PHCS are putting a strong foundation in place to deliver care for the remaining uninsured, we considered several outcomes related to utilization and cost, as well as other outcomes related to the implementation of health system improvement adoption strategies and service utilization.

The evaluation used multiple performance measures to provide evidence in support of or against each hypothesis. Exhibit 1.6 shows the performance measures used in the midpoint evaluation and discussed in this report.

Exhibit 1.6. Midpoint Evaluation Hypotheses and Corresponding Performance Measures

Hypothesis	Performance Measure
1. Since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.	• Data collection and tracking • Expanded care team as evidenced by increased provision of non-traditional services • Increased coordination with other areas of the delivery system (e.g., primary care, mental health, substance use) • Expanded care team as evidenced by expanded workforce roles and responsibilities, including description of workforce involvement and the care team and the efforts to transform both • Improvements in care in a manner that avoids or reduces costs and is measured by an assessment of the GPP's effects on care delivery and costs and of its efforts to provide care in more-appropriate settings and resource allocation, including the number and type of non-traditional services provided[a] • Improvement in patient care, measured by a description of how each PHCS is allocating GPP funds to address the needs of their patients, which could include efforts to improve patient education, expand clinic hours, or use non-traditional services, such as increased use of case managers or nurse advice lines to improve care in more-appropriate settings[a] • Expanded infrastructure being put in place, including improvements in the delivery system or efforts to expand services with contracted providers[a]
2. The majority of PHCS improved the utilization of non-inpatient non-emergent services.	• Improvements in ambulatory care services, excluding behavioral health and emergency services • Improvements in behavioral health services, particularly in non-emergent settings.

Hypothesis	Performance Measure
3. PHCS are putting a strong foundation in place to deliver care for the remaining uninsured.	• Assessment of participating PHCS' use of federal funding • Cost of GPP services versus GPP funding against which cost avoidance will be measured • Comparison of (1) the ratio of GPP funding to uninsured uncompensated costs and (2) the ratio of SFY 2014–2015 SNCP and DSH to uncompensated costs, both at 100 percent and 175 percent • The number of uninsured served in physical health, in behavioral health, and through contracted providers • Summary assessment grouped into appropriate categories of individual system narratives that describes the GPP's effects on care delivery and cost, including what changes GPP systems are making to improve care and how they are allocating resources more efficiently • Improvements in care in a manner that avoids or reduces costs and is measured by an assessment of the GPP's effects on care delivery and costs and of its efforts to provide care in more-appropriate settings and resource allocation, including the number and type of non-traditional services provided[a] • Improvement in patient care, measured by a description of how each PHCS is allocating GPP funds to address the needs of its patients, which could include efforts to improve patient education, expand clinic hours, or use non-traditional services, such as increased use of case managers or nurse advice lines to improve care in more-appropriate settings[a] • Expanded infrastructure being put in place, including improvements in the delivery system or efforts to expand services with contracted providers[a] • Narrative assessment of the overall benefits and challenges of this new payment approach, including care provided by PHCS, patient experience, and care delivery transformation

[a] Addressed as part of both hypotheses 1 and 3 in this evaluation.

Data Sources and Statistical Methods

The midpoint evaluation used survey, utilization, and cost data to assess the GPP's implementation and impact over its first few years. We used a pre–post design to assess the magnitude and direction of changes in utilization of services provided by California's PHCS between SFY 2015–2016 and SFY 2016–2017 (the first two years of the GPP) and changes in payments and costs between SFY 2014–2015 and SFY 2015–2016 (the year prior to the GPP and the first year of the GPP, respectively). We also developed and administered a survey to the GPP team leads and their teams participating in GPP implementation to describe the infrastructure investments that PHCS have made and to assess perceptions of challenges and progress toward GPP goals. In the rest of this section, we describe each of these data sources in more detail.

Midpoint Survey of GPP Participants

RAND researchers developed the midpoint GPP survey to provide a comprehensive description of the activities that each PHCS conducted from the initiation of the GPP until the survey was fielded in February 2018. The survey queried leaders of all 12 participating PHCS about the following areas: staff participating on the PHCS' GPP team, the number of uninsured served, health system priorities for change to meet GPP goals, PHCS self-reports of quality of care delivered to the remaining uninsured, and additional qualitative inputs the PHCS might want to share. Additionally, the survey queried PHCS leaders about strategies that health systems implemented to change infrastructure and care to enhance its response to the GPP and patient care services that health systems offer.[17] *Service* refers to any of the 50 GPP patient care services that the GPP system uses to assign points (value). The RAND team developed, pilot tested, and fielded the survey during February 2018. RAND staff analyzed the survey data and categorized and coded the single open-ended question.

Secondary Data Sources

The midpoint evaluation also made use of the following secondary data sources.

Aggregate Utilization Reports

Each PHCS reports aggregate utilization information using a standard reporting template developed by DHCS that includes each of the 50 services eligible for points and a field for reporting the number of units of each service provided to the uninsured during the year. Each PHCS submits an interim year-end summary report in August following the end of each program year and a final, year-end reconciliation summary report by March 30 following the end of each program year. PHCS used the applicable STCs in the Medi-Cal 2020 waiver (CMS, 2018) to guide reporting of the utilization data, and CAPH provided technical assistance to PHCS to ensure accurate reporting.

[17] *Strategy* is defined as a specific health system improvement action that a PHCS pursued to enhance its responses to the GPP. We focused on six strategic domains, each of which targets a similar type of health system improvement: data collection and tracking, coordination, access to care, staffing, team-based care, and the delivery system.

Provision of services is further characterized at the category, tier, and service levels, as PHCS shared experiences about support for and challenges associated with service modifications and how service modification affected GPP goal achievements.

Encounter-Level Data

Participating PHCS submitted encounter-level data for the first time on March 31, 2018, and will submit them on a yearly basis for the remainder of the GPP. Each encounter record reflects a unique service provided by a participating PHCS and includes information on the date of service, type of service, and demographic information. Because of the timing of the first encounter-level data submission, we could not use these data to support analyses for the midpoint evaluation.

P14 Workbook Data

The P14 workbook is a California-specific reporting tool that PHCS are required to use to claim federal matching payments for both Medi-Cal and uncompensated care to the uninsured. For the purposes of the GPP, these workbooks provide a record of the aggregate cost of services that each PHCS provided to the uninsured and any payments that uninsured patients made to that PHCS. These data are available one year following the end of each fiscal year (June 30). For the midpoint evaluation, only cost data through program year 1 (SFY 2015–2016) were available to us.

GPP Point Thresholds

Point thresholds represent the total number of points each PHCS was expected to earn in each program year. Only PHCS that reached their point thresholds were eligible for supplemental payments that were made available from PHCS that did not reach their thresholds. Point thresholds for program year 1 were calculated for each PHCS as the number of units per service in the year prior to the GPP (SFY 2014–2015) multiplied by the point value for each service, which were then summed across all services. Thresholds are set in each year and are adjusted up or down in proportion to available GPP funds in each program year.

Disproportionate-Share Hospital and Safety-Net Care Pool Payments

Prior to the GPP, all PHCS received federal matching payments for providing uncompensated care from two sources: the Medicaid DSH program and the SNCP. DHCS provided RAND with an internal database that included PHCS-level payments from the year prior to the start of the GPP (SFY 2014–2015). As of January 28, 2018, these payments were not considered final.

GPP Payments

Interim payments to each PHCS for providing services to the uninsured are made on a quarterly basis and publicly reported on the DHCS website (DHCS, 2016a). A final year-end

reconciliation payment is then made, which includes supplemental payments to PHCS that exceeded their budgets. Final year-end payments are publicly reported one year following the end of each fiscal year (June 30). As a result, payment data from only program year 1 (SFY 2015–2016) were available for preparing the midpoint evaluation report.

Statistical Methods

The statistical methods used in analyzing the utilization, cost, and survey data are primarily descriptive. We measured utilization of services in each year and changes over time in terms of points. In some cases, we also report the *share* of total points by service type in order to understand how utilization is changing in relation to other services, as well as in absolute terms. For both types of utilization metrics, we calculated changes between SFY 2015–2016 and SFY 2016–2017, referred to as program year 1 and program year 2, respectively, throughout this report. We considered utilization data from SFY 2015–2016 as a baseline year because the GPP point system was finalized in April 2016—nine months into program year 1—so we expected any GPP influence on utilization to occur primarily in program year 2 and beyond. Cost and payments were assessed for SFY 2014–2015 and SFY 2015–2016, referred to as the baseline year and program year 1, respectively, as specified by the performance measures.

We did not perform statistical tests on the direction of change in utilization of each service because, given the small size of the PHCS sample, changes would have to be large and fairly consistent across sites to achieve statistical significance. Additionally, statistical significance testing is performed in order to make inferences about a population from a sample, and the 12 GPP PHCS could not necessarily be viewed as a sample from some larger population because all of California's PHCS (excluding the University of California medical centers) are participating in the GPP. For the final evaluation, we will have access to encounter data at the individual level, which might provide a richer data set that permits statistical inference about the significance and size of changes in performance measures.

The survey contains mainly ordinal-scale items. We summarize the responses by reporting means, standard deviations, and sample sizes (not all items were applicable to all 12 PHCS). In some cases, we queried PHCS respondents about their views on a topic both prior to and after implementation of the GPP, or about pairs of questions that refer to the same topic under different circumstances. Appendix A contains more details on the development of the survey.

One limitation in drawing conclusions from the data is the lack of a control group, or a group of health systems that did not participate in the GPP but are otherwise similar to the participating PHCS. This makes it difficult to conclude that the GPP caused the changes we observed because the same changes might have occurred even in the absence of the GPP. Additionally, for this evaluation, we did not have a long time series prior to the GPP

intervention in which to look for changes that coincided with implementation of the GPP. Other limitations of the data used in this midpoint report include variations in the quality of utilization data recorded by PHCS and service and a lack of granular cost data. Appendix A includes additional details on the evaluation's statistical methods and their limitations.

Organization of This Report

The remainder of this report is organized into five chapters:

- Chapter Two focuses on care delivery—in particular, whether the GPP allowed PHCS to build or strengthen primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured (hypothesis 1).
- Chapter Three focuses on whether the utilization of non-inpatient non-emergent services has increased (hypothesis 2).
- Chapter Four focuses on whether PHCS are putting a strong financial foundation in place to deliver care for the remaining uninsured (hypothesis 3).
- Chapter Five also focuses on whether PHCS are putting a strong foundation in place by presenting an analysis of PHCS perspectives from the midpoint GPP survey (hypothesis 3).
- Chapter Six presents our conclusions.

This report also contains the following appendixes:

- Appendix A describes our evaluation methods.
- Appendix B provides supplemental data exhibits.
- Appendix C reproduces the midpoint GPP survey.

Chapter Two. Changes in PHCS Infrastructure and Care Processes

The GPP seeks to better address the needs of California's uninsured patients by delivering more cost-effective and higher-value care. Specifically, the GPP aims to expand the range of provider skill sets and settings that meet patients' needs in a manner consistent with clinical principles and cost-effective care. Such expansion requires health system infrastructures to have the necessary attributes to deliver needed health care services to the patients and populations they serve. The GPP's flexible payment system allows PHCS to optimize the mix of strategies they adopt to enhance their structures and to decide which services to provide and modify to best support the patients they serve. Changes that PHCS make in adopting health system improvement strategies and in providing GPP health care services give insight into how PHCS are responding to GPP initiatives to further the efficiency of their health system operations and improve the mix of services used to deliver care for the uninsured.

This chapter addresses hypothesis 1 of the evaluation: Since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured. This hypothesis is broad, requiring attention to multiple and diverse strategies and services. Donabedian's quality-of-care model provides a framework for connecting GPP goals with organizational changes that PHCS can make to enhance the care they offer to patients.[18] As an example, the flexibility that the GPP offers might encourage PHCS to further invest in primary care transformation principles to enhance their capabilities for delivering services to patients. A PHCS primed with primary care attributes might then be better able to provide a more comprehensive mix of services offered by multiple provider types across more-varied venues. To implement this advance, PHCS could adopt health system improvement strategies that improve data collection and tracking, coordination of care, access to care, staffing, team-based care, and the delivery system. These refined structures can then support changes in the expansion of services made available for patients and, ultimately, can support better patient outcomes.

To understand how PHCS are building and strengthening primary care, data collection and integration, and care coordination, we surveyed PHCS leaders and their GPP teams about their most important priorities for changing their health systems to meet GPP goals, the health system strategies for change that they adopted, and the services they provide for patient care.

[18] See Chapter One for additional discussion of Donabedian's model and its relevance to this evaluation.

Strategies and services, respectively, represent two broad categories of responses that PHCS can use to build and strengthen primary care and its attributes. A *strategy* is a specific health system improvement action that a PHCS pursued to enhance its responses to the GPP. We identified 49 different strategies, which we grouped into six domains, each of which targets a similar type of health system improvement. *Service* refers to any of the set of 50 GPP patient care services that the GPP payment system uses to assign points (value). Each PHCS receives points for provision of each of the 50 GPP patient care services.

To gather evidence for or against hypothesis 1, we examined the following performance measures:

- improved data collection and tracking
- an expanded care team as evidenced by increased provision of non-traditional services
- increased coordination with other areas of the delivery system (e.g., primary care, mental health, substance use)
- expanded care team as evidenced by expanded workforce roles and responsibilities, including description of workforce involvement and the care team, and the efforts to transform both
- improvements in care that avoid or reduce costs and are measured by an assessment of the GPP's effects on care delivery and costs and of its efforts to provide care in more-appropriate settings and resource allocation, including the number and type of non-traditional services provided
- improvements in patient care, measured by a description of how each PHCS is allocating GPP funds to address the needs of its patients, including efforts to improve patient education, expanded clinic hours, or use of non-traditional services (such as increased use of case manager or nurse advice lines) to improve care in more-appropriate settings
- expanded infrastructure, including improvements in the delivery system or efforts to expand services with contracted providers
- a narrative assessment of the overall benefits and challenges of this new payment approach, including care provided by PHCS, patient experience, and care delivery transformation.[19]

Throughout this report, as we address hypothesis 1, we define *building or strengthening primary care, data collection and integration, and care coordination* as a series of actions that PHCS take to enhance the structure, process, or outcomes of the remaining uninsured. To assess the extent to which PHCS are building and strengthening their delivery systems, we used reports from the midpoint GPP survey to highlight strategies PHCS have adopted to enhance their infrastructure and expanded services they have provided to care for patients.

[19] The latter three performance measures are also addressed by hypothesis 3, discussed in Chapters Four and Five.

The remainder of this chapter looks first at PHCS priorities for and adoption of improvement strategies to help them meet GPP goals. Next, the chapter discusses the pattern of GPP services that PHCS are providing for the remaining uninsured patients.

Health System Reports of the Importance of Improvement Strategies Regarding Infrastructure and Care

Health System Infrastructure Priorities

PHCS were asked to characterize their priorities regarding a subset of health system infrastructure and process-of-care improvement strategies in meeting GPP goals at two points in time, prior to GPP initiation and in February 2018, when the midpoint survey was conducted, approximately two years later. The items on the survey were identified through review of existing documents describing health system changes relevant to the GPP initiative and other California safety-net initiatives (Pourat et al., 2016; CAPH and California Health Care Safety Net Institute, 2015). The collection of data at two points in time provides insights about shifts in PHCS prioritization of infrastructure and process strategies that PHCS considered important for meeting GPP goals. PHCS assigned one of five ratings to each strategy: not at all important (1 point), slightly important (2 points), moderately important (3 points), very important (4 points), and extremely important (5 points).

Priorities for Infrastructure Improvement Prior to GPP Initiation

PHCS were asked to rate the importance of four infrastructure improvement strategies related to data use and four related to workforce capacity. Exhibit 2.1 summarizes PHCS ratings of the importance of these infrastructure changes at two points in time.

Exhibit 2.1. Pre-GPP and Current PHCS Ratings of the Importance of Meeting GPP Goals of Implementing Infrastructure Strategies

Strategy	Mean Pre-GPP Ratings	Mean Current Ratings	Difference
Overall composite score	**3.4**	**4.0**	**0.6****
Data-use composite score	**3.7**	**4.3**	**0.5****
Improve data cleaning and data quality.	3.7	4.2	0.5
Improve completeness of the data capture of services across settings.	4.0[a]	4.4[a]	0.4
Improve data coding to facilitate billing and claiming.	3.8	4.3	0.4
Improve the ability to count unique patients who receive services.	3.3	4.2	0.8*
Workforce-capacity composite score	**3.1**	**3.7**	**0.6****
Transform workforce roles and responsibilities.	3.5	3.8	0.3[b]
Increase infrastructure for care delivery by adding new locations or additional capacity.	2.6[b]	3.4[b]	0.8**
Expand team-based care training.	3.4	4.0	0.6
Align the PHCS' culture with GPP goals.	3.0	3.6	0.6

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for each item were not at all important (1 point), slightly important (2 points), moderately important (3 points), very important (4 points), and extremely important (5 points). Bold indicates a composite score. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents indicated that, prior to GPP initiation, they perceived most of the infrastructure strategies related to both data use and workforce capacity to be moderately important, as indicated by a mean importance rating of 3.7 of 5 (standard deviation [SD] 1.0) across the 12 PHCS for four data-use items and a mean of 3.1 (SD 0.8) for four workforce-capacity items ("Mean Pre-GPP Ratings"). Only one type of infrastructure strategy, improving completeness of data capture, was felt to be very important prior to GPP initiation (mean rating of 4); none was rated as extremely important (score of 5). Respondents gave the lowest scores—considering their perceptions prior to GPP initiation—to increasing infrastructure for care delivery by adding new locations or additional capacity (mean score of 2.6, SD 0.9).

Priorities for Infrastructure Improvement After GPP Initiation

Informed by PHCS experiences of the past two years, PHCS indicated that they now perceive each of the eight infrastructure improvement strategies to be more important in meeting GPP

goals than they thought before the GPP started. As indicated in the "Mean Current Ratings" column of Exhibit 2.1, respondents gave consistently higher importance ratings to the eight infrastructure strategies in the current time frame than before GPP initiation. Respondents indicated that, in the current period, they perceived most of the data-use infrastructure strategies to be very important, as indicated by a mean importance rating of 4.3 (SD 0.8) across the 12 PHCS. Respondents rated most of the workforce-capacity infrastructure strategies slightly less highly, as indicated by a mean of 3.7 (SD 0.8).

Changes Across Time

For both periods, increasing infrastructure for care delivery by adding new locations or additional capacity was rated as the least important improvement strategy in meeting GPP goals (prior GPP mean 2.6, SD 0.9; current mean 3.4, SD 1.2). However, this strategy showed the largest increase in importance (difference: median +1.5, mean +0.8), along with improving the ability to count unique patients who receive services (difference: median +0.5, mean +0.8).

Process-of-Care Priorities

We now turn to a discussion of PHCS priorities for process-of-care improvement strategies. As with infrastructure strategies, we asked respondents to provide ratings for both the period prior to GPP initiation and the current time frame, more than two years after the GPP began.

Priorities for Process-of-Care Improvement Prior to GPP Initiation

Exhibit 2.2 summarizes PHCS ratings of the importance of six improvement strategies in organizational processes of care at two points in time. In thinking back to when the GPP started, PHCS respondents indicated that they anticipated that these strategies would be moderately important in meeting GPP goals (mean rating of 3.3, SD 0.9 across all six process-of-care strategies). None of the six process-of-care strategies achieved a mean rating score of at least 4 (very important). The strategy of improving access to care received the highest mean score (3.8, SD 1.1). The strategy of improving dental integration received the lowest mean score (2.3, SD 1.1). We do not know why dental integration was rated this low, nor do we know whether this relates to co-occurring California initiatives that supported increased dental services. We also do not know whether this finding could be related to the GPP's focus on medical, surgical, and behavioral services as a priority above dental services. We plan to pursue this question with forthcoming PHCS interviews.

Exhibit 2.2. Pre-GPP and Current PHCS Ratings of the Importance of Meeting GPP Goals of Implementing Process Improvement Strategies

Strategy	Mean Pre-GPP Ratings	Mean Current Ratings	Difference
Overall composite score	**3.3**	**3.9**	**0.7*** **
Improve access to care.	3.8[a]	4.4[a]	0.7*
Improve coordination of care.	3.5	4.2	0.7*
Improve team-based care.	3.4	4.0	0.6
Improve behavioral health coordination and integration.	3.6	4.3	0.8*
Improve dental integration.	2.3[b]	2.8[b]	0.5[b]
Improve social services integration.	3.1	3.8	0.8*

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for each item were not at all important (1 point), slightly important (2 points), moderately important (3 points), very important (4 points), and extremely important (5 points). Bold indicates a composite score. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.
[a] Largest value in the column.
[b] Smallest value in the column.

Priorities for Process-of-Care Improvement After GPP Initiation

Informed by PHCS experiences of the past two years, PHCS indicated that they currently perceive the six process-of-care improvement strategies ("Mean Current Ratings") to be more important in meeting GPP goals than they thought before the GPP started. The current mean importance rating across the 12 PHCS is 3.9 (SD 0.8) for process-of-care items, which is consistent with a rating of very important.

Across both periods, respondents rated improving access to care as the most important process-of-care strategy in meeting GPP goals. In the current time frame, this strategy was rated as extremely important (mean 4.4, SD 0.9). The order of importance remained the same for the process-of-care strategies from prior to GPP initiation until now, although each of the strategies was ranked consistently with a higher level of importance in the current rating.

Changes Across Time

Across both periods, respondents rated improving dental integration as the least important process-of-care improvement strategy ("Mean Pre-GPP ratings" mean 2.3, SD 1.1; "Mean current ratings" mean 2.8, SD 1.2). This strategy showed the smallest difference (+0.6, SD 1.2). The process-of-care improvement strategy that showed the largest increase was improving social services integration (difference: mean +0.8, SD 1.0).

PHCS wrote in two additional process-of-care strategies under the "other, please specify" option in the survey: (1) improving referrals and (2) readmission and high utilizers. PHCS indicated that, prior to the GPP, improving referrals and readmission and high utilizers were slightly important. PHCS indicated that they now rated improving referrals as very important and readmission and high utilizers as moderately important.

Prior to the initiation of the GPP, none of the items was rated as very important, but four items were now considered very important. This shift in importance might say something about how these items are perceived to be important once PHCS are engaged in the reality and challenge of implementation.

Improvement Strategy Domains and Specific Strategies Pursued in Response to the GPP

After reviewing the main principles of change that are often used to guide safety-net (Sugarman et al., 2014; Wagner, Gupta, and Coleman, 2014) and primary care transformation initiatives (Rollow and Cucchiara, 2016; McNellis, Genevro, and Meyers, 2013) and pilot testing the midpoint survey, we identified six key domains of primary care transformation in which a health system might implement improvement strategies: improving data collection and tracking, improving coordination of care, improving access to care, improving staffing, improving team-based care, and improving the delivery system. In the survey, each PHCS respondent was asked to consider specific improvement strategies associated with each of these six domains by indicating whether that PHCS engaged in the strategy to enhance its response to GPP goals. Note that, although the previous section of this chapter focused on PHCS *priorities* for improvement, this section discusses strategies reported to *have been used* by PHCS. The current discussion also provides a finer level of detail, with 49 distinct improvement strategies covered (we covered only 14 broader improvement strategies in the discussion of priorities).

In this chapter, we introduce the use of these domains as a measure of PHCS response to GPP initiatives, supportive of hypothesis 1. In Chapter Five, we provide details on the complete listing of strategies associated with these six domains of health system change.

Overview of PHCS Reports of Improvement Strategies Used

PHCS reported using 49 different improvement strategies across six domains. We grouped these 49 strategies into six health system improvement domains (Exhibit 2.3) and calculated the number of PHCS using each domain-specific strategy, the mean number and percentage of assessed strategies that PHCS reported using, the mean number of strategies used by PHCS

within each improvement domain, and the range of PHCS making improvements in each domain. Each strategy represents a specific action within one of the six improvement domains. For example, enhancing data capture of services so that utilization rendered is consistently claimed is a specific strategy within the broader improvement domain of improving data collection and tracking.

Exhibit 2.3. Number of PHCS Using Health System Improvement Domains and Strategies

Domain	Strategy	PHCS Using the Strategy	Domain-Specific Strategies Used (Percentage)
Improving data collection and tracking (eight strategies)		**10.5 (SD 1.8)**	**7.0 (88)**
	Enhance data capture to track the number of remaining uninsured.	12	
	Enhance data capture of services so that utilization rendered is consistently claimed.	12	
	Enhance the timeliness of availability of data for operational and clinical use.	12	
	Improve systems of data transfer so the right information is in the right place at the right time.	11	
	Improve data coding associated with the tracking and utilization of services to facilitate billing and claiming.	11	
	Standardize use of data systems and coding across primary care, preventive care, and behavioral health.	10	
	Improve consistent use of data systems and coding practices by community service providers (e.g., from FQHCs).	9	
	Improve consistent use of data systems and coding practices for contracted service providers.	7	
Improving coordination of care (eight strategies)		**10.5 (SD 1.2)**	**7.0 (88)**
	Improve coordination between mental health and primary care.	12	
	Co-locate behavioral health and primary care.	12	
	Improve data sharing across all sites within the PHCS.	11	
	Initiate or improve empanelment.	11	
	Improve overall coordination of GPP services with other services.	10	
	Co-locate behavioral health, substance use, and primary care.	10	
	Improve data sharing between the PHCS and community service providers (FQHCs).	9	
	Improve coordination between substance use and primary care.	9	
Improving access to care (nine strategies)		**9.6 (SD 1.9)**	**7.2 (80)**
	Increase the number of providers that offer non-traditional services.	12	

Domain	Strategy	PHCS Using the Strategy	Domain-Specific Strategies Used (Percentage)
	Increase the number of providers that offer traditional services.	11	
	Expand clinic hours of operation.	11	
	Improve provider and staff awareness of GPP services so that more patients are likely to be referred.	10	
	Increase the number of locations where non-traditional services are offered.	10	
	Increase the number of locations where traditional services are offered.	10	
	Increase the number of settings in which non-traditional services are offered.	8	
	Improve patient awareness of GPP services so that patients are more likely to use them.	8	
	Increase the number of settings in which traditional services are offered.	6	
Improving staffing (ten strategies)		**6.2 (SD 3.4)**	**5.2 (52)**
	Add new staff positions or roles.	11	
	Provide additional staff training.	11	
	Improve or develop more protocols for staff.	11	
	Improve strategies for screening and credentialing staff.	5	
	Use more contracted providers for primary care.	5	
	Use more contracted providers for traditional services.	5	
	Use more contracted providers for data management.	5	
	Use more contracted providers for specialty care.	3	
	Use more contracted providers for non-traditional services.	3	
	Use more contracted providers for behavioral health.	3	
Improving team-based care (four strategies)		**9.8 (SD 2.5)**	**3.3 (81)**
	Reorganize care teams to include new positions or roles.	11	
	Reorganize care teams to deliver more non-traditional services.	11	
	Expand or transform workforce roles and responsibilities.	11	
	Change staff ratios and teams (in terms of providers and nonprovider staff) to satisfy GPP elements.	6	
Improving the delivery system (ten strategies)		**10.4 (SD 1.4)**	**8.7 (87)**
	Facilitate care in more-appropriate venues, rather than primarily through the ER or through inpatient hospital settings.	12	
	Improve appropriate use of ER care.	12	
	Improve transitions from inpatient to outpatient care, including transitions around discharge and readmissions.	12	
	Prioritize preventive services.	11	
	Prioritize behavioral health.	11	

Domain	Strategy	PHCS Using the Strategy	Domain-Specific Strategies Used (Percentage)
	Improve appropriate use of inpatient hospital care.	10	
	Develop population management tools to generate utilization reports quickly for the uninsured.	10	
	Prioritize non-traditional service venues	9	
	Improve infrastructure to respond to community priorities (e.g., using mobile vans).	9	
	Identify high-risk and high-cost uninsured patients for case management.	8	

SOURCE: Midpoint GPP survey.

Overall, PHCS indicated adopting 78 percent, a mean of 38 of 49, assessed strategies to enhance their responses to the GPP. Respondents indicated that the improvement domains focused on most intensely (as indicated by the number of strategies used per domain) were improving coordination of care and improving data collection and tracking, with an average of 88 percent of the strategies used, followed closely by improving the delivery system, with an average of 87 percent of the strategies used. In contrast, respondents reported using only an average of 52 percent of the strategies for improving staffing.

Interviews with PHCS representatives are planned to discuss these patterns and to document the rationale behind their improvement decisions and strategies. As noted in Exhibit 2.3, an average of ten or more PHCS participated in five of the six domains. The exception is the improving-staffing domain.

The improving-staffing domain, which has ten strategies, is the only domain that includes any strategy that has been adopted by five or fewer PHCS. A closer look shows that three of the improving-staffing domain strategies (adding new staff positions or roles, providing additional staff training, and improving or developing more protocols for staff) were adopted by 11 of 12 PHCS. Among the remaining strategies in this domain, four were adopted by only five and three were adopted by only three PHCS. Of note, all but one of these infrequently adopted strategies are associated with contracted providers. Although use of contracted services is not a specific goal of the GPP, it has been suggested that, in some circumstances, use of contracted providers could rapidly increase the number of uninsured patients that PHCS could serve across a range of service types. To examine this assertion, the survey included questions about multiple strategies for increasing contracted services, each focusing on a different type of health care delivery service. As shown in Exhibit 2.3, across six strategies focused on using contracted services to expand various aspects of patient care (e.g., primary and specialty care, traditional and non-traditional care, behavioral health care, and data management), no more than five PHCS adopted any strategy. Additionally, few PHCS adopted use of the strategy of

screening and credentialing staff. RAND researchers will explore the reasons for the varied levels of adoption of these staffing strategies.

The overall pattern shown by our examination of the strategies PHCS use is that all 12 PHCS addressed or tackled improvement efforts in all six improvement domains used in primary care transformation. These data also underscore the variability of the specific strategies that PHCS chose within the given domains, indicating that PHCS are utilizing their resources uniquely to move forward with their GPP goals.

In Chapter Five, we return to these health system change domains and strategies to address GPP hypothesis 3. There, we focus on the adoption or use of specific strategies within each change domain, PHCS reports of the extent to which implementation of the strategies was associated with successes and challenges in achieving GPP goals, and the extent to which adopted strategies have now become part of each PHCS' overall culture.

Services That PHCS Provide to Care for Patients

Although, so far, the focus of this chapter has been on *strategies* for health system change, we now turn to a discussion of GPP *services*. PHCS have the opportunity to expand the number and mix of GPP clinical care services they provide to uninsured patients.

The pattern of GPP services that PHCS make available for uninsured people and how, if at all, they modify these services for uninsured patients provides insight into how PHCS transform GPP payments into care improvements that are responsive to patient needs. PHCS can modify GPP services by no longer providing services that they previously delivered, by increasing the number of existing services, by developing new services, or by maintaining services without change. In late February 2018, as part of the midpoint GPP survey, PHCS leaders reported their PHCS' utilization of each of the 50 GPP services.[20] This section summarizes PHCS' responses about the GPP services they provide and how they have modified these services in response to the GPP. The 50 GPP services are grouped into four categories and 15 tiers.

[20] Because both Chapters Two and Three describe service utilization, it is useful to identify differences between the utilization-of-services discussion in this chapter that uses survey data as the source of utilization reports and Chapter Three that uses aggregate data on the number of units of services provide by each PHCS and the resulting points earned for all services that are eligible to receive points under the GPP. The survey data were made available at least eight months later than the aggregate utilization data used in Chapter Three, meaning that the PHCS utilization data are more current. Another difference between the survey and utilization data is that the survey assesses whether the PHCS is providing the service, whereas the utilization data reflect whether the data that the PHCS submitted to the state reflect utilization of the service provided. For services that are newly implemented or implemented in venues not accustomed to systematic documentation of billing for a service, PHCS might report the provision of a service not reflected by standardized utilization data. Furthermore, the quality of data across venues within a PHCS can vary, indicating unexpected differences as PHCS aim to improve the quality of data coding and capture.

As an introduction to the survey findings presented here, we acknowledge the basic structure of GPP services as described in Exhibit 1.5 in Chapter One. Overall, four categories of the GPP include 15 service tiers and 50 GPP services. In conceptualizing and implementing their efforts to achieve GPP goals, PHCS had opportunities to prioritize service provision and modifications, both to optimize health care services available for their uninsured patients and to maintain the integrity and well-being of their systems that also serve insured patients. With this kind of opportunity—and given the potential tensions associated with allocating resources for uninsured people and for the overall PHCS population—each health system had to prioritize

- how it would modify services in response to the GPP (reduce, keep the same, increase existing, or develop new services)
- how it would allocate resources to GPP service modifications
- how it would respond to modification challenges.

PHCS also had to assess whether their modifications enhanced their GPP goals.

These are complicated judgments to make and implement, and they are made even more difficult by covering 50 different services. To assemble reliable and valid PHCS perspectives addressing both broad concepts and specific GPP services (without overloading PHCS leaders with respondent burden), distinct survey items were administered for each of the four broad GPP categories, the 15 clinically meaningful GPP tiers, and 50 individual services. See Exhibit 1.5 in Chapter One and the survey instrument in Appendix C.

To understand the extent to which PHCS made GPP services available to uninsured people, the midpoint survey asked PHCS respondents whether they used each of 50 GPP services. PHCS survey reports of utilization of the 50 GPP services provide information about variations across and within PHCS in provision of each service. Because each PHCS organization is encouraged to respond to GPP initiatives in ways that it believes will best enable it to achieve GPP goals, substantial variation in PHCS reports of individual service use has been expected. Observing patterns in use across categories and tiers of services allows us to better understand similarities and differences in how PHCS provide services across and within tiers. For example, although each PHCS might be expected to provide some services for category 1, outpatient services in traditional settings, a PHCS might decide that its population would be better served by not necessarily providing one service for each tier. Accordingly, there is merit in examining use of services across the category, tier, and service levels.

We begin with a high-level overview by presenting PHCS survey–reported utilization at the category level, then move to the tier and service levels.

Self-Reported GPP Service Utilization Across Categories of Services

PHCS reports of the number of services used within each of the four GPP categories conveys information about how PHCS prioritize the delivery of services to the uninsured. Exhibit 2.4 provides an overview of PHCS reports of category-level utilization. Of the 50 GPP services, PHCS reported providing a mean of 33 services (median 34, SD 7.45), with some PHCS using as few as 20 and others using as many as 43 services. We examined variation in the number and proportion of services used by category. Because categories contain different numbers of services, it is important to examine the proportion, as well as the number, of available services that are used in each category. The mean number of services used per category was highest for category 1, outpatient services in traditional settings (11.6 [89 percent] of 13 available category 1 GPP services). This was followed by category 2, complementary patient support and care services (mean 10.9 [64 percent] of 17 available category 2 GPP services), and category 4, inpatient services (mean 6.3 [70 percent] of nine available category 4 services). The mean number of services used for category 3, technology-based outpatient services, was the lowest, at 4.3 (39 percent) of 11 available services.

Exhibit 2.4. PHCS Reports of Utilization of Individual GPP Services at the Category Level

Category	Description	GPP Services Available	Survey-Reported Services Used			
			Median	Mean	Minimum	Maximum
1–4	All GPP services	50	34	33 (66%)	20	43
1	Outpatient services in traditional settings	13	12.0	11.6 (89%)	8	13
2	Complementary patient support and care services	17	10.5	10.9 (64%)	5	17
3	Technology-based outpatient services	11	3.5	4.3 (39%)	1	9
4	Inpatient services	9	6	6.3 (69%)	4	9

SOURCE: Midpoint GPP survey.

Self-Reported Service Utilization Across Tiers of Services

In addition to examining variation in utilization of services across categories, we considered the number and percentage of services that are used in each tier. Because each PHCS might find a different mix of services to be necessary to provide care for its patients, there is no desired target number of services that each PHCS must use. To illustrate the variation among systems, Exhibit 2.4 presents the mean percentage of services used by category, and Exhibit 2.5 supplements Exhibit 2.4 by displaying the mean percentage of services used within each tier

and category. The overall grand mean row of Exhibit 2.5 shows that, across the 50 services represented within the four GPP categories and 15 tiers, 396 services were used by the 12 PHCS. This resulted in an average of 33 services used across each of the 12 PHCS. In other words, on average, the 12 PHCS used 66 percent of available GPP services.[21]

Exhibit 2.5. PHCS Reports of Utilization of GPP Services Across Four Categories and 15 Tiers

Category or Tier	Services Represented in Categories and Tiers	Mean Percentage of Services Used by 12 PHCS	Percentage of Services Used by Individual PHCS	
			Minimum	Maximum
Overall grand mean	**50**	**66**	**40**	**86**
1. Outpatient services in traditional settings	**13**	**89**	**62**	**100**
1A. Care by other licensed or certified practitioners	3	92	33	100
1B. Primary, specialty, and other non-emergent care (physicians or other licensed independent practitioners)	6	86	50	100
1C. Emergent care	3	89	67	100
1D. High-intensity outpatient services	1	100	100	100
2. Complementary patient support and care services	**17**	**64**	**29**	**100**
2A. Preventive health, education, and patient support services	9	73	33	100
2B. Chronic and integrative care services	4	60	0	100
2C. Community-based face-to-face encounters	4	48	0	100
3. Technology-based outpatient services	**11**	**39**	**9**	**82**
3A. Nonprovider care team telehealth	4	35	0	100
3B. eVisits	1	33	0	100
3C. Store-and-forward telehealth	3	50	0	100
3D. Real-time telehealth	3	33	0	100
4. Inpatient services	**9**	**69**	**44**	**100**
4A. Residential, SNF, and other recuperative services, low intensity	4	56	0	100
4B. Acute inpatient, moderate intensity	2	96	50	100
4C. Acute inpatient, high intensity	1	100	100	100
4D. Acute inpatient, critical community services	2	54	0	100

SOURCE: Midpoint GPP survey.

[21] In summary, the 12 participating PHCS, on average, use 66 percent of services, where 66 is calculated as the mean percentage of services used across the 12 PHCS. The 66 percent is calculated as 396 services used across all 12 PHCS ÷ (50 GPP services × 12 PHCS).

The mean percentage of services used in each tier across PHCS ("Mean Percentage of Services Used by 12 PHCS") reveals substantial variation in service use for both categories and tiers. In the four tiers of category 1, outpatient services in traditional settings, in which 89 percent of services are used, at least 86 percent of available services are used. These high rates of use are consistent with the fact that these services are delivered in traditional settings; health systems have had considerable time to develop the provision of these services.

In contrast, in category 3, technology-based outpatient services, a mean of 39 percent of available services are used across the 12 PHCS, with only one-third of available services used across three of the four tier services (3A, nonprovider care team telehealth; 3B, eVisits; and 3D, real-time telehealth). These technology-based outpatient services are new to the health care sector in many settings, so PHCS have typically had a shorter period to routinize delivery of these services. It is likely that the proportion of services used in category 3 and its associated tiers will increase in coming years. Although this seems likely to first occur within urban areas, where technology tends to diffuse rapidly, technology-based outpatient services could be very useful in suburban areas, where several PHCS provide services.

The "Percentage of Services Used by Individual PHCS" column shows the minimum and maximum tier-level percentages of services used by individual PHCS. Although at least one PHCS uses each service in each tier, there is substantial variability in the minimum percentage of services used by PHCS. Most notably, two of three tiers in category 2 and all four tiers in category 3 have at least one PHCS using no services associated with the tier. As previously noted, the proportion of services used is consistently lower for non-traditional services that make up the latter two categories. However, even in category 4, two tiers have at least one PHCS not using any service. As PHCS adopt additional strategies to increase the resilience of their infrastructures to support non-traditional and other services, PHCS are likely to be in a better position to expand services across a broader mix of tiers.

Exhibit 2.6 presents service use in each category and overall for each PHCS. From the full set of 50 services, the total number of services used by each PHCS ranges from 20 to 43, as shown in the "Sum" column. In category 1, variation in service use is smallest, with nine of the 12 PHCS providing at least 12 of the available category 1 services. Category 2 shows the greatest variation in service use, with two PHCS providing only five of the 17 available complementary patient support and care services, while three PHCS provide at least 16 services. Category 3 also shows high and low users of technology-based outpatient services, with half of the PHCS using three or fewer of the 11 available services and two PHCS using at least eight services. Category 4 showed the least variation, with each PHCS using at least four of the nine available services.

Exhibit 2.6. Patterns of GPP Service Utilization, by Category and PHCS

PHCS	1. Outpatient Services in Traditional Settings (13 Services Available)	2. Complementary Patient Support and Care Services (17 Services Available)	3. Technology-Based Outpatient Services (11 Services Available)	4. Inpatient Services (9 Services Available)	Sum (50 Services Available)
Alameda	12[a]	5[b]	1[b]	6[c]	24
Arrowhead	10[c]	9[c]	1[b]	9[a]	29
Contra Costa	12[a]	11[c]	5[c]	6[c]	34
Kern	12[a]	8[c]	2[b]	4[b]	26
Los Angeles	13[a]	6[b]	8[a]	7[c]	34
Natividad	9[b]	10[c]	3[c]	7[c]	29
Riverside	12[a]	14[c]	6[c]	5[b]	37
San Francisco	12[a]	16[a]	7[c]	8[a]	43
San Joaquin	13[a]	16[a]	4[c]	4[b]	37
San Mateo	13[a]	14[c]	9[a]	5[b]	41
Santa Clara	13[a]	17[a]	3[c]	9[a]	42
Ventura	8[b]	5[b]	2[b]	5[b]	20
Sum of services for all 12 PHCS	**139**	**131**	**51**	**75**	**396**

SOURCE: Midpoint GPP survey.

[a] PHCS using the most services in the category (12 or 13 of 13 services in category 1, 16 or 17 of 17 services in category 2, eight or nine of 11 services in category 3, and eight or nine of nine services in category 4).

[b] PHCS using the fewest services in the category (eight or nine of 13 services in category 1, five or six of 17 services in category 2, one or two of 11 services in category 3, and four or five of nine services in category 4).

[c] The number of services used is between the highest and lowest numbers used by individual PHCS.

Zuckerberg San Francisco General Hospital and Trauma Center provides the most services overall and for three of the four GPP categories. Ventura County Medical Center provides the fewest services in all four GPP categories. These results show substantial variation at the category level in PHCS use of services. These findings are consistent with findings shown in Chapter Three, which also highlight that each PHCS has its own pattern of service use. We do not yet know the extent to which variations in patterns of use reflect pre-GPP variations, differences in patients serviced, PHCS infrastructures, or other factors. We plan to examine these patterns in the final GPP survey, with PHCS interviews, and with utilization data.

Exhibits B.6 through B.9 in Appendix B supplement Exhibit 2.6 with an analysis of GPP service use by PHCS. As expected, at the service level, we see more variation in patterns of

service use than we see with the category-level results in Exhibit 2.6. This provides further evidence that individual PHCS are responding to their own resources and challenges as they make decisions regarding service provision.

PHCS Modification of Services from the Onset of the GPP Until Survey Completion

The midpoint survey provides information about how PHCS modified services at both the category and service levels. We first present PHCS reports of how PHCS responded to a set of survey questions asking them to rank, in order of priority, the four broad categories of services in terms of enhancing their organizations' GPP goals. Next, we document PHCS reports of how, from the onset of GPP until now, they modified categories of services and the support they allocated to category-level modifications. Finally, we turn to more-detailed service-level discussions of GPP modifications.

Rank-Ordering PHCS' Priorities for Enhancing Their GPP Goals in Four Categories

Exhibit 2.7 summarizes PHCS survey responses to a query asking respondents to rank-order their prioritization of the four GPP categories of services in terms of enhancing their GPP goals. Category 1, outpatient services in traditional settings, was ranked as most important overall, with eight of 12 PHCS rating it the highest priority. PHCS also prioritized services in category 2, complementary patient support and care services, which was ranked highest by two PHCS and as second-highest by the remaining ten PHCS. Eight of the 12 PHCS ranked category 3, technology-based outpatient services, as the third–most important priority, while all 12 PHCS ranked category 4, inpatient services, as the least important category of service for achieving their GPP goals. These response options are not unexpected. They suggest that PHCS will focus primarily on GPP categories 1 through 3 as they modify GPP services.

Exhibit 2.7. PHCS Priorities in Ranking Categories of Services for Enhancing GPP Goals

Category	Mean	SD	Minimum	Maximum
1. Outpatient services in traditional settings	1.7	1.0	1	3
2. Complementary patient support and care services	1.8	0.4	1	2
3. Technology-based outpatient services	2.5	0.8	1	3
4. Inpatient services	4.0	0.0	4	4

SOURCE: Midpoint GPP survey.
NOTE: Response options were assigned scores as follows: first priority (1), second priority (2), third priority (3), fourth priority (4).

Types of Category-Level Modifications Made by PHCS

PHCS also responded to survey questions about how their organizations had approached making changes to each of the four categories of GPP services from the onset of GPP until survey completion. PHCS were encouraged to mark all applicable responses when describing modifications within a category because they might have simultaneously reduced services in some areas, increased services in others, kept the same services in others, and developed new services in others.

Exhibit 2.8 summarizes PHCS reports of four types of modifications applied to each of the four GPP categories. Of all reports from PHCS regarding the four categories, there was only one report of reduced services, there were 11 total reports of keeping the same services, 27 total reports of modifications to increase existing services, and 28 total reports of modifications to develop new services. Beyond that, among the 11 PHCS reports of keeping the same services ("Kept the Same Services"), 42 percent of the 12 PHCS were associated with category 1, outpatient services in traditional settings and 50 percent were associated with category 4, inpatient services; none were associated with category 2, complementary patient support and care services, or 3, technology-based outpatient services. In contrast, PHCS reports of increases in existing services ("Increased Existing Services") and development of new services ("Developed New Services") were well distributed across all four GPP categories. Because a PHCS can simultaneously expand existing services and develop new services, the number of PHCS-reported modifications within a category is greater than the number of PHCS (12) (i.e., the rows can add up to more than N = 12 and more than 100 percent).

Exhibit 2.8. PHCS Reports of Category-Level Service Modifications from the Onset of the GPP Until Survey Completion

Category	Reduced Services[a]	Kept the Same Services[a]	Increased Existing Services[a]	Developed New Services[a]	Multiple Modifications
1. Outpatient services in traditional settings	0 (0%)	5 (41.7%)	6 (50.0%)	5 (41.7%)	4[b] (33.3%)
2. Complementary patient support and care services	0 (0%)	0 (0%)	8 (66.7%)	9 (75.0%)	5[c] (41.7%)
3. Technology-based outpatient services	0 (0%)	0 (0%)	8 (66.7%)	8 (66.7%)	4[c] (33.3%)
4. Inpatient services	1 (8.3%)	6 (50.0%)	5 (41.7%)	6 (50.0%)	5[d] (41.7%)
Total category-level modifications from 12 PHCS	**1**	**11**	**27**	**28**	**18**

SOURCE: Midpoint GPP survey.

[a] The percentage of PHCS reporting a modification type (the number of PHCS reporting a modification type divided by 12, the number of PHCS). Because a PHCS can implement multiple modification types within a category, the number of PHCS-reported modifications within a category (row) is greater than the number of PHCS (12). This explains why the percentages can sum to more than 100 within a row.

[b] In category 1, one PHCS reported both keeping the same and developing new services, and three PHCS reported increasing existing and developing new services.

[c] In category 2, five PHCS reported both increasing existing services and developing new services. In category 3, four PHCS reported both increasing existing services and developing new services.

[d] In category 4, three PHCS reported both increasing existing services and developing new services; one PHCS reported increasing existing services, developing new services, and keeping services the same; and one PHCS reported keeping services the same and developing new services.

The "Multiple Modifications" column of Exhibit 2.8 shows that several PHCS reported multiple modifications in a category. Overall, PHCS reported 18 category-level combination modifications from the start of the GPP until now. Two PHCS reported both keeping services the same in a category and developing new services; nine PHCS reported both increasing existing services in a category and developing new services; and one PHCS reported implementing all three of these modifications in one category.

Overall, these analyses document the largest expansion of services in categories 2 and 3. Note that categories 1 and 4 also demonstrate substantial increases in existing services and development of new services. Category 4, inpatient services, is the only category showing at least one PHCS reporting that it reduced services.

Types of Category-Level Support for Modifications Allocated by PHCS

After PHCS reported the types of modifications their organizations had made, they indicated how much support they allocated to these modifications. *Support* was defined in terms of staff, time, and dollars. Each PHCS indicated whether the support allocated to each category's modification was none, minimal, moderate, or substantial.

Exhibit 2.9 shows the mean category-level support scores for modifications to services from the onset of the GPP until now. Complementary patient support and care services (category 2) received the most support, with a mean score of 3.3 (SD 0.8). The least support for modifications was allocated to category 4, inpatient services (mean score 2.7, SD 1.2).

Exhibit 2.9. PHCS Reports of Category-Level Support Allocated to Modifications from the Onset of the GPP Until Survey Completion

Category	Support Mean[a]	Support SD
1. Outpatient services in traditional settings	3.0	0.9
2. Complementary patient support and care services	3.3	0.8
3. Technology-based outpatient services	3.0	0.7
4. Inpatient services	2.7	1.2

SOURCE: Midpoint GPP survey.

[a] PHCS reported support allocated to modifications for outpatient services by GPP category. The mean support score is calculated as the mean across PHCS support (i.e., staff, time, and dollars) allocated to modifications for the category (e.g., outpatient services in traditional settings). Response options were assigned points: none (1 point), minimal (2 points), moderate (3 points), and substantial (4 points).

Types of Tier-Level Modifications Made by PHCS

Building on Exhibit 2.5, we supplement category-level descriptions of PHCS modifications from GPP onset until survey completion with service-level reports of modifications aggregated to the tier and category levels. Exhibit 2.10 supplements Exhibit 2.5 by showing the distribution of four types of modifications that PHCS reported making for each GPP service tier. The "Overall grand mean" row shows that, across all services reported to be used across all 12 PHCS, the PHCS reported reducing 2.3 percent of services, keeping 45.2 percent of services the same, increasing 36.1 percent of all existing services, and developing new services amounting to

22.5 percent of services.[22] Across several rows, the percentages sum to more than 100 because PHCS occasionally reported both increasing existing services and developing new services. Exhibit 2.10 also shows the distribution of modifications for each category and tier. For example, of all 139 category 1 services used by PHCS, 2.9 percent were reported to be reduced, while 47.5 percent were kept the same, 38.8 percent were associated with an increase in existing services, and 18.0 percent were associated with the development of new services.

Exhibit 2.10. PHCS Reports of Service-Level Modifications from the Onset of the GPP Until Survey Completion

Category or Tier	Services	Services Used Across All PHCS[a]	Percentage of Services Modified or Kept the Same Across All PHCS[b]				
			Reduced Services	Kept the Same Services	Increased Existing Services	Developed New Services	Increased Existing or Developed New Services[b]
Overall grand mean	**50**	**396**	**2.3**	**45.2**	**36.1**	**22.5**	**34.5**
1. Outpatient services in traditional settings	**13**	**139**	**2.9**	**47.5**	**38.8**	**18.0**	**43.6**
1A. Care by other licensed or certified practitioners	3	33	0.0	24.2	60.6	24.2	69.4
1B. Primary, specialty, and other non-emergent care (physicians or other licensed independent practitioners)	6	62	0.0	56.5	35.5	12.9	36.1
1C. Emergent care	3	32	12.5	46.9	28.1	18.8	36.1
1D. High-intensity outpatient services	1	12	0.0	66.7	25.0	25.0	33.3

[22] In the "Overall grand mean" row, showing 396 services used across all 12 PHCS, the 2.3-percent service reduction is associated with an average of nine of the 50 GPP services being reduced (0.023 × 396 = 9) across all 12 PHCS. Distributing these nine fewer services across 12 PHCS results, on average, in less than one (9 ÷ 12 = 0.75) fewer service per PHCS. Similarly, the 45.2 percent of services remaining the same represents 179 (0.452 × 396 = 179) of 396 services across 12 PHCS. Distributing these 179 services across the 12 PHCS is associated, on average, with 15 of 50 services for each PHCS remaining the same. PHCS increased 36.1 percent of services, representing an average of 143 services (0.361 × 396 = 143) of 396 from the onset of the GPP until survey completion across the PHCS, or 12 more existing services (from the 50 GPP services) on average for each PHCS (143 ÷ 12 = 11.9). Finally, the development of new services for 22.5 percent (0.225 × 396 = 89) represents 89 new services across the 12 PHCS, or an average of 7.4 newly developed services per PHCS (89 ÷ 12 = 7).

Category or Tier	Services	Services Used Across All PHCS[a]	Percentage of Services Modified or Kept the Same Across All PHCS[b]				
			Reduced Services	Kept the Same Services	Increased Existing Services	Developed New Services	Increased Existing or Developed New Services[b]
2. Complementary patient support and care services	**17**	**131**	**0.0**	**42.0**	**40.5**	**23.7**	**37.3**
2A. Preventive health, education, and patient support services	9	79	0.0	32.9	49.4	25.3	49.1
2B. Chronic and integrative care services	4	29	0.0	41.4	37.9	27.6	35.4
2C. Community-based face-to-face encounters	4	23	0.0	73.9	13.0	13.0	12.5
3. Technology-based outpatient services	**11**	**51**	**0.0**	**25.5**	**29.4**	**47.1**	**28.8**
3A. Nonprovider care team telehealth	4	17	0.0	29.4	35.3	35.3	25.0
3B. eVisits	1	4	0.0	0.0	50.0	50.0	33.3
3C. Store-and-forward telehealth	3	18	0.0	38.9	22.2	44.4	30.6
3D. Real-time telehealth	3	12	0.0	8.3	25.0	66.7	30.6
4. Inpatient services	**9**	**75**	**6.7**	**60.0**	**28.0**	**12.0**	**23.1**
4A. Residential, SNF, and other recuperative services, low intensity	4	27	3.7	48.1	37.0	22.2	27.1
4B. Acute inpatient, moderate intensity	2	23	13.0	65.2	21.7	8.7	20.8
4C. Acute inpatient, high intensity	1	12	8.3	66.7	25.0	0.0	25.0
4D. Acute inpatient, critical community services	2	13	0.0	69.2	23.1	7.7	16.7

SOURCE: Midpoint GPP survey.
NOTE: Bold indicates the overall grand mean or a category name and associated numbers.
[a] The sum of the number of services reported to have been used by all PHCS at each level (i.e., overall, category, or tier).
[b] The percentage of all services provided by all PHCS at each level that are associated with modifications, by either increasing existing or developing new services.

A comparison of the distribution of modifications across the four GPP categories shows that PHCS reported reducing more services in category 4 than in other categories. Additionally, PHCS

were most likely to report maintaining the same level of services in category 4, most likely to increase existing services in category 2, and most likely to develop new services in category 3.

Exhibit 2.10 also reports the distribution of modifications by tier. In tier 1A, care by other licensed or certified practitioners, among the total of 33 tier 1A services used across all PHCS, none was reported as reduced, 24.2 percent of reports were associated with staying the same, 60.6 percent of reports were associated with increases in existing services, and 24.2 percent were associated with developing new services. (These sum to more than 100 percent because each PHCS can report multiple modifications for a given service.) Across all tiers, this was the highest percentage value associated with modifications through an increase in existing services. This highlights that PHCS are often modifying outpatient services in traditional settings through an increase in existing services. In tier 1A, a lower percentage of services (24.2 percent of services used across the 12 PHCS) were modified through the development of new services. In tier 3B, eVisits, among all services used across all PHCS, 50 percent were modified through an increase in existing services, and the remaining 50 percent were modified through the development of new services. This is consistent with the brief history of eConsults being used in clinical practice.

Patterns of Service Modification for Non-Traditional and Traditional Services

A goal of the GPP is the introduction or expanded use of non-traditional services. To better understand how PHCS used non-traditional services in the first two years of the GPP, we analyzed survey data about types of modifications that PHCS made to non-traditional and traditional services at the level of individual services. We first divided all 50 GPP services into one of six groups by category and according to whether the services represented are traditional or non-traditional. Across categories, the balance of traditional and non-traditional services is quite variable. Category 1 has only three non-traditional services, and category 4 has only two, while all services in categories 2 and 3 are non-traditional. Exhibit 2.11 shows the pattern of service modification across the six groups by reporting the number of services within a group across all PHCS that are reduced, stay the same, and are associated with an increase in existing services or the development of new services. The “Increasing Existing or Developing New Services” column shows the number and percentage, respectively, of services associated with *service expansion*, defined either as an increase in existing services or as an addition of new services.

Exhibit 2.11. Patterns of Service Modification for Non-Traditional and Traditional Services

Category	Traditional or Non-Traditional	N[a]	PHCS Endorsing Each New Modification				Increasing Existing or Developing New Services
			Reducing Service	Using Same Service	Increasing Existing Services	Developing New Services	
1	Only non-traditional	33	0	8	20	8	25 (75.8%)
	Only traditional	106	4	58	34	17	43 (40.6%)
2	Only non-traditional	131	0	55	53	31	76 (58.0%)
3	Only non-traditional	51	0	13	15	24	38 (74.5%)
4	Only non-traditional	13	0	4	6	4	9 (69.2%)
	Only traditional	62	5	41	15	5	16 (25.8%)
1–4	**All non-traditional**	**228**	**0**	**80**	**94**	**67**	**148 (64.9%)**
	All traditional	**168**	**9**	**99**	**49**	**22**	**59 (35.1%)**

SOURCE: Midpoint GPP survey.

[a] Total number of services being used in each category or group of services.

Overall, across all PHCS, 64.9 percent of all non-traditional services were associated with service modification either through expansion of existing services or through the development of new services. This contrasts with the 35.1 percent of all traditional services that were associated with the development of these expanded services. Within-category comparisons are feasible only within categories 1 and 4 because each of these categories includes both non-traditional and traditional services. In each of categories 1 and 4, the percentage of services associated with increases in existing or the development of new non-traditional services is around double that of traditional services. As previously noted, the newness of non-traditional services is likely to motivate opportunities to disseminate existing services in new venues or with new providers. Additionally, the newness of these services is likely an important contributor to prompt new prototypes and variations. However, non-traditional services also expanded with traditional venues, possibly supported by their long-lasting infrastructures and resources.

These patterns provide strong support for progress that PHCS have made in building and strengthening primary care and its attributes across all four GPP categories. This analysis suggests that service expansions in the form of increases in existing services and development of new services are important mechanisms by which PHCS can support GPP goals.

Exhibit B.10 in Appendix B presents similar information but adds detail by including in each of the six groupings the individual GPP services that make up each grouping.

Chapter Summary

Since the initiation of the GPP, PHCS were tasked with building and strengthening primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured. To achieve these goals, PHCS identified improving access to care and the completeness of data capture of services across settings as most important in meeting GPP goals. They also endorsed the importance of increasing infrastructure, aligning PHCS culture with GPP goals, and transforming workforce roles and responsibilities. In their responses and ratings on the midpoint GPP evaluation survey, PHCS indicated that, overall, since the onset of the GPP, their actions have been consistent with these priorities. PHCS have adopted a broad set of health system improvement activities spanning six domains known to be important in primary care transformation: improving data collection and tracking, improving coordination of care, improving access to care, improving staffing, improving team-based care, and improving the delivery system. Across five of these six domains, a mean of 9.6 to 10.5 of 12 PHCS adopted 85 percent of 39 different strategies to enhance their responses to the GPP. This level of activity is supportive of hypothesis 1 that, since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.

In contrast, PHCS did not frequently adopt strategies associated with the improving-staffing domain. Six of the ten improving-staffing strategies assessed by PHCS were related to using more contracted providers for primary or specialty care, traditional or non-traditional services, behavioral health, or data management. Half of the PHCS indicated not having adopted any of these strategies by the end of February 2018, when the survey was submitted. Contracting services have been suggested as a possible means of rapidly scaling up the number of patients that a health system can serve, but it is not an explicit goal of the GPP.

For PHCS prioritization and adoption of health care improvement strategies to translate into the delivery of better care and better outcomes for the remaining uninsured, PHCS need to provide a different and more non-traditional mix of services for patients. PHCS reported providing a mean of 33 of the 50 GPP services, with variation across PHCS; some provide as few as 20, and others provide as many as 43 services. There was also variation in the use of services by category. The mean number of services used per category was 89 percent for category 1, outpatient services in traditional settings; 64 percent for category 2, complementary patient support and care services; 39 percent for category 3, technology-based outpatient services; and 70 percent for category 4, inpatient services.

PHCS are actively modifying their provision of these services to support such modifications across all four GPP categories. Across the four categories, the percentage of services modified by either increasing existing or developing new GPP services for the uninsured was 43.6 percent for category 1, 37.3 percent for category 2, 28.8 percent for category 3, and 23.1 percent for category 4. Increases in existing and development of new GPP services are more prevalent among non-traditional than traditional services, but these expansion modifications are noted in all four GPP categories of service.

The large number of health system improvement strategies that PHCS adopted to support infrastructure changes, paired with substantial increases in the number of existing services and the development of new services, particularly among non-traditional services, are consistent with hypothesis 1, that PHCS have built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.

Chapter Three. Changes in Utilization of Health Care Services

One of the main goals of the GPP is to encourage a shift in the delivery of services away from high-intensity care settings by allowing PHCS to use federal DSH funding to cover services provided in ambulatory settings and to provide a new mechanism for PHCS to claim federal matching dollars for providing technology-enhanced services and other supportive services. Accordingly, the GPP is expected to strengthen the delivery of primary care and to improve care coordination, which might help to delay or avoid future utilization of services in high-intensity care settings. In addition, between GPP years 2 and 5, the PHCS earn fewer points for certain inpatient and ER services, which might also provide incentives for PHCS to expand their use of care in alternative settings.

This chapter focuses on whether utilization of non-inpatient non-emergent services, including use of non-traditional services, increased across the majority of PHCS during the first two years of the GPP. It addresses hypothesis 2: The majority of PHCS improved the utilization of non-inpatient non-emergent services. To address this hypothesis, we examined two performance measures:

- improvements in ambulatory care services, excluding behavioral health and emergency services
- improvements in behavioral health services, particularly in non-emergent settings.

Increases in utilization can occur because of new services being provided or because of shifts in care from one setting to another. Thus, we report trends in the absolute level of utilization (using units of points), as well as the share of total points earned for different service groups and settings.

We begin by summarizing trends in utilization of outpatient services, followed by ER and inpatient services, and then behavioral health services. We then examine changes in the utilization of non-traditional services. We conclude with several analyses that examine shifts in the *share* of points earned for different groups of services, which helps to quantify the magnitude of potential substitution of services between settings, such as a shift toward greater use of outpatient and non-traditional services than of other services.

Utilization of Health Care Services

To examine trends in the utilization of GPP services, we used the GPP year-end summary reports submitted by each PHCS. These reports contain aggregate data on the number of units of service provided by each PHCS and the resulting points earned for all services that are eligible to receive points under the GPP (see Exhibit 1.5 in Chapter One for a list of services and the point value for each service). DHCS developed the GPP point system to measure the relative cost and value of individual services, to set PHCS budgets, and to measure utilization of services under the GPP. Chapter One includes a discussion of how DHCS valued services and allocated budgets to each PHCS.

For the analyses reported in this section, we compared trends in utilization using changes in the number of points earned between the first and second program years. We used the number of points earned rather than the number of services because the units of each service vary. For example, a unit of service for texting is conceptually different from a unit of service for outpatient primary and specialty visits.

Because substantial differences exist in the clinical care, infrastructure needs, and costs associated with care provided in different settings and between behavioral and non–behavioral health services, we present analyses of utilization for different service groups and settings separately in this section. We begin by summarizing trends in utilization of outpatient services followed by ER and inpatient services, and then behavioral health services. We then examine changes in the utilization of non-traditional services, which are delivered primarily in outpatient and community settings.

Outpatient Services

Exhibit 3.1 shows the number of points earned across all 12 PHCS for providing outpatient services, excluding behavioral health services and ER services. The majority of points were earned for providing outpatient face-to-face visits with physicians or other licensed or certified practitioners, which accounted for 45 percent of all points across all services in program years 1 and 2. Although the utilization of these face-to-face visits decreased by 1 percent, the total number of points for outpatient (nonbehavioral, non-emergent) services increased by 3 percent across the 12 PHCS.

Exhibit 3.1. Utilization of Outpatient Services, Excluding Behavioral Health and Emergency Services

Category	Tier	Number of PHCS Providing Services		Number of Points (Percentage of Overall GPP Points)			
		Year 1	Year 2	Year 1	Year 2	Change	Percentage Change
1. Outpatient services in traditional settings	A. Care by other licensed or certified practitioners	10	11	4,455,075 (2%)	4,466,325 (2%)	11,250	0%
	B. Primary and specialty care[a]	12	12	88,256,018 (43%)	87,458,902 (43%)	–797,116	–1%
	D. High-intensity outpatient services	12	12	16,347,216 (8%)	19,686,344 (10%)	3,339,128	20%
2. Complementary patient support and care services	A. Preventive health, education, and patient support services	10	10	4,323,045 (2%)	4,587,055 (2%)	264,010	6%
	B. Chronic and integrative care services	8	7	61,150 (<1%)	50,900 (<1%)	–10,250	–17%
	C. Community-based face-to-face encounters	7	8	1,799,090 (1%)	2,144,735 (1%)	345,645	19%
3. Technology-based outpatient services	A. Non-provider care team telehealth and B. eVisits	5	7	152,592 (<1%)	220,713 (<1%)	68,121	45%
	C. Store-and-forward telehealth and D. real-time telehealth	8	9	3,996,860 (2%)	4,311,440 (2%)	314,580	8%
Total outpatient		**12**	**12**	**119,391,046 (58%)**	**122,926,414 (60%)**	**3,535,368**	**3%**

SOURCES: GPP year-end summary reports.

NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

[a] Includes care provided by physicians and other licensed independent practitioners; excludes mental health and substance use care.

The increase in outpatient services was driven primarily by increases in the high-intensity outpatient services tier, which includes all outpatient surgical services. Increases in outpatient surgery utilization occurred in nine of the 12 PHCS (data not shown). Although we observed an increase in outpatient surgery, it is not obvious whether this was a shift in services away from inpatient surgeries or whether this increased utilization reflects an emerging clinical need or previously unmet need for outpatient surgeries. We have confirmation from the midpoint GPP survey that all 12 PHCS are providing outpatient surgical services. Further assessment into the types of surgeries that are increasing will be possible using encounter-level data that were collected for the first time during year 2; these data will be available for the final evaluation.

All complementary patient support and care services (category 2) and technology-based outpatient services (category 3) consist of non-traditional services that are delivered in outpatient or community settings. Prior to the GPP, PHCS were not permitted to use federal matching dollars for providing these non-traditional services, whereas, under the GPP, PHCS can earn points for more than two dozen such services. Most of these non-traditional services were used more frequently in year 2, including prevention and patient support services (predominantly case management), community-based encounters (predominantly mobile clinic visits), email and text encounters (predominantly texting), and telehealth (predominantly store and forward). Although utilization increased for most of the non-traditional services, utilization of oral hygiene and chronic and integrative care services (such as group medical visits) decreased. We examine trends in the use of specific non-traditional services later in this chapter (see Exhibit 3.6).

Emergency and Inpatient Services

Exhibit 3.2 displays the number of points earned for emergency and inpatient services, excluding behavioral health services. During the first two years of the GPP, all PHCS provided ER, inpatient medical or surgical, and ICU or CCU services, while ten PHCS provided trauma services and three provided transplant or burn services. The lower-intensity recuperative and SNF services were provided by no more than half of all PHCS in each of the first two years of the GPP.

Exhibit 3.2. Utilization of Emergent and Inpatient Services, Excluding Behavioral Health Services

Tier	Service	Number of PHCS Providing Services		Number of Points (Percentage of Total GPP Points)			
		Year 1	Year 2	Year 1	Year 2	Change	Percentage Change
1C. Emergent care[a]	Outpatient or contracted ER visit	12	12	21,074,457 (10%)	19,091,608 (9%)	–1,982,849	–9%
4B, 4C, and 4D. Acute inpatient[b]	Medical or surgical	12	12	20,833,240 (10%)	18,685,942 (9%)	–2,147,298	–10%
	ICU or CCU	12	12	3,588,008 (2%)	4,231,960 (2%)	643,952	18%
	Trauma	10	10	3,395,042 (2%)	2,671,848 (1%)	–723,194	–21%
	Transplant or burn	3	3	158,340 (<1%)	84,825 (<1%)	–73,515	–46%
4A. SNF and other recuperative services, low intensity[c]	Recuperative or respite care	4	5	1,155,150 (1%)	1,836,340 (1%)	681,190	59%
	SNF	6	5	900,144 (0%)	635,910 (<1%)	–264,234	–29%
Total ER and inpatient		**12**	**12**	**51,104,381 (25%)**	**47,238,433 (23%)**	**–3,865,948**	**–8%**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.
[a] Excludes mental health ER and crisis stabilization.
[b] Excludes acute inpatient mental health.
[c] Excludes mental health and substance use residential and sobering center.

Total points earned for emergency and inpatient services across all PHCS represented one-quarter of all points earned in year 1 but decreased by 8 percent from year 1 to year 2. Points earned for ER visits decreased by 9 percent during the first two program years, while points for inpatient medical and surgical stays decreased by 10 percent. Each of these decreases was substantially larger than the reduction in point values for either service between years 1 and 2—a 1-percent reduction in the point value for ER services and 0.6-percent reduction in the point value for inpatient medical and surgical stays, which was intended to encourage greater use of outpatient care. Additional analyses examining changes in the shares of services provided in different settings are the focus of the next section of this chapter.

Utilization of emergency and inpatient services decreased for all services except for recuperative and respite care days and ICU and CCU. The large increase in recuperative and respite care days, which allow systems to place low-intensity patients in more-appropriate settings, was due primarily to the Los Angeles County Health System newly providing these services in year 2. There was variation in the change in ICU and CCU utilization across PHCS, with increases occurring in six of the 12 PHCS (data not shown).

Although the aggregate utilization data used for the midpoint report do not allow us to determine whether the reduction in inpatient stays or ER visits was associated with ambulatory care–sensitive conditions and was potentially preventable, the encounter-level data could be used to more fully characterize the nature of these changes in the future.

We next examined utilization of these same services or groups of services at the level of the individual PHCS (Exhibit 3.3). Overall, eight of the 12 PHCS experienced increases in outpatient non-emergency services between program years 1 and 2 (range: 2.2 percent to 70.3 percent). Meanwhile, seven PHCS were associated with decreases in ER visits (range: –4.0 percent to –28.9 percent), six were associated with decreases in inpatient medical and surgical utilization (range: –0.6 percent to –45.2 percent), and nine PHCS experienced a decrease in ER visits or inpatient medical and surgical stays or both. Across these three key groups of services, five PHCS are notable for demonstrating initial patterns of change strongly aligned with GPP goals (increases in outpatient non-emergency services and decreases (or no change) in ER visits and inpatient medical and surgical stays): Alameda Health System, Kern Medical, Los Angeles County Health System, San Mateo County Medical Center, and Ventura County Medical Center. On the other hand, four PHCS exhibited initial patterns not aligned with GPP goals (decreases in outpatient non-emergency services and increases in either ER visits or inpatient medical or surgical stays): Natividad Medical Center, Zuckerberg San Francisco General Hospital and Trauma Center, San Joaquin General Hospital, and Santa Clara Valley Medical Center.

Exhibit 3.3. PHCS-Level Changes in Non–Behavioral Health Care Utilization

PHCS	Outpatient Non-Emergency Utilization		ER Visits		Inpatient Medical and Surgical Stays	
	Year 1 to Year 2 Change in Points	Percentage Change	Year 1 to Year 2 Change in Points	Percentage Change	Year 1 to Year 2 Change in Points	Percentage Change
Alameda	763,109	8.3	–671,781	–18.7	370	0.0
Arrowhead	114,505	4.3	286,852	28.0	–6,406	–0.6
Contra Costa	629,118	17.7	–34,212	–4.0	29,224	7.7
Kern	520,357	70.3	–213,234	–22.0	–146,146	–20.1
Los Angeles	1,587,154	2.2	–2,013,057	–28.2	–2,045,981	–16.6
Natividad	–211,740	–16.9	1,898	0.4	31,067	17.4
Riverside	955,649	33.2	165,620	9.7	–13,350	–1.8
San Francisco	–324,937	–5.1	–166,768	–13.3	107,912	17.8
San Joaquin	–63,443	–17.4	391,776	52.4	158,121	36.8
San Mateo	206,845	3.2	–83,723	–10.9	–121,297	–21.1
Santa Clara	–824,711	–6.9	724,777	58.5	127,430	6.1
Ventura	183,462	5.2	–370,998	–28.9	–268,243	–45.2
Overall	**3,535,368**	**3.0**	**–1,982,849**	**–9.4**	**–2,147,298**	**–10.3**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

Behavioral Health Services

Exhibit 3.4 displays changes in the utilization of behavioral health services, by setting, in the first two years of the GPP. Overall, the number of points earned for behavioral health services declined by 4 percent between the two years. Changes in utilization for several specific services followed unexpected patterns. For example, the utilization of outpatient mental health and substance use services decreased by 10 percent and 15 percent, respectively. Combined with a reduction in residential treatment services of 23 percent, these findings suggest reduced utilization levels in low-intensity care settings—a trend in the opposite direction from what we might have expected, given the GPP's goals. At the same time, mental health ER and crisis stabilization utilization increased by 15 percent overall and inpatient mental health utilization increased by 2 percent. Additional analysis in the final evaluation will allow us to explore why this may be occurring.

Exhibit 3.4. Utilization of Behavioral Health Services

Setting	Service	Number of PHCS Providing Services		Number of Points Earned (Percentage of Total Points)			
		Year 1	Year 2	Year 1	Year 2	Change	Percentage Change
Outpatient	Mental health outpatient	11	12	16,707,878 (8%)	14,962,272 (7%)	–1,745,606	–10%
	Substance use outpatient	9	9	1,108,195 (1%)	939,048 (0%)	–169,147	–15%
	Substance use methadone treatment	4	5	139,204 (<1%)	152,556 (<1%)	13,352	10%
Residential	Mental health or substance abuse residential	8	10	3,375,687 (2%)	2,585,890 (1%)	–789,797	–23%
	Sobering center	2	4	260,850 (<1%)	239,250 (<1%)	–21,600	–8%
ER	Mental health ER or crisis stabilization	11	11	6,553,750 (3%)	7,525,485 (4%)	971,735	15%
Inpatient	Mental health inpatient	11	12	8,679,814 (4%)	8,896,948 (4%)	216,034	2%
Total behavioral health		**12**	**12**	**36,825,378 (18%)**	**35,300,349 (17%)**	**–1,525,029**	**–4%**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

When examining key utilization outcomes at the level of the individual PHCS (Exhibit 3.5), we found strikingly similar patterns in the direction of trends across PHCS, although the magnitude of the changes varied considerably across PHCS. For example, overall, ten of the 12 PHCS experienced decreases in outpatient, non-ER behavioral health utilization between the first and second program years (range of decrease: –4.5 percent to –51.5 percent)—indicating that the overall results were not driven by a few large PHCS. The number of behavioral health ER visits increased overall, although six of 11 PHCS were associated with decreases in ER visits. Meanwhile, although behavioral health inpatient utilization increased overall, seven of 11 PHCS were associated with decreases in inpatient utilization (range of decrease: –5.4 percent to –73.1 percent). Only three of 12 PHCS (Contra Costa Regional Medical Center, Zuckerberg San Francisco General Hospital and Trauma Center, and Ventura County Medical Center) were associated with decreases in both ER and inpatient utilization for patients with behavioral health conditions.

Exhibit 3.5. PHCS-Level Changes in Behavioral Health Care Utilization

	Behavioral Health Outpatient		Behavioral Health ER		Behavioral Health Inpatient	
PHCS	Year 1 to Year 2 Change in Points	Percentage Change	Year 1 to Year 2 Change in Points	Percentage Change	Year 1 to Year 2 Change in Points	Percentage Change
Alameda	–214,504	–8.6	338,560	31.0	7,904	5.2
Arrowhead	–270,707	–30.2	325,445	259.3	–27,116	–24.0
Contra Costa	–208,636	–51.5	–77,500	–30.9	–158,576	–73.1
Kern[a]	292,714	—	–53,463	–21.6	700,126	108.2
Los Angeles	–290,054	–5.2	721,955	21.3	–331,456	–5.4
Natividad[a]	–43,700	–4.5	—	—	188,797	—
Riverside	–145,896	–17.5	–281,775	–38.6	33,741	10.9
San Francisco	–185,011	–10.2	–100,508	–28.8	–24,053	–21.7
San Joaquin	–144,976	–25.9	–35,040	–55.0	54,823	43.0
San Mateo	–457,997	–36.6	3,590	5.8	–61,305	–58.2
Santa Clara	85,048	5.0	148,563	68.6	–88,920	–13.9
Ventura	–317,682	–21.1	–18,093	–66.4	–77,933	–47.2
Overall	**–1,901,401**	**–10.6**	**971,735**	**14.8**	**216,034**	**2.5**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.
[a] Kern Medical and Natividad Medical Center did not earn points in year 1 for either behavioral health outpatient or inpatient services. Natividad Medical Center did not earn any points for behavioral health ER visits in either of the first two years.

Consistent patterns in behavioral health utilization across PHCS suggest that some of the underlying causes of these trends might be similar across PHCS. However, the aggregate utilization data do not allow for a more granular assessment of the types of emergent behavioral health services that increased or the specific types of outpatient services that decreased. A procedural-level analysis will be possible with the encounter-level data that will be available for the final evaluation. Although the increase in mental health ER and crisis stabilization and the concomitant decrease in services provided in outpatient and residential settings suggest that care might be shifting to emergency settings, it is also possible that primary care provider (PCP) visits, group visits, health coaching, and other non-traditional services are substituting for at least some fraction of traditional mental health outpatient visits.

Between program years 1 and 2, it is possible that PHCS increased their services in high-intensity settings to meet the demand for uninsured patients requiring treatment for opioid use disorders. Because we observed only a marginal increase in substance use methadone

treatment in this period, these findings might also indicate that PHCS have not been able to expand their capacity to provide treatment for opioid dependence.

Additional analyses that we will conduct as part of the final evaluation will allow us to explore the nature of these trends. In particular, we will attempt to determine the extent to which these trends reflect changes in the coding of specific services or whether they truly reflect increased use of services in high-intensity settings. In addition, in interviews planned for the coming months, we will query each PHCS about trends in behavioral health care utilization in ERs and outpatient and inpatient settings to better understand their potential mechanisms.

Non-Traditional Services

Exhibit 3.6 shows a further breakdown of the utilization of all non-traditional services eligible for points under the GPP in both the outpatient and residential settings. Differences in the levels of use of individual services might reflect differences in patients' needs, PHCS' experience in providing each service, or PHCS' priorities for transforming their delivery systems. The most–commonly provided non-traditional services in year 1 were RN-only visits (26 percent of all non-traditional services), eConsults (23 percent), and case management (18 percent). Overall, points earned for non-traditional outpatient services increased by 7 percent between year 1 and year 2, and points for non-traditional residential services increased by 47 percent. Changes in points earned for individual services can be quite large when expressed as percentages of year 1 levels because many services were associated with relatively few points in year 1.

Exhibit 3.6. Utilization of Non-Traditional Services

	Number of PHCS Providing Services		Number of Points Earned (Percentage of Non-Traditional Points)			
Service	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Change**	**Percentage Change**
Outpatient non-traditional services						
Non-physician visits						
RN-only visit	8	10	4,147,200 (26%)	3,719,550 (21%)	–427,650	–10%
PharmD visit	8	8	255,375 (2%)	554,625 (3%)	299,250	117%
Complex care manager visit	3	4	52,500 (<1%)	192,150 (1%)	139,650	333%
Prevention and patient support						
Wellness	0	1	N/A	660 (<1%)	660	N/A
Patient support group	4	3	11,610 (<1%)	1,305 (<1%)	–10,305	–89%
Community health worker	3	4	145,425 (1%)	146,910 (1%)	1,485	1%

Service	Number of PHCS Providing Services		Number of Points Earned (Percentage of Non-Traditional Points)			
	Year 1	Year 2	Year 1	Year 2	Change	Percentage Change
Health coach	1	3	1,935 (<1%)	5,940 (<1%)	4,005	207%
Panel management	1	2	2,115 (<1%)	15,885 (<1%)	13,770	651%
Health education	6	8	866,650 (5%)	831,375 (5%)	–35,275	–4%
Nutrition education	5	9	57,425 (<1%)	128,500 (1%)	71,075	124%
Case management	9	8	2,873,625 (18%)	3,384,450 (19%)	510,825	18%
Oral hygiene	3	4	364,260 (2%)	72,030 (<1%)	–292,230	–80%
Chronic and integrative care services						
Group medical visit	5	6	55,300 (<1%)	44,450 (<1%)	–10,850	–20%
Integrative therapy	3	3	3,700 (<1%)	5,400 (<1%)	1,700	46%
Palliative care	2	1	2,150 (<1%)	950 (<1%)	–1,200	–56%
Pain management	0	1	N/A	100 (<1%)	100	N/A
Community-based encounters						
Home nursing visit	5	6	862,275 (5%)	748,650 (4%)	–113,625	–13%
Paramedic treat and release	1	1	548,925 (3%)	607,050 (3%)	58,125	11%
Mobile clinic visit	2	5	366,390 (2%)	773,910 (4%)	407,520	111%
Physician home visit	4	4	21,500 (<1%)	15,125 (<1%)	–6,375	–30%
Email and text encounters						
Texting	1	3	112 (<1%)	27,763 (<1%)	27,651	24,688%
Nurse advice line	4	5	122,930 (1%)	130,620 (1%)	7,690	6%
RN eVisit	0	2	N/A	23,180 (<1%)	23,180	N/A
Email consultation with PCP	2	1	29,550 (<1%)	39,150 (<1%)	9,600	32%
Technology-enabled services						
eConsults	2	6	3,685,200 (23%)	3,815,250 (21%)	130,050	4%
Real-time telephone consults	4	7	181,350 (1%)	243,375 (1%)	62,025	34%
Store-and-forward telehealth	6	6	124,280 (1%)	238,865 (1%)	114,585	92%
Real-time telehealth	2	2	6,030 (<1%)	13,950 (<1%)	7,920	131%
Total outpatient non-traditional	**10**	**11**	**14,787,812 (91%)**	**15,781,168 (88%)**	**993,356**	**7%**
Residential non-traditional services						
Sobering center	2	4	260,850 (2%)	239,250 (1%)	–21,600	–8%
Recuperative and respite care	4	5	1,155,150 (7%)	1,836,340 (10%)	681,190	59%
Total residential non-traditional	**4**	**6**	**1,416,000 (9%)**	**2,075,590 (12%)**	**659,590**	**47%**

SOURCES: GPP year-end summary reports.
NOTE: No PHCS reported the following services: video-observed therapy (3A32) and telehealth (provider–provider)—real time (3D41). We therefore omitted them from the exhibit. Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

The overall increases in the use of non-traditional services were driven primarily by the provision of a greater mix of services, including recuperative and respite care days, case management, mobile clinic visits, PharmD visits, eConsults, complex care manager visits, and store-and-forward telehealth. Over the same period, utilization decreased most notably for RN-only visits, oral hygiene services, and home nursing visits. Taken together, the patterns of change in this category of services might reflect the replacement of traditional services with non-traditional services, substitution of one type of non-traditional service for another, or a reduction in the use of non-traditional approaches that were either ineffective or not cost-effective. The PHCS interviews during early summer of 2018 will provide an opportunity to gain more insights into PHCS views of the benefits and challenges of providing non-traditional services. Additionally, interviews will provide the opportunity to explore contextual or other factors that might influence real or observed changes in service utilization (either increases or decreases). For example, we might learn why data systems might not be systematically measuring certain types of services, such as non-traditional services (discussed in Chapter Two).

Shifts in Utilization

In addition to assessing changes in the *number* of points earned in the first two years of the GPP, we examined the *share* of points earned for different groups of services to document any shifts in utilization, such as from higher-intensity to lower-intensity settings. We used these share metrics to assess shifts from traditional to non-traditional services, from directly provided services to contracted services, and from emergency and inpatient services to outpatient non-ER services. In these analyses, the numerator is the number of points for a specific group of services (e.g., outpatient non-ER behavioral health services), and the denominator is the number of points for all GPP services in the domain of interest (e.g., all behavioral health services). Positive changes in this metric indicate a shift toward the service of interest (e.g., greater outpatient non-ER behavioral health utilization); negative changes indicate a shift away from the service of interest (e.g., more inpatient ER utilization).

Unlike the absolute number of points, which we used in the previous section to describe changes in utilization, these share metrics quantify shifts in utilization that are not affected by changes in the total number of points earned by each PHCS in different years. For example, if access to all services improved for the uninsured from year 1 to year 2, the absolute number of points for all services might increase, but the proportion of total points earned for any particular type of service (e.g., ER visits) might increase, decrease, or remain the same. The share of points for a given service will increase only if utilization of that service increased more than utilization of other services did, indicating a shift toward increased use of that service.

Non-Traditional and Contracted Services

Exhibit 3.7 shows the share of points that all PHCS earned for non-traditional services and for contracted services. The share of points earned for non-traditional services increased from 7.8 percent in year 1 to 8.7 percent in year 2, indicating a small shift in utilization toward non-traditional services and away from traditional services. For the remaining years of the GPP, we anticipate that the share of non-traditional services will get larger as PHCS further test and scale up those services that are most effective in meeting their delivery system transformation goals.

Exhibit 3.7. Shares of Points for Non-Traditional and Contracted Services

		Share of Points, as a Percentage			
Total Points in Category of Interest	**As a Share of . . .**	**Year 1**	**Year 2**	**Change**	**Percentage Change**
Non-traditional services					
Non-traditional services	All services	7.8	8.7	0.9	11.2
Contracted services					
Contracted outpatient primary and specialty and ER services	All outpatient primary and specialty and ER services	14.3	15.2	0.9	6.1
Contracted outpatient primary and specialty	All outpatient primary and specialty	12.7	13.6	0.9	7.4
Contracted ER services	All ER services	20.6	21.8	1.2	5.6

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

The share of outpatient and ER services furnished by contracted providers also increased by 0.9 percentage points. This finding is notable in light of the fact that contracted services have lower point values than PHCS-provided services.[23] This result is consistent with the hypothesis that PHCS have expanded access to services throughout their service areas—including areas at considerable distances from their own facilities, where contractual relationships can help extend the reach of each PHCS. Interviews with PHCS representatives will help us better understand PHCS strategies regarding contracted providers during the GPP. See Appendix B for supplemental exhibits that display changes in the share of points for non-traditional and contracted services for each PHCS.

[23] PHCS earn 19 points for contracted outpatient visits but 100 points for PHCS-provided outpatient visits. They earn 70 points for contracted ER visits but 160 points for PHCS-provided ER visits.

Outpatient Non-Emergent Services

To examine whether utilization of outpatient non-emergent services has increased as a share of all services—a key goal of the GPP—we assessed changes in the share of points allocated to outpatient services overall and, separately, for behavioral health services and non–behavioral health services. Because many types of telehealth and supportive care services might address both behavioral and non–behavioral health needs, we classified all services not explicitly designated as mental health or substance use services as non–behavioral health.

Exhibit 3.8 shows that, across all services, PHCS increased their share of points for outpatient non-ER services relative to all services by 1.4 percentage points from program year 1 to year 2 (and thus decreased their share of emergent and inpatient services). However, much of the shift in utilization is due to increases in outpatient surgery utilization. When outpatient surgery is excluded from consideration, the share of points for the remaining outpatient services is similar in both years (decrease by 0.3 percentage points). Similarly, when combining outpatient services with residential services (which are entirely for behavioral health conditions) and low-intensity facility services (limited to recuperative and respite care days and SNF services), we found little change in the share of these services during the first two years of the GPP (decrease by 0.5 percentage points).

Exhibit 3.8. Shares of Points for Outpatient Non-Emergent Services with and Without Behavioral Health Services

Total Points in Category of Interest	As a Share of . . .	Excluding . . .	Share of Points, Percentage			
			Year 1	Year 2	Change	Percentage Change
All services						
Outpatient non-ER services	**All services**		**66.2**	**67.6**	**1.4**	**2.1**
Outpatient non-ER services	All services	Outpatient surgery	58.4	58.1	–0.3	–0.5
Outpatient non-ER services *and* residential services *and* low-intensity facility services	All services	Outpatient surgery	61.1	60.6	–0.5	–0.8
Non-behavioral health services						
Outpatient non-ER non-behavioral health services	All non-behavioral health services		70.0	72.2	2.2	3.2
Outpatient non-ER non-behavioral health services	All non-behavioral health services	Outpatient surgery	60.4	60.7	0.2	0.4
Outpatient non-ER non-behavioral health services AND low-intensity inpatient services	All non-behavioral health services	Outpatient surgery	61.6	62.1	0.5	0.8
Behavioral health services						
Outpatient non-ER behavioral health services	All behavioral health services		48.8	45.5	–3.3	–6.7
Outpatient non-ER behavioral health services *and* residential services	All behavioral health services		58.6	53.5	–5.2	–8.8

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017. Residential services include mental health and substance use residential and sobering center. Low-intensity facility services include recuperative and respite care days and SNF. The change in points equals the number of points in year 2 minus those in year 1, less rounding error.

When we examined outpatient services for behavioral health and non–behavioral health services separately, we found that the share of non–behavioral health service utilization shifted toward more outpatient non-ER services (and away from ER and inpatient services) by 2.2 percentage points. However, when outpatient surgery is excluded, the share of outpatient non–behavioral health services is similar in both years (increase by 0.2 percentage points).

In contrast to the patterns we observed for non–behavioral health services, the share of behavioral health service utilization in outpatient non-emergent settings decreased by 3.3 percentage points toward greater use of emergent and inpatient services. When residential services (including residential mental health and substance abuse treatment services and sobering center services) are included in the numerator, the reduction in the share of these services grows to 5.2 percentage points.

During the first two years of the GPP, shifts toward increased outpatient non-emergent services occurred in the majority of PHCS (Exhibit 3.9). However, there was wide variation in the patterns across PHCS. Eight of the 12 PHCS increased their shares of outpatient non-emergent services, while four PHCS decreased their share. Kern Medical and Ventura County Medical Center had the largest shifts toward more outpatient non-emergent services overall (11.3-percentage-point increase and 8.4-percentage-point increase, respectively). Both of these PHCS were unique in increasing their shares of outpatient services by more than a few percentage points across both non–behavioral and behavioral health services. Notably, two PHCS had decreases in shares of outpatient non-emergent services for both behavioral and non–behavioral health services (Arrowhead Regional Medical Center and Natividad Medical Center).

Exhibit 3.9. Shares of Points for Outpatient Non-Emergent Services, by PHCS

	All Services			Non–Behavioral Health Services			Behavioral Health Services		
PHCS	**Year 1**	**Year 2**	**Change**	**Year 1**	**Year 2**	**Change**	**Year 1**	**Year 2**	**Change**
Alameda	59.9	61.6	1.7	59.4	63.5	4.1	61.7	54.7	–7.1
Arrowhead	52.6	47.0	–5.6	47.2	45.6	–1.6	79.0	53.9	–25.0
Contra Costa	64.7	67.9	3.2	68.0	69.5	1.5	45.4	45.7	0.4
Kern	20.3	31.6	11.3	26.8	41.2	14.3	0.0	15.8	15.8
Los Angeles	69.8	72.7	2.8	75.2	79.1	3.9	36.5	34.3	–2.2
Natividad	73.8	66.9	–6.8	61.4	57.1	–4.2	100.0	83.0	–17.0
Riverside	49.9	54.6	4.7	51.8	56.6	4.8	44.2	45.6	1.3
San Francisco	63.8	64.5	0.7	71.0	72.7	1.7	47.1	45.5	–1.6
San Joaquin	28.3	22.4	–5.9	19.1	12.3	–6.9	40.9	55.7	14.8
San Mateo	82.6	83.3	0.7	81.5	82.9	1.4	88.2	86.5	–1.7
Santa Clara	70.6	67.5	–3.1	75.4	70.1	–5.4	48.6	55.0	6.4
Ventura	69.0	77.5	8.4	63.6	74.3	10.7	86.6	89.7	3.1
Overall	**66.2**	**67.6**	**1.4**	**70.0**	**72.2**	**2.2**	**48.8**	**45.5**	**–3.3**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017. The change in points equals the number of points in year 2 minus those in year 1, less rounding error.

Chapter Summary

Early trends in GPP aggregate data reported during the first two years of the program suggest that changes in utilization of many services align with the goals and hypotheses

specified for the GPP. For non–behavioral health services, these findings include an increase in points earned for outpatient non-emergent services both overall and for eight of the 12 PHCS and a decrease in points earned for both inpatient medical and surgical services (overall and for six of the 12 PHCS) and ER visits (overall and for seven of the 12 PHCS). However, changes in utilization of behavioral health services followed patterns that were unexpected. Use of outpatient mental health and substance use services decreased (both overall and for ten of the 12 PHCS), use of mental health ER and crisis stabilization services increased (both overall and for five of the 12 PHCS), and inpatient behavioral health utilization increased (overall and for four of the 12 PHCS). Use of non-traditional services was concentrated in a small number of services (particularly RN-only visits, eConsults, and case management) but increased slightly overall with changes in a few new areas, including recuperative and respite care and mobile clinic visits.

These and other findings documenting shifts in service mix suggest that PHCS are making greater use of outpatient and non-traditional services but only for non–behavioral health services. Further understanding of the shifts in utilization will be possible through PHCS surveys, utilization data from program year 3, and encounter data. The encounter data, in particular, will contain more-granular information about the types of services and settings used to provide GPP services. These data will provide more information on trends in the use of outpatient surgery and behavioral health services that appear to be key in understanding the changes in service use in the first few years of the GPP.

Chapter Four. The Foundation to Deliver Care to the Remaining Uninsured: Changes in Uninsured Served, Payments, and Costs During the GPP

As part of the GPP, PHCS gained the ability to use all of their federal matching dollars to support the provision of services in a wide range of settings and using a broader set of provider types and care delivery strategies. It was hypothesized that these changes would enhance each PHCS' capacity to provide more cost-effective primary, preventive, and specialty care that could prevent future utilization in high-intensity care settings. Demonstrating increases in the number of uninsured patients served or reductions in total costs are two ways to provide evidence that the GPP is achieving these aims.

This chapter addresses hypothesis 3: PHCS are putting a strong foundation in place to deliver care for the remaining uninsured. We begin by examining how the number of uninsured served by each PHCS changed over the course of the GPP. We then focus on the question of whether the GPP has provided PHCS with a strong *financial* foundation to support delivery system transformation, by examining the cost of services provided to the uninsured, as well as the level of payments relative to costs both before and during the first year of the GPP. This chapter focuses on the development of a financial foundation for change; Chapter Five focuses on PHCS changes in infrastructure and processes to better provide needed services for the uninsured.

We assessed the following performance measures:

- the number of uninsured services provided in physical and behavioral health and through contracted providers
- an assessment of participating PHCS' use of federal funding
  - the percentage of GPP funding earned, by program year
- the cost of GPP services compared with GPP funding against which cost avoidance will be measured
  - expenditures associated with services provided, both at 100 percent and 175 percent
  - comparison of (1) the ratio of GPP funding to uninsured uncompensated costs and (2) the ratio of SFY 2014–2015 SNCP and DSH to uninsured uncompensated costs, both at 100 percent and 175 percent.

We used data from the midpoint GPP survey, aggregate utilization reports submitted annually by each PHCS, cost information from P14 workbooks, and administrative data on payments to PHCS from DHCS. We began by examining changes in the number of uninsured served using the midpoint GPP survey. We then assessed total points earned by each PHCS during each of the first two demonstration years and the extent to which PHCS achieved their point thresholds. Next, we examined the total cost of uninsured services that each PHCS provided to assess changes in costs in the first year of the GPP, which are the most-current cost data available. Finally, we examined the magnitude of payments compared with uninsured uncompensated costs, both in the first year of the GPP and relative to the pre-GPP period, which helped us assess the degree to which GPP payments were newly targeting the uninsured and covering the cost of uncompensated care provided on their behalf. Collectively, these findings provide insights into the extent to which PHCS have a strong financial foundation for providing high-value care to the uninsured during the remaining years of the GPP.

Changes in the Number of Uninsured Served

With improved access to care being an important goal of the GPP, one might anticipate that the number of uninsured patients served would increase as the GPP matures. As part of the midpoint GPP survey, PHCS were asked to consider the change in the number of uninsured they currently served in comparison with their estimates of the number of uninsured they served prior to the GPP. A limitation of the survey data is that we asked respondents to provide qualitative trend information that gives an early indication of *changes* in the number of uninsured rather than estimates of the number of uninsured served, which have not been tracked historically. The GPP encounter data collection that includes unique patient identifiers began in program year 2, and these data will be used in the final evaluation.

Exhibit 4.1 shows PHCS reports of changes in the total number of uninsured served overall and for three specific groups of services: traditional services, inpatient services, and ambulatory noncontracted services. Across all services, four PHCS reporting that they currently served fewer uninsured patients than before the start of the GPP, five reported that they now served more uninsured patients, and three reported no change in the number of uninsured patients they served. These patterns were generally similar across the three groups of services we examined, with the exception of traditional services, for which half of the PHCS reported that fewer or substantially fewer uninsured people were now served than prior to the GPP.[24]

[24] Two-thirds of the GPP's 50 available services for which PHCS earn points are non-traditional, including all services in category 2, complementary patient support and care services (e.g., wellness, patient support group,

Exhibit 4.1. Change in the Total Number of Uninsured Patients Served by PHCS from the Beginning of the GPP Until February 2018

Change in the Number of Uninsured Served	PHCS Reporting Change in the Number of Uninsured Served, by Service Group			
	Total	Traditional Services	Inpatient Services	Ambulatory Noncontracted Services
Substantially fewer	— (—%)	1 (8.3%)	1 (8.3%)	— (—%)
Fewer	4 (33.3%)	5 (41.7%)	4 (33.3%)	5 (41.7%)
No change[a]	3 (25.0%)	4 (33.3%)	3 (25.0%)	3 (25.0%)
More	5 (41.7%)	2 (16.7%)	3 (25.0%)	4 (33.3%)
Substantially more	— (—%)	— (—%)	1 (8.3%)	— (—%)

SOURCE: Midpoint GPP survey, reported in February 2018.
NOTE: The first number in each cell is the number of PHCS. The second number is the percentage of PHCS.
[a] Includes one PHCS that indicated that it was unable to distinguish change at this time.

We also asked PHCS to consider changes in the *share* of uninsured served within four different groups of services (behavioral health, preventive, non-traditional, and contracted services) from the beginning of the GPP until February 2018, when the survey was fielded. Exhibit 4.2 shows that nearly 60 percent of PHCS reported providing behavioral health services to a smaller share of uninsured than at the beginning of the GPP; only 25 percent reported serving a larger share. These findings are consistent with those from Chapter Three reporting an overall 4-percent reduction in the number of points earned across PHCS for providing behavioral health services. In contrast, 83 percent of PHCS reported serving greater shares of their uninsured with non-traditional services, 75 percent reported serving more with preventive services, and 58 percent reported serving more with contracted services. These three findings are also consistent with the utilization analyses from Chapter Three, which indicate a shift in utilization toward non-traditional services and away from traditional services, and support the hypothesis that PHCS are putting a strong foundation in place to deliver care for the remaining uninsured by providing greater access to high-value services both within their service areas and

health coach), and in category 3, technology-based outpatient services (e.g., email or telephone consultation with a provider). PHCS also provided estimates of how the number of uninsured receiving non-traditional services has changed over time. Because a key feature of non-traditional services is that these services have newly become reimbursed, counts of utilization of non-traditional services by uninsured people were likely to be underestimated in the past. Thus, estimates of changes in the numbers of uninsured using such services might be inaccurate, most likely overestimated, because the baseline counts of utilization are so low. This is a potential challenge for estimating changes in the number of people using non-traditional services now compared with the number in an earlier time.

beyond. However, as noted previously, the reductions in the share of uninsured who are receiving behavioral health services require additional exploration.

Exhibit 4.2. Change in the Proportion of Uninsured Patients Served by PHCS from the Beginning of the GPP Until Survey Completion

Change in the Share of Uninsured Served	PHCS Reporting Change in the Share of Uninsured Served, by Service Group			
	Behavioral Health Services	Preventive Services	Non-Traditional Services	Contracted Services
Substantially fewer	1 (8.3%)	— (—%)	— (—%)	— (—%)
Fewer	6 (50.0%)	2 (16.7%)	— (—%)	2 (16.7%)
No change	2 (16.7%)	1 (8.3%)	2 (16.7%)	3 (25.0%)
More	3 (25.0%)	9 (75.0%)	9 (75.0%)	7 (58.3%)
Substantially more	— (—%)	— (—%)	1 (8.3%)	— (—%)

SOURCE: Midpoint GPP survey.
NOTE: The first number in each cell is the change in the number of uninsured served. The second number is the percentage of all uninsured.

Exhibit 4.3 displays PHCS-specific ratings of changes in both the number and proportion of uninsured served since the beginning of the GPP for these same services. This analysis helps us to better understand the extent to which PHCS focused their activities in specific service areas or whether their efforts spanned multiple service areas. We found variation across PHCS in terms of the direction of the change in numbers of uninsured served by service group. For example, one PHCS (Kern Medical) indicated consistently providing more services to the uninsured across all eight services assessed, and one other PHCS (Contra Costa Regional Medical Center) indicated providing more services for seven of the eight services. On the other hand, one PHCS (Arrowhead Regional Medical Center) indicated that it had not increased the number of services provided to the uninsured for any of the services assessed, and one other PHCS (Ventura County Medical Center) reported both lower levels of services to the uninsured and a lower share of three of four services for which expansions might have been expected under the GPP.

Exhibit 4.3. Patterns of Change in the Number and Proportion of Uninsured People, by PHCS

PHCS	Change for Uninsured Served Now, by Service Group							
	Change in the Total Number				Change in the Proportion			
	All Services	Traditional Services	Inpatient Services	Ambulatory Noncontracted Services	Behavioral Health Services	Preventive Services	Non-Traditional Services	Contracted Services
Alameda	4	2	2	2	2	4	4	2
Arrowhead	3	3	3	3	2	2	3	3
Contra Costa	4	4	3	4	4	4	4	4
Kern	4	4	4	4	4	4	4	4
Los Angeles	3	2	1	2	4	4	5	4
Natividad	2	2	2	2	2	4	4	4
Riverside	4	3	4	4	3	3	4	3
San Francisco	2	2	4	2	2	4	4	4
San Joaquin	2	1	5	4	1	4	4	4
San Mateo	4	3[a]	3[a]	3[a]	3	4	4	3
Santa Clara	3	3	2	3	2	4	3	4
Ventura	2	2	2	2	2	2	4	2

SOURCE: Midpoint GPP survey.
NOTE: 1 = substantially fewer, 2 = fewer, 3 = no change, 4 = more, 5 = substantially more.
[a] This organization was unable to distinguish the type of change at the time of survey completion. We coded this in the no-change category.

Point Threshold Achievement

Prior to the start of each program year, DHCS established a budget for each PHCS based on the program funds available in each year and each PHCS' share of points earned for providing uninsured services during the baseline year. (Chapter One includes a discussion of how baseline points were calculated for each PHCS and how individual services were valued.) In program year 1, the Los Angeles County Health System had the largest point threshold, by far (101.6 million points, which represented approximately half of all threshold points established for the 12 PHCS in year 1) (Exhibit 4.4). This point threshold implies that the Los Angeles County Health System's uninsured services during the baseline year, valued in points, were roughly

equivalent to half of all uninsured services across the 12 PHCS. In program year 1, total GPP funding was approximately $2.2 billion, implying that the GPP budget established for the Los Angeles County PHCS was approximately $1.1 billion. Point thresholds increased slightly in year 2 for all PHCS because of an increase in the state's Medicaid DSH allotment.[25]

Exhibit 4.4. Point Thresholds and Total Points Earned During Program Years 1 and 2

	Point Threshold		Total Points Earned		Percentage of Point Threshold Earned	
PHCS	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Alameda	19,151,753	19,760,279	19,449,490	19,803,987	101.6	100.2
Arrowhead	7,525,819	7,764,944	6,724,715	7,197,587	89.4	92.7
Contra Costa	5,674,651	5,854,957	6,127,369	6,454,910	108.0	110.2
Kern	3,633,669	3,749,125	3,652,059	4,915,622	100.5	131.1
Los Angeles	101,573,445	104,800,830	108,937,543	106,471,195	107.3	101.6
Natividad	2,959,964	3,054,014	3,007,433	2,932,790	101.6	96.0
Riverside	8,066,127	8,322,419	7,435,211	8,280,278	92.2	99.5
San Francisco	12,902,913	13,312,889	12,780,655	11,857,832	99.1	89.1
San Joaquin	3,021,562	3,117,569	3,271,697	3,197,327	108.3	102.6
San Mateo	8,733,292	9,010,783	9,240,885	8,860,062	105.8	98.3
Santa Clara	19,465,293	20,083,781	19,359,053	19,146,192	99.5	95.3
Ventura	9,213,731	9,506,487	7,334,695	6,363,861	79.6	66.9

SOURCES: DHCS administrative data (point thresholds) and PHCS aggregate utilization reports (points earned).
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017.

Seven PHCS earned enough points that they exceeded their point thresholds in year 1 (and two PHCS reached 99 percent of their threshold), while five exceeded their thresholds in year 2.[26] Of note, only PHCS that reached their point thresholds were eligible for additional program funds that were redistributed from the budgets of PHCS that did not reach their thresholds. Five PHCS did not reach their thresholds in either of the first two program years, and only one PHCS, Ventura County Medical Center, appeared to be an outlier—earning 20 percent below its threshold in year 1 and an even lower percentage in year 2. Errors in the calculation of baseline points might have led to inflated point thresholds for Ventura County

[25] At the beginning of the GPP, it was anticipated that thresholds would be adjusted downward because of the anticipated reductions in Medicaid DSH funding over the course of the GPP; however, these cuts have been delayed until 2020 and will therefore affect program funding in only the fifth and final demonstration year.

[26] In Exhibit B.4 in Appendix B, we report the percentage of GPP funding earned (as opposed to the percentage of the point threshold earned), which provides similar information to that reported in Exhibit 4.4. However, the latter includes only one year of data because program year 2 payments have yet to be finalized. The percentage of GPP budgets earned differs from the percentage of GPP thresholds earned (reported in Exhibit 4.4) because the overall GPP budget is capped.

Medical Center, which could explain the large difference in points earned relative to its thresholds in both years.

Uninsured Cost

The cost data available for the evaluation are P14 workbooks that are used by PHCS to claim federal matching payments for their Medi-Cal and uninsured uncompensated costs. As such, the cost information in these workbooks reflects federal claiming principles and reporting mechanisms and does not reflect the total cost of providing services to the uninsured. In addition, although they are eligible for matching payments, non-traditional services typically do not produce billed charges in PHCS' financial systems, so the costs of these non-traditional services are generally not reported in the P14 workbooks.

Using the best available data and after adjusting for inflation, we estimate that PHCS in California spent more than $1.27 billion providing services to the uninsured in the year prior to the GPP (Exhibit 4.5). The Los Angeles County Health System was responsible for just over half of these expenditures. For the purposes of claiming federal DSH funds, certain PHCS in California are permitted to report their hospital-based costs at 175 percent of actual costs to claim a higher level of available DSH funds. When these costs are stated at the 175-percent level, the cost of services to the uninsured in the state totaled approximately $1.73 billion in the baseline year.

Exhibit 4.5. Uninsured Costs During the Baseline Year and Program Year 1, in Real Dollars

	Baseline Year		Year 1	
PHCS	**At 100%**	**At 175%**	**At 100%**	**At 175%**
Alameda	115,633,036	150,441,528	121,399,658	163,795,185
Arrowhead	28,430,015	43,803,817	23,119,543	34,480,715
Contra Costa	30,808,300	40,795,383	30,007,221	39,320,394
Kern	18,163,987	26,268,259	17,248,722	25,060,362
Los Angeles	670,157,637	916,122,601	724,217,855	990,538,457
Natividad	13,747,818	18,406,602	14,041,276	19,239,801
Riverside	39,787,235	52,112,554	44,129,801	56,471,884
San Francisco	86,809,917	117,565,081	101,798,498	136,714,184
San Joaquin	13,621,879	17,226,247	13,022,162	15,652,897
San Mateo	63,504,482	90,608,936	57,254,609	82,087,952
Santa Clara	136,392,711	189,538,261	124,767,876	183,396,485
Ventura	49,570,403	67,936,007	21,345,678	28,861,221
Total	**1,266,627,421**	**1,730,825,274**	**1,292,352,901**	**1,775,619,538**

SOURCE: PHCS P14 workbooks.
NOTE: The baseline year is SFY 2014–2015. Program year 1 is SFY 2015–2016. Baseline costs reflect a 3-percent inflation adjustment to be comparable with dollars in year 1.

Because the costs reported in Exhibit 4.5 are total costs rather than per capita costs, they are not comparable across years if the number of uninsured served by each PHCS changes substantially from year to year. For example, both population growth and a decline in population health could contribute to increased expenditures over time. Furthermore, if the GPP is successful in improving access to ambulatory services, including preventive health services, PHCS might be fulfilling previously unmet demand for these services, and cost reductions might be realized only in subsequent years.

With those caveats in mind, we find that, in year 1 (the most recent year for which cost data are available), PHCS provided services totaling at least $1.29 billion in claimable costs to the uninsured—an inflation-adjusted increase of less than $26 million relative to the baseline year. Although we did not anticipate a major change in cost overall between the baseline year and year 1 because several of the core elements of the GPP were not finalized until nine months into program year 1, we did observe cost reductions for seven of the 12 PHCS over this period. Cost reductions were greatest for Ventura County Medical Center ($28.2 million), while cost increases were greatest for the Los Angeles County Health System and Zuckerberg San Francisco General Hospital and Trauma Center ($54.1 million and $15.0 million, respectively).

GPP Payments Relative to Costs

Payments from uninsured patients represent a very small fraction of revenue that PHCS receive to offset the cost of providing services to the uninsured. Uninsured and Medi-Cal allowable *uncompensated* costs, which are costs net of reimbursements and patient revenues, were the two forms of uncompensated costs that were eligible for federal matching dollars through the DSH program in the years prior to the GPP. However, the GPP refocused DSH and SNCP funds to support services to the remaining uninsured, so GPP payments reflect only *uninsured* uncompensated costs starting in July 2015. In Exhibit 4.6, we report federal payments made to each PHCS, as well as the uninsured uncompensated costs that each PHCS used to claim federal matching dollars. We also report the ratio of these two amounts to measure changes over time in the degree to which federal funding becomes more targeted to the uninsured.

Exhibit 4.6. Ratio of Federal Payments to Uninsured Uncompensated Care Cost During the Baseline Year and Program Year 1, in Real Dollars

	Federal Payments[a]		Uninsured Uncompensated Care Cost at 100%		Ratio of Federal Payments to Uninsured Uncompensated Care Cost at 100%	
PHCS	**Baseline[b]**	**Year 1[c]**	**Baseline**	**Year 1**	**Baseline**	**Year 1**
Alameda	95,050,761	105,370,265	113,125,494	117,297,815	84.0	89.8
Arrowhead	38,706,417	36,772,058	28,043,685	22,697,265	138.0	162.0
Contra Costa	86,430,581	32,010,435	20,072,395	21,485,008	430.6	149.0
Kern	48,106,122	19,909,437	18,041,291	16,701,359	266.6	119.2
Los Angeles	335,307,251	571,369,967	660,486,607	716,306,589	50.8	79.8
Natividad	18,574,588	16,288,454	12,850,408	12,970,605	144.5	125.6
Riverside	61,402,910	40,657,189	38,840,939	42,575,503	158.1	95.5
San Francisco	118,711,909	69,887,124	84,115,893	97,258,280	141.1	71.9
San Joaquin	19,247,957	17,064,144	13,374,390	12,755,593	143.9	133.8
San Mateo	38,408,846	48,854,511	62,230,645	56,199,335	61.7	86.9
Santa Clara	154,834,857	105,859,092	126,626,571	107,157,359	122.3	98.8
Ventura	45,069,852	40,107,548	47,018,964	19,649,160	95.9	204.1
Overall	**1,059,852,052**	**1,104,150,222**	**1,224,827,283**	**1,243,053,872**	**86.5**	**88.8**

SOURCES: PHCS P14 workbooks (uninsured uncompensated cost); DHCS administrative data (federal payments).
NOTE: Baseline payments and costs reflect a 3-percent inflation adjustment to be comparable with dollars in year 1.
[a] Payments reported in this exhibit reflect the federal financial participation (FFP), the federal government's match to state expenditures. In California, the federal medical assistance percentage is 50 percent, meaning that the federal government pays $0.50 for every dollar spent by the state (whose contribution is self-financed entirely by the PHCS). An analogous set of results to those in this exhibit that displays total payments rather than federal payments is displayed in Exhibit B.4 in Appendix B. The baseline year is SFY 2014–2015. Program year 1 is SFY 2015–2016.
[b] Federal payments in the baseline year are made on the basis of both Medi-Cal and uninsured uncompensated costs.
[c] Federal payments in year 1 are made on the basis of GPP points earned based on only uninsured utilization.

Federal payments to PHCS totaled an inflation-adjusted $1.06 billion during the baseline year and rose slightly to $1.1 billion during program year 1, based on increased available DSH funding. The magnitude of payments varied across PHCS and, in some cases, across the two years for the same PHCS. For example, in the baseline year, federal payments ranged from a low of $18.6 million for Natividad Medical Center to a high of $335.3 million for the Los Angeles County Health System. Although payments remained fairly steady for most PHCS between the baseline year and the first year of the GPP, payments decreased notably for three PHCS: Contra Costa Regional Medical Center ($54.4 million reduction), Santa Clara Valley Medical Center ($49 million reduction), and Zuckerberg San Francisco General Hospital and Trauma Center ($45.4 million reduction). By contrast, only one PHCS, the Los Angeles County Health System, had a large increase ($236 million) in federal payments between the two years.

Uninsured uncompensated costs (when estimated at 100 percent of costs) totaled an inflation-adjusted $1.22 billion during the baseline year and increased slightly to $1.24 billion in program year 1. Notable changes included an increase in uncompensated costs of nearly 16 percent for Zuckerberg San Francisco General Hospital and Trauma Center.

Overall, federal payments covered roughly 86.5 percent of uninsured uncompensated costs in the baseline year and slightly more in program year 1 (88.8 percent) when uncompensated costs are estimated at 100 percent of costs. When costs are stated at the 175-percent level, federal payments covered only 63.6 percent of uninsured uncompensated costs in the baseline year and 64.8 percent in program year 1 (Exhibit 4.7). These results suggest that, on average, even though federal payments do not fully cover PHCS' uninsured uncompensated costs, there has been slightly better targeting of payments on behalf of services provided to the uninsured than before the GPP. As noted previously, these cost determinations are based on federal claiming principles and reporting mechanisms and do not reflect all PHCS costs incurred associated with GPP, especially non-traditional services which typically do not produce billed charges in PHCS financial systems from which costs are calculated.

Exhibit 4.7. Ratio of Federal Payments to Uninsured Uncompensated Cost, at 175 Percent of Hospital Costs, During the Baseline Year and Program Year 1

	Uninsured Uncompensated Care Cost at 175%		Ratio of Federal Payments to Uninsured Uncompensated Care Cost at 175%	
PHCS	**Baseline**	**Year 1**	**Baseline[a]**	**Year 1[b]**
Alameda	146,053,328	158,851,303	65.1	66.3
Arrowhead	43,196,808	33,808,786	89.6	108.8
Contra Costa	28,222,853	30,692,158	306.2	104.3
Kern	26,145,563	24,222,401	184.0	82.2
Los Angeles	901,073,600	978,132,411	37.2	58.4
Natividad	16,836,134	17,392,798	110.3	93.7
Riverside	50,695,317	53,963,985	121.1	75.3
San Francisco	112,872,180	129,950,298	105.2	53.8
San Joaquin	16,793,140	15,186,401	114.6	112.4
San Mateo	88,379,721	80,259,958	43.5	60.9
Santa Clara	172,758,268	154,602,831	89.6	68.5
Ventura	64,497,244	26,903,431	69.9	149.1
Overall	**1,667,524,157**	**1,703,966,761**	**63.6**	**64.8**

SOURCES: PHCS P14 workbooks (uninsured uncompensated cost); DHCS administrative data (federal payments).
NOTE: Baseline payments and costs reflect a 3-percent inflation adjustment to be comparable with dollars in year 1. Payments reported in this exhibit reflect FFP. In California, the federal medical assistance percentage is 50 percent, meaning that the federal government pays $0.50 for every dollar spent by the state (whose contribution is self-financed entirely by the PHCS). An analogous set of results to those in this exhibit that displays total payments rather than federal payments is displayed in Exhibit B.5 in Appendix B. The baseline year is SFY 2014–2015. Program year 1 is SFY 2015–2016.
[a] Federal payments in the baseline year are made on the basis of both Medi-Cal and uninsured uncompensated costs.
[b] Federal payments in year 1 are made on the basis of GPP points earned based on only uninsured utilization.

When examining payments relative to costs for individual PHCS, we found large differences across the 12 PHCS—particularly in the baseline year, when PHCS were able to draw down DSH funding based on both their Medi-Cal and uninsured uncompensated costs. Some PHCS with higher ratios of payments to costs have higher levels of Medi-Cal uncompensated costs than uninsured uncompensated costs in the baseline year. Focusing on the first year of the GPP, we find that, for six of the PHCS, GPP payments covered their reported uninsured uncompensated cost, which was the intended target of these payments under the GPP. When comparing payments relative to costs stated at the 175-percent level, however, GPP payments cover at least 100 percent of reported uninsured uncompensated costs for only four PHCS. A more in-

depth exploration of service use within the remaining four PHCS might indicate whether these PHCS are using more resources when providing each of the 50 GPP services (and thus might not be accounted for in the GPP point system, which is based on average costs) or whether these PHCS have a sicker mix of patients. Nevertheless, it appears that, overall, the GPP payment structure is providing PHCS with some of the financial foundation needed to provide services to the uninsured.

Chapter Summary

In this chapter, we examined several indicators that assess the extent to which the GPP is accomplishing its aims. Although PHCS did not consistently report serving more uninsured patients, they reported changing their *mixes* of services in a way that emphasized non-traditional and preventive services. Five PHCS exceeded their point thresholds in year 2, while four others earned within 5 percentage points of their thresholds, which suggests that the PHCS are maintaining their baseline levels of expenditures on services to the uninsured even as they change their service mixes. Indeed, we found no evidence of an increase in uninsured costs after the first year of the GPP. In program year 1, federal payments covered 89 percent of uninsured uncompensated costs overall and at least 100 percent of uninsured uncompensated costs claimed by six of the 12 PHCS. When comparing with uncompensated costs at the 175-percent level, federal payments covered 65 percent of uninsured uncompensated costs in program year 1 and covered at least 100 percent of uninsured uncompensated costs for four of the 12 PHCS.

All cost analyses reported in this chapter are preliminary and assume that the size of the uninsured population remains constant within each PHCS over time. This limitation notwithstanding, our analyses suggest that the GPP has provided PHCS with some of the foundation necessary to support delivery system transformation.

Chapter Five. The Foundation to Deliver Care to the Remaining Uninsured: Perspectives from the Participating PHCS

In this chapter, we focus again on hypothesis 3, that PHCS are putting a strong foundation in place to deliver care for the remaining uninsured. Chapter Four addressed the financial foundation for delivering care to the remaining uninsured; this chapter focuses on perspectives from the leaders of the 12 participating PHCS as detailed in the survey responses. During late February 2018, each PHCS provided survey responses to queries pertaining to its efforts to build a foundation for delivering care to the remaining uninsured. This chapter extends the discussion of strategies that PHCS adopted to enhance their capabilities and services provided to meet the needs of patients, as introduced in Chapter Two. Although the former addresses each system's planning and infrastructure, this chapter documents PHCS' experiences with successes, challenges, and achievements since the GPP was introduced.

This chapter assesses the following performance measures from the perspective of the PHCS survey responses:

- a summary assessment grouped into appropriate categories of individual system narratives that describe the GPP's effects on care delivery and cost, including what changes GPP systems are making to improve care and how they are allocating resources more efficiently
- expanded infrastructure that is being put in place, including improvements in the delivery system and efforts to expand services with contracted providers
- a narrative assessment of the overall benefits and challenges of this new payment approach, including care provided by PHCS, patient experience, and care delivery transformation.

To address these performance measures, we first consider PHCS experiences in implementing strategies to support health system transformation, including a description of support allocated for the implementation of health system improvement strategies, the success of the operations and implementation of strategies, and the extent to which the strategies have become part of PHCS' GPP culture. We then consider modifications that PHCS made to services provided to patients. In Chapter Two, we described reports that many PHCS made modifications to GPP services; here, we focus on *how* the PHCS made changes to enhance the number of provider types, venues, and services offered to patients.

We used the following criteria to assess whether PHCS are putting a strong foundation in place to deliver care for the remaining uninsured:

- adoption of strategies to enhance PHCS infrastructures
- successful implementation of these strategies, even in the presence of challenges
- incorporation of these strategies into PHCS culture
- allocation of support for GPP service modification by PHCS
- provision by PHCS of diverse GPP services to the uninsured, particularly the provision of non-traditional services
- modifications of GPP services through increases in existing services or development of new services
- PHCS' report of enhanced GPP goals associated with GPP modifications
- improved reports of quality of care and service delivered to the remaining uninsured.

Improvement Strategies to Support Health System Transformation

Chapter Two highlighted PHCS' adoption of six domains of improvement strategies aimed at enhancing their capabilities for responding to GPP incentives. Here, we examine the successes and challenges PHCS faced in adopting these strategies and the extent to which these strategies have become a part of the overall PHCS culture. We highlight the importance of incorporating a strategy into PHCS culture because social science research highlights that embedded practices are most likely to be effective and sustained (National Health Service, 2002; Davies et al., 2006; Wallin, Profetto-McGrath, and Levers, 2005; Stange et al., 2003).

Exhibit 5.1 lists the mean composite scores associated with the six improvement domains introduced in Chapter Two. The "Range of PHCS Using the Strategy" column reports the number of PHCS using a strategy in each improvement domain. The remaining columns report, respectively, PHCS ratings on the extent to which implementation of the strategies in the domain succeeded in achieving goals of the GPP ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"), the extent to which implementation of the strategies has been a challenge ("Mean Extent to Which Strategy Use Has Been a Challenge"), and the extent to which the strategies are now considered part of their overall PHCS culture ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture"). All scores range from 0 (not at all) to 3 (substantially).

Exhibit 5.1. Mean Composite Scores for Six Health Care System Improvement Domains

Domain[a]	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture
Improving data collection and tracking	7–12	1.8	2.5[b]	2.2[b]
Improving coordination of care	9–12	1.7	2.3	2.0
Improving access to care	6–12	1.7	1.7[c]	2.1
Improving staffing	3–11	1.8	1.8	1.9[c]
Improving team-based care	6–11	1.9[b]	2.1	2.1
Improving the delivery system	8–12	1.7[c]	2.3	2.2

SOURCE: Midpoint GPP survey.
NOTE: Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture" were 0 points = not at all, 1 point = somewhat, 2 points = moderately, and 3 points = substantially.
[a] Specifications for each of the composite scores are defined in Exhibits 5.2 through 5.7.
[b] Largest value in the column.
[c] Smallest value in the column.

PHCS reported similar success across the six improvement domains in terms of achieving GPP goals with the six composite scores ranging narrowly from 1.7 to 1.9 (on a three-point scale), corresponding to somewhat successful to moderately successful. Respondents reported more variation across domains with challenges. They reported experiencing the greatest challenges in implementing strategies for improving data collection and tracking (mean 2.5), which they found to be moderately to substantially challenging. They found the least challenging strategy to be improving access to care (mean 1.8), which they found to be somewhat to moderately challenging.

Implementation challenges involved in improving data collection and tracking appear to have been overcome, given that PHCS indicated that these strategies were most successful in becoming part of overall PHCS culture (mean 2.2). However, the six strategies received similar composite scores for their success in becoming part of overall PHCS culture (ranging from 1.9 to

2.2). Improving staffing was rated lowest (mean 1.9) of the improvement domains in terms of its integration into overall PHCS culture.

For each of the six improvement domains, PHCS answered questions about each of the individual strategies in each domain. Exhibits 5.2 through 5.7 show these data.

Improving Data Collection and Tracking

For example, Exhibit 5.2 lists the eight strategies that make up the domain of improving data and tracking. These are ranked according to how many PHCS reported using the strategy ("Range of PHCS Using the Strategy," range 7 to 12). The remaining columns summarize PHCS ratings on the extent to which implementation of a strategy was successful in achieving GPP goals ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"), the extent to which implementation of the strategy has been a challenge ("Mean Extent to Which Strategy Use Has Been a Challenge"), and the extent to which the strategy is now considered part of their overall PHCS culture ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture").

Exhibit 5.2. PHCS Strategies for Improving Data Collection and Tracking

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture
Composite score	**7–12**	**1.8**	**2.5**	**2.2**
Enhance data capture to track the number of remaining uninsured.	12	1.9	2.7	2.3
Enhance data capture of services so that utilization rendered is consistently claimed.	12	2.1[a]	2.8[a]	2.1
Enhance the timeliness of availability of data for operational and clinical use.	12	1.9	2.4	2.3
Improve systems of data transfer so the right information is in the right place at the right time.	11	1.8	2.5	2.3
Improve data coding associated with the tracking and utilization of services to facilitate billing and claiming.	11	1.8	2.5	2.2
Standardize use of data systems and coding across primary care, preventive care, and behavioral health.	10	1.8	2.4	2.4[a]
Improve consistent use of data systems and coding practices by community service providers (e.g., from FQHCs).	9	1.7	2.3	2.0[b]
Improve consistent use of data systems and coding practices for contracted service providers.	7	1.4[b]	2.1[b]	2.0[b]

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = somewhat, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents rated most of the strategies for improving data collection and tracking as somewhat to moderately successful in achieving GPP goals (mean composite score of 1.8, SD 0.7) ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"). Only one strategy was reported to be more than moderately successful: enhancing data capture of services so that utilization rendered is consistently claimed (mean score 2.1). Respondents reported that the least successful strategy was improving consistent use of data systems and coding practices for contracted service providers, which they felt was only somewhat successful (mean 1.4, SD 0.8).

Respondents reported experiencing many challenges in implementing strategies to improve data collection and tracking (mean composite score of 2.5, SD 0.4) ("Mean Extent to Which Strategy Use Has Been a Challenge"). They reported the greatest challenge in enhancing data capture of services so that utilization rendered is consistently claimed, a strategy rated as substantially challenging (mean 2.8, SD 0.5). In fact, respondents reported a greater challenge in implementing this strategy than in implementing any of the other 49 strategies with the six improvement domains.

However, all the other strategies for improving data collection and tracking were also felt to be challenging to implement, with scores ranging from moderately challenging to substantially challenging (no mean score was lower than 2). Respondents faced the least difficulty in improving consistent use of data systems and coding practices for contracted service providers, but even this strategy was felt to be moderately challenging to implement (mean score 2.1, SD 0.7).

None of the eight strategies was perceived to have become substantially part of overall PHCS culture (mean rating of 2.2) ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture"). Overall, respondents indicated that strategies in this category were moderately part of PHCS culture (composite score across all strategies for improving data collection was a mean of 2.2, SD 0.6). The highest mean rating in this category was achieved by the strategy standardizing use of data systems and coding across primary care, preventive care, and behavioral health (mean rating of 2.4, SD 0.7).

Respondents indicated that two of the eight strategies had become only moderately part of overall PHCS culture: improving consistent use of data systems and coding practices for contracted service providers and improving consistent use of data systems and coding practices by community service providers (e.g., from FQHCs) (mean score of 2.0)—the lowest ratings given in this category.

Improving Coordination of Care

Exhibit 5.3 lists the eight strategies that make up the domain of improving coordination of care. These are ranked according to how many PHCS reported using the strategy ("PHCS Using the Strategy"). As with Exhibit 5.2, the remainder of Exhibit 5.3 summarizes PHCS ratings on success in achieving GPP goals ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"), the extent of implementation challenge ("Mean Extent to Which Strategy Use Has Been a Challenge"), and the extent of integration with overall PHCS culture ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture").

Exhibit 5.3. PHCS Strategies for Improving Coordination of Care

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture
Composite score	**9–12**	**1.7**	**2.3**	**2.0**
Improve coordination between mental health and primary care.	12	2.1	2.1	1.9
Co-locate behavioral health and primary care.	12	2.3[a]	2.3	2.2
Improve data sharing across all sites within the PHCS.	11	1.5	2.5[a]	2.5[a]
Initiate or improve empanelment.	11	1.7	2.3	2.4
Improve overall coordination of GPP services with other services.	10	1.8	1.8[b]	2.0
Co-locate behavioral health, substance use, and primary care.	10	1.4	2.2	1.5[b]
Improve data sharing between the PHCS and community service providers (FQHCs).	9	1.4	2.3	1.9
Improve coordination between substance use and primary care.	9	1.2[b]	2.4	1.7

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals" "Mean Extent to Which Strategy Use Has Been a Challenge," and "Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = somewhat, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

On the whole, respondents rated the strategies for improving coordination of care as somewhat to moderately successful in achieving GPP goals (mean composite score of 1.7, SD 0.6). Only two of eight strategies were reported to be more than moderately successful: co-locating behavioral health and primary care and improving coordination between mental health and primary care. Co-locating behavioral health and primary care was rated as the most

successful strategy in this category, with a mean score of 2.3 (SD 0.8), and rated as the most successful strategy across all 49 strategies and six improvement domains in achieving GPP goals. Respondents reported that the least successful strategy for improving coordination of care was improving coordination between substance use and primary care (mean score of 1.2, SD 0.4).

Overall, respondents indicated that strategies in this category were moderately challenging to implement (composite mean of 2.3, SD 0.6) ("Mean Extent to Which Strategy Use Has Been a Challenge"), although none of the strategies in this category was felt to be substantially challenging to implement (corresponding to a rating of 3). They reported the greatest challenge in implementing the strategy of improving data sharing across all sites within the PHCS (mean rating of 2.5), although this was still assessed at the level of moderately challenging. One strategy was rated as somewhat challenging: improving overall coordination of GPP services with other services (mean score of 1.8, SD 0.9).

Overall, the strategies aiming to improve coordination of care were felt to have become part of overall PHCS culture to a moderate extent (composite mean of 2.0, SD 0.6) ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture"). None of the eight strategies was perceived to have become a substantial part of overall PHCS culture (mean rating of 3). However, respondents gave the highest ratings in this category to the strategy of improving data sharing across all sites within the PHCS (mean rating of 2.5, SD 0.8). Respondents indicated that the strategy co-locating behavioral health, substance use, and primary care was the least integrated into PHCS culture of the strategies aiming to improve coordination of care, with a mean score of 1.5 (SD 0.7), indicating a rating between somewhat and moderately part of overall PHCS culture.

Improving Access to Care

Exhibit 5.4 lists the nine strategies that make up the domain of improving access to care. The layout of this exhibit is the same as that seen in Exhibits 5.2 and 5.3.

Exhibit 5.4. PHCS Strategies for Improving Access to Care

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture
Composite score	**6–12**	**1.7**	**1.7**	**2.1**
Increase the number of providers that offer non-traditional services.	12	1.8[a]	1.8	2.1
Increase the number of providers that offer traditional services.	11	1.7	2.1[a]	2.2
Expand clinic hours of operation.	11	1.8	1.6	2.0[b]
Improve provider and staff awareness of GPP services so that more patients are likely to be referred.	10	1.8	1.6	2.1
Increase the number of locations where non-traditional services are offered.	10	1.6	1.7	2.3[a]
Increase the number of locations where traditional services are offered.	10	1.6	2.0	2.3
Increase the number of settings in which non-traditional services are offered.	8	1.5[b]	1.5[b]	2.0[b]
Improve patient awareness of GPP services so that patients are more likely to use them.	8	1.5[b]	1.6	2.3
Increase the number of settings in which traditional services are offered.	6	1.8	1.8	2.2

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = somewhat, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents indicated that the strategies for improving access to care were somewhat to moderately successful in achieving GPP goals (composite mean of 1.7, SD 0.5) ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"). None of the nine strategies was felt to be more than moderately successful (mean rating greater than 2). Four strategies tied as highest-rated items. Two strategies, increasing the number of settings in which non-traditional services are offered and improving patient awareness of GPP services so that patients are more likely to use them, were rated the lowest, with a mean score of 1.5.

Respondents found the strategies for this domain to be moderately challenging, with a composite mean of 1.8 (SD 0.6). None of the strategies was felt to be substantially challenging (mean rating of 3). Respondents indicated that the most challenging strategy was increasing the number of providers that offer traditional services (mean rating of 2.1), and the least challenging strategy was increasing the number of settings in which non-traditional services are offered (mean score of 1.5)—both of which fall within the moderately challenging range.

Respondents indicated that strategies for improving access to care were moderately successful in being integrated into overall PHCS culture (composite mean of 2.1, SD 0.6) ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture"). None of the nine strategies was perceived to have become substantially part of overall PHCS culture (mean rating score of 3) ("Mean Extent to Which Strategies Are Now Part of Overall PHCS Culture"). The most successfully integrated strategy was increasing the number of locations where non-traditional services are offered (mean rating score of 2.3, SD 0.7). Respondents indicated that the least integrated strategies were expanding clinic hours of operation and increasing the number of settings in which non-traditional services are offered (mean score of 2.0).

Improving Staffing

Exhibit 5.5 lists the ten strategies that make up the domain of improving staffing. The layout of this exhibit is the same as that seen in previous exhibits. As noted in Chapter Two, PHCS did not adopt the ten strategies that make up the improving-staffing domain in a consistent pattern. Eleven of the 12 PHCS adopted each of three improving-staffing strategies: adding new staff positions or roles, providing additional staff training, and improving or developing more protocols for staff. This pattern differs from adoption by no more than five PHCS for the remaining improving-staffing strategies that include six strategies associated with using more contracted providers and one associated with improving strategies for screening and credentialing staff. Although we do not yet know why PHCS are less engaged with adopting strategies associated with contracted services, this section documents that PHCS ratings of successes, challenges, and incorporation of strategies into their overall culture do not differ in

major ways for the improving-staffing strategies defined by using contracted services or otherwise.

Exhibit 5.5. PHCS Strategies for Improving Staffing

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which the Strategies Are Now Part of Overall PHCS Culture
Composite score	**3–11**	**1.8**	**1.8**	**1.9**
Add new staff positions or roles.	11	1.9	2.0[a]	1.6
Provide additional staff training.	11	1.8	1.6	2.0
Improve or develop more protocols for staff.	11	1.8	2.0[a]	2.1[a]
Improve strategies for screening and credentialing staff.	5	1.0[b]	1.0[b]	1.6
Use more contracted providers for primary care.	5	1.4	1.4	1.4
Use more contracted providers for traditional services.	5	1.8	1.2	1.4
Use more contracted providers for data management.	5	2.0[a]	2.0[a]	1.8
Use more contracted providers for specialty care.	3	1.3	1.7	1.7
Use more contracted providers for non-traditional services.	3	1.7	1.3	1.7
Use more contracted providers for behavioral health.	3	1.0[b]	1.3	1.0[b]

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Extent to Which the Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = somewhat, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents indicated that the strategies for improving staffing ranged between somewhat and moderately successful (composite mean of 1.8, SD 0.7) ("Mean Extent to Which Strategy

Use Has Succeeded in Achieving GPP Goals"). Respondents indicated that the most successful strategy was using more contracted providers for data management (mean rating score of 2.0), indicating moderate success. Two strategies, using more contracted providers for behavioral health and improving strategies for screening and credentialing staff, were rated the lowest, with a mean score of 1.0, somewhat successful.

Respondents found the strategies for this domain to be moderately challenging, with a composite mean of 1.8 (SD 0.8) ("Mean Extent to Which Strategy Use Has Been a Challenge"). Respondents indicated that the most challenging strategies were improving or developing more protocols for staff, adding new staff positions or roles (mean score of 2.0), and using more contracted providers for data management, all of which were rated as moderately challenging; none of the strategies in this group was rated higher than 2.0. Improving strategies for screening and credentialing staff was found to be least challenging, with a mean score of 1.0, somewhat challenging.

Respondents indicated that strategies for improving staffing were somewhat to moderately successful in being integrated into overall PHCS culture (composite mean of 1.9, SD 0.8) ("Extent to Which the Strategies Are Now Part of Overall PHCS Culture"). None of the ten strategies achieved a score of 3, which would have indicated that a strategy had become substantially part of overall PHCS culture. Respondents indicated that the most successfully integrated strategy was improving or developing more protocols for staff (mean rating of 2.1, SD 0.9). The least successfully integrated strategy was using more contracted providers for behavioral health (mean score of 1.0, corresponding to somewhat part of overall PHCS culture).

The reasons that PHCS limited adoption of strategies associated with using more contracted providers are unclear at this time, though the trend is applicable across primary and specialty care, behavioral health, traditional and non-traditional care, and data management. We will include discussion of this topic in the forthcoming interviews with PHCS representatives.

Improving Team-Based Care

Exhibit 5.6 lists the four strategies that make up the domain of improving team-based care. The layout of this exhibit is the same as that seen in previous exhibits.

Exhibit 5.6. PHCS Strategies for Improving Team-Based Care

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which the Strategies Are Now Part of Overall PHCS Culture
Composite score	**6–11**	**1.9**	**2.1**	**2.1**
Reorganize care teams to include new positions or roles.	11	2.1[a]	2.1[a]	2.2
Reorganize care teams to deliver more non-traditional services.	11	2.1[a]	2.1[a]	2.2
Expand or transform workforce roles and responsibilities.	11	1.8[b]	2.1[a]	2.0[b]
Change staff ratios and teams (in terms of providers and nonprovider staff) to satisfy GPP elements.	6	2.0	2.0[b]	2.5[a]

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Extent to Which the Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = some, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents indicated that the strategies for improving team-based care were moderately successful in achieving GPP goals (composite mean of 1.9, SD 0.5) ("Mean Extent to Which Strategy Use Has Succeeded in Achieving GPP Goals"). Two of the four strategies in this domain were considered to be most successful: reorganizing care teams to include new positions or roles and reorganizing care teams to deliver more non-traditional services (mean score of 2.1), which were still within the moderately successful range. The strategy of expanding or transforming workforce roles and responsibilities was rated least successful, with a mean score of 1.8 (SD 0.8).

Respondents found the strategies in this domain to be moderately challenging (mean of 2.1, SD 0.6). All four of the strategies that make up this domain were felt to be moderately challenging, with mean scores of 2 or lower for each. There was relatively little variation across these strategies in terms of the challenge they posed for implementation.

Respondents indicated that the strategies contributing to improving team-based care were moderately successful in becoming part of overall PHCS culture (mean of 2.1, SD 0.6). None of the strategies was felt to be substantially part of overall PHCS culture (mean rating of 3); respondents felt that the strategy achieving greatest integration was changing staff ratios and teams (in terms of providers and nonprovider staff) to satisfy GPP elements (mean rating of 2.5, SD 0.6), which is the highest mean score in this category across all 49 strategies and six improvement domains. Despite its high rating, changing staff ratios and teams was adopted by only six of 12 PHCS. The strategy achieving the lowest score for integration into overall PHCS culture was expanding or transforming workforce roles and responsibilities, with a mean score of 2.0. However, all four strategies fell into the moderate range in terms of the extent to which they had become integrated into PHCS culture.

Improving the Delivery System

Exhibit 5.7 lists the ten strategies that make up the domain of improving the delivery system. The layout of this exhibit is the same as that seen in previous exhibits.

Exhibit 5.7. PHCS Strategies for Improving the Delivery System

Strategy	Range of PHCS Using the Strategy	Mean Extent to Which the Strategy Use Has Succeeded in Achieving GPP Goals	Mean Extent to Which Strategy Use Has Been a Challenge	Mean Extent to Which the Strategies Are Now Part of Overall PHCS Culture
Composite score	**8–12**	**1.7**	**2.3**	**2.2**
Facilitate care in more-appropriate venues than the ER or inpatient hospital settings.	12	1.6	2.3	2.2
Improve appropriate use of ER care.	12	1.3[b]	2.4[a]	2.1
Improve transitions from inpatient to outpatient care, including transitions around discharge and readmissions.	12	1.9	2.4[a]	2.3
Prioritize preventive services.	11	2.2[a]	1.9	2.5[a]
Prioritize behavioral health.	11	1.7	2.3	2.4
Improve appropriate use of inpatient hospital care.	10	1.5	2.4	2.2
Develop population management tools to generate utilization reports quickly for the uninsured.	10	1.8	2.4	1.9
Prioritize non-traditional service venues.	9	1.6	2.1	2.2
Improve infrastructure to respond to community priorities (e.g., using mobile vans).	9	1.6	1.8[b]	1.9[b]
Identify high-risk and high-cost uninsured patients for case management.	8	1.9	2.3	2.4

SOURCE: Midpoint GPP survey.
NOTE: All 12 participating PHCS contributed data for each listed strategy. Response choices for "Extent to Which the Strategy Use Has Been Successful in Achieving GPP Goals," "Mean Extent to Which Strategy Use Has Been a Challenge," and "Extent to Which the Strategies Are Now Part of Overall PHCS Culture" were 0 = not at all, 1 = some, 2 = moderately, and 3 = substantially. Bold indicates a composite score.
[a] Largest value in the column.
[b] Smallest value in the column.

Respondents indicated that the strategies for improving the delivery system were somewhat to moderately successful in achieving GPP goals (composite mean of 1.7, SD 0.3).

Only one of ten strategies, prioritizing preventive services, achieved a mean rating greater than 2, moderately successful. The strategy of improving appropriate use of ER care was considered to be least successful, with a mean score of 1.3 (SD 0.5).

Respondents found the strategies for this domain to be moderately challenging (composite mean of 2.3, SD 0.5). They found two strategies to be between moderately and substantially challenging: improving the appropriate use of ER care and improving transitions from inpatient to outpatient care, including transitions around discharge and readmissions (mean ratings of 2.4). Only two strategies were considered to be only somewhat challenging (mean rating lower than 2): prioritizing preventive services and improving infrastructure to respond to community priorities (e.g., using mobile vans). Respondents reported that the least challenging strategy was improving infrastructure to respond to community priorities (e.g., using mobile vans) (mean rating of 1.8, SD 0.7).

Respondents indicated that the ten strategies for improving the delivery system were moderately successful in becoming part of overall PHCS culture (composite mean of 2.2, SD 0.7). None of the strategies was felt to be substantially part of overall PHCS culture (mean rating of 3). Respondents indicated that the strategy of prioritizing preventive services achieved the greatest success in becoming part of overall PHCS culture (mean rating of 2.5, SD 0.7). Two strategies, developing population management tools to generate utilization reports quickly for the uninsured and improving infrastructure to respond to community priorities (e.g., using mobile vans), were rated the lowest for integration, with a mean scores of 1.9.

PHCS Support for and Implementation of GPP Service Modifications

Just as the first half of this chapter addressed how PHCS engaged with change strategies to respond to GPP goals, we now examine how PHCS made changes to the GPP services they provided. Here, we examine PHCS reports from the midpoint survey about how strongly PHCS supported GPP service modification, challenges they experienced in modifying services, and how service modification relates to GPP goal achievement. The survey asked PHCS to provide responses to the following three tier-level questions, with consideration of services grouped within each tier:

- How much support (staff, time, and dollars) did the PHCS allocate to these tier-level modifications?
- To what extent have these tier-level modifications presented operational or implementation challenges?
- To what extent have these tier-level modifications enhanced PHCS achievement of its GPP goals?

All three questions have categorical responses ranging from a score of 0, indicating a response of none, to a score of 3, indicating a response of substantial. We present the score means and SDs at the grand mean, category, and tier levels by taking the mean response across all PHCS that endorsed, respectively, at least one service within the group of services.

PHCS Support, Challenges, and Extent of Goal Achievement Associated with Tier-Level Modifications

In Exhibit 5.8, the "Support Allocated" column shows category-level support scores ranging from a low of mean 1.2 (SD 1.2) for category 4, inpatient services, to a high of 1.6 for category 1, outpatient services in traditional settings. The two tiers with the highest tier-level support scores, care by other licensed or certified practitioners (tier 1A), and primary, specialty, and other non-emergent care delivered by physicians or other licensed independent practitioners (tier 1B), are associated with category 1. These high support scores reflect PHCS reporting that they allocated "substantial" support (compared to no, minimal, or moderate support) to category 1.

Exhibit 5.8. PHCS Support for Modifications, Challenges to Operations and Implementation, and Goal Achievement

	Support Allocated[a]		Challenges[b]		Goal Achievement[c]		Percentage of Services Used[d]
Category or Tier	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	
Grand mean (50 services)	**1.4**	**1.0**	**1.3**	**0.9**	**1.3**	**0.9**	**66.0**
1. Outpatient services in traditional settings (n = 13 services)	**1.6**	**1.0**	**1.5**	**0.9**	**1.5**	**0.9**	**89.1**
1A. Care by other licensed or certified practitioners (n = 3 services)	2.0	0.9	1.6	0.8	1.6	1.0	91.7
1B. Primary, specialty, and other non-emergent care (physicians or other licensed independent practitioners) (n = 6 services)	2.1	0.7	1.9	0.7	1.7	0.8	86.1
1C. Emergent care (n = 3 services)	1.5	1.2	1.5	0.9	1.6	0.7	88.9
1D. High-intensity outpatient services (n = 1 service)	1.0	1.0	1.0	1.0	1.2	1.1	100.0
2. Complementary patient support and care services (n = 17 services)	**1.4**	**0.9**	**1.3**	**0.9**	**1.4**	**0.8**	**64.2**
2A. Preventive health, education, and patient support services (n = 9 services)	1.8	0.8	1.7	0.8	1.7	0.7	73.1

Category or Tier	Support Allocated[a]		Challenges[b]		Goal Achievement[c]		Percentage of Services Used[d]
	Mean	SD	Mean	SD	Mean	SD	
2B. Chronic and integrative care services (n = 4 services)	1.4	0.7	1.2	1.0	1.4	0.8	60.4
2C. Community-based face-to-face encounters (n = 4 services)	0.9	1.0	0.8	0.8	1.1	1.0	47.9
3. Technology-based outpatient services (n = 11 services)	**1.5**	**0.7**	**1.6**	**0.9**	**1.3**	**0.6**	**38.6**
3A. Nonprovider care team telehealth (n = 4 services)	1.4	0.8	1.3	0.7	1.3	0.5	35.4
3B. eVisits (n = 1 service)	1.3	0.5	1.3	0.5	1.0	0.0	33.3
3C. Store-and-forward telehealth (n = 3 services)	1.6	0.7	2.3	0.9	1.7	0.8	50.0
3D. Real-time telehealth (n = 3 services)	1.4	0.5	1.4	0.8	1.2	0.8	33.3
4. Inpatient services (n = 9 services)	**1.2**	**1.2**	**1.0**	**1.0**	**1.1**	**1.1**	**69.4**
4A. Residential, SNF, and other recuperative services, low intensity (n = 4 services)	1.4	1.2	1.0	0.9	1.1	0.8	56.3
4B. Acute inpatient, moderate intensity (n = 2 services)	1.0	1.1	1.0	1.0	1.0	1.2	95.8
4C. Acute inpatient, high intensity (n = 1 service)	0.9	1.2	0.7	1.0	1.1	1.5	100.0
4D. Acute inpatient, critical community services (n = 2 services)	1.4	1.5	1.3	1.2	1.0	1.2	54.2

SOURCE: Midpoint GPP survey.
NOTE: Grand mean and category names with their associated values are in bold type. The mean and SD values are shown in the cells.
[a] The support (staff, time, and dollars) PHCS allocated to tier-level modifications as reported on the midpoint survey using these response choices: none (0), minimal (1), moderate (2), and substantial (3).
[b] The extent to which tier-level modifications presented operational or implementation challenges as reported on the midpoint survey using these response choices: no challenges (0), some challenges (1), moderate challenges (2), and substantial challenges (3).
[c] The extent to which tier-level modifications enhanced achievement of GPP goals as reported on the midpoint survey using these response choices: not at all (1), some (1), moderately (2), substantially (3), and don't know (DK).
[d] Percentage of services provided by all PHCS. The denominator used for these percentages is the sum of all services used across all PHCS.

The "Challenges" column shows category-level challenge scores ranging from a low of 1.0 for category 4, inpatient services, to a high of 1.6 for category 3, technology-based outpatient services. The high category 3 score was driven by tier 3C, store-and-forward telehealth, which is

by far the tier described as having the most-substantial challenges associated with its operations or implementation.

The "Goal Achievement" column shows category-level goal scores ranging from a low of 1.1 for category 4, inpatient services, to a high of 1.5 for category 1, outpatient services in traditional settings. The high category 1 score reflects PHCS reports of three tier-level modifications substantially enhancing their achievement of their GPP goals, while the remaining did so only moderately. In contrast, the low category 4 score reflects low ratings for modifications that only minimally enhanced their GPP goals in the inpatient setting.

PHCS Support for, Challenges with, and Goal Achievement Associated with Service Modification for Non-Traditional and Traditional Services

In Chapter Two, we noted greater increases in existing non-traditional services and in the development of new non-traditional services than for traditional services. In this section, we examine whether PHCS allocated distinct levels of support, experienced different levels of operational or implementation challenges, or noted different degrees of enhancement of GPP goals in association with service modifications for non-traditional and traditional services.

Our analysis of patterns of service modification for non-traditional and traditional services reflects the survey design, which collected data about types of service modification for each of the 50 GPP services. This provided substantial detail about PHCS service-specific actions. To assess PHCS levels of support, challenges, and goal achievement, we designed the survey to query PHCS at the tier level rather than the service level.[27] Accordingly, Exhibit 5.9 provides tier-level reports of the three domains—support, challenges, and goal achievement by PHCS—associated with tier-level service modifications.

[27] The motivation for this was to minimize provider response burden that could have threatened survey validity.

Exhibit 5.9. PHCS Tier-Level Support, Challenges, and Goal Achievement Associated with Modifications for Non-Traditional and Traditional Services

Category	Traditional or Non-Traditional	Tier	Service	PHCS Using	Mean Support[a]	Mean Challenges[b]	Mean Goals[c]
1	Only non-traditional	1A. Care by other licensed or certified practitioners			2.0	1.6	1.6
			RN-only visit	12			
			PharmD visit	10			
			Complex care manager	11			
	Only traditional	1B. Primary, specialty, and other nonemergent care (physicians or other licensed independent practitioners)			2.1	1.9	1.7
			Dental	9			
			Outpatient primary and specialty (benchmark)	12			
			Contracted primary and specialty (contracted provider)	10			
			Mental health outpatient	12			
			Substance use outpatient	11			
			Substance use methadone	8			
		1C. Emergent care			1.5	1.5	1.6
			Outpatient ER	12			
			Contracted ER (all other, non-Maddy)	8			
			Mental health ER and crisis stabilization	12			
		1D. High-intensity outpatient services			1	1	1.2
			Outpatient surgery	12			
2	Only non-traditional	2A. Preventive health, education, and patient support services			1.8	1.7	1.7
			Wellness	7			
			Patient support group	9			
			Community health worker	9			
			Health coach	9			
			Panel management	7			
			Health education	12			
			Nutrition education	11			
			Case management	11			
			Oral hygiene	4			
		2B. Chronic and integrative care services			1.4	1.2	1.4
			Group medical visit	9			
			Integrative therapy	5			
			Palliative care	8			
			Pain management	7			
		2C. Community-based face-to-face encounters			0.9	0.8	1.1
			Home nursing visit	7			
			Paramedic treat and release	3			
			Mobile clinic visit	7			
			Physician home visit	6			
3	Only non-traditional	3A. Nonprovider care team telehealth			1.4	1.3	1.3
			Texting	6			
			Video-observed therapy	2			
			Nurse advice line	8			

Category	Traditional or Non-Traditional	Tier	Service	PHCS Using	Mean Support[a]	Mean Challenges[b]	Mean Goals[c]
			RN eVisit	1			
		3B. eVisits			1.3	1.3	1
			Email consultation with provider	4			
		3C. Store-and-forward telehealth			1.6	2.3	1.7
			Telehealth (patient–provider)—store and forward	5			
			Telehealth (provider–provider)—eConsult or eReferral	9			
			Telehealth—other store and forward	4			
		3D. Real-time telehealth			1.4	1.4	1.2
			Telephone consultation with provider	6			
			Telephone (patient–provider)—real time	5			
			Telehealth (provider–provider)—real time	1			
4	Only non-traditional	4A. Residential, SNF, and other recuperative services, low intensity			1.4	1	1.1
			Sobering center	6			
			Recuperative and respite care days	7			
	Only traditional	4A. Residential, SNF, and other recuperative services, low intensity			1.4	1	1.1
			Mental health and substance use residential	9			
			SNF	5			
		4B. Acute inpatient, moderate intensity			1	1	1
			Medical and surgical inpatient, etc. (acute rehab, stepdown)	12			
			Mental health inpatient	11			
		4C. Acute inpatient, high intensity			0.9	0.7	1.1
			ICU or CCU	12			
		4D. Acute inpatient, critical community services			1.4	1.3	1
			Trauma	10			
			Transplant or burn	3			

SOURCE: Midpoint GPP survey.
NOTE: Service rows shaded with light gray are non-traditional services; service rows not shaded are traditional services. Horizontal lines indicate breaks between GPP tiers.
[a] The support (staff, time, and dollars) PHCS allocated to tier-level modifications as reported on the midpoint survey using these response choices: none (0), minimal (1), moderate (2), and substantial (3).
[b] The extent to which tier-level modifications presented operational or implementation challenges as reported on the midpoint survey using these response choices: no challenges (0), some challenges (1), moderate challenges (2), and substantial challenges (3).
[c] The extent to which tier-level modifications enhanced PHCS achievement of GPP goals as reported using these survey response choices: not at all (1), some (1), moderately (2), substantially (3), and don't know (DK).

Exhibit 5.9 shows mean tier-level scores for non-traditional and traditional services. This analysis did not reveal substantial differences in support, challenge, or goal scores for non-traditional and traditional tier-level modifications. However, as part of the final evaluation, we

will continue to explore the relationships between service use and PHCS experiences of support, challenges, and goals. Follow-up interviews might provide additional understanding of modification patterns for traditional and non-traditional services.

Key Attributes of PHCS Organizations' Ability to Care for the Remaining Uninsured

PHCS rated eight key attributes of their ability to care for the remaining uninsured whom they serve. They first rated care as currently delivered, then rated progress made to date to improve care delivered to the remaining uninsured. PHCS assigned ratings using a scale from poor (1 point) to excellent (5 points), focusing on attributes foundational to improving care and outcomes: coordination of care, access to specialty and primary care, and delivery of quality care.

Exhibit 5.10 displays mean ratings describing these attributes as currently delivered, as well as progress made to date to improve care delivered with these attributes. Rows are presented in order of decreasing current rating scores. No attributes were rated with a mean score of very good (4 points) or excellent (5 points). The highest-rated attributes are quality of services delivered, provision of appropriate inpatient care, and overall quality of care. These are rated between good and very good for both current delivery and progress made to date to improve care delivered. The attribute associated with the highest-rated progress made is meeting health needs of uninsured patients, with the progress-made score 0.75 points greater than the score for the service currently delivered. The lowest scores were given to access to specialty care and improving coordination of care, each of which often involves patients and records being shared across time and venues. These services have been noted as particularly challenging across ambulatory venues, especially for underserved populations.

Exhibit 5.10. PHCS Current Ratings of Quality-of-Care Attributes Now and Improvements Made to Date to Improve Care Delivered

Attribute	As Currently Delivered		Progress Made to Date to Improve Care Delivered		Difference: Mean
	Mean	SD	Mean	SD	
Quality of delivered services, including both clinical quality and patient experiences of care	3.7	0.8	3.7	0.8	0
Provision of appropriate inpatient care	3.6	0.8	3.4	0.5	–0.17
Overall quality of the care the PHCS provides to the uninsured it serves	3.5	0.7	3.8	0.5	0.25
Meeting health care needs of uninsured patients	3.3	0.7	4.0	0.4	0.67
Access to primary care	3.3	0.8	3.3	0.7	0
Provision of care in more-appropriate venues	3.0	0.7	3.8	0.4	0.83
Access to specialty care	2.8	0.8	3.3	0.8	0.42
Coordination of care	2.7	0.5	3.3	0.6	0.58

SOURCE: Midpoint GPP survey.
NOTE: Response choices were poor (1 point), fair (2 points), good (3 points), very good (4), and excellent (5).

Although the survey queried PHCS about attributes now and progress made to improve these attributes, differences vary by attribute. Across the eight metrics, the mean scores assigned to progress made to date compared with those for care as currently delivered were higher for progress made to date for five metrics, showed no difference for two metrics, and were lower for one metric. However, the magnitude of the difference was greater overall for the progress-made metrics, which suggests that PHCS have a somewhat optimistic perspective on progress made to date.

Across the scored attributes, each PHCS could have a total of 40 points (if it assigned a maximum of 5 points for each of the eight attributes). Overall, the mean score was 16 for care as currently delivered and 29 for progress made to date to improve care delivered.

Although survey items in which organizations rate their own quality can be subject to socially desirable response bias, it is not clear whether organizations might be differentially biased when assigning a current rating compared with a progress-to-date rating. We intend to explore this in additional detail in forthcoming interviews.

Chapter Summary

Recent evaluations of primary care transformation efforts have emphasized the importance of achieving improved outcomes of patient-centered accessible and coordinated care that are well supported with team-based care and integrated data systems. Building a strong health

system infrastructure is considered foundational in achieving these goals. PHCS' reports of their extensive adoption of health system improvement strategies across multiple domains in response to the GPP suggest that they are building a foundation to deliver care for the remaining uninsured. To examine the strength of the foundation, we explored successes and challenges of the operation and implementation of strategies adopted to improve health system infrastructure and the extent to which the strategies have become part of PHCS culture.

Overall, PHCS reported that implementation of improvement strategies was somewhat successful to moderately successful in enhancing their responses to the GPP, with fairly similar success across the six improvement domains. Considering the complexities known to be associated with health system change, the consistency of these ratings across most strategies, domains, and PHCS is encouraging. The absence of substantially successful ratings is notable, but such favorable ratings would be atypical midway into an effort as ambitious as the GPP. The variability across PHCS suggests that each PHCS is identifying the subset of strategies that it anticipates will be most effective in helping it build on its assets to best achieve GPP goals. Variability is also highlighted with some PHCS adopting fewer and others adopting more strategies. Recognition of this variability provides an opportunity to further explore reasons for and against adoption of particular strategies, how successes might be enhanced, and how challenges might be mitigated.

Overall, PHCS rated implementation of improvement strategies to be moderately to substantially challenging. PHCS reported experiencing the greatest challenges in implementing strategies for improving data collection and tracking, which is consistent with national patterns. Despite these challenges, PHCS indicated moderately to substantially incorporating adopted strategies into their culture. Positive reports of incorporating strategies into PHCS culture despite challenges are encouraging and support the hypothesis that PHCS are putting a strong foundation in place. Embedded strategies (i.e., those incorporated into PHCS culture) are most likely to be effective and sustained across time and course changes.

We also examined how PHCS were supporting service modifications to improve the mix of services they offered patients. The fairly consistent pattern across the GPP categories for support allocated to, challenges associated with, and goal achievement associated with modifications suggests that PHCS are developing a foundation that considers services spanning all four GPP categories. These include ambulatory, residential, and inpatient services, as well as both traditional and non-traditional services. As PHCS gain more experience with non-traditional services and with the GPP, they will have the opportunity to learn how to best invest supports to better provide more and varied services for patients.

Finally, we examined PHCS ratings of eight key attributes of their ability to care for the remaining uninsured on issues foundational to improving care and outcomes. With higher scores indicating better care (out of a total score of 40), ratings showed a mean score of 16 for

care as currently delivered and 29 for progress made to date to improve care delivered, compared with care delivered during the period prior to the GPP. These results suggest that PHCS are aware of substantial improvements made since the initiation of the GPP but also that care for the remaining uninsured still needs improvement.

Across multiple dimensions examined throughout this chapter, PHCS expressed consistent responses on the strategies they are adopting to build their infrastructure and the services they are delivering. This suggests that PHCS have made progress toward building a strong foundation to deliver care for the remaining uninsured. Their efforts suggest that they are planning to sustain the efforts across time and that the GPP is providing a path forward.

Chapter Six. Conclusion

In July 2015, California initiated the GPP as a pilot program to support PHCS to deliver more cost-effective and higher-value care to the state's remaining uninsured individuals. The GPP seeks to improve care to the uninsured and transform payments by allocating GPP funds to address the needs of PHCS patients, including expanding preventive services, mental health and patient education, and increasing the use of non-traditional services, such as case managers and nurse advice lines, to provide care in more-appropriate settings. The goal is to more appropriately match each patient with a provider skill set and setting that meets patient needs in a manner consistent with clinical effectiveness and cost-effectiveness.

This midpoint report provides information about PHCS perspectives, utilization, and costs from the onset of the GPP through March 2018. The evaluation assessed whether changes were in progress, though more time will be needed to assess how changes from the beginning of the GPP progress during the next 18 months.

With this midpoint report, we aimed to address two research questions:

- Did the GPP allow PHCS to build and strengthen primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured?
- Across the majority of PHCS, did the utilization of non-inpatient non-emergent services increase?

The following concluding paragraphs summarize our findings to date for each of the three hypotheses set up to answer those research questions.

Hypothesis 1

In this section, we present findings related to hypothesis 1: Since the beginning of the GPP, PHCS built and strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured. Support for this hypothesis would involve evidence that health systems have incorporated strategies to support the goals of the GPP. The GPP's flexible payment system allows PHCS to optimize the mix of strategies they adopt to enhance their structures and to decide which services to provide and modify to best support the patients they serve. Changes that PHCS make in adopting health system improvement strategies and in providing GPP health care services provide insight into how

PHCS are responding to GPP initiatives to further the efficiency of their health system operations and improve the mix of services used to provide care for the uninsured.

In their responses and ratings to the midpoint GPP evaluation survey, PHCS indicated that, overall since the onset of the GPP, their actions have been consistent with their stated priorities and with attributes of a strengthened primary care approach, including advances in data collection and integration and care coordination for the remaining uninsured. PHCS have adopted a broad set of health system improvement activities spanning six domains known to be important in primary care transformation: improving data collection and tracking, improving coordination of care, improving access to care, improving staffing, improving team-based care, and improving the delivery system. Overall, PHCS indicated adopting 78 percent, a mean of 38 of 49, assessed strategies to enhance their responses to the GPP. This pattern highlights that all 12 PHCS addressed or tackled improvement efforts across all six improvement domains used in primary care transformation. These data also underscore the variability of the specific strategies that PHCS chose within the given domains, suggesting that PHCS are considering their local resources and challenges uniquely to move forward with their GPP goals. The GPP methodology does not require that PHCS offer *all* services listed by the GPP. Instead, GPP goals highlight the importance for each PHCS to enhance opportunities for improved patient access and quality in lower-cost settings. Given these goals, we would expect to observe variation in the types of services offered by PHCS. In fact, we did observe variation by PHCS in utilization of services across the four GPP patient service categories. Of the 50 GPP patient care services defined by the new GPP model, PHCS reported providing a mean of 33 services, with some PHCS providing as few as 20 and others providing as many as 43 services. Nine of the 50 GPP services were provided for patients in all 12 PHCS.

PHCS are actively modifying the mix of services provided and allocating support for such modifications across services in all four GPP categories. The variation in provided services is as expected across 12 PHCS, each addressing its own contextual factors. The large number of health system improvement strategies that PHCS adopted to support infrastructure changes, paired with substantial increases in the number of existing services and the development of new services, particularly among non-traditional services, is consistent with the hypothesis that PHCS have strengthened primary care, data collection and integration, and care coordination to deliver care to the remaining uninsured.

Hypothesis 2

In this section, we present findings related to hypothesis 2: The majority of PHCS improved the utilization of non-inpatient non-emergent services. Trends during the first two years of the GPP suggest changes in utilization of non–behavioral health services in the hypothesized

direction. For non–behavioral health services, utilization of outpatient non-emergent services increased both overall and for eight of the 12 PHCS, while utilization of inpatient medical and surgical services decreased both overall and for six of the 12 PHCS. ER visits also decreased overall and for seven of the 12 PHCS. Initial changes in the utilization of behavioral health followed distinct trends, which require more analysis for the final evaluation. Despite an increase in behavioral inpatient services, use of outpatient services decreased for ten of the 12 PHCS, while use of mental health ER and crisis stabilization services increased for five of the 12 PHCS. This reduction might reflect issues in capturing behavioral health data rather than an underlying reduction in services.

Although PHCS appear to be successfully achieving shifts in their service mixes toward outpatient and non-traditional services, trends in use of non–behavioral health services should be monitored closely for the remainder of the GPP. Interviews with PHCS representatives, utilization data from program year 3, and encounter data can all be leveraged in the next year to obtain a deeper understanding of these patterns and can help us better understand whether the unfavorable trends in behavioral health utilization represent an unintended consequence of the GPP or reflect public health trends in the state more generally.

Hypothesis 3

In this section, we present findings related to hypothesis 3: PHCS are putting a strong foundation in place to deliver care for the remaining uninsured. From a cost and payment perspective, several metrics suggest that the PHCS are putting a strong foundation in place. Overall, PHCS did not consistently report serving greater numbers of uninsured patients, but both survey responses and utilization data suggest that PHCS are changing their mixes of services in a way that emphasizes non-traditional and preventive services. Five PHCS exceeded their point thresholds in year 2 (while four others earned within 5 percent of their thresholds), and we found no evidence of a substantial increase in uninsured costs after the first year of the GPP. Overall, federal payments covered 89 percent of uninsured uncompensated care costs in program year 1 and covered the full cost of uninsured uncompensated care for six of the 12 PHCS. When stating costs at the 175-percent level PHCS are allowed to claim, federal payments covered 65 percent of uninsured uncompensated costs in program year 1 and covered the full cost of uninsured uncompensated costs for four of the 12 PHCS. These analyses, although preliminary, suggest that the GPP has provided PHCS with a strong financial foundation to support delivery system transformation.

From the provider perspective, PHCS reported that implementation of improvement strategies was somewhat successful to moderately successful in enhancing their responses to the GPP, with fairly similar success across the six improvement domains. Considering the

complexities known to be associated with health system change, the consistency of these ratings across most strategies, domains, and PHCS is encouraging. The absence of substantially successful ratings is notable, but such favorable ratings would be atypical midpoint into an effort as ambitious as the GPP.

Overall, PHCS rated implementation of improvement strategies to be moderately to substantially challenging. PHCS reported experiencing the greatest challenges in implementing strategies for improving data collection and tracking, which is consistent with national patterns. Despite these challenges, PHCS indicated moderately to substantially incorporating adopted strategies into their culture. Positive reports of incorporation of strategies into PHCS culture despite challenges are encouraging and support the hypothesis that PHCS are putting a strong foundation in place. Embedded strategies are most likely to be effective and sustained across time and course changes.

We examined how PHCS are supporting service modifications to improve the mixes of services they offer patients. The fairly consistent pattern across the GPP categories for support allocated to, challenges associated with, and goal achievement associated with modifications supports the notion that PHCS are developing a foundation that considers services spanning all four GPP categories.

Finally, we examined PHCS ratings of eight key attributes of their ability to care for the remaining uninsured on issues foundational to improving care and outcomes. We found an increase in the ratings for care (indicating better care) as currently delivered compared with care delivered during the period prior to the GPP. These results suggest that PHCS are aware of substantial improvements made since the initiation of the GPP but also that care for the remaining uninsured still needs improvement.

Across multiple dimensions, PHCS showed consistent evidence suggesting that they are aiming to put a strong foundation in place to deliver care for the remaining uninsured. Their efforts suggest that they are planning to sustain the efforts across time and that the GPP is providing a path forward.

For the final evaluation, we will examine changes in costs and payment-to-cost ratios in the first two years of the demonstration to determine whether federal payments are covering a larger share of uninsured uncompensated costs. We are looking for a reduction in costs in year 2 relative to year 1 that is consistent with the observed reduction in ER visits and inpatient stays.

For the final evaluation from the provider perspective, we will supplement the analysis with additional utilization and cost data from program year 3 and with newly available encounter data. These data sources will allow a more granular analysis and allow us to assess changes across three years. Additionally, with the final report, we will have the benefit of analyses from a follow-up (final) PHCS GPP survey and a series of interviews with representatives from each of

the PHCS. The interviews will focus on the outstanding questions that remain for PHCS following the analyses presented in this midpoint report. For example, thus far, we have used utilization and cost analyses paired with the midpoint survey to understand how PHCS modify service use. We anticipate that interviews with PHCS representatives, informed by our current findings, will help us refine our understanding of this important question in ways that could inform future PHCS responses to the GPP.

Appendix A. Evaluation Methods

The PHCS Survey

The midpoint evaluation survey was part of a statewide effort to understand how the GPP is shaping the delivery of care to uninsured individuals. To develop the survey, RAND researchers conducted a literature search. However, literature that examines a similar global payment system to California's is sparse, as is literature that includes surveys specific to the GPP model of care. The literature on similar organizational-level surveys on health care change assisted us in developing a list of topic areas related to health care system change, rather than identifying specific items to modify or adapt for the survey.

Using these areas related to health care system change and the GPP tier table that is fundamental to the redesign of the provision of care to the uninsured in the pilot GPP model, we designed a survey that includes questions about the GPP team and experience (five items); the number of uninsured served (eight items); the GPP approach to change (ten items); efforts targeting GPP tiers of service type (50 items); support allocated to tier-level modifications (15 items); operational or implementation challenges of tier-level modifications (15 items); whether tier-level modifications enhanced achievement of GPP goals (15 items); changes in infrastructure and care (28 items); several aspects of health system improvement domains pursued since GPP initiation, including the extent to which a strategy has been successful in achieving goals of the GPP (49 items), the extent to which implementation of a strategy has been a challenge (49 items), and the extent to which a given strategy is part of PHCS culture (49 items); ratings of health system improvement progress (eight items), and ratings of the health system's care to the uninsured (eight items); with a final, open-ended question that reads, "Before completing this survey, is there anything else you would like to note about important ways your PHCS has changed since [the] GPP was initiated?"

Using the Berry method, we estimated completion times for the survey ranging from 55 to 65 minutes. We administered the survey to each of the 12 participating GPP teams in February and March 2018. We had a 100-percent return response across the 12 participating PHCS.

Deriving Uninsured Cost and Uninsured Uncompensated Cost

To derive uninsured costs, we used P14 workbooks, provided by DHCS, covering costs incurred by PHCS during the baseline year and program year 1. Different costs are eligible for reporting at 175 percent and 100 percent:

- costs eligible for reporting at 175 percent
  - uninsured hospital inpatient costs
  - uninsured hospital outpatient costs
  - uninsured psychiatric hospital inpatient costs
  - uninsured psychiatric hospital outpatient costs
  - uninsured drug and supply costs (hospital setting)
  - uninsured hospital outpatient FQHC costs
  - uninsured psychiatric hospital outpatient FQHC costs
  - Medi-Cal hospital costs paid with state-only funds

- costs eligible for reporting at 100 percent
  - uninsured professional component (physicians and nonphysician practitioners) inpatient costs
  - uninsured professional component (physicians and nonphysician practitioners) outpatient costs
  - uninsured professional component (physicians and nonphysician practitioners) psychiatric inpatient costs
  - uninsured professional component (physicians and nonphysician practitioners) psychiatric outpatient costs
  - uninsured long-term care costs
  - professional component (physicians and nonphysician practitioners) long-term care costs
  - uninsured professional component (physicians and nonphysician practitioners) hospital outpatient FQHC costs
  - uninsured professional component (physicians and nonphysician practitioners) psychiatric hospital outpatient FQHC costs
  - uninsured nonhospital costs on the county Department of Public Health's books (if separate from public health care system)
  - uninsured nonhospital costs on the county health department's books
  - uninsured nonhospital costs on the books of an affiliated government entity
  - Medi-Cal professional costs paid with state-only funds.

Statistical Limitations

One limitation of this analysis is the inability to draw causal inferences about the effect of the GPP. If we observed a change in utilization or some performance measure that coincided with the onset of the GPP, we cannot conclude that the GPP caused this change. The basic reason for this is that we have no way of knowing what would have occurred in the absence of the GPP. It is possible that simultaneously occurring external events caused the change or that changes are naturally occurring and not due to any particular intervention. These are well-known weaknesses of the one-group pre–post design (e.g., Shadish, Cook, and Campbell, 2002).

Ideally, researchers would find a comparison group of sites that are not participating in the GPP but are similar in other ways to the participating GPP PHCS. Under this two-group design, the differences in outcomes prior to and after GPP implementation can be calculated separately within each group and compared. If the pre–post differences in the GPP and comparison groups differ, one can conclude with more certainty that the GPP caused the changes. Unfortunately, it was not possible to obtain a suitable comparison group for this evaluation because the only PHCS that did not participate in the GPP were the University of California systems, which are unlike the participating PHCS in many ways and would not have served as a valid comparison group.

One approach for strengthening this design is to incorporate two or more preintervention measurements (taken prior to the GPP going into effect), which can be used to learn about existing trends prior to the intervention, shielding the research from problems caused by maturation or naturally occurring trends. With measurements taken at multiple time points prior to the intervention, we would be able to compare the observed values of the outcome variable after the intervention with what would have been expected in the absence of the intervention by making the assumption that preintervention trends would have continued in the absence of the intervention. For the final evaluation, we will consider supplementing our analyses of survey and secondary data reported by GPP PHCS with external data (such as those from the Office of Statewide Health Planning and Development) to obtain a time series of some outcome variables that goes further back in time than the data reported by PHCS. Another feature of that office is that it is a long-standing data source and provides independently collected data (i.e., data collection and reporting are not related to the GPP), so data quality should not change with the onset of the GPP. In contrast, GPP-participating PHCS could have begun tracking utilization more thoroughly and accurately once the GPP went into effect and as it progressed: This was one of the goals of the GPP.

Another limitation of the midpoint evaluation is that the data available for analysis are very coarse. Specifically, they contain only two time points from which to infer changes, we have access to only aggregate data on utilization, and we do not have granular cost data.

Fortunately, the final evaluation will be based on richer data sources and will allow for more confidence in the direction and magnitude of changes over the course of the GPP. For the final evaluation, we will have access to individual-level encounter data and additional years of utilization and cost data because the GPP will have been in effect for an additional year.

Although a strength of this evaluation is that it considered both objective data on utilization and payments and detailed survey data obtained from the health leaders of all participating PHCS, an associated limitation is that the self-reported survey responses might be subject to bias and therefore inaccurate. Survey responses regarding perceived changes as a consequence of the GPP can be subject to both inaccuracies due to difficulty in recollecting a time point in the past and bias stemming from a desire to provide responses that are consistent with GPP goals and objectives. Additionally, the sample size of 12 participating organizations limits our ability to detect statistically significant pre–post changes.

Appendix B. Supplemental Data Exhibits

The exhibits in this appendix support the analysis in the midpoint evaluation.

Utilization of Health Care Services, by Public Health Care System

Exhibit B.1. Share of Points for Non-Traditional Services, by PHCS

	Share of Points			
PHCS	**Year 1**	**Year 2**	**Change**	**Percentage Change**
Alameda	5.6	8.3	2.7	48.5
Arrowhead	0.0	3.6	3.6	N/A
Contra Costa	38.9	47.5	8.6	22.0
Kern	1.1	1.5	0.5	43.2
Los Angeles	6.8	7.7	0.9	12.9
Natividad	0.0	0.0	0.0	N/A
Riverside	0.8	4.7	4.0	501.0
San Francisco	6.8	6.9	0.0	0.6
San Joaquin	0.4	6.5	6.1	1,637.0
San Mateo	7.1	9.1	1.9	26.8
Santa Clara	17.6	11.1	–6.5	–37.0
Ventura	3.4	4.2	0.8	24.2
Overall	**7.8**	**8.7**	**0.9**	**11.2**

SOURCES: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017. The numerator used in these calculations is the number of points earned for all non-traditional services (see Exhibit 1.5). The denominator is the number of points earned all services. The change in points equals the number of points in year 2 minus those in year 2, less rounding error.

Exhibit B.2. Share of Points for Contracted Services, by PHCS

PHCS	Share of Points			
	Year 1	Year 2	Change	Percentage Change
Alameda	14.7	15.9	1.2	8.4
Arrowhead	0.0	12.3	12.3	N/A
Contra Costa	16.6	25.2	8.7	52.2
Kern	0.2	0.0	–0.2	–100.0
Los Angeles	18.8	20.2	1.4	7.5
Natividad	0.0	0.0	0.0	N/A
Riverside	18.4	12.4	–5.9	–32.0
San Francisco	5.2	4.3	–0.9	–18.0
San Joaquin	2.3	2.2	–0.1	–4.4
San Mateo	6.5	4.8	–1.7	–26.0
Santa Clara	8.9	7.6	–1.3	–14.0
Ventura	4.9	5.6	0.7	14.1
Overall	**14.3**	**15.2**	**0.9**	**6.1**

SOURCE: GPP year-end summary reports.
NOTE: Program year 1 is SFY 2015–2016. Program year 2 is SFY 2016–2017. The numerator used in these calculations is the number of points earned for contracted primary and specialty services (1B06) and contracted ER services (1C11). The denominator is all primary and specialty services and ER services (1B05, 1B06, 1C10, and 1C11). The change in points equals the number of points in year 2 minus those in year 1, less rounding error.

Payment and Cost, by PHCS

Exhibit B.3. Percentage of GPP Funding Earned in Program Year 1

PHCS	GPP Budget, in Dollars	Payments, in Dollars	Percentage of GPP Budget Earned
Alameda	209,451,069	210,740,530	100.6
Arrowhead	82,305,303	73,544,116	89.4
Contra Costa	62,060,205	64,020,870	103.2
Kern	39,739,227	39,818,873	100.2
Los Angeles	1,110,846,961	1,142,739,933	102.9
Natividad	32,371,325	32,576,908	100.6
Riverside	88,214,323	81,314,378	92.2
San Francisco	141,111,308	139,774,247	99.1
San Joaquin	33,044,985	34,128,288	103.3
San Mateo	95,510,700	97,709,022	102.3
Santa Clara	212,880,065	211,718,183	99.5
Ventura	100,764,969	80,215,096	79.6

SOURCE: DHCS administrative data.

Exhibit B.4. Ratio of Total Payments to Uninsured Uncompensated Care Cost During the Baseline Year and Program Year 1

PHCS	Total Payments, in Dollars[a]		Uninsured Uncompensated Care Cost, in Dollars (100%)		Ratio of Total Payments to Uninsured Uncompensated Care Cost (100%)	
	Baseline[b]	Year 1[c]	Baseline	Year 1	Baseline	Year 1
Alameda	190,101,522	210,740,530	113,125,494	117,297,815	168.0	179.7
Arrowhead	77,412,835	73,544,116	28,043,685	22,697,265	276.0	324.0
Contra Costa	172,861,161	64,020,870	20,072,395	21,485,008	861.2	298.0
Kern	96,212,244	39,818,873	18,041,291	16,701,359	533.3	238.4
Los Angeles	670,614,501	1,142,739,933	660,486,607	716,306,589	101.5	159.5
Natividad	37,149,177	32,576,908	12,850,408	12,970,605	289.1	251.2
Riverside	122,805,821	81,314,378	38,840,939	42,575,503	316.2	191.0
San Francisco	237,423,819	139,774,247	84,115,893	97,258,280	282.3	143.7
San Joaquin	38,495,914	34,128,288	13,374,390	12,755,593	287.8	267.6
San Mateo	76,817,693	97,709,022	62,230,645	56,199,335	123.4	173.9
Santa Clara	309,669,714	211,718,183	126,626,571	107,157,359	244.6	197.6
Ventura	90,139,704	80,215,096	47,018,964	19,649,160	191.7	408.2
Overall	**2,119,704,105**	**2,208,300,444**	**1,224,827,283**	**1,243,053,872**	**173.1**	**177.7**

SOURCES: PHCS P14 workbooks (uninsured uncompensated care cost); DHCS administrative data (federal payments).

NOTE: The baseline year is SFY 2014–2015. Program year 1 is SFY 2015–2016. Costs in the baseline year reflect a 3-percent inflation adjustment to be comparable with dollars in year 1.

[a] Payments reported in this exhibit reflect FFP and the state contribution, which is self-financed entirely by each PHCS. In California, the federal medical assistance percentage is 50 percent, meaning that the federal government pays $0.50 for every dollar spent by the state.

[b] Payments in the baseline year are made on the basis of both Medi-Cal and uninsured uncompensated costs.

[c] Payments in year 1 reflect only uninsured uncompensated care costs.

Exhibit B.5. Ratio of Total Payments to Uninsured Uncompensated Care Cost, at 175 Percent of Hospital Costs, During the Baseline Year and Program Year 1

	Uninsured Uncompensated Care Cost, in Dollars (175%)		Ratio of Total Payments to Uninsured Uncompensated Care Cost (175%)	
PHCS	**Baseline**	**Year 1**	**Baseline[a]**	**Year 1[b]**
Alameda	146,053,328	158,851,303	130.2	132.7
Arrowhead	43,196,808	33,808,786	179.2	217.5
Contra Costa	28,222,853	30,692,158	612.5	208.6
Kern	26,145,563	24,222,401	368.0	164.4
Los Angeles	901,073,600	978,132,411	74.4	116.8
Natividad	16,836,134	17,392,798	220.7	187.3
Riverside	50,695,317	53,963,985	242.2	150.7
San Francisco	112,872,180	129,950,298	210.3	107.6
San Joaquin	16,793,140	15,186,401	229.2	224.7
San Mateo	88,379,721	80,259,958	86.9	121.7
Santa Clara	172,758,268	154,602,831	179.3	136.9
Ventura	64,497,244	26,903,431	139.8	298.2
Overall	**1,667,524,157**	**1,703,966,761**	**127.1**	**129.6**

SOURCES: PHCS P14 workbooks (uninsured uncompensated care cost); DHCS administrative data (federal payments).
NOTE: Payments and costs in the baseline year reflect a 3-percent inflation adjustment to be comparable with dollars in year 1. Payments reported in this exhibit reflect both FFP and the state contribution, which is self-financed entirely by each PHCS. In California, the federal medical assistance percentage is 50 percent.
[a] Payments in the baseline year are made on the basis of both Medi-Cal and uninsured uncompensated costs.
[b] Payments in year 1 reflect only uninsured uncompensated care costs.

Utilization of Health Care Services as PHCS Reported on the Midpoint GPP Survey

The following four category-specific exhibits (Exhibits B.6 through B.9) summarize individual service use by each PHCS. As noted above, there is substantial variation across PHCS. Zuckerberg San Francisco General Hospital and Trauma Center has the highest overall point sum and is the only PHCS to use top numbers of services in three different categories. Ventura County Medical Center reports using fewer services than the other PHCS.

Exhibit B.6. Category 1, Outpatient Services in Traditional Settings, Patterns of GPP Service Use, by PHCS

PHCS	RN-Only Visit	PharmD Visit	Complex Care Manager	Dental	Outpatient Primary or Specialty (Benchmark)	Contracted Primary or Specialty (Contracted)	Mental Health Outpatient	Substance Use Outpatient	Substance Use Methadone	Outpatient ER	Contracted ER (Contracted Provider)	Mental Health ER and Crisis Stabilization	Outpatient Surgery	All
Alameda	1[b]	1	1	1	1	1	1	1	1	1	0	1	1	12
Arrowhead	1	1	1	0	1	0	1	1	1	1	0	1	1	10
Contra Costa	1	1	1	1	1	1	1	1	0	1	1	1	1	12
Kern	1	1	1	1	1	1	1	1	1	1	0	1	1	12
Los Angeles	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Natividad	1	0	1	0	1	1	1	0	0	1	1	1	1	9
Riverside	1	1	1	1	1	1	1	1	0	1	1	1	1	12
San Francisco	1	1	1	1	1	1	1	1	1	1	0	1	1	12
San Joaquin	1	1	1	1	1	1	1	1	1	1	1	1	1	13
San Mateo	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Santa Clara	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Ventura	1	0	0	0	1	0	1	1	0	1	1	1	1	8

NOTE: 0 = the PHCS does not provide the service. 1 = the PHCS provides the service.

Exhibit B.7. Category 2, Complementary Patient Support and Care Services, Patterns of GPP Service Use, by PHCS

PHCS	Wellness	Patient Support Group	Community Health Worker Health Coach	Panel Management	Health Education	Nutrition Education	Case Management	Oral Hygiene	Group Medical Visit	Integrative Therapy	Palliative Care	Pain Management	Home Nursing Visit	Paramedic Treat and Release Mobile Clinic Visit	Physician Home Visit	All
Alameda	0	0	1	1	0	1	1	0	0	0	0	0	0	0	1	0	5
Arrowhead	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	9
Contra Costa	0	1	1	1	0	1	1	1	1	1	1	0	0	0	1	0	1	11
Kern	1	1	0	0	0	1	1	1	0	1	0	1	1	0	0	0	0	8
Los Angeles	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	0	0	6
Natividad	1	1	1	0	1	1	1	1	0	1	0	1	1	0	0	0	0	10
Riverside	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	14
San Francisco	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	16
San Joaquin	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	16
San Mateo	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	14
Santa Clara	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Ventura	0	0	0	1	0	1	1	1	0	0	0	0	0	1	0	0	0	5

NOTE: 0 = the PHCS does not provide the service. 1 = the PHCS provides the service.

Exhibit B.8. Category 3, Technology-Based Outpatient Services, Patterns of GPP Service Use, by PHCS

PHCS	Texting	Video-Observed Therapy	Nurse Advice Line	RN eVisit	Email Consultation with PCP	Telehealth (Patient–Provider)—Store and Forward	Telehealth (Provider–Provider)—eConsult	Telehealth—Other: Store and Forward	Telephone Consultation with PCP	Telehealth (Patient–Provider) Real Time	Telehealth (Provider–Provider)—Real Time	All
Alameda	0	0	0	0	0	0	1	0	0	0	0	1
Arrowhead	0	0	1	0	0	0	0	0	0	0	0	1
Contra Costa	1	0	1	0	1	0	0	0	1	1	0	5
Kern	0	0	1	0	0	0	1	0	0	0	0	2
Los Angeles	1	1	1	1	1	1	1	0	1	0	0	8
Natividad	1	0	0	0	1	0	1	0	0	0	0	3
Riverside	1	0	1	0	0	0	1	1	1	1	0	6
San Francisco	0	0	1	0	1	1	1	1	1	1	0	7
San Joaquin	1	0	0	0	0	1	1	0	1	0	0	4
San Mateo	1	1	1	0	0	1	1	1	1	1	1	9
Santa Clara	0	0	1	0	0	0	1	1	0	0	0	3
Ventura	0	0	0	0	0	1	0	0	0	1	0	2

NOTE: 0 = the PHCS does not provide the service. 1 = the PHCS provides the service.

Exhibit B.9. Category 4, Inpatient Services, Patterns of GPP Service Use, by PHCS

PHCS	Mental Health or Substance Use Residential	Sobering Center Days	Recuperative or Respite Care Days	SNF	Medical or Surgical	Mental Health	ICU or CCU	Trauma	Transplant or Burn	All
Alameda	0	1	1	0	1	1	1	1	0	6
Arrowhead	1	1	1	1	1	1	1	1	1	9
Contra Costa	1	0	1	1	1	1	1	0	0	6
Kern	0	0	0	0	1	1	1	1	0	4
Los Angeles	1	1	1	0	1	0	1	1	1	7
Natividad	1	1	1	0	1	1	1	1	0	7
Riverside	1	0	0	0	1	1	1	1	0	5
San Francisco	1	1	1	1	1	1	1	1	0	8
San Joaquin	0	0	0	0	1	1	1	1	0	4
San Mateo	1	0	0	1	1	1	1	0	0	5
Santa Clara	1	1	1	1	1	1	1	1	1	9
Ventura	1	0	0	0	1	1	1	1	0	5

NOTE: 0 = the PHCS does not provide the service. 1 = the PHCS provides the service.

Patterns of Service Modification for Non-Traditional and Traditional Services

Exhibit B.10 supplements Exhibit 2.11 in Chapter Two by sorting all 50 GPP services into one of six groups according to GPP category and according to whether they are traditional or non-traditional. The exhibit shows the number of PHCS endorsing use of one of the four types of service modifications and the number of PHCS reporting either an increase in existing services or development of new services. To better understand areas in which PHCS were most actively engaged, we examined the number of GPP services associated with at least six PHCS endorsing enhancement of a service through either an increase in the use of existing services or the development of new services. This exhibit presents similar information to that in Exhibit 2.11 but provides additional detail by including within each of the six groupings the individual GPP

services that make up that grouping. For each category, the text that follows describes the number of non-traditional and traditional services that meet criteria, defined as at least six PHCS endorsing service modification either by increasing existing or developing new services.

Exhibit B.10. Patterns of Service Modification for Non-Traditional and Traditional Services

Category	Traditional or Non-Traditional	Service	N[a]	PHCS Endorsing the Modification				Either Increasing Existing or Developing New
				Reducing Service	Using Same Service	Increasing Existing Services	Developing New Services	
1	**Only non-traditional**		**33**	**0**	**8**	**20**	**8**	**25 (75.8%)**
		RN-only visit	12	N/A	4	7	2	8[b]
		PharmD visit	10	N/A	3	6	2	7[b]
		Complex care manager	11	N/A	1	7	4	10[b]
1	**Only traditional**		**106**	**4**	**58**	**34**	**17**	**43 (40.6%)[b]**
		Dental	9	N/A	6	2	N/A	2
		Outpatient primary or specialty (benchmark)	12	N/A	4	7	3	8[b]
		Contracted primary or specialty (contracted provider)	10	N/A	6	3	1	4
		Mental health outpatient	12	N/A	5	6	3	7[b]
		Substance use outpatient	11	N/A	7	3	1	4
		Substance use methadone	8	N/A	7	1	N/A	1
		Outpatient ER	12	1	7	2	2	4
		Contracted ER (contracted provider)	8	2	4	2	N/A	2
		Mental health ER or crisis stabilization	12	1	4	5	4	7[b]

Category	Traditional or Non-Traditional	Service	N[a]	PHCS Endorsing the Modification				Either Increasing Existing or Developing New
				Reducing Service	Using Same Service	Increasing Existing Services	Developing New Services	
		Outpatient surgery	12	N/A	8	3	3	4
2	**Only non-traditional**		**131**	**0**	**55**	**34**	**31**	**76 (58.0%)[b]**
		Wellness	7	N/A	3	2	3	4
		Patient support group	9	N/A	4	4	2	5
		Community health worker	9	N/A	5	3	1	4
		Health coach	9	N/A	2	5	2	7[b]
		Panel management	7	N/A	2	3	2	5
		Health education	12	N/A	2	8	3	10[b]
		Nutrition education	11	N/A	4	5	4	7[b]
		Case management	11	N/A	2	7	3	9[b]
		Oral hygiene	4	N/A	2	2	N/A	2
		Group medical visit	9	N/A	5	2	2	4
		Integrative therapy	5	N/A	1	3	1	4
		Palliative care	8	N/A	4	3	2	4
		Pain management	7	N/A	2	3	3	5
		Home nursing visit	7	N/A	5	N/A	2	2
		Paramedic treat and release	3	N/A	2	1	N/A	1
		Mobile clinic visit	7	N/A	4	2	1	3
		Physician home visit	6	N/A	6	N/A	N/A	N/A
3	**Only non-traditional**		**51**	**0**	**13**	**53**	**24**	**43 (84.3%)[b]**
		Texting	6	N/A	1	1	4	5

Category	Traditional or Non-Traditional	Service	N[a]	PHCS Endorsing the Modification				Either Increasing Existing or Developing New
				Reducing Service	Using Same Service	Increasing Existing Services	Developing New Services	
		Video-observed therapy	2	N/A	2	N/A	N/A	0
		Nurse advice line	8	N/A	2	5	1	6[b]
		RN eVisit	1	N/A	N/A	N/A	1	1
		Email consultation with PCP	4	N/A	N/A	2	2	4
		Telehealth (patient–provider)—store and forward	5	N/A	4	N/A	1	1
		Telehealth (provider–provider—eConsult or eReferral	9	N/A	1	3	6	8[b]
		Telehealth—other store and forward	4	N/A	2	1	1	2
		Telephone consultation with PCP	6	N/A	N/A	2	4	6[b]
		Telehealth (patient–provider)—real time	5	N/A	N/A	1	4	5
		Telehealth (provider–provider)—real time	1	N/A	1	N/A	N/A	0
4	**Only non-traditional**		**13**	**0**	**4**	**15**	**4**	**9 (69.2%)[b]**
		Sobering center days	6	N/A	2	2	2	4
		Recuperative or respite care days	7	N/A	2	4	2	5

Category	Traditional or Non-Traditional	Service	N[a]	PHCS Endorsing the Modification				Either Increasing Existing or Developing New
				Reducing Service	Using Same Service	Increasing Existing Services	Developing New Services	
	Only traditional		**62**	**5**	**41**	**6**	**5**	**16 (25.8%)[b]**
		Mental health or substance use residential	9	1	4	4	2	4
		SNF	5	N/A	5	N/A	N/A	0
		Medical or surgical inpatient	12	1	7	4	1	4
		Mental health inpatient	11	2	8	1	1	1
		ICU or CCU	12	1	8	3	N/A	3
		Trauma	10	N/A	6	3	1	4
		Transplant or burn	3	N/A	3	N/A	N/A	0
All non-traditional			**228**					**153 (67.1%)[b]**
All traditional			**168**					**59 (35.1%)[b]**

SOURCE: Midpoint GPP survey.
NOTE: Bold rows indicated an aggregation of services within category including either services characterized as non-traditional or services characterized as traditional. Light gray shading indicates that the row includes non-traditional services. No shading indicates that the row includes traditional services.
[a] Number of PHCS using the service.
[b] At least six PHCS endorsed enhancing service with either an increase in existing services or development of new services.

All three non-traditional services in category 1 are associated with at least six PHCS enhancing service use either through an increase in the use of existing services or the development of new services. Among the ten category 1 traditional services, at least six PHCS meet criteria for enhanced services as described.

Among the 17 category 2 services (all non-traditional), four met criteria, including two endorsed by at least nine PHCS. Among the 11 category 3 services (all non-traditional), three met criteria with endorsement by six, eight, and six PHCS, respectively. Neither of the two category 4 non-traditional services (sobering center days and recuperative/respite care days), was noted by more than five PHCS to have enhanced services. None of the seven category 4 traditional services received endorsement of enhanced services by more than four PHCS.

Overall, analyses of reports provided by PHCS suggest that, in aggregate, more PHCS are modifying services through enhancement of non-traditional (67.1 percent) than of traditional services (35.1 percent).

California's Global Payment Program (GPP): Midpoint Evaluation Survey

GPP Health System Contact
Address
City, State, Zip

Dear [First Name and Last Name],

As you know, California's GPP is a Waiver Pilot Program to support Public Health Care System (PHCS) efforts to provide services to California's remaining uninsured, and to promote the delivery of more cost-effective and higher-value care. According to the Standard Terms and Conditions (STC) 173, the California Department of Health Care Services is required to conduct two evaluations of GPP to assess the degree to which the program achieved its intended goals and improved care for the remaining uninsured accessing care in California's public health care system. A multidisciplinary team from the RAND Corporation is conducting the independent evaluation that will include a midpoint report to be submitted during spring 2018, and a final report to be submitted during spring 2019.

The midpoint evaluation "will examine early trends and describe the infrastructure investments the PHCS have made; the final evaluation will determine whether and to what extent changing the payment methodology resulted in a more patient-centered system of care." Furthermore, STC 173 (b) and (c) state the evaluation "will examine the purpose and aggregate impact of the GPP, care provided by the PHCS, and patients' experience, with a focus on understanding the benefits and challenges of this innovative payment approach."

A requirement of each California PHCS involved with the GPP is participation in both the midpoint and the final evaluation. This packet includes the first PHCS survey and represents one of the ways PHCS will participate in the Midpoint Evaluation. This survey is part of a statewide effort to understand how the GPP program is shaping the delivery of care to uninsured individuals. **You have been selected to participate because of your perspective as a leader in a GPP PHCS and someone who has experience transforming care provided to the uninsured.** Your participation is necessary to complete the evaluation and to help the California Department of Health Care Services improve the GPP program and improve services provided to uninsured individuals. The Midpoint and Final Evaluation Reports for GPP will include analyses of the information provided by your completed survey.

This enclosed survey will take about 60 minutes to complete. We ask questions about the experiences you have had implementing changes associated with the GPP. **We strongly recommend that this survey be completed by a team, rather than an individual, to capture the perspectives of individuals with different roles.** There are no right or wrong answers and the responses that you and your team provide will be kept confidential. There are no anticipated risks associated with participating in this survey. A few weeks from now, RAND will contact you again to establish a time for an interview with you to supplement your survey responses about the GPP initiative.

Please take your time in completing this survey. Your participation is greatly appreciated. **After you have completed the survey, please return it by emailing it to: quigley@rand.org** or faxing it to: 415-448-5538. **Please return it to us *no later than* Thursday, March 1.**

If you have any questions about this project, you may call the toll-free number 1-800-447-2631 and leave a message with Dr. Denise Quigley at ext. 7549. If you have questions about your rights as a research participant or need to report a research-related injury or concern, you can contact RAND's Human Subjects Protection Committee toll-free at (866) 697-5620 or by emailing hspcinfo@rand.org. If possible, when you contact the Committee, please reference Study # 2018-0100.

Thank you for helping to improve the GPP program and care provided to uninsured individuals in California.

Sincerely,

Katherine Kahn, M.D.
Denise D. Quigley, Ph.D.
RAND

California's Global Payment Program (GPP): Midpoint Evaluation Survey

ABOUT YOU AND YOUR GPP TEAM

Directions: Please provide us with information on your job titles, roles regarding GPP and history with supporting changes related to GPP.

Q1: What is/are your job title(s)?

Q2: What is/are your current role(s) with GPP?

Q3: How long have you been responsible for supporting changes related to GPP?

1 ☐ Less than 1 year
2 ☐ 1 – 2 years, but after GPP started
3 ☐ More than 2 years and since GPP started

Q4: How many PHCS employees have program management job duties associated with GPP? Please provide:

a. Number with any level of GPP assignment for program management: _____ [Please write in number]
b. Number with full time GPP assignment for program management: _____ [Please write in number]

UNINSURED SERVED

Directions: To answer these next questions, please consider the number of uninsured patients that your PHCS is serving.

Q5: From the beginning of GPP until now, how would you characterize the change in the **total number of uninsured served**?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more

Q6: From the beginning of GPP until now, how would you characterize the change in the **total number of uninsured served by traditional services**?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more
6 ☐ We are unable to distinguish at this time.

Q7: From the beginning of GPP until now, how would you characterize the change in the **total number of uninsured served by inpatient services**?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more
6 ☐ We are unable to distinguish at this time.

Q8: From the beginning of GPP until now, how would you characterize the change in the **total number of uninsured served by ambulatory non-contracted services**?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more
6 ☐ We are unable to distinguish at this time.

Directions: Questions 9 through 12 require you to first consider the total number of uninsured served by your PHCS at the beginning of GPP and now. While thinking about the total number at each time point, please focus on the proportion of uninsured served by your PHCS who received the **service specified with bold text** at the beginning of GPP and now**.**

Please indicate how the proportion receiving the **bolded service** at the beginning of GPP compares with the proportion receiving the service now. For example, if the proportion has increased from the beginning until now, you would mark "more" or "substantially more".

Q9: From the beginning of GPP until now, among the total number of uninsured served by your PHCS, how would you characterize the change in proportion of uninsured served by ***behavioral health services***?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more

Q10: How would you characterize the change in proportion of uninsured served ***by preventive services***?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more

Q11: How would you characterize the change in proportion of uninsured served ***by non-traditional services***?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more

Q12: How would you characterize the change in proportion of uninsured served ***by contracted providers***?

1 ☐ Substantially fewer
2 ☐ Fewer
3 ☐ No change
4 ☐ More
5 ☐ Substantially more

APPROACH TO CHANGE

The Global Payment Program (GPP) has four broad **categories of service**:

(1) Outpatient services in traditional settings

(2) Complementary patient support and care

(3) Technology based outpatient services

(4) Inpatient services

Directions: For Q13, please consider how, from the onset of GPP until now, your PHCS has prioritized the four broad GPP **categories of services** in terms of enhancing your GPP goals.

Q13: Please **rank** in order of priority (using 1 as most important, 2 as next most important, etc.) these four broad **categories of services** in terms of enhancing your GPP goals. (Please mark only one value (1 through 4) for a category/row.)

	1	**2**	**3**	**4**
a. Outpatient services in traditional settings	1 ☐	2 ☐	3 ☐	4 ☐
b. Complementary patient support and care	1 ☐	2 ☐	3 ☐	4 ☐
c. Technology based outpatient services	1 ☐	2 ☐	3 ☐	4 ☐
d. Inpatient services	1 ☐	2 ☐	3 ☐	4 ☐

Directions: For Q14, please consider in broad terms how your PHCS has approached any reduction in services in each of the four broad categories of services from the onset of GPP until now.

Q14: From the beginning of GPP until now, has your PHCS reduced service in any of the four GPP categories? ***(√ all that apply)***

1 ☐ Outpatient services in traditional settings
2 ☐ Complementary patient support and care
3 ☐ Technology based outpatient services
4 ☐ Inpatient services
5 ☐ No services in any of the four broad categories have been reduced.

Directions: For Q15-Q22, please consider in broad terms how your PHCS has approached making changes to each of these categories of services from the onset of GPP until now.

Q15: Broadly, what modifications has your PHCS made to ***Category 1 Outpatient services in traditional settings? (V all that apply)***

1 ☐ Only reduced services →***Go to Q17***
2 ☐ Kept services as they were
3 ☐ Increased existing services
4 ☐ Developed new services

Q16: How much support (staff/time/dollars) did your PHCS allocate to these modifications (e.g., remained the same, increased or new) for ***outpatient services in traditional settings****?*

1 ☐ None
2 ☐ Minimal
3 ☐ Moderate
4 ☐ Substantial

Q17: Broadly, what modifications has your PHCS made to ***Category 2: Complementary patient support and care services***? ***(V all that apply)***

1 ☐ Only reduced services →***Go to Q19***
2 ☐ Kept services as they were
3 ☐ Increased existing services
4 ☐ Developed new services

Q18: How much support (staff/time/dollars) did your PHCS allocate to these modifications for ***complementary patient support and care services***?

1 ☐ None
2 ☐ Minimal
3 ☐ Moderate
4 ☐ Substantial

Q19: What modifications has your PHCS made to ***Category 3: Technology based outpatient services***? ***(V all that apply)***

1 ☐ Only reduced services →***Go to Q21***
2 ☐ Kept services as they were
3 ☐ Increased existing services
4 ☐ Developed new services

Q20: How much support (staff/time/dollars) did your PHCS allocate to these modifications for ***technology based outpatient services***?

1 ☐ None
2 ☐ Minimal
3 ☐ Moderate
4 ☐ Substantial

Q21: What modifications has your PHCS made to ***Category 4: Inpatient services***? ***(V all that apply)***

1 ☐ Only reduced services →***Go to the table in the next section***
2 ☐ Kept services as they were
3 ☐ Increased existing services
4 ☐ Developed new services

Q22: How much support (staff/time/dollars) did your PHCS allocate to these modifications for ***inpatient services***?

1 ☐ None
2 ☐ Minimal
3 ☐ Moderate
4 ☐ Substantial

Please proceed to the next page to complete the 4-page table that asks questions about your PHCS's "**EFFORTS TARGETING GPP TIERS OF SERVICE TYPE**". After completing the table that spans the next four pages, you will see the survey resumes with Question 23.

EFFORTS TARGETING GPP TIERS OF SERVICE TYPE

Directions: As you answer the questions below about *each* of the services within GPP Category 1, Outpatient services in traditional settings, please consider how your PHCS has approached making changes to the specific service type or strategy, from the onset of GPP until now. Please answer for all services provided. *We understand you may be providing a service that is not yet reflected in your submitted GPP data.*

Category 1: ***Outpatient services in traditional settings***			**For only those services for which you marked an X in this first column, please answer:**			
		Does your PHCS provide the following service or strategy?	What modifications has your PHCS made to this service since GPP initiation? ***(Circle all that apply)***	How much support (staff/ time/dollars) did your PHCS allocate to these tier-level modifications? ***(Circle response)***	To what extent have these tier-level modifications presented operational or implementation challenges? ***(Circle response)***	To what extent have these tier-level modifications enhanced your achievement of your GPP goals? ***(Circle response)***
Tier description	**Service type or Strategy**	**Please indicate *by marking an X in this column*:**	-1 = Reduced services 0 = Kept services same 1 = Increased existing services 2 = Developed new services	0 = None 1 = Minimal 2 = Moderate 3 = Substantial	0 = No challenges 1 = Some challenges 2 = Moderate challenges 3 = Substantial challenges	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially DK = Don't know
A. Care by Other Licensed or Certified Practitioners	RN-Only visit		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	PharmD visit		-1 0 1 2			
	Complex care manager		-1 0 1 2			
B. Primary, specialty, and other non-emergent care (physicians or other licensed independent practitioners)	Primary/specialty care		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Contracted primary/specialty (contracted provider)		-1 0 1 2			
	Mental health outpatient		-1 0 1 2			
	Substance use outpatient		-1 0 1 2			
	Substance use: methadone		-1 0 1 2			
	Dental		-1 0 1 2			
C. Emergent care	OP ER		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Contracted ER (contracted provider)		-1 0 1 2			
	Mental health ER / crisis stabilization		-1 0 1 2			
D. High-intensity outpatient services	OP surgery		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK

Directions: Please answer questions for *each* of the services within GPP Category 2, Complementary, please consider how your PHCS has approached making changes to the specific service type or strategy, from the onset of GPP until now. Please answer for all services provided. *We understand you may be providing a service that is not yet reflected in your submitted GPP data*.

Category 2: *Complementary*		**Does your PHCS provide the following service or strategy?**	**For only those services for which you marked an X in this first column, please answer:** What modifications has your PHCS made to this service since GPP initiation? ***(Circle all that apply)***	How much support (staff/ time/dollars) did your PHCS allocate to these tier-level modifications? ***(Circle response)***	To what extent have these tier-level modifications presented operational or implementation challenges? ***(Circle response)***	To what extent have these tier-level modifications enhanced your achievement of GPP your goals? ***(Circle response)***
Tier description	**Service type or Strategy**	**Please indicate by marking an X in this column:**	-1 = Reduced services 0 = Kept services same 1 = Increased existing services 2 = Developed new services	0 = None 1 = Minimal 2 = Moderate 3 = Substantial	0 = No challenges 1 = Some challenges 2 = Moderate challenges 3 = Substantial challenges	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially DK = Don't know
A. Preventive health, education and patient support services	Wellness		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Patient support group		-1 0 1 2			
	Community health worker		-1 0 1 2			
	Health coach		-1 0 1 2			
	Panel management		-1 0 1 2			
	Health education		-1 0 1 2			
	Nutrition education		-1 0 1 2			
	Case management		-1 0 1 2			
	Oral hygiene		-1 0 1 2			
B. Chronic and integrative care services	Group medical visit		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Integrative therapy		-1 0 1 2			
	Palliative care		-1 0 1 2			
	Pain management		-1 0 1 2			
C. Community-based face-to-face encounters	Home nursing visit		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Paramedic treat and release		-1 0 1 2			
	Mobile clinic visit		-1 0 1 2			
	Physician home visit		-1 0 1 2			

Directions: Please answer questions about *each* of the services within Category 3, Technology based outpatient services, please consider how your PHCS has approached making changes to the specific service type or strategy, from the onset of GPP until now. Again, for services provided. *We understand you may be providing a service that is not yet reflected in your submitted GPP data*.

Category 3: Technology based outpatient services			**For only those services for which you marked an X in this first column, please answer:**			
		Does your PHCS provide the following service or strategy?	What modifications has your PHCS made to this service since GPP initiation? ***(Circle all that apply)***	How much support (staff/ time/dollars) did your PHCS allocate to these tier-level modifications? ***(Circle response)***	To what extent have these tier-level modifications presented operational or implementation challenges? ***(Circle response)***	To what extent have these tier-level modifications enhanced your achievement of your GPP goals? ***(Circle response)***
Tier description	**Service type or Strategy**	**Please indicate *by marking an X in this column*:**	-1 = Reduced services 0 = Kept services same 1 = Increased existing services 2 = Developed new services	0 = None 1 = Minimal 2 = Moderate 3 = Substantial	0 = No challenges 1 = Some challenges 2 = Moderate challenges 3 = Substantial challenges	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially DK = Don't know
A. Non-provider care team telehealth	Texting		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Video-observed therapy		-1 0 1 2			
	Nurse advice line		-1 0 1 2			
	RN e-Visit		-1 0 1 2			
B. eVisits	Email consultation with PCP		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
C. Store and forward telehealth	Telehealth (patient - provider) – Store and Forward		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Telehealth (provider - provider) – eConsult / eReferral		-1 0 1 2			
	Telehealth – Other Store and Forward		-1 0 1 2			
D. Real-time telehealth	Telephone consult with PCP		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Telehealth (patient - provider)		-1 0 1 2			
	Telehealth (provider-provider) - real time		-1 0 1 2			

Directions: Finally, please answer questions about *each* of the services within GPP Category 4, Inpatient Services, please consider how your PHCS has approached making changes to the specific service type or strategy, from the onset of GPP until now. Please answer for all services provided. *We understand you may be providing a service that is not yet reflected in your submitted GPP data*.

Category 4: *Inpatient services*			**For only those services for which you marked an X in this first column, please answer:**			
		Does your PHCS provide the following service or strategy?	What modifications has your PHCS made to this service since GPP initiation? ***(Circle all that apply)***	How much support (staff/ time/dollars) did your PHCS allocate to these tier-level modifications? ***(Circle response)***	To what extent have these tier-level modifications presented operational or implementation challenges? ***(Circle response)***	To what extent have these tier-level modifications enhanced your achievement of your GPP goals? ***(Circle response)***
Tier description	**Service type or Strategy**	**Please indicate by marking an X in this column:**	-1 = Reduced services 0 = Kept services same 1 = Increased existing services 2 = Developed new services	0 = None 1 = Minimal 2 = Moderate 3 = Substantial	0 = No challenges 1 = Some challenges 2 = Moderate challenges 3 =Substantial challenges	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially DK = Don't know
A. Residential, SNF, and other recuperative services, low intensity	Mental health / substance use residential		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Sobering center		-1 0 1 2			
	Recuperative / respite care		-1 0 1 2			
	SNF		-1 0 1 2			
B. Acute inpatient, moderate intensity	Medical/surgical		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Mental health		-1 0 1 2			
C. Acute inpatient, high intensity	ICU/CCU		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
D. Acute inpatient, critical community services	Trauma		-1 0 1 2	0 1 2 3	0 1 2 3	0 1 2 3 DK
	Transplant/burn		-1 0 1 2			

Thank you for completing the survey so far. You are more than half-way done with the survey. There are about 20-25 minutes left.

HEALTH SYSTEM DOMAINS: CHANGES IN INFRASTRUCURE AND CARE

Directions: For Q23 and Q24, please consider the specific health system ***changes*** that your PHCS judged *would be* and *are now* important in meeting GPP goals. These may (or may not) have been pursued (or pursued yet) by your PHCS since GPP initiation.

	A. Thinking back to when GPP started…… How ***important*** did you anticipate each of the following would be in meeting GPP goals? ***(Within each row √ best response)***					**B. Based on your experiences of GPP over the last two years……** Now, how ***important*** are each of the following in meeting GPP goals? ***(Within each row √ best response)***				
Q23. Changes in Infrastructure	**Not at all**	**Slightly**	**Moderately**	**Very**	**Extremely**	**Not at all**	**Slightly**	**Moderately**	**Very**	**Extremely**
a. Improving data cleaning and data quality (e.g., missing values, out of range values)	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
b. Improving completeness of data capture of services across settings	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
c. Improving data coding to facilitate billing/claiming	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
d. Improving the ability to count unique patients that receive services	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
e. Transforming workforce roles and responsibilities	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
f. Increasing infrastructure for care delivery by adding new locations or additional capacity	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
g. Expanding team-based care training	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
h. Aligning your PHCS culture with GPP goals	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
i. Other (Please specify: _____)	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
Q24. Changes in Care	**Not at all**	**Slightly**	**Moderately**	**Very**	**Extremely**	**Not at all**	**Slightly**	**Moderately**	**Very**	**Extremely**
a. Improving access to care	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
b. Improving coordination of care	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
c. Improving team-based care	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
d. Improving behavioral health coordination/ integration	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
e. Improving dental integration	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
f. Improving social services integration	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐
g. Other (Please specify: _____)	1☐	2☐	3☐	4☐	5☐	1☐	2☐	3☐	4☐	5☐

Directions: For Q25 through Q30, please consider the specific health system ***strategies*** that your PHCS *has pursued since GPP initiation.*

		For only those services for which you marked an X in this first column (A.), please answer B, C and D:		
Based on your experiences with GPP over the last two years……	**A. Does your PHCS engage in the following strategy to enhance its response to GPP incentives?**	B. To what extent has implementation of this strategy been ***successful*** in achieving goals of GPP? ***(Circle response)***	C. To what extent has implementation of this strategy been a ***challenge***? ***(Circle response)***	D. To what extent is this strategy now part of your overall PHCS culture? ***(Circle response)***
Strategies	**Please indicate *by marking an X in this column***	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially
Q25. *Improving data collection and tracking*.				
a. Enhancing data capture to track the number of remaining uninsured		0 1 2 3	0 1 2 3	0 1 2 3
b. Enhancing data capture of services so that utilization rendered is consistently claimed		0 1 2 3	0 1 2 3	0 1 2 3
c. Improving systems of data transfer so the right information is at the right place at the right time.		0 1 2 3	0 1 2 3	0 1 2 3
d. Improving data coding associated with the tracking and utilization of services to facilitate billing/claiming		0 1 2 3	0 1 2 3	0 1 2 3
e. Standardizing use of data systems and coding across primary care, preventive care, and behavioral health		0 1 2 3	0 1 2 3	0 1 2 3
f. Improving consistent use of data systems and coding practices for contracted service providers		0 1 2 3	0 1 2 3	0 1 2 3
g. Improving consistent use of data systems and coding practices by community service providers (e.g., from FQHCs)		0 1 2 3	0 1 2 3	0 1 2 3
h. Enhancing the timeliness of availability of data for use for operational and clinical use		0 1 2 3	0 1 2 3	0 1 2 3
i. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3

		For only those services for which you marked an X in this first column (A), please answer B, C and D:		
Based on your experiences with GPP over the last two years……	**A. Does your PHCS engage in the following strategy to enhance its response to GPP incentives?**	B. To what extent has implementation of this strategy been ***successful*** in achieving goals of GPP? ***(Circle response)***	C. To what extent has implementation of this strategy been a ***challenge***? ***(Circle response)***	D. To what extent is this strategy now part of your overall PHCS culture? ***(Circle response)***
Strategies	**Please indicate *by marking an X in this column***	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially
Q26. *Improving coordination*				
a. Improving *overall* coordination of GPP services with other services		0 1 2 3	0 1 2 3	0 1 2 3
b. Improving coordination between mental health and primary care		0 1 2 3	0 1 2 3	0 1 2 3
c. Improving coordination between substance use and primary care		0 1 2 3	0 1 2 3	0 1 2 3
d. Improving data sharing across all sites within your PHCS		0 1 2 3	0 1 2 3	0 1 2 3
e. Improving data sharing between your PHCS and community service providers (FQHCs)		0 1 2 3	0 1 2 3	0 1 2 3
f. Co-locating behavioral health and primary care		0 1 2 3	0 1 2 3	0 1 2 3
g. Co-locating behavioral health, substance use and primary care		0 1 2 3	0 1 2 3	0 1 2 3
h. Initiating or improving empanelment		0 1 2 3	0 1 2 3	0 1 2 3
i. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3

		For only those services for which you marked an X in this first column (A), please answer B, C and D:		
Based on your experiences with GPP over the last two years……	**A. Does your PHCS engage in the following strategy to enhance its response to GPP incentives?**	B. To what extent has implementation of this strategy been ***successful*** in achieving goals of GPP? ***(Circle response)***	C. To what extent has implementation of this strategy been a ***challenge***? ***(Circle response)***	D. To what extent is this strategy now part of your overall PHCS culture? ***(Circle response)***
Strategies	**Please indicate *by marking an X in this column***	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially
Q27. *Improving access to care*				
a. Improving patient awareness of GPP services so that patients are more likely to use them		0 1 2 3	0 1 2 3	0 1 2 3
b. Improving provider and staff awareness of GPP services so that more patients are likely to be referred		0 1 2 3	0 1 2 3	0 1 2 3
c. Increasing number of providers that offer non-traditional services		0 1 2 3	0 1 2 3	0 1 2 3
d. Increasing number of providers that offer traditional services		0 1 2 3	0 1 2 3	0 1 2 3
e. Increasing number of settings where non-traditional services are offered		0 1 2 3	0 1 2 3	0 1 2 3
f. Increasing number of settings where traditional services are offered		0 1 2 3	0 1 2 3	0 1 2 3
g. Increasing number of locations where non-traditional services are offered		0 1 2 3	0 1 2 3	0 1 2 3
h. Increasing number of locations where traditional services are offered		0 1 2 3	0 1 2 3	0 1 2 3
i. Expanding clinic hours of operation		0 1 2 3	0 1 2 3	0 1 2 3
j. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3

		For only those services for which you marked an X in this first column (A), please answer B, C and D:		
Based on your experiences with GPP over the last two years……	**A. Does your PHCS engage in the following strategy to enhance its response to GPP incentives?**	B. To what extent has implementation of this strategy been ***successful*** in achieving goals of GPP? ***(Circle response)***	C. To what extent has implementation of this strategy been a ***challenge***? ***(Circle response)***	D. To what extent is this strategy now part of your overall PHCS culture? ***(Circle response)***
Strategies	**Please indicate *by marking an X in this column***	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially
Q28. *Improving staffing*				
a. Adding new staff positions or roles		0 1 2 3	0 1 2 3	0 1 2 3
b. Providing additional staff training		0 1 2 3	0 1 2 3	0 1 2 3
c. Improving or developing more protocols for staff		0 1 2 3	0 1 2 3	0 1 2 3
d. Using more contracted providers for **primary care**		0 1 2 3	0 1 2 3	0 1 2 3
e. Using more contracted providers for **specialty care**		0 1 2 3	0 1 2 3	0 1 2 3
f. Using more contracted providers for **traditional services**		0 1 2 3	0 1 2 3	0 1 2 3
g. Using more contracted providers for **non-traditional services**		0 1 2 3	0 1 2 3	0 1 2 3
h. Using more contracted providers for **behavioral health**		0 1 2 3	0 1 2 3	0 1 2 3
i. Using more contracted providers for **data management**		0 1 2 3	0 1 2 3	0 1 2 3
j. Improving strategies for screening and credentialing staff		0 1 2 3	0 1 2 3	0 1 2 3
k. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3
Q29. *Improving team-based care*				
a. Reorganizing care teams to include new positions or roles		0 1 2 3	0 1 2 3	0 1 2 3
b. Reorganizing care teams to deliver more non-traditional services		0 1 2 3	0 1 2 3	0 1 2 3
c. Changing staff ratios and teams (in terms of providers and non-provider staff) to satisfy GPP program elements		0 1 2 3	0 1 2 3	0 1 2 3
d. Expanding or transforming workforce roles and responsibilities		0 1 2 3	0 1 2 3	0 1 2 3
e. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3

		For only those services for which you marked an X in this first column (A), please answer B, C and D:		
Based on your experiences with GPP over the last two years……	**A. Does your PHCS engage in the following strategy to enhance its response to GPP incentives?**	B. To what extent has implementation of this strategy been ***successful*** in achieving goals of GPP? ***(Circle response)***	C. To what extent has implementation of this strategy been a ***challenge***? ***(Circle response)***	D. To what extent is this strategy now part of your PHCS culture? ***(Circle response)***
Strategies	**Please indicate *by marking an X in this column***	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially	0 = Not at all 1 = Some 2 = Moderately 3 = Substantially
Q30. *Improving the delivery system*				
a. Facilitating care in more appropriate venues, rather than primarily through the emergency department or through inpatient hospital settings		0 1 2 3	0 1 2 3	0 1 2 3
b. Improving appropriate use of emergency room care		0 1 2 3	0 1 2 3	0 1 2 3
c. Improving appropriate use of inpatient hospital care		0 1 2 3	0 1 2 3	0 1 2 3
d. Identifying high risk/high cost uninsured patient for case management		0 1 2 3	0 1 2 3	0 1 2 3
e. Developing population management tools to generate utilization reports quickly for uninsured		0 1 2 3	0 1 2 3	0 1 2 3
f. Improving transitions from inpatient to outpatient care including transitions around discharge and readmissions		0 1 2 3	0 1 2 3	0 1 2 3
g. Prioritizing non-traditional service venues		0 1 2 3	0 1 2 3	0 1 2 3
h. Prioritizing preventive services		0 1 2 3	0 1 2 3	0 1 2 3
i. Prioritizing behavioral health		0 1 2 3	0 1 2 3	0 1 2 3
j. Improving infrastructure to respond to community priorities (e.g., using mobile vans)		0 1 2 3	0 1 2 3	0 1 2 3
k. Other (Please specify: _____)		0 1 2 3	0 1 2 3	0 1 2 3

RATINGS OF YOUR HEALTH SYSTEM'S IMPROVEMENT PROGRESS

Thank you for your time on the survey so far. You are almost done with the survey. There are about 3-5 minutes left.

Directions: Please rate the following aspects of your Health System's progress of improvement.

Q31. How would you rate ***access to primary care*** as currently delivered by your PHCS for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q32. How would you rate the *progress your PHCS has made to date compared with the period prior to GPP* to improve ***access to primary care*** for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q33. How would you rate ***access to specialty care*** as currently delivered by your PHCS for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q34. How would you rate the progress your PHCS has made to date compared with the period prior to GPP to improve access to specialty care for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q35. How would you rate ***coordination of care*** as currently delivered by your PHCS for the remaining uninsured**?**

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q36. How would you rate the *progress your PHCS has made to date compared with the period prior to GPP* to improve ***coordination of care*** for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q37. How would you rate the ***quality of delivered services*** (including both clinical quality and patient experiences of care) delivered by your PHCS for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q38. How would you rate the *progress your PHCS has made to date compared with the period prior to GPP* to improve ***the quality of delivered services*** (including both clinical quality and patient experiences of care) for the remaining uninsured?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

RATINGS OF YOUR HEALTH SYSTEM'S CARE TO UNINSURED

Directions: Please rate the following aspects of your Health System's ability to care for the remaining uninsured that receive care in your system.

Q39. How would you rate your PHCS's *current ability* ***to meet the health care needs*** of the uninsured that receive care in your system?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q40. How would you rate your PHCS's *current ability as compared with the period prior to GPP* ***to meet the health care needs*** of the uninsured that receive care in your system?
For example, if your current ability has improved from the beginning of GPP until now, you would mark "better" or "much better".

1 ☐ Much Worse
2 ☐ Worse
3 ☐ About the same
4 ☐ Better
5 ☐ Much Better

Q41. How would you rate your PHCS's *current ability* ***to provide care in more appropriate venues*** for the uninsured that receive care in your system?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q42. How would you rate your PHCS's *current ability as compared with the period prior to GPP* ***to provide care in more appropriate venues*** for the uninsured that receive care in your system?
For example, if your current ability has improved from the beginning of GPP until now, you would mark "better" or "much better".

1 ☐ Much Worse
2 ☐ Worse
3 ☐ About the same
4 ☐ Better
5 ☐ Much Better

Q43. How would you rate your PHCS's *current ability* ***to provide appropriate inpatient care*** for the uninsured that receive care in your system?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q44. How would you rate your PHCS's *current ability as compared with the period prior to GPP* ***to provide appropriate inpatient care*** for the uninsured that receive care in your system?

For example, if your current ability has improved from the beginning of GPP until now, you would mark "better" or "much better".

1 ☐ Much Worse
2 ☐ Worse
3 ☐ About the same
4 ☐ Better
5 ☐ Much Better

Directions: For Q45 and Q46, please rate your Health System overall.

Q45. How would you rate the **overall quality of the modifications** your PHCS has made to improve care among the uninsured that receive care in your system?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Q46. How would you rate the **overall quality of care** your PHCS provides to the uninsured that receive care in your system?

1 ☐ Poor
2 ☐ Fair
3 ☐ Good
4 ☐ Very Good
5 ☐ Excellent

Thank you for completing the survey so far. There is one last question for you to provide your and your GPP team's input.

Q47. Before completing this survey, is there anything else you would like to note about important ways your PHCS has changed since GPP was initiated?

THANK YOU FOR YOUR TIME COMPLETING THIS SURVEY! **Please return it by emailing it to: quigley@rand.org or faxing it to: *415-448-5538***

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