



Independent Evaluation
of Comprehensive
Primary Care Plus (CPC+)

First Annual Report

April 2019

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CONTENTS

EXECUTIVE SUMMARY	ES.1
1. INTRODUCTION.....	1
1.1. Overview of CPC+	1
1.2. Research questions and data sources for the independent evaluation of the first year of CPC+.....	1
1.3. Roadmap to this report	3
2. CPC+ PARTICIPATION IN 2017 WAS SUBSTANTIAL	5
2.1. Overview of participation.....	5
2.2. Characteristics of CPC+ stakeholders in 2017	7
2.3. Changes in CPC+ stakeholders in 2017	8
3. CPC+ PRACTICES RECEIVED SIGNIFICANT SUPPORT IN 2017	11
3.1. Overview of supports	11
3.2. CPC+ enhanced and alternative payments	12
3.3. CPC+ data feedback.....	19
3.4. CPC+ learning activities.....	21
3.5. CPC+ health IT support	24
4. CPC+ PRACTICES BEGAN CHANGING CARE DELIVERY IN 2017	27
4.1. Overview of the Comprehensive Primary Care Functions and care delivery requirements	27
4.2. Practices' overall impression of CPC+.....	29
4.3. Practices' overall approach to CPC+	30
4.4. Practices' work on the Comprehensive Primary Care Functions and care delivery requirements	31
A. Access and continuity	31
B. Care management.....	33
C. Comprehensiveness and coordination.....	35
D. Patient and caregiver engagement	38
E. Planned care and population health	39
4.5. Cross-cutting findings on practice transformation.....	41
A. Factors that supported implementation in 2017.....	41
B. Factors that hindered implementation in 2017.....	42

5.	AS EXPECTED, CPC+ HAD FEW IMPACTS ON OUTCOMES FOR MEDICARE FFS BENEFICIARIES IN 2017	47
5.1.	Methods for calculating the effects of CPC+.....	47
5.2.	Year 1 effects of CPC+ for practices that began in 2017	48
	A. Medicare FFS beneficiaries' service use	48
	B. Medicare expenditures for FFS beneficiaries	49
	C. Claims-based quality measures	50
5.3.	Discussion of 2017 impact findings.....	51
	REFERENCES.....	57

FIGURES

2.1.	Regions, payers, and practices selected to participate in CPC+	6
2.2.	Reasons practices stopped participating in CPC+ in 2017	9
3.1.	Percentage of CPC+ practices indicating that a CPC+ support is useful for improving primary care	12
3.2.	Median care management fees paid by CMS and other payers in 2017 and the estimated proportion of fees available without CPC+	14
3.3.	Medicare FFS provided a large proportion of CPC+ funding in 2017, in terms of both total payments and those unique to CPC+	15
3.4.	Percentage of Track 2 practices selecting a given CPCP percentage for 2017	17
3.5.	Percentage of practices reporting that CPC+ payments from Medicare FFS and other payers are adequate to complete work required by CPC+	18
3.6.	Percentage of practices that reported making changes to how they deliver care in response to data feedback, overall and by data type	20
3.7.	Percentage of CPC+ practices reporting that CPC+ learning activities were excellent, very good, good, fair, or poor at meeting their CPC+-related needs and helping them improve primary care	23
4.1.	Likelihood that practices would participate in CPC+ if they could do it all over again	30
4.2.	Percentage of CPC+ practices reporting that they offered certain access options to patients, by frequency	32
4.3.	Median percentage of patients by risk tier, and median percentage of patients in each tier who received longitudinal care management in 2017	35
4.4.	CPC+ practices' primary behavioral health integration strategies	36
4.5.	Percentage of CPC+ practices that screen for unmet social needs	37
4.6.	Percentage of CPC+ practices that reported using various methods to engage patients and caregivers in practice improvement	38
4.7.	Percentage of CPC+ practices using data for various QI purposes	40
5.1.	Quarterly trends in mean Medicare Part A and Part B expenditures PBPM, excluding CMS' enhanced payments, for 2017 Starters, by track	50

TABLES

3.1.	Median PBPM PBIPs that CPC+ practices earned from Medicare FFS for the 2017 performance year, by track	16
4.1.	Comprehensive Primary Care Functions and care delivery requirements in the first year of CPC+, by CPC+ track	27
5.1.	Summary table of impacts (in percentages) on expenditures and service use measures for Medicare FFS beneficiaries over the first year of CPC+, for 2017 Starters, by track and SSP participation status	52
5.2.	Summary table of impacts (in percentage points) on claims-based quality-of-care measures for Medicare FFS beneficiaries over the first year of CPC+, for 2017 Starters, by track and SSP participation status	54

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EXECUTIVE SUMMARY

Comprehensive Primary Care Plus (CPC+) is the largest and most ambitious primary care payment and delivery reform ever tested in the United States. The Centers for Medicare & Medicaid Services (CMS) kicked off CPC+ in 14 regions across the United States in January 2017 and expanded it to an additional 4 regions in 2018. The goals of CPC+, which builds on the CPC initiative (known as “CPC Classic”), are to increase access to—and improve the quality and efficiency of—primary care, which ultimately is intended to achieve better health outcomes at lower cost. CPC+ also aims to enhance primary care practitioners’ experience. To meet these aims, CMS requires CPC+ practices to transform across five Comprehensive Primary Care Functions: (1) access and continuity, (2) care management, (3) comprehensiveness and coordination, (4) patient and caregiver engagement, and (5) planned care and population health.

To bolster support for practices, CMS partnered with 79 public and private payers across the 18 CPC+ regions. CMS and other payers agreed to provide CPC+ practices with enhanced and alternative payments, data feedback, and learning activities to support primary care transformation. Health information technology (health IT) vendors also partnered with CPC+ practices to help them use health IT to improve primary care.

A diverse set of 3,070 primary care practices joined CPC+. The practices will participate in CPC+ for five years. CPC+ practices are split into two groups: Track 1 and Track 2. Compared to Track 1, practices in Track 2 are required to make more advanced care delivery changes to improve the care of complex patients and, to support that work, they receive more financial support and a greater shift from fee-for-service (FFS) toward population-based payment.

This first report to CMS covers the first year of CPC+ for the 2,905 practices in regions that began CPC+ in 2017. The report examines: (1) who participated in CPC+; (2) the supports practices received; (3) how practices implemented CPC+ and changed the way they delivered health care; and (4) the impacts of CPC+ on cost, service use, and limited claims-based quality-of-care outcomes for attributed Medicare FFS beneficiaries.

This executive summary provides a brief overview of the first-year findings, and is followed by a summary report. A companion supplemental report and appendices contain more details (Anglin et al. 2019; Peikes et al. 2019). Subsequent annual reports will include additional results, and effects on electronic clinical quality measures (eQMs) and patient and practitioner experience, for practices that began in 2017 and in 2018.

Overview of Findings

A. CPC+ participation in 2017 was substantial

In 2017, CMS partnered with 63 payers and 2,905 diverse primary care practices in 14 regions across the United States. Participation remained relatively stable in 2017.

- The practices that began CPC+ in 2017 included 13,209 primary care practitioners and together served approximately 15 million patients. Among the patients they served, 2.2 million were attributed Medicare FFS beneficiaries, 3.3 million were attributed by other

payers partnering with CMS, and 9.7 million were not attributed (including patients who were covered by CPC+ payers but were not attributed to a practice, those who were covered by payers not partnering in CPC+, and those who were uninsured).

- In the 14 regions that joined CPC+ in 2017, 4,265 practices applied to participate, and CMS accepted all that met minimum requirements. This process resulted in a diverse group of 2,905 practices that started in 2017.
- Participating practices are diverse; they range in size from 1 to 80 primary care practitioners; are located in urban, rural, and suburban areas; vary widely in ownership structure; and serve Medicare beneficiaries with a range of health care needs and conditions. This should enable CPC+ to generate important lessons for the future of primary care nationwide.
- At the start of CPC+, compared to other practices in their regions, CPC+ practices were slightly more likely to have Patient-Centered Medical Home (PCMH) recognition or to have participated in a prior primary care transformation initiative, and be owned by a hospital or health system.
- Track 2 practices partnered with 1 or more of 66 health IT vendors that committed to provide required CPC+ health IT functionalities and support practices in using them. The five largest health IT vendors together partnered with approximately 80 percent of Track 2 practices, and two-thirds of vendors partnered with fewer than 10 Track 2 practices each.
- In 2017, participation was stable:
 - Only two small regional payers stopped partnering in CPC+.
 - Four percent of practices (119) stopped participating. The most common reasons they stopped participating were (1) the practice closed or merged with another CPC+ practice (50 practices) or (2) the practice voluntarily withdrew because it had insufficient resources to continue participating (33 practices).

B. CPC+ practices received significant support

CPC+ practices received a significant amount of enhanced and alternative payments, data feedback, and learning support from CMS and other payers, as well as health IT support from vendors. Still, many CPC+ practices indicated that they needed additional funding and/or more guidance from payers and vendors to meet CPC+ care delivery requirements and transform how they deliver care.

\$ Payments. In 2017, the median care management fees practices received for participating in CPC+ from CMS and other payers, over and above what they already receive for providing care, exceeded \$88,000 per Track 1 practice (which translates to \$32,000 per practitioner on average) and \$195,000 per Track 2 practice (which translates to \$53,000 per practitioner on average).

Although Medicare FFS accounted for 36 percent of attributed CPC+ patients, CMS provided 76 percent of reported care management fee payments. CMS paid higher care management fees per patient than other payers, in part to compensate for the higher needs of Medicare FFS beneficiaries. Most of the payments that other payers provided were also provided to non-CPC+ practices and would have been available to some practices even if CMS had not

launched CPC+. (The 24 percent of total care management fees that non-Medicare FFS payers provided can be split into approximately 4 percent that was unique for CPC+ and 20 percent that was also provided to non-CPC+ practices.) Many of these payment streams had been established to support practice transformation initiatives begun before CPC+.

In addition to care management fees, CMS and most other payers also provided CPC+ practices with payments to reward performance on utilization of service, cost, and/or quality-of-care measures.

In 2017, CMS and nine other payers also provided Track 2 practices with prospective payments for services that moved away from FFS. Although the remaining payers agreed to implement alternatives to FFS payments by January 2018, most payers reported that they were unlikely to do so by the deadline.

Practices’ perspectives on payment. Some CPC+ practices, known as “deep-dive practices” were selected for intensive qualitative study.¹ The deep-dive practices reported that enhanced payments were the most critical support for improving primary care in 2017. Most deep-dive practices reported that they used CPC+ care management fees to improve their care delivery, most commonly by hiring new staff such as care managers. However, on the 2018 CPC+ Practice Survey, only 41 percent of Track 1 practices and 51 percent of Track 2 practices indicated that CPC+ funding from Medicare FFS was adequate or more than adequate for them to complete the work required by CPC+. Practices were more concerned about payment levels from non-Medicare FFS payers—only one-third of practices in each track reported that payments from these payers were adequate. Deep-dive practices noted that non-Medicare FFS payers often did not provide additional support unique to CPC+ and that their care management fees were generally lower than practices anticipated.



Data feedback. CMS and 90 percent of other payers provided data feedback to practices on utilization of service, quality of care, and/or cost of care. To make data review more streamlined for practices, CMS and the other payers committed to developing a common approach to quality measurement and data feedback. By the end of 2017, payers in three regions—Colorado, Ohio/Northern Kentucky, and Oklahoma—were providing practices with a single report or tool that presented data for Medicare FFS and other payers in the region.

Practices’ perspectives on data feedback. Although the frequency with which CPC+ practices reviewed data feedback from payers varied, most practices reported that they made at least one change to how they deliver care in 2017 in response to it. Many deep-dive practices indicated that data feedback would be more useful if payers could integrate clinical data with claims data and provide additional support to help practices use the feedback. CPC+ payers reported working to address both of these concerns in 2017.

¹ We conducted site visits to 81 diverse deep-dive practices. We used three to four interview modules with each of these practices, so we have information on each CPC+ function and CPC+ support from approximately 30 practices.



Learning activities. CMS and 84 percent of other payers provided learning support to practices. CMS learning activities aimed to (1) provide practices with needed information and resources and (2) promote peer learning among CPC+ practices. CMS learning supports included webinars, a social networking platform, in-person meetings, and tailored one-on-one and small group practice coaching. CMS offered group learning activities to all CPC+ practices, and provided in-person practice coaching to 74 percent of practices in 2017.

Practices' perspectives on learning activities. Deep-dive practices reported that CPC+ learning activities provided important guidance to help them understand the CPC+ Comprehensive Primary Care Functions, meet CPC+ requirements, and improve care delivery. Practices noted that learning was most useful when activities provided (1) opportunities to learn from and network with other practices and (2) coaching and other guidance tailored to their type of practice (such as an independent practice in a rural setting).



Health IT support. At the outset of CPC+, CMS described plans to require Track 2 practices to use enhanced health IT functionality to support their work in later years of CPC+. During the first year, health IT vendors focused on developing new eCQM reporting dashboards for CPC+.² Many health IT vendors—including all of the largest vendors—also engaged with practices in both tracks through CPC+-sponsored learning activities to help them use their products to support the five Comprehensive Primary Care Functions.

Practices' perspectives on health IT support. Practices had more mixed views of health IT vendor support than of the other supports, reflecting in part that many health IT vendors were still developing or improving health IT functionalities to support the CPC+ Comprehensive Primary Care Functions in 2017. Deep-dive practices that were most satisfied with health IT support indicated their vendors had developed new product enhancements for CPC+ and/or were responsive to questions about their products.

C. CPC+ practices started changing care delivery in 2017

Many CPC+ practices focused on risk stratifying patients to identify those who need more intensive care management, hiring and deploying care managers, and integrating behavioral health into primary care in 2017. As expected at the end of Year 1, there is room for practices to make further improvements to care delivery, to achieve the Comprehensive Primary Care Functions during the next four years of CPC+.

Practices' overall impression of CPC+. Practices reported they were satisfied with their decision to join CPC+ and already perceived improvements from participating, yet they noted the work is challenging. Nearly all practices (93 percent) reported in the 2018 CPC+ Practice Survey that CPC+ improved quality of care, with 43 percent saying it improved care a lot. Additionally, based on their overall experience with CPC+, 64 percent of practices would be very likely and another 28 percent would be somewhat likely to participate in CPC+ again if given the opportunity. However, many practices found that meeting the care delivery, financial reporting, and health IT requirements was burdensome. Several deep-dive practices reported that staff were

² We interviewed a diverse sample of 13 of the 66 health IT vendor partners. These vendors worked with 83 percent of CPC+ practices.

supportive of CPC+ despite any increase in workload it caused, and some said the extra effort was worth the payoff in improved patient care.

Practices’ overall approach to CPC+. To promote progress on the CPC+ Comprehensive Primary Care Functions, CMS specifies a series of care delivery requirements for practices in each track at the start of each year of CPC+. Practices were encouraged to view these care delivery requirements as a starting point, or minimum, to build on to advance care delivery within each function. In 2017, practices were ramping up and mostly focused on the care delivery requirements.

Although Track 1 and Track 2 practices focused on the same five functions, the Track 2 practices were generally required to complete additional work or transform more deeply for each function. During the first year of CPC+, many practices across both tracks prioritized work on care management (often focusing on risk stratification and hiring and deploying care managers). Even though it was not a requirement for Track 1 practices, practices in both tracks also focused on integrating behavioral health into primary care. Additionally, Track 2 practices reported that they focused on requirements specific to Track 2, such as increasing the use of collaborative care agreements with specialists and assessing patients’ psychosocial needs.

Practices’ approach to the CPC+ Comprehensive Primary Care Functions. We highlight below practices’ work in 2017 within each of the five functions. We indicate notable differences by CPC+ track; when we do not mention this kind of variation, the findings reported were similar for practices in Track 1 and Track 2.



Access and continuity. CPC+ defines *access to care* as the timely use of needed care, whereas *continuity of care* refers to a continuous relationship between a patient and a team of professionals who provide longitudinal care.

- In 2017, nearly 90 percent of practices reported they had empaneled (that is, assigned each patient to a practitioner and/or care team) at least 95 percent of their active patients. In addition, virtually all practices reported they provided 24/7 access to a care team practitioner with access to the electronic health record (EHR). Although deep-dive practices saw the value in alternative visits (a Track 2 requirement), they had not yet shifted to using them much.



Care management. CPC+ uses two approaches to care management. Shorter-term “episodic” care management focuses on acute care events such as emergency department (ED) visits, hospitalizations, and new diagnoses. “Longitudinal” care management is more intensive and relationship based, for patients identified as higher risk who would benefit from ongoing, proactive care management. Care teams in CPC+ work with patients receiving care management to document the patient's goals, preferences, and values in a care plan.

- **Episodic care management.** Deep-dive practices were consistently implementing short-term episodic care management for patients who had recent hospital admissions, ED visits, or a new condition likely to benefit from care management. In line with CPC+ requirements, practices most often identified patients for episodic care management based on hospital admissions (98 percent of practices), ED visits

- (92 percent of practices), or presence of a new condition likely to benefit from care management (75 percent of practices). Most deep-dive practices took similar approaches to episodic care management, using follow-up phone calls to check on the patient’s condition, provide medication reconciliation, provide education about appropriate ED use, schedule follow-up primary care and specialist appointments, and assist with access to social services as needed.
- **Longitudinal care management.** Almost all practices (97 percent) reported they used a data-driven algorithm as part of their approach to risk stratify patients to identify those who need more intensive, relationship-based longitudinal care management. Common challenges to providing longitudinal care management to high-risk patients that deep-dive practices reported included inadequate numbers of care managers (particularly in independent practices), competing priorities for care managers’ time (due to both unclear definitions of care managers’ roles and the size of patient caseloads), care manager turnover, and patients’ reluctance to engage in care management. As expected in the first year of the initiative, practices were still developing their care management capacity and just over one-third of patients identified as being at the highest risk were under longitudinal care management.
 - **Care plans.** Many deep-dive practices in both tracks were not yet systematically using care plans that document and track the needs of and actions taken to support patients receiving ongoing care management. Often, practitioners and staff were confused about what a “care plan” is and/or resisted adopting care plans, because they felt that (1) the information that a care plan would include already existed in other parts of the EHR, or (2) they knew their patients well enough that they did not need a formal care plan.



Comprehensiveness and coordination. “Comprehensiveness” refers to a practice meeting the majority of its patients’ medical and behavioral health needs in pursuit of each patient’s health goals (CMMI 2017). “Coordination” refers to the primary care practice’s central role in helping patients and caregivers navigate the health care system, including identifying and communicating with specialists and assisting with care transitions and follow-up after hospital and ED discharges.

- **Comprehensiveness.** Many practices took steps to integrate behavioral health into their practice, typically using a combination of strategies consistent with the Primary Care Behaviorist model.³ And, while not a requirement, Track 1 practices also pursued behavioral health integration. Practices’ ability to integrate behavioral health care was hampered by the lack of available psychiatrists and behaviorists of all types in many regions.

³ CPC Classic and Track 2 practices were required to choose at least one of two strategies for behavioral health integration within the practice: (1) the Primary Care Behaviorist model, where a behavioral health provider (such as a psychologist or clinical social worker) is integrated into the primary care workflow through warm handoffs and co-location, or (2) the Care Management for Mental Illness model, in which the primary care practitioner is the treating provider who works with a care manager (often a nurse trained in behavioral health) and a psychiatrist who supports the care manager, provides decision support, and is linked to this primary care team both telephonically and through the EHR.

Track 2 practices were also required to work on addressing patients' social needs. In 2017, 67 percent of Track 2 practices reported that they incorporated screenings for social needs (such as housing, food insecurity, and transportation) into their EHR, but several Track 2 deep-dive practices noted that their EHR lacked the functionality to support tracking that information over time. Additionally, most CPC+ practices reported that they maintained or had access to an inventory of social services resources.

- **Care coordination.** Almost three-quarters of CPC+ practices indicated they are using collaborative care agreements (plans that set expectations about roles and information sharing between providers across settings) to support coordination of care with some specialists. Some deep-dive practices reported adding new staff in 2017 to help manage specialist referrals, tracking, and follow-up. However, most deep-dive practices had not used payer reports on high-volume, high-cost specialists to alter their referral decisions, preferring to use practitioners' judgment and experience to guide their decisions.



Patient and caregiver engagement. CPC+ encourages patient and caregiver engagement in health care delivery by requiring practices to involve patients and caregivers in efforts to guide practice improvement and to integrate self-management support into usual care. *Patient and caregiver involvement in practice improvement* aims to draw on the experience and expertise of patients and their caregivers to identify the strengths of practices, offer insights on areas for improvement, and provide ideas for solutions. *Self-management support* aims to enhance patients' willingness and ability to manage their own health care.

- Nearly all practices tried to elicit input directly from patients who receive care at the practice, their family members, and/or caregivers by establishing a Patient and Family Advisory Council (PFAC), and most deep-dive practices reported that they made changes in response to patient and caregiver feedback from PFACs, patient surveys, or other sources. Only a few deep-dive practices reported that they had assessed the practice's capabilities and plan for self-management support, although many practices reported that they were taking various steps to provide this kind of support.



Planned care and population health. Planned care and population health refers to organizing care delivery to meet the needs of the practice's entire patient population.

- Nearly all deep-dive practices used payer feedback and eCQM data to (1) improve quality at the point of care for individual patients and (2) identify opportunities for improving existing services at the practice. Consistent with it being a requirement for them, Track 2 deep-dive practices also reported that in 2017 they focused more on using data during care team meetings to guide the testing of tactics to improve care than they did before CPC+, although several practices thought the CMS requirement that these meetings occur weekly was burdensome.

Factors influencing CPC+ implementation

- **Supporting implementation.** Many deep-dive practices benefited from the alignment between CPC+ and other transformation efforts such as PCMH programs. Practices that

were using health IT with robust features and functions to support administrative tasks, clinical care, quality improvement (QI), and population health efforts also had an easier time implementing CPC+ requirements, as did practices that had someone who championed CPC+ and a culture that embraced the model. Finally, because they tended to have greater access to resources that supported CPC+ implementation—such as staffing for care management and behavioral health integration, data analytics capabilities, and health IT and QI resources—many system-owned practices faced fewer struggles than independent practices in identifying resources for implementing care delivery requirements. In deploying these resources, many systems adopted a standardized approach to CPC+ implementation, which helped ensure consistency in care delivery but limited practices' autonomy to define changes for their individual sites.

- **Hindering implementation.** As with any new effort, practices also encountered challenges to changing care delivery across the five CPC+ Comprehensive Primary Care Functions. For example, some deep-dive practices struggled with some of the care delivery requirements in the first year of CPC+ because they either did not understand them (care plans, for example), or felt that some requirements (such as risk-stratification algorithms, and for some practices, care plans) forced a “one-size-fits-all” approach to care that interfered with clinical judgment and did not enhance quality of care. Practices without robust health IT functionalities faced challenges implementing some elements of the functions— particularly risk stratification, creating care plans and sharing them across primary care team members, and reporting eQMs. Additionally, a few independent deep-dive practices noted they did not have the resources to update the EHR as needed, so they had to use manual processes, for example, to track gaps in care. Practices with limited ability to exchange data across settings experienced challenges communicating with specialists and hospitals outside of their own organization. Finally, both system-owned and independent practices reported that the financial incentives of specialists and hospitals from FFS payment are barriers to CPC+ practice efforts to reduce total patient costs, which affected their efforts to reduce hospital and ED admissions and to limit nonessential referrals to specialists.

D. As expected, CPC+ had few favorable effects on Medicare FFS beneficiaries in 2017

Primary care transformation takes time; therefore, as expected, CPC+ had minimal effects on Medicare FFS beneficiaries in 2017. There were few, very small differences between beneficiaries served by CPC+ and those served by comparison practices in the changes in service use and quality-of-care outcomes or total Medicare FFS expenditures without enhanced CPC+ payments. When including Medicare enhanced payments for FFS beneficiaries, the changes in expenditures were 2 to 3 percent higher for CPC+ than for comparison practices.⁴

- In each track, relative to the year before CPC+, beneficiaries served by CPC+ practices experienced slightly greater reductions in outpatient ED visits (1.2 to 1.6 percent), slightly

⁴ These enhanced payments include CMS' CPC+ care management fees for Medicare FFS beneficiaries as well as CMS' payments for rewarding performance: (1) prospectively paid and retrospectively reconciled performance-based payments for practices not participating in the Medicare Shared Savings Program; and (2) shared savings payments to accountable care organizations for practices participating in SSP.

slower rates of growth in primary care ambulatory visits (1.6 to 1.8 percent), and slightly larger improvements in claims-based quality-of-care measures for recommended services for beneficiaries with diabetes and for breast cancer screening (one percentage point or less), than beneficiaries served by comparison practices. CPC+ had no statistically significant effects on acute hospitalizations, ambulatory visits to specialists, 30-day readmissions, or the proportions of beneficiaries who had hospice use or an advance care plan visit, or who had died.

- CPC+ did not affect total Medicare expenditures without enhanced CPC+ payments in 2017. After including CMS' enhanced CPC+ payments, and shared savings payments for practices that participate in the Medicare Shared Savings Program (SSP), the changes in Medicare expenditures since baseline for beneficiaries in CPC+ practices were 2 to 3 percent higher than those for beneficiaries in comparison practices. This is similar in size to the average care management fees practices received for Medicare FFS beneficiaries.
- These findings are consistent across Tracks 1 and 2 of CPC+ and generally across subgroups of beneficiaries and practices, including practices that were and were not participating in SSP.
- Because these findings reflect only one year of the intervention, it is too early to determine the ultimate effects of CPC+.

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1. INTRODUCTION

1.1. Overview of CPC+

CPC+ is the largest and most ambitious primary care payment and delivery reform ever tested in the United States. CMS kicked off CPC+ in 14 regions across the United States in January 2017 and expanded it to an additional 4 regions in 2018. The goals of CPC+, which builds on the CPC initiative (known as “CPC Classic”), are to increase access to—and improve the quality and efficiency of—primary care, which ultimately is intended to achieve better health outcomes at lower cost. CPC+ also aims to enhance primary care practitioners’ experience. To meet these aims, CMS requires CPC+ practices to transform across five Comprehensive Primary Care Functions: (1) access and continuity, (2) care management, (3) comprehensiveness and coordination, (4) patient and caregiver engagement, and (5) planned care and population health. To promote progress on these CPC+ functions, CMS specifies a series of care delivery requirements for practices in each track at the start of each year of CPC+. The CPC+ care delivery requirements provide a set of minimum stepping stones for practices to deepen their capabilities over the five intervention years.

CPC+ builds on the promising experience and lessons learned from the CPC initiative (known as “CPC Classic”), a four-year intervention that began in fall 2012 and concluded at the end of 2016 (Dale et al. 2016; Peikes et al. 2018a, 2018b, 2018c).

To bolster support for practices, CMS partnered with 79 public and private payers across the 18 CPC+ regions. CMS and other payers agreed to provide CPC+ practices with enhanced and alternative payments, data feedback, and learning activities to support primary care transformation. Sixty-six health IT vendors also partnered with Track 2 CPC+ practices to help them use health IT to improve primary care.

A diverse set of 3,070 primary care practices joined CPC+. CPC+ practices are split into two practice tracks. Compared to Track 1, practices in Track 2 are required to make more advanced care delivery changes supporting the care of complex patients and, to support that work, they receive more financial support and a greater shift from FFS toward population-based payment.

1.2. Research questions and data sources for the independent evaluation of the first year of CPC+

This first annual report addresses questions about how CPC+ was implemented and provides Year 1 estimates of its impact on key outcome measures for Medicare FFS beneficiaries. This report describes the first-year results for the 2,905 practices that began CPC+ in 2017.

Research questions

1. Who joined CPC+ in 2017 and how did participation change in the first year?
2. What enhanced and alternative payments, data feedback, learning activities, and health IT support did CPC+ provide in the first year?
3. How did CPC+ practices transform care delivery in the first year?

4. What were the first-year effects of CPC+ on cost, service use, and selected claims-based quality measures for Medicare FFS beneficiaries?

In our analyses, we considered whether findings varied in meaningful ways for different types of practices, particularly whether practices were in Track 1 or Track 2; independent or owned by a hospital or health system; participating in SSP or not; and small, medium, or large. Throughout the report, we describe notable differences by practice type.

Data sources



Interviews with:

- CMS and its contractors, including learning and data feedback contractors
- CPC+ payers
- A diverse sample of 13 of the 66 health IT vendor partners. These vendors worked with 83 percent of CPC+ practices.
- A representative sample of 81 CPC+ practices selected for intensive qualitative study—referred to as “deep-dive practices.” We asked approximately 30 of these practices about each topic (see text box).

Deep-dive interview methods

We used nine interview modules to guide our discussions with deep-dive practices, one each covering the five Comprehensive Primary Care Functions, one each on payment and learning supports, and two special topics on the use of specialists and teamwork. To ensure that we covered topics in each module in depth, we administered only three or four modules to each deep-dive practice, allowing us to gather detailed information for each module from about 30 diverse practices.



Surveys of:

- CPC+ payers
- CPC+ practices



Program data including:

- CMS’ rosters of participating payers and practices
- CPC+ payer and practice application data
- Care delivery and financial data that CPC+ practices reported to CMS
- Data and documents from CMS and its contractors



Claims and enrollment data on:

- Medicare FFS beneficiaries

1.3. Roadmap to this report

In this report, we describe key findings from our evaluation of the first year of CPC+ for regions, payers, and practices that joined CPC+ in 2017. In Chapter 2, we describe the payers, practices, and health IT vendors that joined CPC+ and highlight how participation changed during 2017. In Chapter 3, we describe the payment, data feedback, learning, and health IT supports provided to CPC+ practices in 2017 by CMS, payer partners, and health IT vendors. In Chapter 4, we detail how practices that started CPC+ in 2017 changed the way they deliver care over the first year and the factors that facilitated or hindered their efforts. In Chapter 5, we report estimates of the impacts of CPC+ during 2017 on a wide array of claims-based outcomes for Medicare FFS beneficiaries, including costs, utilization, and quality of care. Additional detail on each of these topics is available in our longer, supplemental report and appendices (Anglin et al. 2019; Peikes et al. 2019).

Although we cannot fully assess CPC+ after just one year, this report provides insight into the early experiences and outcomes of participating practices. Subsequent annual reports will include additional results for practices that began in 2017 and in 2018, and additional analyses, such as the effects on eCQMs and patient and practitioner experience.

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2. CPC+ PARTICIPATION IN 2017 WAS SUBSTANTIAL

CMS launched CPC+—the largest payment and delivery reform ever tested—in 2017 along with 63 other private and public payers and 2,905 primary care practices in 14 regions across the United States. Participation remained relatively stable in 2017.

2.1. Overview of participation

CMS launched CPC+ in 2017 and added another cohort of regions and practices in 2018. CPC+ could have supported a maximum of 5,500 primary care practices in 30 regions across both cohorts. In 2017, CMS partnered with 63 payers in 14 regions across the United States for CPC+ (Figure 2.1). Applications to participate in CPC+ came from 4,265 practices in 2017, and CMS accepted all practices that met minimum requirements for participating. This resulted in a diverse group of 2,905 practices that started in 2017 (see text box below for eligibility criteria). (In 2018, CMS selected 165 additional practices from 334 practices that applied in four new regions. Subsequent annual reports will include results for these practices.)

Practices that joined CPC+ in 2017 were split approximately evenly between Tracks 1 and 2, and by whether or not they participated in SSP (as well as CPC+). These practices included 13,209 primary care practitioners and together served more than 15 million patients.

CMS required Track 2 practices to partner with health IT vendors to help them use health IT to meet their advanced CPC+ care delivery requirements. Sixty-six health IT vendors partnered with Track 2 practices in 2017.

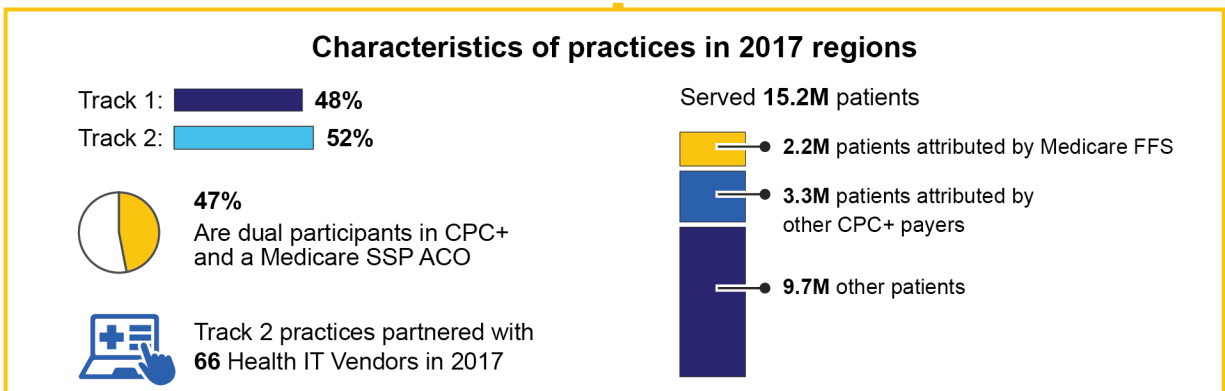
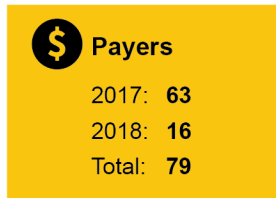
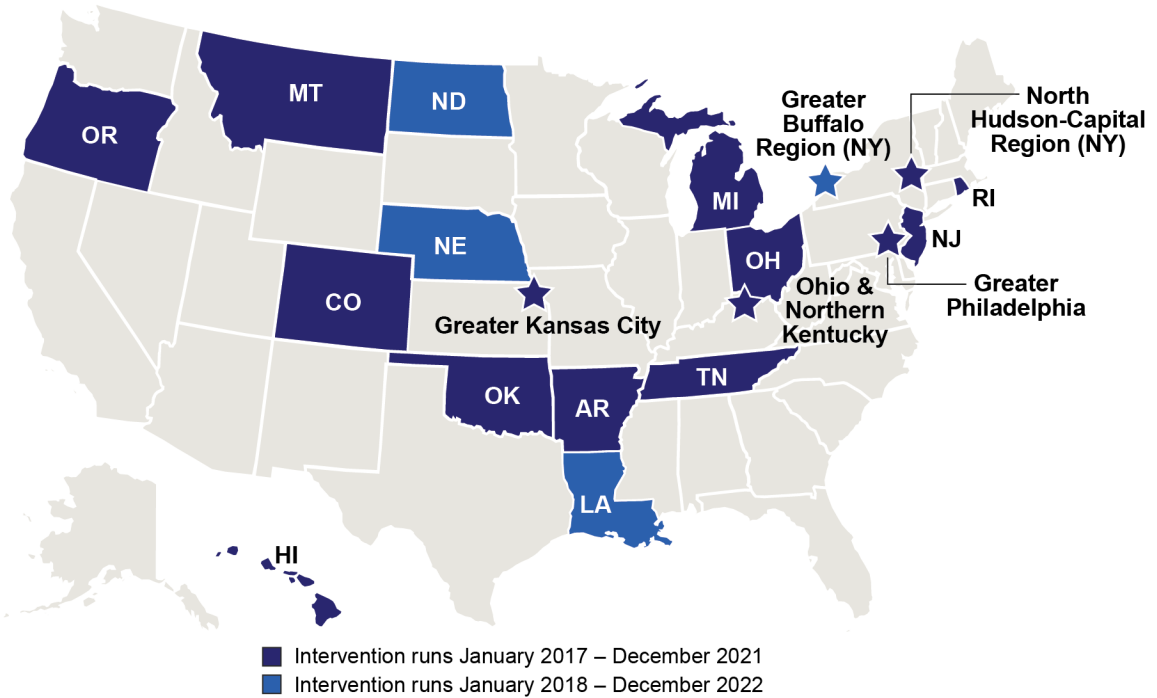


CMS eligibility criteria for practices to join CPC+

- Practices must pass program integrity screening.
- Primary care represents 40 percent or more of Medicare FFS services provided by the practice.
- Practice revenue from Medicare and other participating CPC+ payer partners is 45 percent or more of total practice revenue.
- Practice has a minimum of 125 attributed Medicare FFS beneficiaries.
- Practice uses Certified EHR Technology.
- Practice meets baseline care delivery criteria:
 - **Track 1 criteria:** Assign patients to a provider panel, provide 24/7 access for patients, have nonphysician team members deliver some clinical care, and support quality improvement activities.
 - **Track 2 criteria:** Meet same criteria as Track 1 practices, as well as use a risk-stratification tool, develop and record care plans, follow up with patients after ED or hospital discharge, and systematically link patients to community-based resources.
- A practice could **not** be a concierge practice, rural health clinic, or federally qualified health center; participate in any Medicare Accountable Care Organization (ACO) other than the Medicare SSP ACO; or participate in the Transforming Clinical Practices Initiative learning activities, when CPC+ began.

Note: Eligible primary care practitioners are those in internal medicine, general medicine, geriatric medicine, and/or family medicine providing primary care services. See Appendix 5.A for additional details on attribution, including the primary care service codes and provider specialties.

Figure 2.1. Regions, payers, and practices selected to participate in CPC+



Sources: Mathematica's analysis of 2017 practice-reported data submitted to CMS, and 2017 and 2018 practice and payer rosters collected by CMS.

Note: CMS and other payers attributed patients to CPC+ practices for payment purposes. Other patients included those covered by CPC+ payers but not attributed to a practice, patients covered by payers not partnering in CPC+, and uninsured patients.

ACO = accountable care organization; SSP = Medicare Shared Savings Program.

2.2. Characteristics of CPC+ stakeholders in 2017

In 2017, CMS worked with a diverse set of regions, payers, and practices for CPC+, which should enable CPC+ to generate important lessons for the future of primary care nationwide.



Payers

- Payers that partnered with CMS included various lines of business in CPC+, most commonly commercial and Medicaid managed care. In addition to fully insured lines of business, 33 payers had self-insured clients, and 16 of them provided CPC+ payments to practices for at least some of these clients.
- Payers varied in terms of their share of the total number of patients attributed to CPC+ practices by CPC+ payers. The median number of attributed lives for payers in 2017 was just over 20,000. The six largest CPC+ payers each attributed more than 200,000 patients to CPC+ practices. Together, these six payers accounted for 52 percent of all CPC+ lives attributed by non-Medicare FFS payers.

CPC+ aligned with participants' prior work and strategic missions

Most commonly, practices, payers, and health IT vendors reported that alignment between their strategic mission and prior work and the aims of CPC+ contributed to their decision to join CPC+. Payers also were motivated by the desire to collaborate with a large number of other payers, and practices—particularly independent ones—sought additional financial resources to support patient care.



Practices

- CPC+ practices are diverse. Their size ranges from small to large, with an average of 4.8 primary care practitioners per practice. They are located in rural, suburban, and urban areas. They serve Medicare beneficiaries with a range of health care needs and conditions. And they are owned by hospitals, health systems, and physicians.
- Before CPC+ began, compared to other primary care practices in their regions, CPC+ practices were more likely on average to:
 - Have PCMH recognition
 - Have participated in prior primary care transformation initiatives, including CMS' Transforming Clinical Practices Initiative (TCPI) and Multi-Payer Advanced Primary Care Practice Demonstration, in addition to CPC+'s predecessor, CPC Classic (see text box)
 - Be participating in Medicare SSP
 - Have a practitioner who met meaningful use criteria for health IT use
 - Be larger and/or owned by a hospital or health system

Most CPC Classic payers and practices joined CPC+

Of the 36 payers that partnered with CMS in CPC Classic, 28 (78 percent) went on to participate in CPC+.

Of the 422 CPC Classic practices that remained through the end of CPC Classic and were located in CPC+ regions, 412 decided to join CPC+. Of the 57 practices that withdrew or were terminated from CPC Classic for reasons other than closing and were located in CPC+ regions, 15 decided to join CPC+.



Patients

- The 15.2 million patients served by CPC+ practices included approximately 2.2 million beneficiaries whom Medicare FFS attributed to CPC+ practices (that is, those assigned to CPC+ practices for CPC+ payment purposes), 3.3 million patients attributed by other payers, and 9.7 million other nonattributed patients (that is, patients covered by CPC+ payers but not attributed to a practice, patients covered by payers not partnering in CPC+, and uninsured patients).
- Medicare FFS beneficiaries attributed to CPC+ practices were slightly less disadvantaged and healthier than beneficiaries served by all primary care practices participating in the 2017 regions. For example, compared with Medicare beneficiaries attributed to all primary care practices in CPC+ regions, on average, beneficiaries attributed to CPC+ practices:
 - Were less likely to be dually eligible for Medicaid (14 versus 20 percent)
 - Had 10 percent fewer hospitalizations (288 versus 320 per 1,000 beneficiaries)
 - Had lower average monthly Medicare spending (\$883 versus \$964)



Health IT vendors

- Track 2 practices partnered with one or more of 66 health IT vendors that committed to providing required functionalities and supporting practices in using them. Track 1 practices were required to use health IT, but did not formally partner with vendors for CPC+. In 2017, Track 1 practices used one or more of 90 health IT vendors (a total of 109 distinct vendors worked with practices across both tracks).
- Fifty-eight percent of vendors partnering with Track 2 practices offered a full-featured EHR, and just over one-quarter offered population health or analytic software for panel management, information exchange, and reporting to interested Track 2 practices.
- Two-thirds of the 66 participating vendors partnered with fewer than 10 Track 2 practices each, whereas the 5 largest participating vendors together served approximately 80 percent of Track 2 practices.

2.3. Changes in CPC+ stakeholders in 2017

Throughout 2017, relatively few payers or practices withdrew from CPC+.

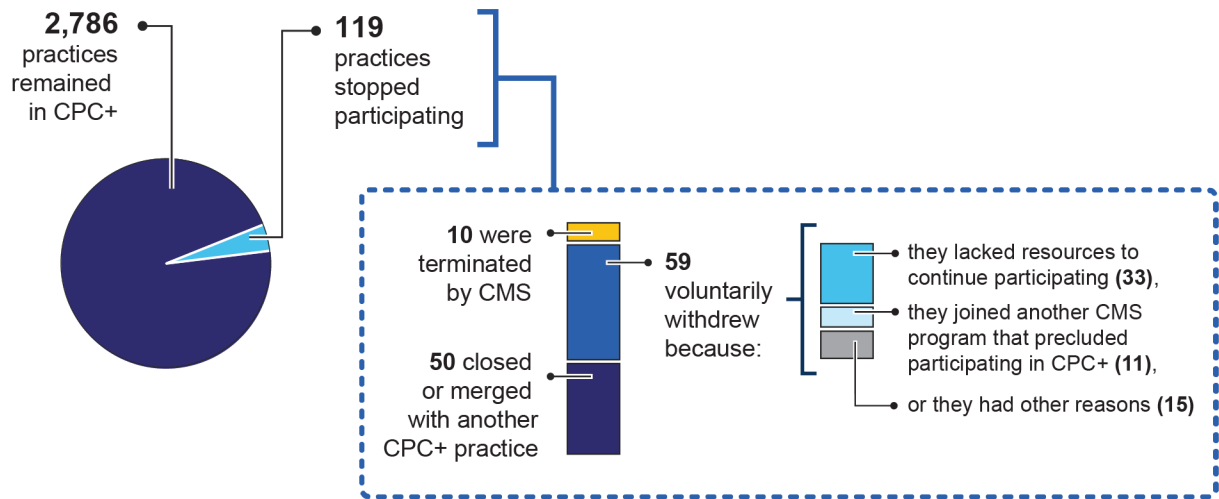


Payers. In 2017, two small regional payers—both of which had few attributed lives in CPC+—withdrew. Reasons for withdrawal were mostly unrelated to CPC+ and primarily related to payers' internal organizational strategy or financial pressures.



Practices. By December 2017, 2,786 (96 percent) of the 2,905 practices that joined in January 2017 were still participating in CPC+. Among the 119 practices that stopped participating, the most common reasons were (1) the practice closed or merged with another CPC+ practice (50 practices) or (2) the practice voluntarily withdrew because it had insufficient resources to continue participating (33 practices; Figure 2.2).

Figure 2.2. Reasons practices stopped participating in CPC+ in 2017



Source: Mathematica’s analysis of 2017 practice rosters collected by CMS.

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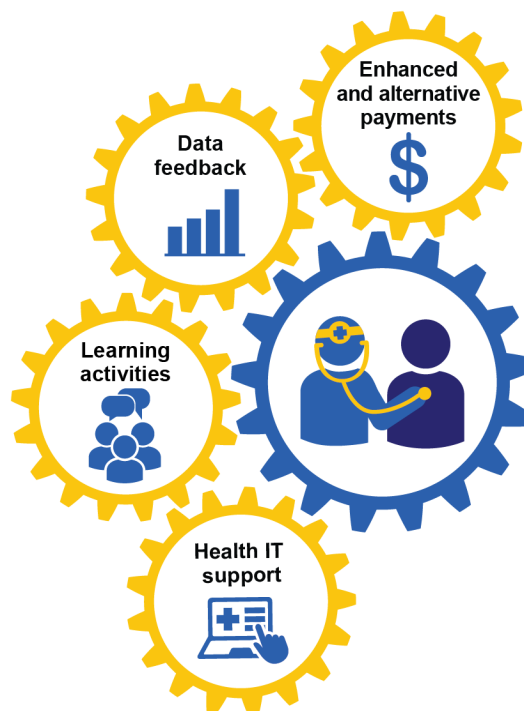
3. CPC+ PRACTICES RECEIVED SIGNIFICANT SUPPORT IN 2017

CPC+ practices received a significant amount of enhanced and alternative payments, data feedback, and learning support from CMS and other payers, as well as health IT support from vendors. Still, many CPC+ practices indicated that they needed additional funding and/or more guidance from payers and vendors to meet all CPC+ requirements.

3.1. Overview of supports

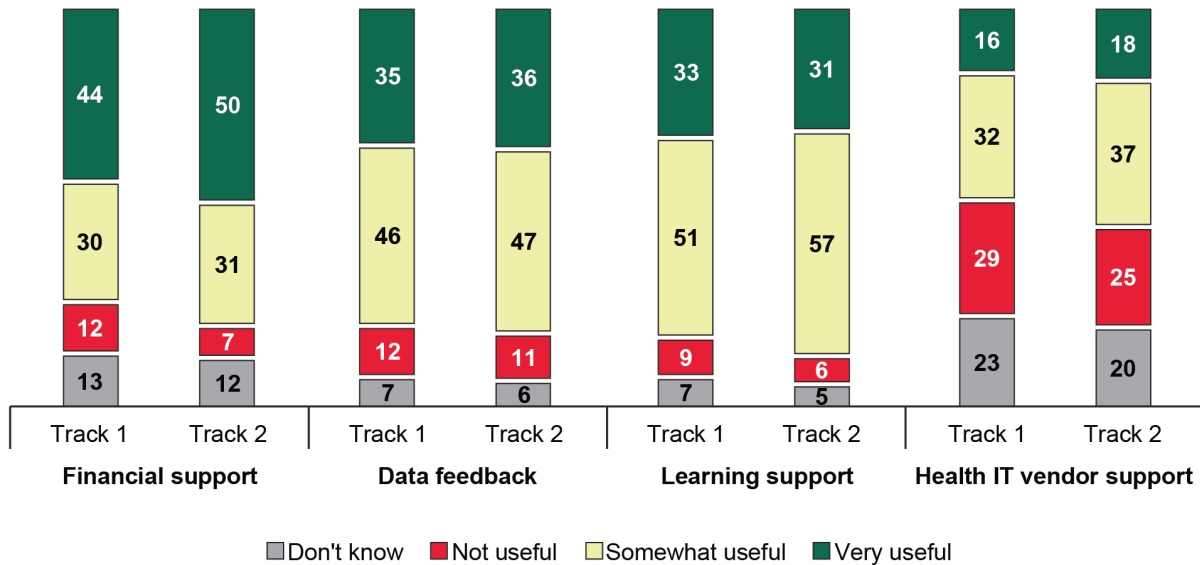
CPC+ practices in the 14 regions that began in 2017 received payments, data feedback, and learning support from CMS and other payers. Whereas data feedback and learning activities were generally the same across CPC+ tracks, Track 2 practices received (1) enhanced payments, in recognition of the additional care delivery changes they are required to make to better serve patients with complex needs, and (2) a replacement of some FFS payments with prospective payments. Moreover, Track 2 practices were required to partner with health IT vendors that agreed to help them use health IT to support the CPC+ Comprehensive Primary Care Functions.

In response to the 2018 CPC+ Practice Survey, practices reported that financial support was the most useful CPC+ support (Figure 3.1). Echoing this finding, many deep-dive practices reported that CPC+ payments allowed them to make substantial, beneficial changes to the way they deliver care, most commonly by hiring new staff such as care managers. Many practices also reported that data feedback and learning activities were helpful, indicating that they made changes to how they deliver care in response to data feedback and that guidance provided during learning activities helped them understand the Comprehensive Primary Care Functions, meet CPC+ requirements, and improve care delivery. Practices had more mixed views of health IT vendor support, reflecting in part that many health IT vendors were still developing or improving health IT functionalities to support comprehensive primary care. About half of practices that did not rate a given support as useful indicated that they were not familiar enough with that support to rate its usefulness.



In the remainder of this chapter, we describe the supports provided by payers and vendors. For each support, we briefly highlight how practices perceived and/or used it and implications for future years of CPC+; we highlight these implications with a lightbulb icon. Chapter 4 provides additional detail on how practices are implementing each of the Comprehensive Primary Care Functions and changing the way they deliver care.

Figure 3.1. Percentage of CPC+ practices indicating that a CPC+ support is useful for improving primary care



Source: Mathematica’s analysis of 2018 CPC+ Practice Survey data.

3.2. CPC+ enhanced and alternative payments

\$ CMS and the other CPC+ payers agreed to provide CPC+ practices with enhanced payments, in addition to usual payments for services, to (1) support their participation in CPC+ and (2) incentivize them to improve quality, decrease utilization, and/or reduce costs. Additionally, for Track 2 practices, CMS and other payers agreed to implement an alternative payment approach that, by shifting away from an FFS model, allows practices more flexibility in who provides care and where they deliver care.

CPC+ payers provided enhanced and alternative payments for the patients they attributed to CPC+ practices. CMS partnered with other payers because it theorizes that, if CPC+ practices receive enhanced and alternative payments for a critical mass of their patients, they will be able to transform their whole practice. With this goal in mind, CMS requires CPC+ practices to implement changes across all of their active patients regardless of whether each patient is attributed to the practice by Medicare or another CPC+ payer partner. In 2017, as part of their care delivery and financial reporting to CMS, practices reported that a median of 35 percent of their active patients were attributed to them by Medicare FFS and other CPC+ payers, though the proportion attributed varied. One-quarter of practices reported that 21 percent or less of their active patients were attributed to them. Practices in the highest quartile reported 50 percent or more of their patients were attributed to them. Patients might not be attributed if they were (1) uninsured, (2) insured by a non-partnering payer, or (3) insured by a partnering payer but not attributed to the practice (for example, if they saw another practice more frequently or more recently or if they were covered under a line of business the payer did not include in CPC+).

As we outline below, payers used a variety of approaches to meet CPC+ goals for enhanced and alternative payments.

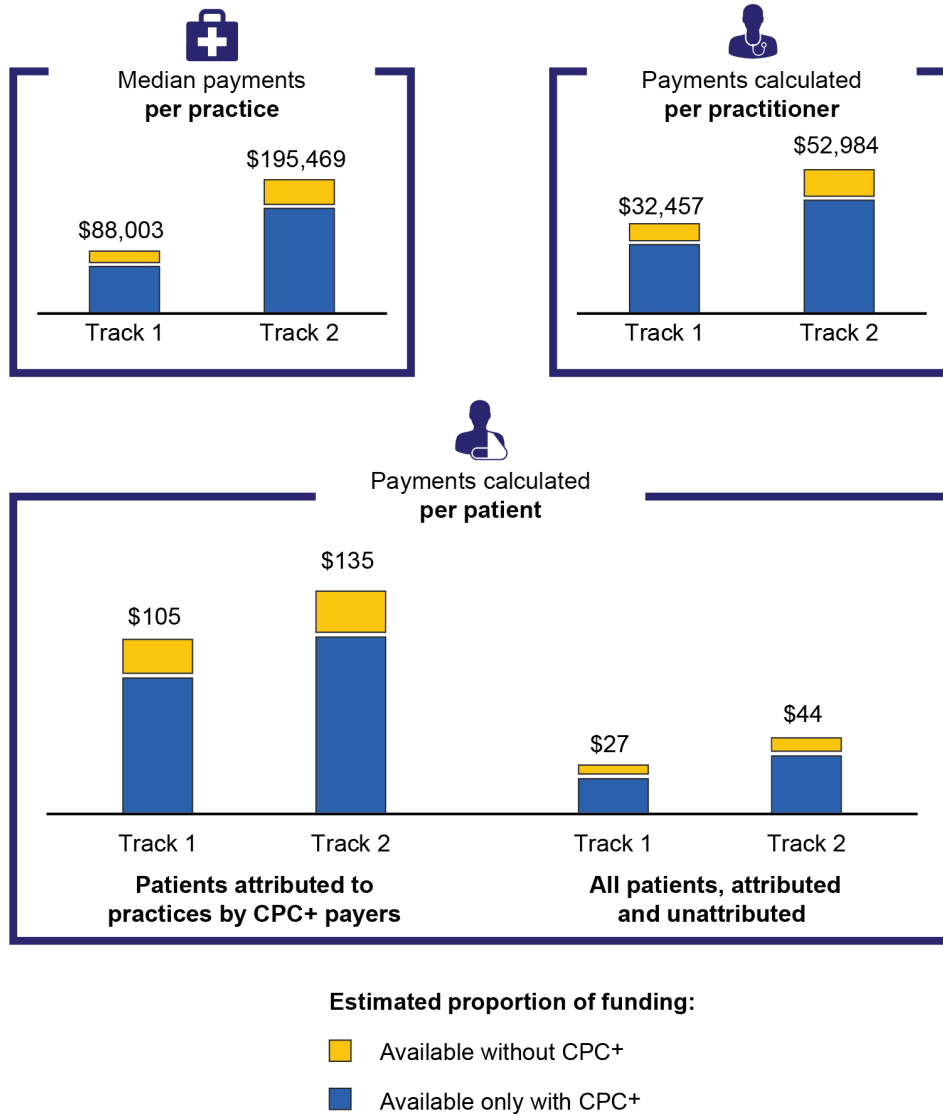
1. **Enhanced payments for participating in CPC+ *in addition to usual payments for services*.** CMS and 93 percent of the 61 other payers that partnered with CMS for all of 2017 provided practices with this type of payment in 2017, most commonly in the form of care management fees. (The four payers that did not meet their commitment to provide CPC+ practices with this additional financial support in 2017 generally contracted with few CPC+ practices and had small numbers of lives attributed to CPC+ practices.) Medicare FFS and half of other payers provided higher care management fees to Track 2 practices than to Track 1 practices in recognition of their additional required care delivery activities, which focus on patients with complex needs.

Taken together, care management fee payments from Medicare FFS and other payers were substantial (Figure 3.2). In 2017, the median care management fees practices received from CMS and other payers for participating in CPC+ exceeded \$88,000 per Track 1 practice, which translates to \$32,000 per practitioner, \$105 for patients attributed to practices by CPC+ payers (\$8.75 per-member per-month [PMPM]), or \$27 per active patient (attributed or nonattributed, \$2.28 per PMPM). These payments exceeded a median of more than \$195,000 per Track 2 practice, which translates to \$53,000 per practitioner, \$135 per patient attributed to practices by CPC+ payers (\$11.25 PMPM), or \$44 per active patient (\$3.69 PMPM).

Medicare FFS provided a large proportion of the funding practices received from CPC+ care management fees, in terms of both total payments and those unique to CPC+.

- **Total care management fees.** Although Medicare FFS accounted for only 36 percent of attributed CPC+ patients, it provided 76 percent of all care management fees to practices in 2017 (Figure 3.3). CMS contributed this large share of care management fees because of its relatively high per beneficiary per month (PBPM) amounts. The median care management fees from CMS of \$15 PBPM for Track 1 and \$28 for Track 2 were substantially higher than fees from other payers, which ranged from \$3 to \$5 PMPM for Track 1 and \$4 to \$6 PMPM for Track 2, depending on the line of business.
- **Unique care management fees.** CMS is providing CPC+ practices with care management fees that are not available to non-CPC+ practices. However, most other payers provided similar payment supports to CPC+ practices as they did to non-CPC+ practices that participated in their other primary care transformation initiatives. The 24 percent of total care management fees that non-Medicare FFS payers provided can be split into approximately 4 percent that was unique for CPC+ and 20 percent that was also provided to non-CPC+ practices and would have been available through other initiatives to at least some CPC+ practices even if CMS had not launched CPC+ (Figure 3.3).

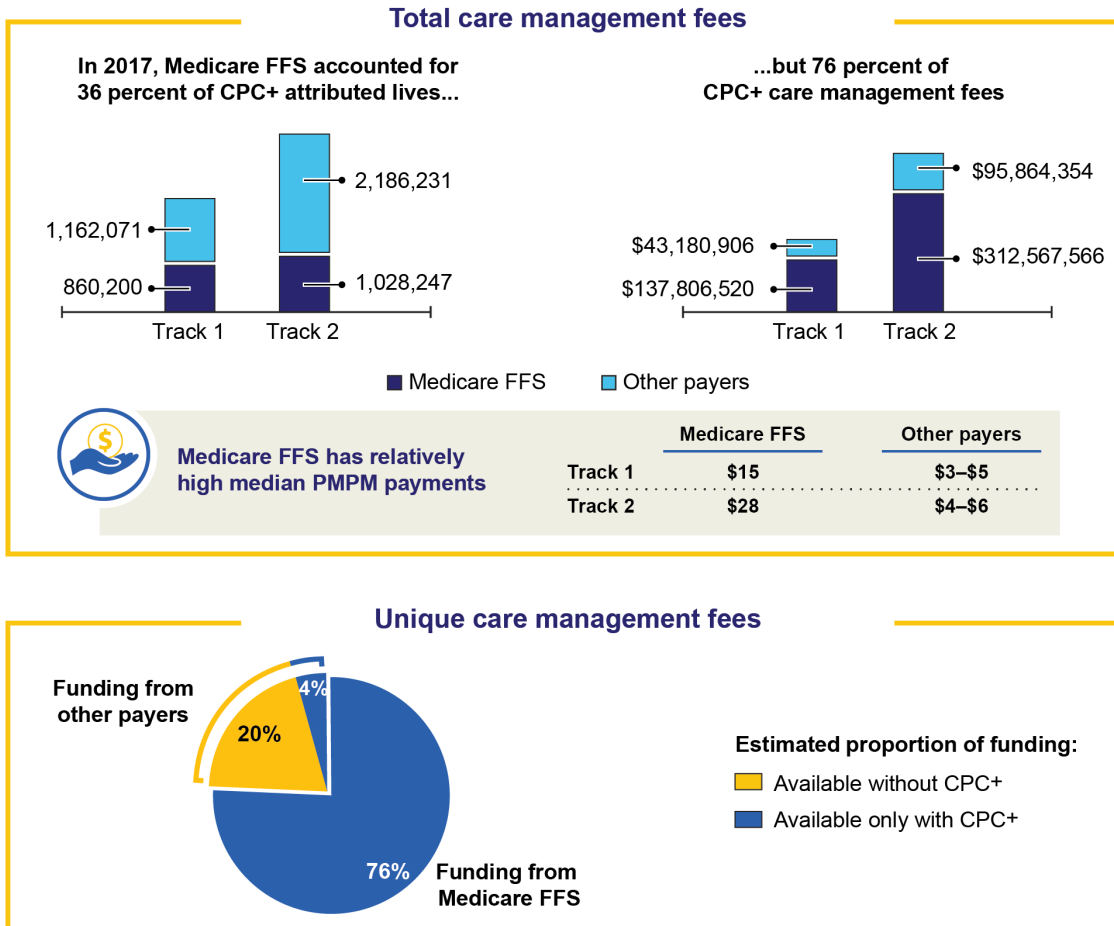
Figure 3.2. Median care management fees paid by CMS and other payers in 2017 and the estimated proportion of fees available without CPC+



Sources: Mathematica's analysis of 2017 practice-reported financial data submitted to CMS, Medicare FFS beneficiary attribution lists and payment data provided by CMS, and 2017 CPC+ Payer Survey data.

Note: Payments were made to practices. We calculate what they would have represented had they been made on a per-practitioner or per-patient basis. Median payments per practice, practitioner, and patient are reported for the year as a whole (January to December 2017).

Figure 3.3. Medicare FFS provided a large proportion of CPC+ funding in 2017, in terms of both total payments and those unique to CPC+



Funding from other payers

Funding from Medicare FFS

Estimated proportion of funding:

- Available without CPC+
- Available only with CPC+

Sources: Mathematica’s analysis of 2017 practice-reported financial data submitted to CMS, Medicare FFS beneficiary attribution lists and payment data provided by CMS, and 2017 CPC+ Payer Survey data. FFS = fee for service; PMPM = per-member per-month.

2. **Payments that reward practices for improving quality, decreasing utilization, and/or reducing costs.** CMS used two strategies for rewarding performance: (1) practices not participating in Medicare SSP were eligible to receive a prospectively paid Performance-based Incentive Payment (PBIP) from CMS that was retrospectively reconciled based on performance, whereas (2) practices participating in SSP are part of an ACO that participates in a shared savings program with Medicare FFS. Eighty-nine percent of other CPC+ payers also rewarded practices for performance in 2017, most commonly through retrospective bonus payments (67 percent of payers) and/or shared savings opportunities (49 percent of payers). Just under half of payers offering payments for performance (46 percent) reported that they calculated payments using at least some of the same quality metrics that CMS uses for its PBIP.

Practices not in SSP retained just under half of their Medicare PBIP payments for 2017 performance, and about one-quarter of ACOs with CPC+ practices as members earned savings for 2017 performance

PBIPs for non-SSP practices. Medicare prospectively pays practices PBIPs. Then, after CMS assesses practice-level performance at the end of the year, practices retain the amount of the PBIP that they earned, and CMS requires them to pay back the remaining proportion. The median PBIP retained by Track 1 and Track 2 practices in 2017 was less than half of the upfront PBPM payment practices received at the start of 2017 (Table 3.1). Practices retained a higher proportion of the quality component than the utilization component of their PBIP (about 60 percent versus 30 percent, respectively).

Table 3.1. Median PBPM PBIPs that CPC+ practices earned from Medicare FFS for the 2017 performance year, by track

	Track 1			Track 2		
	Upfront PBPM payment	Median PBPM payment earned (i.e., retained)	Median percentage of PBIP earned	Upfront PBPM payment	Median PBPM payment earned (i.e., retained)	Median percentage of PBIP earned
Quality and utilization	\$2.50	\$1.10	44%	\$4.00	\$1.89	47%
Quality component	\$1.25	\$0.77	61%	\$2.00	\$1.24	62%
Utilization component	\$1.25	\$0.32	26%	\$2.00	\$0.66	33%

Source: Mathematica's analysis of 2017 payment data provided by CMS.

FFS = fee for service; PBIP = Performance-based Incentive Payment; PBPM = per beneficiary per month.

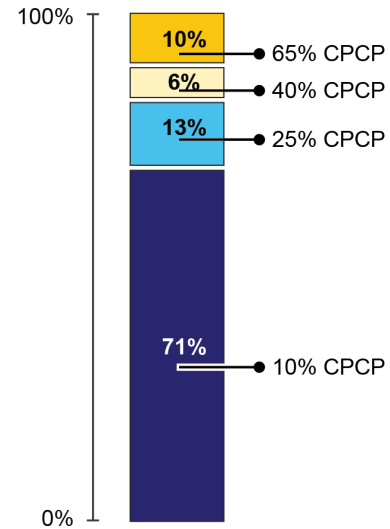
Shared savings for ACOs. In 2017, CPC+ practices in SSP belonged to 84 unique SSP ACOs. (These ACOs also include non-CPC+ providers.) ACOs decide whether to share any savings they earn with their various providers and the amount to share. For 2017 SSP shared savings performance:

- Twenty ACOs (24 percent of the 84 SSP ACOs with practices in CPC+)—which account for 29 percent of CPC+ practices in SSP—received shared savings payments from CMS. The median payment was \$4,307,931 (or \$19.56 PBPM for all beneficiaries in those ACOs, including those served by CPC+ practices and other non-CPC+ providers).
- Fifty-nine ACOs (70 percent of the 84 SSP ACOs)—which account for 60 percent of CPC+ practices in SSP—neither received payments nor were required to repay losses.
- Five ACOs (6 percent of the SSP ACOs)—which account for 11 percent of CPC+ practices in SSP—needed to repay losses to CMS. The median repayment amount was \$2,349,055 (or \$7.54 PBPM for all beneficiaries in those ACOs, including those served by CPC+ practices and other non-CPC+ providers).

3. **For Track 2 practices, payments for services that increase practices' flexibility by shifting away from FFS toward prospective, non-visit-based payments.** CMS shifted away from FFS for Track 2 practices in 2017, using a hybrid approach that replaces a portion of FFS payments for certain evaluation and management (E&M) services with a prospective payment called the Comprehensive Primary Care Payment (CPCP). In 2017, most Track 2 practices elected to have only 10 percent of those payments paid prospectively (Figure 3.4); in later years of CPC+, they will be required to select progressively higher percentages.

In 2017, nine (15 percent) of the other payers were using an alternative payment approach for Track 1 and Track 2 practices. Those approaches differed from CMS' hybrid approach. Most commonly, these payers were using full or near-full capitation for primary care services. Other payers that began CPC+ in 2017 agreed to implement an alternative to FFS approach by January 2018 for at least Track 2 practices. In 2017, many were working to develop alternative approaches; however, most payers reported that they would not do so by January 2018. Payers commonly cited as major barriers practices' reluctance and/or lack of readiness to accept alternative payments and the cost of switching claims processing systems to accommodate alternative payments.

Figure 3.4. Percentage of Track 2 practices selecting a given CPCP percentage for 2017



Source: Mathematica's analysis of 2017 payment data provided by CMS.
CPCP = Comprehensive Primary Care Payment.



Using CPC+ payments. More than three-quarters of practices reported that CPC+ payments were somewhat useful or very useful for improving primary care. Deep-dive practices selected for intensive qualitative study reported using care management fees to make substantial, beneficial changes to their practices, most commonly by hiring new staff such as care managers.⁵ Practices also reported adding other staff, such as behavioral health specialists, clinical pharmacists, social workers, data analysts, dietitians, diabetic educators, and QI staff. Multiple practices also named the following services and activities as important new opportunities that CPC+ funding had allowed them to pursue: PFACS, risk-stratification models, and patient/caregiver education classes (described further in Chapter 4). Practices tended to not use other CPC+ payments, such as prospective

“It takes people to do the things required for transformation. In particular, the care management fee has allowed us to hire the people needed to manage our patients.”

—CPC+ clinical quality analyst, 2018

⁵ We interviewed 81 CPC+ practices (referred to as “deep-dive practices”) about their experiences with CPC+ in 2017. We used three to four interview modules to guide our discussions with each deep-dive practice; thus, we have detailed information on each CPC+ function and CPC+ support from about 30 diverse practices.

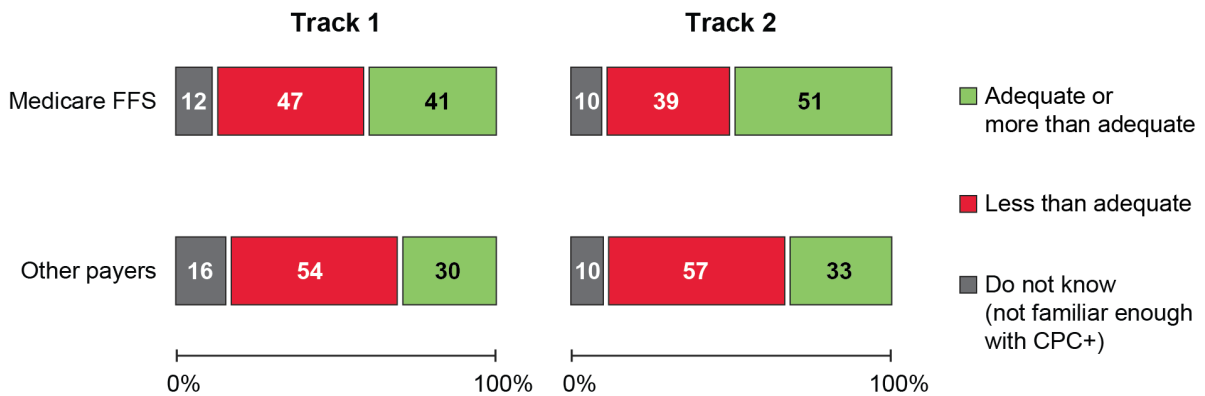
performance bonuses, which were lower than care management fees (for reasons described below).



Improving CPC+ payment support. Although CPC+ payment supports were substantial, CPC+ practices also raised concerns.

- Only 41 percent of Track 1 practices and 51 percent of Track 2 practices indicated that CPC+ funding from Medicare FFS was adequate or more than adequate for them to complete the work required by CPC+ (Figure 3.5). Practices that rated Medicare FFS payments as less than adequate received lower median care management fees than those that indicated that Medicare FFS payment support was adequate to complete work required by CPC+ (\$129,395 versus \$141,778 for Track 1 and \$249,049 versus \$291,602 for Track 2). Practices were less likely to report that they received adequate support for practice change from other payers than they were from Medicare FFS. Findings regarding payment adequacy did not differ by practice size (number of primary care practitioners), ownership status (independent versus owned by a hospital or health system), or whether the practice had participated in prior primary care transformation initiatives.⁶

Figure 3.5. Percentage of practices reporting that CPC+ payments from Medicare FFS and other payers are adequate to complete work required by CPC+

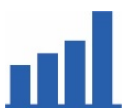


Source: Mathematica's analysis of 2018 CPC+ Practice Survey data.
FFS = fee for service.

⁶ We define participation in prior primary care transformation initiatives as participation in CPC Classic or Multi-payer Advanced Primary Care Practice or being a medical home (indicated by the National Committee on Quality Assurance, The Joint Commission, the Accreditation Association for Ambulatory Health Care URAC, or state medical-home recognition status).

- CPC+ practices raised two concerns related to CPC+ payment adequacy:
 - **The level of work required for CPC+.** About two-thirds of CPC+ practices reported that meeting CPC+ care delivery requirements was somewhat or very burdensome (49 and 17 percent, respectively). Practices reporting that CPC+ was burdensome were more likely than other practices to report that payments from Medicare FFS were less than adequate to complete the requirements (79 percent versus 32 percent for Track 1 and 50 percent versus 31 percent for Track 2). A similar pattern was observed for practices' ratings of the adequacy of payments from other payers.
 - **The level of payments from non-Medicare FFS payers.** Many deep-dive practices noted that non-Medicare FFS payers often did not provide additional support unique to CPC+ and their care management fees were generally lower than practices anticipated. Reflecting these concerns, several deep-dive practices viewed CPC+ as a “Medicare-only” program and regarded the CPC+ requirement to change care delivery for *all* their patients as burdensome and unfair given that Medicare FFS provided a large percentage of the funding they received from CPC+ care management fees.
- When describing their perceptions of how incentive payments would work prior to receiving them, most deep-dive practices expressed pessimism about their ability to earn PBIPs or shared savings payments from CMS; they also did not take concrete steps to try to do so. Many of these practices reported frustration that payers' approaches to rewarding performance were complex and that payers used different quality and utilization measures to assess practice performance, making it hard for practices to know where to focus their QI efforts and set performance goals. Several practices also indicated that it was challenging to earn payments for reducing costs because they have limited control over specialist and hospital behaviors.
- Among Track 2 practices, practices were hesitant about taking on financial risk by shifting from an FFS model to prospective payments, and they were confused about how CMS calculated the CPCP payments and how practices could spend them.

3.3. CPC+ data feedback



CMS and 90 percent of participating payers provided CPC+ practices with data feedback in 2017. Most commonly, CMS and other payers were providing data on a combination of utilization of service, quality-of-care, and/or cost-of-care measures. Payers typically showed trends in these measures over time and provided comparisons with benchmarks (such as other practices in the region). Other data commonly reported by CMS or other payers included expenditure data for a given specialist or hospital, lists of patients with care gaps or high utilization patterns, and patient demographic information.

To streamline data review and make it more actionable for practices, CMS and the other payers committed to developing a common approach to quality measurement and data feedback. We grouped regions' progress toward data aggregation, in which payers submit their claims data to a third-party vendor that produces a single tool analyzing and presenting that data, into the following general categories:

- **Did not pursue aggregation** in 2017, either because payers determined that the costs of doing so outweighed the benefits (New York and New Jersey) or because regions were focused on other efforts, such as a regional Health Information Exchange (HIE; Montana, Kansas City, and Rhode Island).
- **Took steps toward aggregating data** in 2017, such as discussing measure alignment or selecting a data aggregation vendor (Arkansas, Oregon,⁷ Hawaii, Michigan, and Philadelphia).
- **Provided aggregated data feedback** to practices in 2017 (Colorado, Tennessee, Ohio/Northern Kentucky, and Oklahoma). Medicare FFS joined regional aggregation efforts in the three of these regions that had aggregated data in CPC Classic—Colorado, Ohio/Northern Kentucky, and Oklahoma. All payers in Tennessee except Medicare FFS aggregated data as part of a state Medicaid initiative (these payers participate in CPC+ only for their Medicaid lines of business).


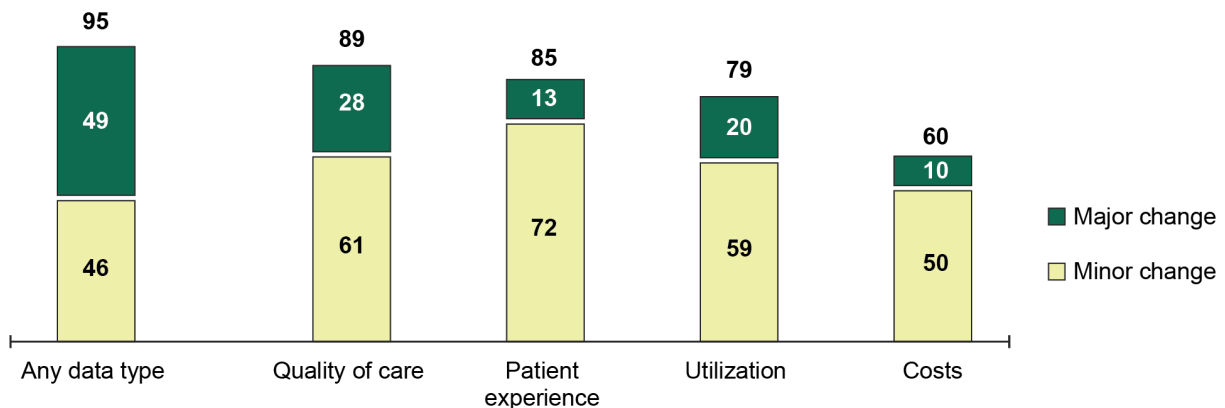
 **Using CPC+ data feedback.** Although practices varied in the frequency with which they reviewed payer data feedback, almost all CPC+ practices reported on the 2018 CPC+ Practice Survey that they made one or more changes to how they deliver care in response to it. About half of CPC+ practices reported making a major change (Figure 3.6). Practices were most likely to report making major changes based on quality-of-care data (28 percent of practices), followed by service utilization data (20 percent of practices).

Figure 3.6. Percentage of practices that reported making changes to how they deliver care in response to data feedback, overall and by data type



Source: Mathematica's analysis of 2018 CPC+ Practice Survey data.

Interviews with deep-dive practices provided insight into the types of changes practices made in response to data feedback. Many practices used practice- or system-level data feedback from CMS and other payers to prioritize areas for QI work. For example, one practice reviewed its practice-level data and recognized that some patients went to the ED because they

⁷ Several CPC+ payers in Oregon provided aggregated data feedback to practices in 2017. However, other Oregon payers had reservations about joining the existing aggregation effort and were considering other options for CPC+ data aggregation.

could not schedule a timely appointment with their primary care physician; the practice then expanded its hours by hiring mid-level practitioners to see patients in the early mornings and evenings. Additionally, a few practices reported using data on the cost associated with a given specialist to identify high-volume or high-cost specialists with whom they could develop collaborative care agreements (plans that set expectations about roles and information sharing between providers across settings).



Improving CPC+ data feedback. Both CPC+ payers and practices reported limitations to payer data feedback, and many payers took steps to improve it in 2017.

- **Claims data are often not timely.** Given claims lags and data processing times, feedback data were often three to six months old when reported to practices.
- **Claims data alone are insufficient for measuring quality of care and managing population health.** To improve the usefulness of data feedback, several payers integrated EHR data into their data feedback in 2017, and a few payers integrated real-time admissions/discharge/transfer data and/or HIE data.

“Data is huge. I think that data is the key element for driving any sort of meaningful conversations with providers around change. But, you have to have credible, consistent data to share. And it has to be something that’s actionable for [practices].”
- **Practices found the structure and format of tools to be confusing.** To improve the usability of their feedback tools, CMS and several other payers solicited practices’ input on them and worked on revising their tools.
- **Some practices needed additional assistance to understand and use data feedback.** A few deep-dive practices provided insight into this challenge, indicating that they were overwhelmed by the amount of data the feedback contained and other more pressing CPC+ work, so they had not reviewed payer feedback in detail. These practices tended to be small, with one to two primary care practitioners. CMS and a few other payers provide tailored coaching to help practices use data feedback.

—CPC+ payer, 2017

3.4. CPC+ learning activities



CMS and its contractors provided learning supports to CPC+ practices. These learning activities aimed to (1) provide practices with needed information and resources and (2) promote peer learning among CPC+ practices. Specifically, the CPC+ learning community provided three types of supports:

1. **Information dissemination tools.** These tools included (1) a web-based communication platform that practices use to ask CMS and learning contractors questions and to share information with other practices; (2) an implementation guide, updated annually, that provides practices with detailed information about the Comprehensive Primary Care Functions and care delivery requirements; and (3) a weekly electronic newsletter with updates on the program and deadline reminders.

2. **Group learning activities.** Opportunities included (1) national webinars to disseminate detailed information to CPC+ practices, (2) cross-regional learning groups to promote peer learning among practices working on similar CPC+-related changes or facing similar health IT challenges, and (3) virtual and in-person national and regional learning sessions.
3. **Tailored one-on-one and small group support.** If CPC+ practices have questions about CMS' CPC+ payment methodology, CPC+ participation or reporting requirements, or any other aspect of CPC+, they can contact a central CPC+ help desk by email or phone. Additionally, the Regional Learning Network (RLN) practice facilitators provided tailored support to individual practices or small groups of practices identified as needing further coaching, either over the phone or during site visits (see text box below).

“[Coaching is] all about building relationships, and once you’ve built that relationship with them and they are able to talk with you, you become kind of an extension of their practice; they can rely on you to say, ‘OK, I just did this, is this right? How else can we do it?’”

—CPC+ practice facilitator, 2017

Practice facilitators provided practice coaching to more practices than required

To identify practices that needed coaching, the RLN leadership used care delivery reporting data and Medicare FFS cost and utilization data to identify high-priority practices (those needing the most assistance; 10 percent per region), moderate-priority practices (35 percent per region), and low priority practices (55 percent per region). At a minimum, the RLN practice facilitators were supposed to provide telephone coaching to medium-priority practices and site visits to the high-priority practices.

Practices were categorized first in June and then again in October 2017. The RLN categorized 16 percent of practices as high priority at least once in 2017 but conducted site visits to 74 percent of all practices.

- **Ninety-one percent of practices** categorized as high priority received a site visit between July and December 2017.
- **Seventy-one percent of practices** that were always categorized as moderate or low priority *also* received a site visit.

RLN practice facilitators cited different reasons for conducting visits to medium- and low-priority practices, including that the practices requested a visit or that the RLN thought that, despite its rating, a practice needed tailored assistance.

Eighty-four percent of other payers provided technical assistance or learning support directly to practices for CPC+ or as part of their other initiatives to support practice transformation—despite not committing to do so for CPC+. In responding to the 2018 CPC+ Practice Survey, about half of CPC+ practices that contracted with non-Medicare FFS payers reported that in the prior six months they had received training from non-Medicare FFS payers on using data feedback and/or coaching to improve practice processes and workflows. Just over half of payers providing technical assistance or learning support indicated that their efforts were coordinated with CMS' CPC+ learning activities.

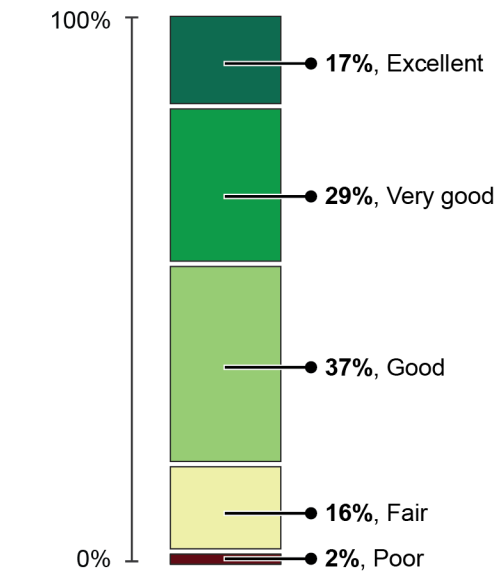


Using CPC+ learning activities.

Responding to the 2018 CPC+ Practice Survey, 82 percent of practices indicated that the CPC+ learning community was doing a good, very good, or excellent job at meeting their CPC+-related needs and helping them improve primary care, with 17 percent of practices rating those services as excellent (Figure 3.7).

Many deep-dive practices made changes as a result of CPC+ learning activities. For example, several deep-dive practices described receiving help from their RLN to adapt workflows and improve documentation within the EHR to meet eCQM benchmarks for CPC+. As another example, several described using the web-based collaboration platform to access resources (such as tips on recruiting participants for and effectively running PFACs). Additionally, several deep-dive practices found that learning sessions helped make CPC+ less overwhelming by providing an overview of CPC+, a perspective on the overall implementation process, and clarification on next steps.

Figure 3.7. Percentage of CPC+ practices reporting that CPC+ learning activities were excellent, very good, good, fair, or poor at meeting their CPC+-related needs and helping them improve primary care



Source: Mathematica's analysis of 2018 CPC+ Practice Survey data.

“I thought [attending the learning session] was important. [The practice staff] came back extremely excited, and feeling they had a sense of pride, because of all the work they have done. I think I articulate the whys pretty well, but when you see it, and you’re sitting in the room with other people, I think it made them feel good. They came back really hyped.”

—System-level staff, 2018



Improving CPC+ learning activities

- **Information dissemination tools.** Many practices found that the amount of information provided was overwhelming and difficult to sift through.
- **Group learning activities.** In general, practices reported that group learning sessions were most helpful when they provided opportunities to learn from and network with other practices and guidance tailored to a type of practice (such as an independent practice in a rural setting) or a given practice role (such as care manager).
- **Tailored one-on-one support.** Practice facilitators indicated that practice coaching was most effective when practitioners and care managers were engaged in CPC+ and participating in learning activities.

For system- or hospital-owned practices, system-level staff played a key role in understanding and using CPC+ supports

- **Payments.** Most deep-dive practices that belonged to multisite medical groups or were owned by a hospital or health system reported that CPC+ funds were budgeted centrally. Of the many practices that conducted centralized budgeting, the degree of input from the practice sites over the allocation of funds varied widely, with about half of systems and medical groups indicating that practice-level staff did not have input into how the funds apportioned to their practice site were spent. Most systems or medical groups allocated CPC+ funds among participating practice sites according to the number of attributed lives; several also noted that a portion of the funds was retained by the system or medical group to pay for centralized services, such as data analysis or care management resources that are operated centrally and shared across participating practice sites.
- **Data feedback.** Several deep-dive practices owned by a system designated system-level staff to review payer feedback reports for all practices in the system and, in many cases, simplify the data so practices could more readily interpret the main themes and identify areas for improvement.
- **Learning activities.** Similar to their role in using data feedback, in many cases, system-level staff attended learning events, reviewed the CPC+ implementation guide, and consolidated the information that they learned before passing it on to individual CPC+ practice sites. Some health systems, after getting to know the RLN practice facilitators, allowed the RLN to meet directly with practice members; others limited practice facilitators' interactions with practices or prevented them from working directly with practices.
- **Health IT support.** System-owned practices often had system-level health IT staff who took responsibility for coordinating with EHR vendors. These practices expressed fewer frustrations working with health IT vendors than independent practices.

3.5. CPC+ health IT support



In 2017, CMS outlined seven enhanced health IT functionalities that Track 2 practices would need to use to support the five Comprehensive Primary Care Functions, two each related to the functions of access and continuity and care management, and one each for the remaining functions (comprehensiveness and coordination, patient and caregiver engagement, and planned care and population). The original deadlines for using health IT to support care varied by CPC+ function. CMS set the earliest for July 2018. (In 2018, CMS refined the CPC+ health IT requirements and delayed some deadlines.)

In 2017, Track 2 practices partnered with approximately 66 health IT vendors that agreed to help them use health IT to support the Comprehensive Primary Care Functions. As health IT vendors offer different functionalities to support the functions, practices can partner with multiple vendors to meet CPC+ care delivery requirements. Although Track 2 practices have more intensive health IT requirements, health IT vendors support practices in both tracks through the vendors' participation in CPC+ learning activities.

Available health IT functionality. Many vendors that we interviewed indicated that they had features available in their products before CPC+ that could support practices' work on each of the five Comprehensive Primary Care Functions. Most vendors reported that they had more advanced functionality to support empanelment and risk stratification at the outset of CPC+ than to support other aspects of CPC+.

All health IT vendors that we interviewed indicated that they had improved their health IT functionality to better support CPC+ practices and/or planned to do so in future years. During the first year, health IT vendors focused most on developing new eCQM reporting dashboards for CPC+. Many reported that they plan to adjust their care plan templates in future years to include all fields required for CPC+.

However, vendors also reported challenges to improving their products, including:

- Lack of corresponding clinical or industry standards (such as preferred risk-stratification algorithms),
- Competing organizational priorities, and
- An unclear business case for CPC+-specific enhancements that vendors felt non-CPC+ practices were unlikely to use.

Collaboration with CPC+ practices.

Roughly half the vendors we interviewed reported that they collaborated with Track 1 and Track 2 practices during CMS-sponsored CPC+ learning activities. Larger vendors (those working with 100 or more Track 2 practices) were more likely to attend CPC+ learning activities than smaller vendors. Vendors indicated that these activities provided a venue for educating practices about existing functionalities and an opportunity for practices to provide feedback on how to improve health IT products so they better support the Comprehensive Primary Care Functions.



Using health IT vendor support. Several deep-dive practices indicated that they had productive relationships with their vendors, highlighting specific benefits as a result of their collaboration. For example, several practices worked with their health IT vendor to develop tools to improve eCQM reporting. A few practices reported working with health IT vendors to create dashboards that display automatic updates when patients are discharged from a hospital or ED to facilitate episodic care management.



Improving health IT vendor support. Practices had mixed views of health IT vendor support, partly reflecting health IT vendors' challenges in developing or improving health IT functionalities in 2017. About half of CPC+ practices (48 percent in Track 1; 55 percent in Track 2) reported on the 2018 CPC+ Practice Survey that health IT vendor

Vendors generally make CPC+ health IT functionalities available to practices not participating in CPC+

Vendors are generally making the CPC+ health IT functionalities that existed before CPC+—as well as those that they develop for CPC+—available to other practices.

Vendors considered many of the CPC+ health IT functionalities—most notably functionalities related to patient empanelment and risk stratification—broadly useful for primary care practices. They typically built these CPC+ health IT functionalities into existing standard products that CPC+ and non-CPC+ practices use and provide them at no extra charge.

However, several vendors felt that a few CPC+ health IT requirements—particularly those related to eCQM reporting and care plan templates—go beyond what practices not participating in CPC+ need and want. In these cases, vendors were offering them for an additional charge through add-on products that CPC+ practices can purchase to meet the CPC+ requirements.

“[The CPC+ learning activities] give us an opportunity to provide guidance to all of our CPC+ customer base at the same time. So everybody is on the same page. Then, we also get to hear their feedback and pain points, so that helps us improve.”

—Health IT vendor, 2017

support was somewhat or very useful for improving primary care. This finding is in contrast to the 75 percent or more of practices reporting that other CPC+ supports—including financial support, data feedback, and learning support—were useful.

Deep-dive practices with more negative views of their vendors noted that vendors were slow to develop product enhancements and/or not responsive to questions about their products. Independent practices tended to express more frustrations working with health IT vendors than system-owned practices, which often had system-level health IT staff who took responsibility for coordinating with EHR vendors.

4. CPC+ PRACTICES BEGAN CHANGING CARE DELIVERY IN 2017

Many CPC+ practices focused on risk stratifying patients to identify those who need more intensive care management, hiring and deploying care managers, and integrating behavioral health into primary care in 2017. As expected at the end of Year 1, practices need to make further improvements to how they deliver care to achieve the Comprehensive Primary Care Functions during the subsequent four years of CPC+.

4.1. Overview of the Comprehensive Primary Care Functions and care delivery requirements

CMS requires participating practices to make many complex, interconnected changes in how they deliver care to their patients oriented around five Comprehensive Primary Care Functions: (1) access and continuity, (2) care management, (3) comprehensiveness and coordination, (4) patient and caregiver engagement, and (5) planned care and population health. To promote progress on these functions, CMS specifies a series of care delivery requirements for practices in each track at the start of each year of CPC+. CMS encouraged practices to view these care delivery requirements as a starting point, or minimum, to build on to advance care delivery within each function (Table 4.1). Practices had autonomy to decide which care delivery requirements or broader changes within each function to implement first, which staff should be involved, and—for certain functions—which tactics they wanted to pursue. Table 4.1 shows the care delivery requirements for the first year of CPC+, for Track 1 and Track 2 practices, including practices that had participated in CPC Classic.

Table 4.1. Comprehensive Primary Care Functions and care delivery requirements in the first year of CPC+, by CPC+ track


Function	Track 1 care delivery requirements	Track 2 care delivery requirements
 <p>1. Access and Continuity</p>	<p>1.1. Achieve and maintain at least 95 percent of active patients^a empaneled to a practitioner^b and/or care team.</p> <p>1.2. Ensure that patients have 24/7 access to a care team practitioner with real-time access to the electronic health record (EHR).</p> <p>1.3. Organize care by practice-identified teams responsible for a specific, identifiable panel of patients to optimize continuity.</p>	<p>Track 1 Requirements 1.1–1.3, plus:</p> <p>1.4. Regularly offer at least one alternative to traditional office visits to increase access to care team and practitioners in a way that best meets the needs of the population, such as eVisits, phone visits, group visits, home visits, alternate location visits (for example, senior centers and assisted living centers), and/or expanded hours in early mornings, evenings, and weekends.</p>

Table 4.1. (continued)





Function	Track 1 care delivery requirements	Track 2 care delivery requirements
 <p>2. Care Management</p>	<p>2.1. Risk stratify all empaneled patients.</p> <p>2.2. Provide targeted, proactive, relationship-based (longitudinal) care management to all patients who are identified as at increased risk, based on a defined risk-stratification process, and who are likely to benefit from intensive care management.</p> <p>2.3. Provide short-term (episodic) care management along with medication reconciliation to a high and increasing percentage of empaneled patients who have an emergency department (ED) visit or hospital admission/discharge/transfer and who are likely to benefit from care management.</p> <p>2.4. Ensure that patients with ED visits receive a follow-up interaction within one week of discharge.</p> <p>2.5. Contact at least 75 percent of patients who were hospitalized in target hospitals within two business days.</p>	<p>2.1. Use a two-step risk-stratification process for all empaneled patients:</p> <p>Step 1 is based on defined diagnoses, claims, or another algorithm (not care team intuition).</p> <p>Step 2 adds the care team's perception of risk to adjust patients' risk stratification, as needed.</p> <p>Track 1 Requirements 2.2–2.5, plus:</p> <p>2.6. Use a plan of care centered on the patient's actions and support needs in management of chronic conditions for patients receiving longitudinal care management.</p>
 <p>3. Comprehensiveness and Coordination</p>	<p>3.1. Systematically identify high-volume and/or high-cost specialists serving the patient population using CMS or other payer's data.</p> <p>3.2. Identify hospitals and EDs responsible for most patients' hospitalizations and ED visits, and assess and improve timeliness of notification and information transfer using CMS or other payer's data.</p> <p>Track 1 Classic^c: also Track 2 requirements 3.3 and 3.4</p>	<p>Track 1 Requirements 3.1–3.2, plus:</p> <p>3.3. Enact collaborative care agreements with at least two groups of specialists identified based on analysis of CMS or other payer reports.</p> <p>3.4. Choose and implement at least one option from a menu of options for integrating behavioral health into care.</p> <p>3.5. Systematically assess patients' psychosocial needs using evidence-based tools.</p> <p>3.6. Conduct an inventory of resources and supports to meet patients' psychosocial needs.</p> <p>3.7. Characterize important needs of subpopulations of high-risk patients, and identify a practice capability to develop that will meet those needs and can be tracked over time.</p>

Table 4.1. (continued)

Function	Track 1 care delivery requirements	Track 2 care delivery requirements
 <p>4. Patient and Caregiver Engagement</p>	<p>4.1. Convene a Patient and Family Advisory Council (PFAC) at least once in the first intervention year, and integrate recommendations into care, as appropriate.</p> <p>4.2. Assess practice capability and plan for support of patients' self-management.</p> <p>Track 1 Classic: also Track 2 requirements 4.1 and 4.2</p>	<p>4.1. Convene a PFAC in at least two quarters in the first intervention year and integrate recommendations into care, as appropriate.</p> <p>4.2. Implement self-management support for at least three high-risk conditions.</p>
 <p>5. Planned Care and Population Health</p>	<p>5.1. Use feedback reports provided by CMS or other payers at least quarterly on at least two utilization measures at the practice level and practice data on at least three electronic clinical quality measures (eQMs, derived from the EHR) at both the practice and panel levels to inform strategies to improve population health management.</p>	<p>Track 1 Requirement 5.1, plus:</p> <p>5.2. Conduct care team meetings at least weekly to review practice- and panel-level data from payers and internal monitoring and use these data to guide testing of tactics to improve care and achieve practice goals in CPC+.</p>

Source: Center for Medicare & Medicaid Innovation. "CPC+ Care Delivery Requirements." 2017. Available at <https://innovation.cms.gov/Files/x/cpcplus-practicecaredlvreqs.pdf>.

^a Active patients refers to patients who received primary care at the practice during a defined look-back period, usually the prior 18 to 36 months.

^b Practitioners include physicians, nurse practitioners, physician assistants, and clinical nurse specialists.

^c CPC Classic practices participating in Track 1 are expected to build on their CPC Classic work, as reflected in CMS' requirement that Track 1 CPC Classic practices satisfy some of the additional Track 2 requirements.

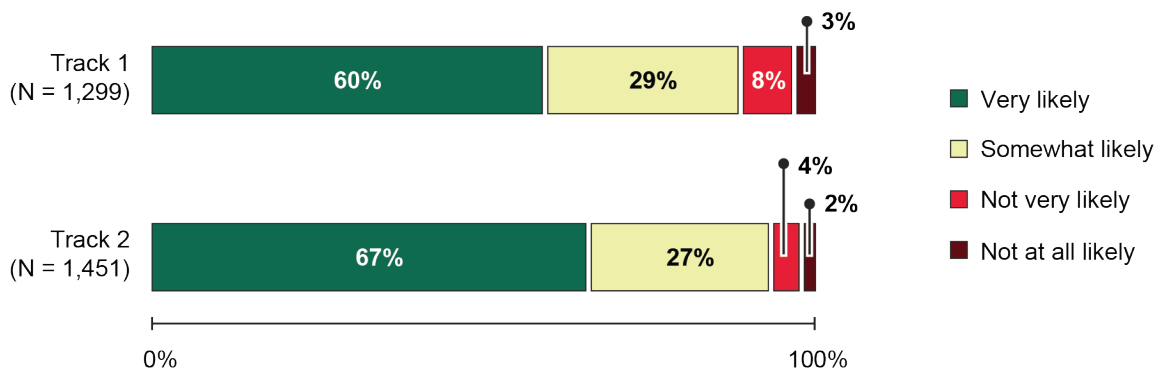
4.2. Practices' overall impression of CPC+

Practices reported they were satisfied with their decision to join CPC+ and, at the end of the first year, many already perceived improvements from participating. Nearly all practices (93 percent) reported on the 2018 CPC+ Practice Survey that CPC+ improved quality of care, with 43 percent saying it improved care a lot. Additionally, based on their overall experience with CPC+, 64 percent of practices would be very likely, and another 28 percent would be somewhat likely to participate in CPC+ again if given the opportunity. Track 2 practices gave slightly more favorable ratings (Figure 4.1).

"CPC+ is helping build the system we needed to build anyway... because when you're looking at population health, when you're looking at being completely at risk for the cost of care, having these resources [especially behavioral health staff, care managers, social workers] in the clinic is a necessity."

—Health system leader

Figure 4.1. Likelihood that practices would participate in CPC+ if they could do it all over again



Source: Mathematica's analysis of 2018 CPC+ Practice Survey data.

Many practices, however, found that meeting the CPC+ requirements was burdensome. Two-thirds of practices reported on the 2018 Practice Survey that meeting the care delivery requirements was somewhat (49 percent) or very (17 percent) burdensome, and just over half of practices said that meeting the health IT requirements was somewhat (32 percent) or very (21 percent) burdensome. Several deep-dive practices reported that staff were supportive of CPC+ despite any increase in workload it may have caused, and some said the extra effort was worth the payoff in improved patient care. For example, deep-dive practices pointed to the benefits of care management in improving patient adherence to recommended treatments; helping practitioners and staff prepare for post-ED or hospital follow-up visits, particularly medication reconciliation; and improving access to and coordination of behavioral health services.

4.3. Practices' overall approach to CPC+

Practices assessed their preexisting work to decide which areas to focus on first and how to prioritize their overall approach to CPC+ in 2017.⁸ Many practices identified care delivery requirements that they met or came close to meeting before CPC+, which allowed them to focus more attention on requirements that would require more effort. Several deep-dive practices focused first on care delivery requirements that were “quick and easy” to achieve, explaining that these would be “early wins” that could build confidence and catalyze staff buy-in for more complex requirements planned for the future. CMS encouraged practices to view the care delivery requirements as a starting point, or minimum, to build on as they advance care delivery within each function but, as practices were ramping up in 2017, they primarily focused on the care delivery requirements.

Although Track 1 and Track 2 practices focused on the same five functions, the Track 2 practices were generally required to complete additional work or transform more deeply for each function. During the first year of CPC+, many practices across both tracks prioritized work on care management (often focusing on risk stratification and hiring and deploying care managers).

⁸ We interviewed 81 CPC+ practices (referred to as “deep-dive practices”) about their experiences with CPC+ in 2017. We used three to four interview modules to guide our discussions with each deep-dive practice; thus, we have detailed information on each CPC+ function and CPC+ support from about 30 diverse practices.

Even though it was not a requirement for Track 1 practices, practices in both tracks also focused on integrating behavioral health into primary care. Additionally, Track 2 practices reported that they worked on requirements specific to Track 2, such as increasing the use of collaborative care agreements with specialists and assessing patients' psychosocial needs. Most practices in both tracks were working on multiple functions at once.

Implementation approaches varied for system-owned versus independent practices. Many systems adopted a standardized approach to CPC+ implementation across their practices, which helped ensure consistency in care delivery but limited each practice's autonomy to define changes for its individual site. In contrast, independent deep-dive practices described engaging practitioners and staff in the prioritization process and having greater autonomy than system-owned practices to make CPC+ changes tailored to their practice's population, such as selecting their own risk-stratification methods or designing or modifying care plan templates to meet their practice population's needs.

4.4. Practices' work on the Comprehensive Primary Care Functions and care delivery requirements

CPC+ practices made progress transforming health care delivery across all five Comprehensive Primary Care Functions. Below, we outline the care delivery requirements, progress CPC+ practices made, and challenging areas for each CPC+ function. As we note in Section 4.2, we found that Track 1 and Track 2 practices were undertaking many of the same activities in the first year of CPC+. We indicate notable differences by CPC+ track; when we do not mention this kind of variation, the findings reported were similar for practices in Track 1 and Track 2.

A. Access and continuity



CPC+ requires practices to improve patients' timely use of needed care ("access to care") from a care team that is cooperatively involved in a continuous relationship with the patients over the course of their health care management ("continuity of care"). For the CPC+ function of access and continuity, CMS required CPC+ practices to empanel patients (that is, assign each active patient to a practitioner and/or care team); organize care into teams to optimize continuity; ensure timely access to care; and for Track 2 practices, provide alternative care delivery approaches to traditional office visits (such as phone visits, eVisits, home visits, or visits in alternative locations) or offer expanded office hours.

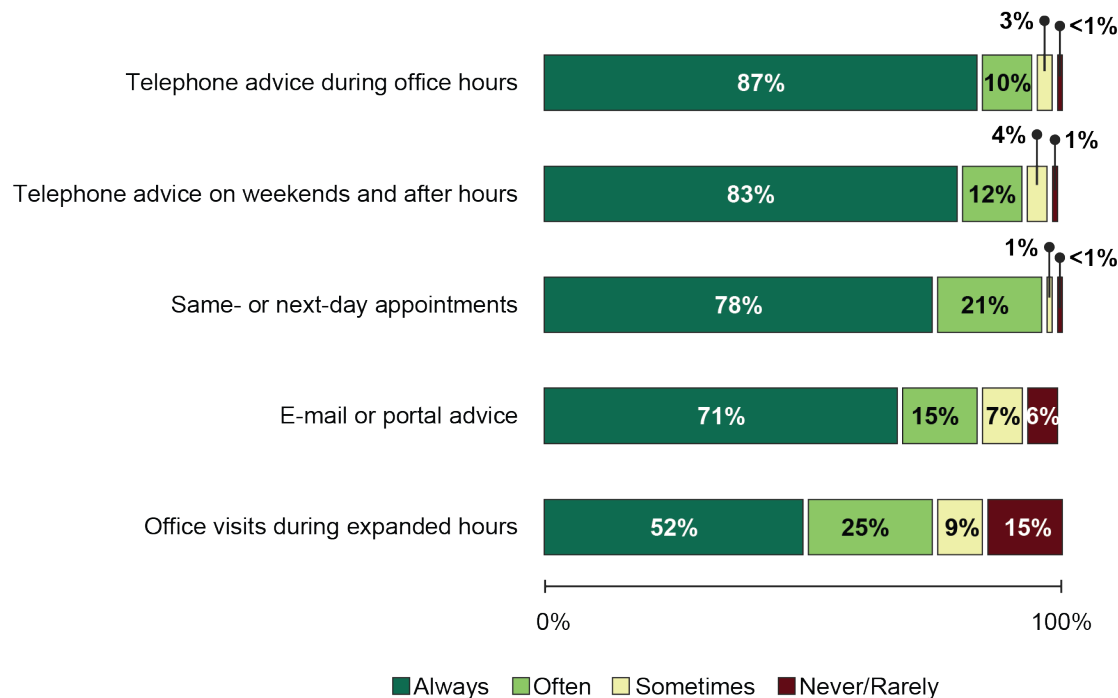


Practice progress

- **Empanelment and access.** Almost all practices met many of the CPC+ access and continuity requirements in 2017. For example, nearly 90 percent of practices had empaneled at least 95 percent of their active patients, and virtually all practices provided 24/7 access to a care team practitioner with access to the EHR. Practices used a variety of strategies to expand access to care (Figure 4.2). Many CPC+ practices reported that they were empaneling patients and providing these access options before CPC+ began.

Several deep-dive practices noted ways that information technology promoted improved access and continuity for patients. These practices noted that EHRs made empanelment assignments readily visible, online portals enabled patients to quickly receive information on lab results or schedule an appointment, and smartphones allowed practitioners to provide 24/7 coverage with EHR access from virtually any location. Practice culture and good working relationships within practices also supported this work.

Figure 4.2. Percentage of CPC+ practices reporting that they offered certain access options to patients, by frequency



Source: Mathematica’s analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Note: Percentages are based on the 2,785 practices that submitted data for the fourth quarter of 2017. We combined the “Never” and “Rarely” categories in this figure. In most cases, the percentages for these categories were small (< 5%).

- Alternatives to traditional office visits.** Although most practices in both tracks were offering at least one type of alternative visit (even though Track 1 practices were not required to do so), deep-dive practices were not using these types of visits regularly to systematically replace face-to-face visits in the first year, and they identified barriers to doing so. For example, some deep-dive practices were not sure whether and how payers would reimburse for group visits, and some mentioned concerns about ensuring quality in an eVisit or phone visit. Among the several deep-dive practices that regularly offered at least one form of alternative visits, most had been doing so before CPC+.

B. Care management



CPC+ requires two approaches to care management. Shorter-term, episodic care management focuses on acute care events such as ED visits, hospitalizations, and new diagnoses. Longitudinal care management is more intensive, for patients identified as higher risk who would benefit from ongoing, proactive care management. Practices are required to use risk stratification to identify patients who might benefit from care management, and to provide longitudinal care management services to the highest-risk patients, such as those with multiple chronic conditions. Track 2 practices are also expected to use care plans to document and track the needs of and actions taken to support patients who receive this type of care management. CPC+ practices are not required to follow a specific care plan template, although CMS identified critical elements care plans may contain, including treatment goals as identified by the care team, the patient’s overall health goals, advance directives and the patient’s preferences for care, actions that the patient and his or her care team will take, and the most important contingencies if the patient’s conditions change.



Practice progress

- Episodic care management.** CPC+ practices were consistently providing short-term episodic care management. In line with CPC+ requirements, practices most often identified patients for episodic care management based on hospital admissions (98 percent of practices), ED visits (92 percent of practices), or the presence of a new condition likely to benefit from care management (75 percent of practices). Most deep-dive practices took similar approaches to episodic care management, using follow-up phone calls to check on the patient’s condition, provide medication reconciliation, educate the patient about appropriate ED use, schedule follow-up primary care and specialist appointments, and assist with access to social services as needed.

“Our care manager has done a tremendous job with the transitional care management, and I think it’s certainly impacted our readmissions and overall medical spending for our high utilizers...There is a big opportunity there.”

—Practitioner in a large, Track 2 system-owned practice

EHRs and electronic information exchange facilitated episodic care management for many practices. Specifically, several deep-dive practices noted that their EHR enabled staff to communicate, update charts, and send practitioners direct messages of items to address during office visits. Many practices had electronic access to at least one hospital’s EHR, which helped them to obtain discharge summaries and test results electronically. However, lack of health IT interoperability remained a challenge in both independent practices (for exchanging information with other organizations, including specialists and hospitals) and system-owned practices (for exchanging information with specialists and hospitals outside their system).

- Risk stratification.** Almost all practices (97 percent) reported they used a data-driven algorithm as part of their approach to risk stratify patients and identify those who need targeted, proactive, relationship-based longitudinal care management. Although this was only required of Track 2 practices, 95 percent of Track 2 practices and 79 percent of Track 1

practices used both a data-driven algorithm and clinical intuition as part of their risk-stratification process. Social needs were the most common “other factors” practices considered when using care team/clinical intuition to risk stratify their patients. Several deep-dive practices faced challenges to risk stratifying their patient populations including defining clear clinical criteria for categorizing patients into different risk levels, identifying appropriate risk stratification algorithms, incorporating necessary data sources, lacking EHR functionality to automate risk stratification, and implementing workflows to support systematic risk stratification. Moreover, some practitioners saw the benefits of risk stratifying their patients, but others did not consider risk stratification helpful, because they felt that they already knew which patients were at high risk.

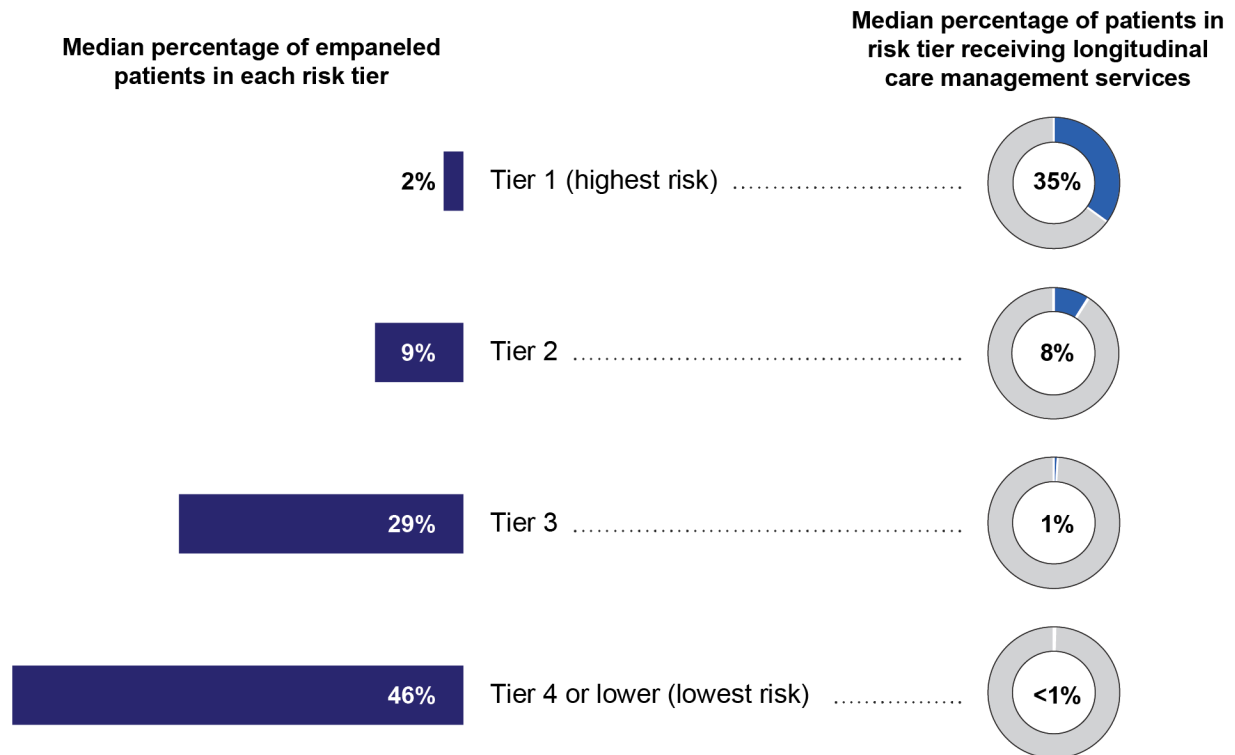
- **Longitudinal care management.** In system-owned practices, it was common for multiple practices in the same system to share one or more care managers, across CPC+ and non-CPC+ practices. Whereas some independent practices hired new care managers for their practice, other independent practices did not have the resources to hire a care manager, so the existing practitioners and staff had to absorb the burden of doing this work on top of their usual work.

Practices used a variety of communication modes to facilitate longitudinal care management—such as planned huddles, electronic messaging in the EHR, and ad hoc communication among co-located care managers and other practice staff.

Deep-dive practices reported some common challenges to providing longitudinal care management to high-risk patients, including inadequate numbers of care managers, competing priorities for care managers’ time (due to both unclear definitions of care managers’ roles and the size of patient caseloads), care manager turnover, and patients’ reluctance to engage in care management. As expected in the first year of the initiative, practices were still developing their care management capacity and just over one-third of the patients identified as being at the highest risk were under longitudinal care management (Figure 4.3); practices were planning to expand care management to more high-risk patients in 2018.

- **Care plans.** Although most Track 2 practices reported meeting the requirement to use a formal care plan, other evidence suggests that the use of care plans (as defined by CMS) was much lower in 2017. Care delivery reporting data indicate that, although 93 percent of practices overall reported using care plans that document and track the needs of and actions taken to support patients under longitudinal care management, only 46 percent of Track 2 practices and 30 percent of Track 1 practices reported that they systematically implemented care plans for all or most of these patients. Furthermore, practitioners and other staff at deep-dive practices were often confused about what care plans are and/or resisted adopting them because they felt that (1) information that would be included in a care plan already existed in the EHR progress notes or after-visit summaries, or (2) they knew their patients well enough that they did not need a formal care plan.

Figure 4.3. Median percentage of patients by risk tier, and median percentage of patients in each tier who received longitudinal care management in 2017



Source: Mathematica’s analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Notes: Practices defined the number and criteria for as many as 10 risk tiers used in risk stratification. We provide the median number of empaneled patients and the percentage receiving care management services that practices reported for Tiers 1–3 here, and for combined Tiers 4–10.

C. **Comprehensiveness and coordination**



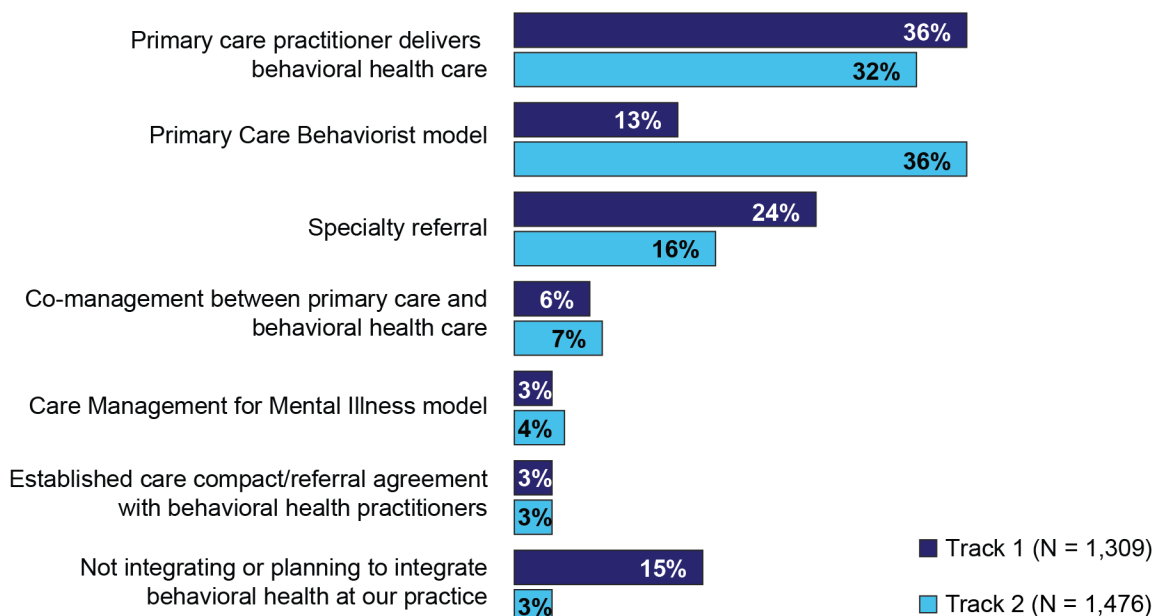
CMS encourages CPC+ practices to provide comprehensive and coordinated care. The CPC+ implementation guide uses the term “comprehensiveness” in the primary care setting to refer to a practice meeting most of its patient population’s medical and behavioral health needs in pursuit of each patient’s health goals. In 2017, CMS required Track 2 practices and Track 1 CPC Classic practices to improve comprehensiveness by integrating behavioral health into primary care, assessing their patients’ psychosocial needs (such as housing, food insecurity, transportation), and identifying services and community resources to meet those needs. “Coordination” refers to the primary care practice’s central role in helping patients and caregivers navigate a complex health care system, and requirements for all practices included identifying and communicating with specialists, and assisting with care transitions and timely follow-up after hospital and ED discharges.



Practice progress

- Behavioral health integration.** Many Track 2 and Track 1 CPC Classic practices took steps to integrate behavioral health into their practice, typically using a combination of strategies consistent with the Primary Care Behaviorist model, where a behavioral health provider (such as a psychologist or clinical social worker) is integrated into the primary care workflow through warm handoffs and co-location (Figure 4.4).⁹ And, although it was not a requirement, other Track 1 practices also pursued behavioral health integration. To further enhance comprehensiveness, most practices were planning to continue to develop behavioral health care in the second year of CPC+, and roughly one-quarter reported focusing on medication therapy management or chronic pain management. Several deep-dive practices had begun bringing resources (such as clinical social workers) in house to improve their ability to meet patients' needs for behavioral health counseling. However, practices' ability to integrate behavioral health care was hampered by the lack of available psychiatrists and behaviorists of all types in many regions.

Figure 4.4. CPC+ practices' primary behavioral health integration strategies



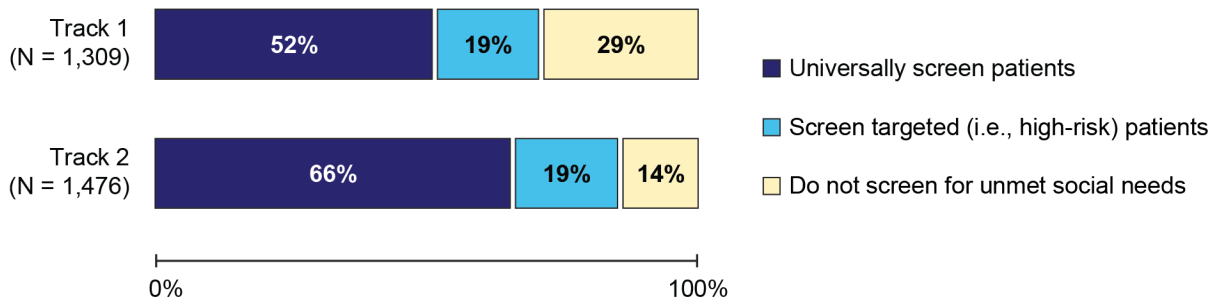
Source: Mathematica's analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Note: Percentages are based on the 2,785 practices that submitted data for the fourth quarter of 2017. Practices could check multiple response options.

⁹ CPC Classic and Track 2 practices were required to choose at least one of two strategies for behavioral health integration within the practice: (1) the Primary Care Behaviorist model, where a behavioral health provider (such as a psychologist or clinical social worker) is integrated into the primary care workflow through warm handoffs and co-location, or (2) the Care Management for Mental Illness model, in which the primary care practitioner is the treating provider who works with a care manager (often a nurse trained in behavioral health) and a psychiatrist who supports the care manager, provides decision support, and is linked to this primary care team both telephonically and through the EHR.

- Social needs screening.** Eighty-five percent of Track 2 practices and 71 percent of Track 1 practices reported screening patients for unmet social needs (such as housing, food insecurity, and transportation) in 2017, even though only Track 2 practices were required to do so (Figure 4.5). Track 2 practices incorporated into their EHR social screening tools to document patients' social needs, but several deep-dive practices felt their EHR lacked the functionality to support such tracking.

Figure 4.5. Percentage of CPC+ practices that screen for unmet social needs



Source: Mathematica's analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Note: Percentages are based on the 2,785 practices that submitted data for the fourth quarter of 2017. Practices could check multiple response options.

- Inventory of social services resources.** Although only Track 2 practices are required to create and maintain an inventory of resources and supports that meet patients' psychosocial needs within their health IT, most CPC+ practices in both Track 1 and 2 reported that they maintained or had access to an inventory of social services resources. However, several system-owned deep-dive practices had multiple inventories of resources that had been created by practice staff who did not know that other inventories already existed.
- Specialist coordination.** Practices were placing more emphasis on coordinating care with specialists. Participating in CPC+ helped many Track 2 deep-dive practices enhance coordination by adding new staff to help manage the process for making referrals to specialists, and by enhancing processes for referral tracking and follow-up. CPC+ practices' efforts to improve the coordination of care also focused on developing collaborative care agreements with specialists—plans that outlined the respective expectations about roles and information sharing between primary care and specialist providers. Consistent with the 2017 Track 2 requirement, more Track 2 than Track 1 practices used collaborative care agreements (86 versus 57 percent, respectively).

“When the care compact requirement came out...[working on] it did help us, because we were having trouble with an oncology group, and it...let [us] bring them to the table. It let us sit down and tell them, these are our struggles, and open up that communication with them, so they know when they do see our patients, they'll give [consult notes] back to us.”

—CPC+ coordinator from a small, system-owned Track 1 practice

- Data to identify high-cost, high-volume specialists.** Most CPC+ deep-dive practices were not using the data CMS and other payers shared on high-cost, high-volume specialists to alter their referral decisions, preferring to use practitioners’ judgment and experience to guide their decisions. In several deep-dive practices, system-level staff reported that they reviewed these data from CMS and in some cases filtered key findings down to practice staff and practitioners; however, practice-level respondents typically reported that they did not see these data. In practices where practitioners had seen these data, a common sentiment was that practitioners considered factors other than cost when making referrals, such as patient preference, insurance networks, and the primary care practitioner’s knowledge of the specialists’ technical skills and communication back to the primary care practice.

D. Patient and caregiver engagement



CMS requires CPC+ practices to “engage patients and caregivers in practice improvement” by offering opportunities for patients

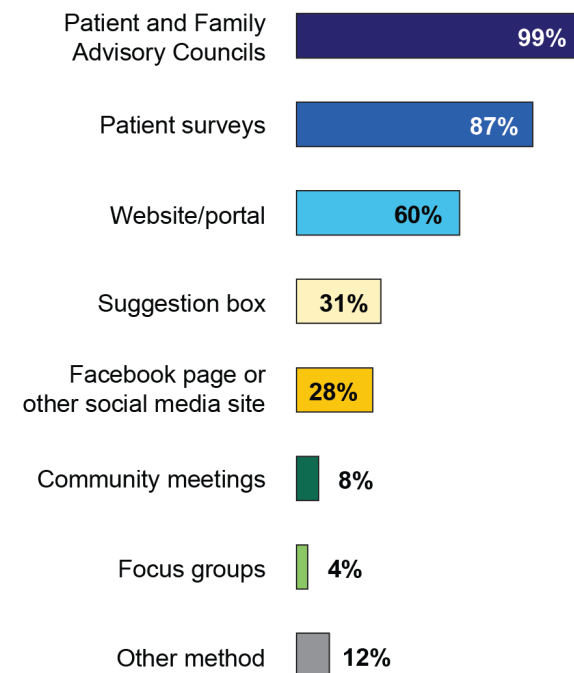
and caregivers to participate in efforts to improve health care delivery. All CPC+ practices are also required to assess their capacities to provide self-management support, and practices in Track 2 are required to implement self-management supports to enhance patients’ willingness and ability to manage their own health care for at least three conditions.



Practice progress

- Patient and caregiver feedback.** Practices engaged patients in practice improvement. Nearly all practices tried to elicit input directly from patients who receive care at the practice, their family members, and/or caregivers by establishing a PFAC (99 percent), and 87 percent of practices used surveys to engage patients in practice improvement (Figure 4.6). Although CPC+ care delivery reporting data indicated that most practices held the number of PFAC meetings required for their track, roughly half of deep-dive practices said they encountered challenges with patient and caregiver attendance at meetings, and a few practices wanted additional guidance on organizing and facilitating an effective PFAC.

Figure 4.6. Percentage of CPC+ practices that reported using various methods to engage patients and caregivers in practice improvement



Source: Mathematica’s analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Note: Percentages are based on the 2,785 practices that submitted data for the fourth quarter of 2017. Practices could check multiple response options.

Most practices made changes to improve patients' experience of care in response to feedback gathered from PFACs, surveys, and other sources. These changes most commonly related to communication and customer service (such as upgrading telephone and answering systems), patient access and flow (such as decreasing wait times), and patient education and outreach (such as creating information sheets listing practice personnel and services). Several deep-dive practices also reported making changes to improve clinical processes (such as revising patient intake forms) and the physical features of practices (such as installing automatic door openers).

- **Self-management support.** Nearly all Track 2 practices (98 percent) and Track 1 CPC Classic practices (96 percent) reported they provided self-management support. Despite not being required to do so, most Track 1 practices that did not participate in CPC Classic also reported they provided self-management support (87 percent). Deep-dive practices used a variety of strategies to provide self-management support in the first program year, such as teaching condition-specific skills, collaboratively setting goals, and providing on-site educational classes. Several deep-dive practices reported efforts to build capacity for self-management support as a direct result of their participation in CPC+. For example, practices added specialized staff (such as care coordinators, care managers, or social workers) who enabled them to provide new or enhanced self-management supports, and they trained practitioners and other staff in relevant skills (such as motivational interviewing and teach-back techniques). Nonetheless, about half of deep-dive practices reported struggling to motivate patients to engage in self-management support.

E. Planned care and population health

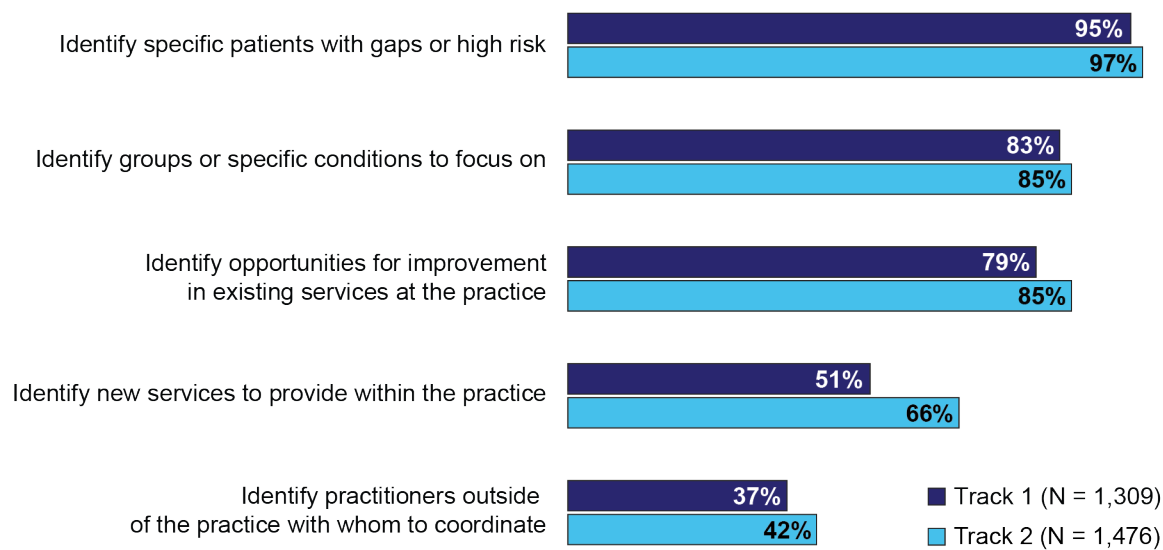


CPC+ encourages practices to organize health care delivery to meet the needs of their entire patient population. This approach to health care delivery, referred to as “planned care and population health” in CPC+, calls for practices to use data and a team-based approach to care to proactively and efficiently manage care for empaneled patients. CPC+ requires practices to use payer feedback and eQCM data to identify gaps in care for the patient population and select high priority areas for QI. To proactively and efficiently manage health care for empaneled patients, CPC+ also requires practices to use a team-based approach and requires Track 2 practices to hold weekly care team meetings to review data.



Practice progress

- **Data to guide QI efforts.** In 2017, nearly all practices used payer feedback and eQCM data to improve quality at the point of care for individual patients, and to identify opportunities for improving existing services at the practice. Most deep-dive practices monitored population-level data before CPC+ and were tracking more eQCMs than required for CPC+ (CMS required practices to select 3, and in several cases, practices were tracking more than 15). Nearly all practices met or exceeded the requirement to review utilization and eQCM data quarterly. Most commonly, CPC+ practices reported using data to identify patients with “gaps or high risk” (Figure 4.7).

Figure 4.7. Percentage of CPC+ practices using data for various QI purposes

Source: Mathematica's analysis of 2017 (Q4) care delivery reporting data submitted by practices to CMS via the CPC+ Practice Portal.

Note: Percentages are based on the 2,785 practices that submitted data for the fourth quarter of 2017.

Practices saw the benefits of using data to guide QI, despite experiencing challenges. Many deep-dive practices found value in tracking and reporting eCQMs, saying that doing so helped staff more consistently screen and educate patients and focused staff members' attention on areas for overall improvement. However, roughly half of deep-dive practices reported that they believed the measures in payer feedback and eCQM reports were inaccurately or unfairly calculated and indicated that this perception was a barrier to using the data to drive QI. These practices raised concerns with the measure specifications, incomplete EHR documentation by practice members, missing follow-up data from some providers outside the practice, and EHRs inaccurately calculating eCQMs.

“A couple of RNs used to look at quality metrics related only to certain contracts and would make a mad dash [to improve rates] at the end of the year... but now it's something we do every day. It's now a formal part of our chart prep, which is huge... So, I think CPC+ has given us a path and a focus, and it's tangible, and it's measurable, and it makes a difference.”

—Practice manager at a large, Track 2 system-owned practice

- Population health management.** Most deep-dive practices used team-based approaches to population health management before CPC+, but CPC+ contributed to multiple enhancements. These enhancements included adding new staff or placing existing staff in roles increasingly dedicated to improving the efficiency and accountability of population health work. For example, population health/QI staff were responsible for (1) running reports (at the practice or practitioner level) that practices used in huddles and pre-visit planning efforts to identify gaps in care and (2) tracking down records and results for patients who had been seen outside of the practice or system. Many Track 2 deep-dive

practices reported that in 2017 they focused more on using practice- and panel-level data during care team meetings to guide the testing of tactics to improve care than before CPC+.

- **Care team meetings.** Practices said that having a designated leader—often a practice manager, practitioner, or nurse—facilitated engagement and productivity during care team meetings to review data. Several Track 2 deep-dive practices said that meetings helped convey information to practitioners and staff about the practice’s performance, address gaps in care in a timely manner, and encourage staff to focus on delivering high quality care.

“We make decisions. We then implement them. Then, we meet. We see what works, see what doesn’t work... We listen to feedback. Did we accidentally put too much on somebody? Did we burden somebody with 14 steps that could have been done in 2? We listen to ideas of the people that are performing those specific roles.”

—Office manager at a medium-sized, Track 2 system-owned practice

However, practices had issues with the frequency of meetings to review data. Although most practices convened regular care team meetings to review data, less than one-fifth of Track 2 practices (18 percent) met the CPC+ requirement to hold these meetings at least weekly. Roughly half of Track 2 practices reported that they held care team meetings at least monthly, and the rest reported that they did so either at least quarterly or on an ad hoc basis. Several deep-dive practices questioned the usefulness of data-focused meetings and especially the requirement to hold such meetings weekly.

4.5. Cross-cutting findings on practice transformation

In this section, we highlight the major cross-cutting factors that supported or hindered CPC+ practices’ transformation work in 2017. We also note implications of these findings for future years of CPC+; we highlight these implications with a lightbulb icon.

A. Factors that supported implementation in 2017

- **Prior transformation experience.** Deep-dive practices with primary care transformation experience noted that this foundation enabled them to implement CPC+ care delivery requirements more systematically across the five Comprehensive Primary Care Functions. For example, according to practices that previously had obtained PCMH recognition, the earlier work created a strong foundation for strategies they further developed in CPC+, particularly care management and care coordination. On the other hand, many practices without experience in PCMH models or other transformation efforts were still hiring new staff, such as care managers for the care management function and clinical social workers or psychologists for behavioral health integration, at the end of 2017.
- **Having a designated CPC+ leader.** Practices that had someone at the practice level who championed CPC+, as well as designated leaders for specific CPC+ activities such as using data to drive QI, found implementation of CPC+ requirements more manageable.
- **A practice culture that embraced CPC+ concepts.** Deep-dive practices with a culture that (1) fostered a comprehensive approach to primary care, (2) promoted good working

relationships among staff and practitioners, and (3) enabled team members to speak openly about problems, also seemed to have an easier time implementing CPC+.

- **A team-based approach to care.** Using a team-based care approach was a common facilitator to CPC+ implementation, and staff reported that participating in CPC+ improved trust and communication among practice staff. Most deep-dive practices held regular meetings, sent instant messages through their EHR, and used daily huddles to communicate about patient needs. Additionally, practices presented and reviewed data with staff to foster commitment to improving quality measures.
- **Robust health IT features and functionalities.** Deep-dive practices with robust health IT features and functionalities that supported administrative tasks, clinical care, QI, and population health efforts identified these functionalities as key facilitators of CPC+-related work, whereas practices without them reported implementation challenges. Having robust health IT functionalities influenced practices' ability to implement each of the five Comprehensive Primary Care Functions. For example, practitioners reported that having remote access to the EHR allowed them to respond to patients' needs 24/7 and aided timely and accurate documentation after hours. EHRs also helped practices automate risk stratification by using algorithms for assigning risk scores. EHR templates facilitated care management by automatically populating care plan data in patients' charts. Health IT also helped practices identify care gaps, create registries, and monitor eCQMs.
- **Access to resources and supports from a larger health care organization.** System-owned deep-dive practices tended to have greater access to resources to support CPC+ implementation than independent practices; independent practices often added new responsibilities to the roles of existing staff and practitioners. For example, system-owned practices often had greater access to staffing resources for care management and behavioral health integration, data analytics capabilities, and QI resources. System practices also reported that they could use health IT to easily access and exchange data from specialists, EDs, and hospitals within their system. In contrast, independent practices struggled with more complex and technical requirements due to resource limitations. Some small independent deep-dive practices did not hire a new care manager due to limited funding and/or a small number of high-risk patients; instead, existing (and already burdened) nurses, medical assistants, and practitioners took on the care manager role.



Practices that lack one or more of these facilitating factors—such as those that are new to primary care transformation and/or team-based care, lack sophisticated health IT, or are independent—may need more support or creative ideas about identifying and using resources to implement CPC+ changes.

B. Factors that hindered implementation in 2017

- **Lack of understanding of the care delivery requirements.** Practices varied in their level of understanding of care delivery requirements in the first year of CPC+. For example, during deep-dive interviews, practitioners often conflated “care plans” as described in the CPC+ implementation guide with after-visit summaries, progress notes, and condition-specific action plans for patients.



Practices found the information included in the CPC+ implementation guide overwhelming, and several reported that the guide was written in vague language that was difficult to interpret. Providing streamlined explanations of key concepts in plain language may be helpful to practices.

- Perception that some care delivery requirements were not beneficial.** Most deep-dive practices reported that they implemented particular care delivery requirements such as risk stratification, care plan use, and identification of high-cost, high-volume specialists. However, practitioners at several deep-dive practices felt that some requirements forced a “one-size-fits-all” approach to care that interfered with clinical judgment and did not add to the quality of care, and so they had not fully implemented these activities. For example, a few deep-dive practices that understood the requirements well said a pre-determined risk-stratification algorithm did not work for them, because they were unable to define clinical criteria for categorizing patients’ risk status and preferred to rely on their personal knowledge of their patients. Similarly, some practitioners understood what CMS was asking of them regarding care plans, but they felt care plans were not helpful because (1) the information already existed in progress notes or after-visit summaries, or (2) they knew their patients well enough that they and their patients did not need the type of care plan CMS requires for CPC+. Further, it was common for physicians to consider their choice of specialists for referrals as a “practitioner-specific decision,” and to report that they did not need data identifying high-cost, high-volume specialists to guide them.



A stronger evidence-based case needs to be made as to why and how the care delivery requirements will improve patient outcomes, beyond practices’ current approaches to primary care.

- Limited health IT functionality and poor interoperability.** Practices without robust EHR functionalities or interoperability faced challenges to implementing the Comprehensive Primary Care Functions. This was particularly true for risk stratification, creating care plans and sharing them across team members, and reporting eQMs, which practices found burdensome. System-owned practices typically had access to information from other providers within their system, but independent practices had more limited access to and ability to exchange information with other providers, including outside specialists and hospitals.



CPC+ practices, particularly independent practices, need more support from EHR vendors to develop and/or begin to use EHR functionalities necessary to carry out the care delivery requirements. Additionally, practices need more support for interoperability, via a national or state infrastructure, to exchange information electronically with providers outside their organizations.

- Difficulty integrating care managers into the practice.** Care managers in some deep-dive practices reported that they felt overwhelmed with multiple responsibilities and large caseloads of higher-risk patients (such as those with recent hospitalizations). In other practices, care managers newly hired for CPC+ often felt that they were underutilized and their roles were unclear, especially in practices that had not previously participated in CPC Classic or a medical home initiative. In these practices, practitioners tended to preserve care

management responsibilities for themselves and were slowly adjusting to sharing responsibility for their patients with the care manager.



Practices that had not previously worked with care managers, and practices with care managers who felt overwhelmed, could benefit from targeted learning support to refine care management roles and to manage the expectations of other practice members for care manager activities. In addition, integrating care managers into the care team will require continued efforts to gain practitioners' buy-in to the care manager role. These activities would help effectively integrate the care manager role into primary care practices while avoiding overwhelming care managers or missing opportunities to optimize patient care.

- **Challenges engaging patients in CPC+ efforts.** Many practices reported that they struggled to motivate some patients to engage in care planning and self-management efforts and to use health care resources such as 24/7 access, patient portals, EDs and hospitals, and specialists appropriately. Practices also said that some patients resisted care management services, follow-up calls, and self-management support because they feared they would incur out-of-pocket expenses or felt inundated with medical information from multiple sources. Practices expressed concern that patients' lack of motivation, interest, or willingness to change behaviors, adhere to treatment recommendations, or set health goals resulted in barriers to successful care management. Practices also felt that it was unfair to include patients who did not adhere to recommendations when determining performance on eCQMs, because practices could do little to encourage adherence among patients who refused care.



Practices need more capacity to engage patients in managing their own health and to allay patients' concerns related to out-of-pocket expenses and other factors. Additional learning activities aimed at developing this capacity, including approaches to assess patient motivation, motivational interviewing skills, and other patient engagement techniques, could help.

- **Supports that are inadequate or difficult to use.** Although support for CPC+ practices was substantial in 2017, some practices indicated they needed additional funding and/or more guidance from payers and vendors. In Chapter 3, we describe how practices' perceived of and used enhanced and alternative payments, data feedback, learning activities, and health IT support, and we outline how CMS, other payers, and health IT vendors could improve those supports.
- **Competing financial priorities for the specialists and hospitals who serve the CPC+ practices' patients.** Several deep-dive practices from hospital-owned and multispecialty systems acknowledged that the CPC+ goals to reduce hospital/ED admissions and to limit nonessential referrals to specialists posed challenges for the systems' bottom line. A few practices recognized that this tension applied to payment reforms in general and thought it would resolve itself as the health care market shifts toward value-based purchasing arrangements, such as ACOs, that reward health care organizations for reducing costs. In the meantime, organizational leaders stressed that, if practices can deliver high-value care, they will do better financially in the long term: "It's a steady drum beat of continuing to educate

and advocate [for value-based contracting] and show our value in this changing payment environment.” A few other organizational leaders thought that any tension is likely to resolve over time as lost revenue from fewer hospital admissions and ED visits is offset by increasing the total volume of patients the system serves, and as gaps in care are addressed that could lead to increased (and appropriate) use of revenue-generating specialty services.



More incentives are needed for specialists and hospitals to control spending. Even with greater rewards and increased supports for primary care practices for changing how they deliver care, the volume-based FFS incentives influencing the behavior of specialists and hospitals will continue to present a challenge to reducing costs. Because primary care services account for only about 5 percent of health care spending, it is necessary to involve specialists, hospitals, and post-acute care facilities in cost-control efforts.

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5. AS EXPECTED, CPC+ HAD FEW IMPACTS ON OUTCOMES FOR MEDICARE FFS BENEFICIARIES IN 2017

Primary care transformation takes time to implement; therefore, as expected, CPC+ had minimal effects on Medicare FFS beneficiaries served by practices that began CPC+ in 2017. There were few, very small differences in the changes in service use and quality-of-care outcomes or total Medicare expenditures without enhanced CPC+ payments. When including CMS enhanced payments, the changes in expenditures were 2 to 3 percent higher for CPC+ practices than for comparison practices. For each track, the estimated increase in net expenditures was similar in size to the average care management fees practices received for Medicare FFS beneficiaries.

5.1. Methods for calculating the effects of CPC+

We examined the effects of CPC+ on claims-based measures of expenditures, service use, and selected aspects of quality, for Medicare FFS beneficiaries in practices that started CPC+ in 2017 for the first year of CPC+ (January through December 2017).¹⁰

The analysis used rigorous methods and large sample sizes. We estimated the impact of CPC+ on Medicare FFS beneficiaries by using difference-in-differences regressions. These regressions compare the changes in mean beneficiary outcomes from the year before CPC+ to the first year of CPC+ between (1) beneficiaries served by the CPC+ practices that started in 2017 and (2) beneficiaries served by a set of similar practices that were not participating in CPC+ (“comparison practices”). To form the comparison group, we selected practices that are not participating in CPC+ but were similar in other ways to CPC+ practices before CPC+ began. Specifically, the CPC+ and comparison practices had similar (1) Medicare FFS beneficiaries (with similar characteristics, conditions, Medicare expenditures, hospitalizations, and ED use); and (2) practice characteristics (such as size, health system ownership status, experience with primary care transformation and EHRs, and rural/urban location).

This analysis compares outcomes for more than 2 million Medicare FFS beneficiaries served by nearly 3,000 CPC+ practices with outcomes for nearly 5 million beneficiaries served by thousands of comparison practices. To identify the Medicare FFS beneficiaries included in our analysis, we used claims data to assign Medicare FFS beneficiaries to practices that were participating in CPC+ as of April 1, 2017, that is, just after the end of the first quarter for practices that started in 2017. Once a beneficiary was assigned to a CPC+ practice for our analysis, we continued to include that beneficiary in future analyses, even if his or her practice later left CPC+. We followed the same approach to identify beneficiaries served by comparison practices, to ensure comparability with the CPC+ sample.

¹⁰ We plan to report outcomes for eQMs in future annual reports. The eQMs cover a wider range of quality concepts than the limited set of claims-based measures. The eQMs also cover a wider population: all patients regardless of payer, rather than only Medicare FFS beneficiaries. However, unlike the eQMs, the claims-based outcomes can be measured comparably for the CPC+ and comparison practices.

5.2. Year 1 effects of CPC+ for practices that began in 2017

Based on the CPC+ design and the literature on related models, we expected to see minimal changes in outcomes, if any, in the first year of CPC+.

A. Medicare FFS beneficiaries' service use

Our findings on the impact of CPC+ on Medicare FFS beneficiaries' service use in 2017 show some small favorable effects. These findings were similar for Track 1 and Track 2 practices and for practices that were and were not in SSP.

- In the first year of CPC+, when contrasted with the comparison practices, Track 1 and Track 2 CPC+ practices:
 - **Reduced the rate of outpatient ED visits.** Overall, Medicare FFS beneficiaries seen by CPC+ and comparison practices had fewer outpatient visits to the ED in the first year of CPC+ than the year before CPC+ began. But CPC+ practices saw a slightly larger decline: 1.2 percent greater for Track 1 (six fewer outpatient ED visits per 1,000 beneficiaries seen at the practice) and 1.6 percent greater for Track 2 (eight fewer visits per 1,000 beneficiaries seen at the practice; both $p < 0.01$). Outpatient ED visits include visits that do not lead to a hospitalization as well as observation stays.
 - **Slowed the growth of ambulatory care visits to primary care practitioners.** Whereas the rate of visits increased for both CPC+ practices and comparison practices, the growth was slower for CPC+ practices by 1.6 percent for Track 1 (74 fewer visits per 1,000 beneficiaries) and 1.8 percent for Track 2 (87 fewer visits per 1,000 beneficiaries) ($p < 0.01$ for each; Table 5.1).
- However, we do not consider the small effects observed for ED visits and ambulatory care visits to primary care practitioners to be conclusive evidence that CPC+ had an impact on service use. Our analysis may have picked up small, random differences between the CPC+ and comparison practices as opposed to meaningful, real differences in the rate of ED visits and ambulatory visits to primary care practitioners. If CPC+ practices continue to outperform comparison practices in these areas and the gap between them and comparison practices grows in future years of CPC+, we will be more likely to conclude that CPC+ decreases Medicare FFS beneficiaries' service use. Also, even if the estimated differences are due to CPC+, they are small and, as described in the next section, they do not yield discernable reductions in total Medicare expenditures.

In 2017, CPC+:



- ▶ Reduced rate of ED visits by between 1.2 and 1.6 percent



- ▶ Slowed growth of ambulatory primary care visits by between 1.6 and 1.8 percent



- ▶ Had no impact on acute hospitalizations



- ▶ Had no impact on ambulatory specialty care visits

B. Medicare expenditures for FFS beneficiaries

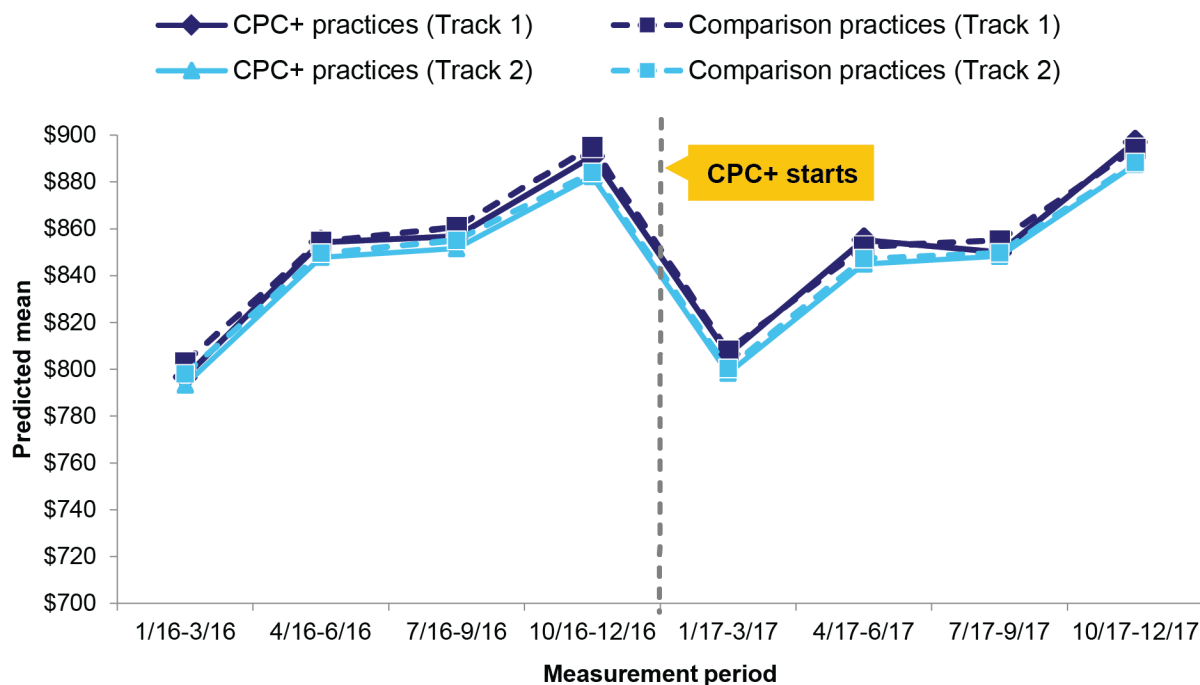
CMS theorized that changes in care delivery made by CPC+ practices would result in a reduction in overall Medicare expenditures that is great enough to offset CMS' enhanced payments. To test this, we analyzed Medicare expenditures for FFS beneficiaries (1) without CMS' enhanced payments and (2) with CMS' enhanced payments. (As we are estimating impacts on Medicare expenditures for FFS beneficiaries, we did not include enhanced payments from other payers in our calculations.) Enhanced payments are made *in addition to traditional payments for services*. These enhanced payments include CMS' CPC+ care management fees for Medicare FFS beneficiaries as well as CMS' payments for rewarding performance: (1) prospectively paid and retrospectively reconciled performance-based payments for practices that are not participating in the Medicare SSP; and (2) shared savings payments to ACOs for practices that are participating in SSP.

For Track 2 practices, CMS also provided alternative payments that shifted a portion of practices' payments for services from FFS to prospective payments—referred to as Comprehensive Primary Care Payments. As these are payments *for services*, they are included in both sets of Medicare expenditure analyses.

When excluding CMS' enhanced CPC+ payments, expenditures for Medicare FFS beneficiaries were similar for CPC+ and comparison practices in 2017. Thus, when including those payments, expenditures for Medicare FFS beneficiaries were higher for CPC+ practices.

- **Expenditures *without* enhanced payments were similar for CPC+ and comparison practices.** In both tracks, CPC+ and comparison practices had similar quarterly trends in total Medicare expenditures without CMS' enhanced payments (Figure 5.1). Annual impact estimates were small, close to zero, and not statistically significant—showing no impact in either track on total Medicare expenditures without CMS' enhanced payments. The differences in the changes in expenditures between CPC+ practices and comparison practices were \$3 and \$1 in Track 1 and Track 2, respectively, or less than half a percent (Table 5.1). Within each track, these findings were similar by SSP participation. The findings were also robust to various sensitivity tests and generally did not vary by beneficiary- or practice-level subgroup.
- **Expenditures *including* CPC+ enhanced payments and SSP shared savings payments increased more for CPC+ practices.** After including CMS' enhanced CPC+ payments (which are higher for Track 2 than Track 1) as well as shared savings payments received by the ACOs of practices that participate in SSP, the increases in Medicare expenditures for Track 1 and Track 2 CPC+ practices between baseline and Year 1 were \$18 and \$27 PBPM (2 and 3 percent) higher than the increase in expenditures for comparison practices ($p < 0.01$ for each test). For each track, the estimated increase in net Medicare expenditures was similar in size to the average care management fees practices received for Medicare FFS beneficiaries.

Figure 5.1. Quarterly trends in mean Medicare Part A and Part B expenditures PBPM, excluding CMS' enhanced payments, for 2017 Starters, by track



Source: Analyses of Medicare claims data from January 2013 through December 2017.

Notes: Means are regression-adjusted to control for pre-CPC+ beneficiary characteristics and practice fixed effects (and are labeled as "predicted means" on the Y-axis).

PBPM = per beneficiary per month.

C. Claims-based quality measures

Relative to comparison practices, CPC+ practices demonstrated small improvements in the proportions of Medicare FFS beneficiaries who received recommended preventive care for diabetes and breast cancer screening. These relative improvements were small—one percentage point or less—for each track, and cover only the first year of CPC+ (Table 5.2). Whereas improvements were seen for SSP and non-SSP practices in Track 2, in Track 1, these improvements were concentrated in the non-SSP group. There were no sizable or statistically significant changes relative to the comparison group in 30-day unplanned readmissions, or the proportions of beneficiaries who received hospice services, had an advance care plan visit, or died.

Given the limited set of claims-based quality measures, the small magnitude of the CPC+ estimates, and the fact that we have only one year of data so far from the intervention, we cannot draw conclusions about CPC+'s impact on quality. We will be more confident that CPC+ had an impact on preventive care for diabetes and breast cancer screening if they persist in subsequent years. However, unless the estimated effects are larger than observed here, they may not be that important for policy purposes.

5.3. Discussion of 2017 impact findings

As compared with our findings from the evaluation of the first year of CPC Classic, CPC+ impact findings for 2017 are:

- **Slightly more favorable in terms of claims-based quality of care.** CPC Classic had little effect on the limited set of quality-of-care measures we could track using claims at any point during the four intervention years (Peikes et al. 2018a, 2018c). In contrast, CPC+ demonstrated small but favorable improvements.
- **Similar for ED visits and ambulatory visits to primary care practitioners.** The estimates for CPC+ were similar in size to those seen for the first year of CPC Classic (a decline of 1 percent).
- **Less favorable in terms of hospitalizations and Medicare expenditures.** In addition to showing an effect for ED visits and ambulatory visits, CPC Classic also had early favorable impacts of 2 percent reductions each in hospitalizations and Medicare expenditures without CMS' enhanced payments; these favorable estimates were not observed for CPC+.

Additionally, our Year 1 findings for CPC+ appear to be consistent with findings from other studies. In general, other studies have found mixed effects of primary care transformation on ED visits, hospitalizations, and expenditures. Some studies found savings (for example, Cuellar et al. 2016; Shi et al. 2017b; Song et al. 2014; Office of the Inspector General 2017; McWilliams et al. 2016, 2018), whereas others, including the final four-year evaluation of CPC Classic did not (Peikes et al. 2018a, 2018c; Friedberg et al. 2014; Yoon et al. 2016; Orzol et al. 2018; Zulman et al. 2017; Nichols et al. 2018; Sinaiko et al. 2017). Our findings on preventive care for diabetes and for breast cancer screening are consistent with favorable effects on planned care and population health outcomes in other studies (Sinaiko et al. 2017; Friedberg et al. 2014; Rosenthal et al. 2016; Timbie et al. 2017; Shi et al. 2017a, 2017b; Ashburner et al. 2017).

It is too early to know whether CPC+ will ultimately improve key outcomes for Medicare FFS beneficiaries. In the absence of additional years of data, these early findings do not yet provide strong evidence of causal impacts from CPC+. As noted above, given other literature and the CPC+ model's theory of change, we did not expect to see favorable effects on expenditures, or sizable effects on other outcomes, during the first year of practice transformation. We expect that any favorable effects of CPC+ on expenditures may emerge over time as the participating practices implement the CPC+ transformations, and as practice changes affect patients' health, service use, and costs. In subsequent annual reports, we will monitor the relevant estimates to determine whether the favorable findings for ED visits and quality-of-care outcomes persist or increase, and whether CPC+ ultimately leads to reductions in total expenditures and improvements in other key outcomes.

Table 5.1. Summary table of impacts (in percentages) on expenditures and service use measures for Medicare FFS beneficiaries over the first year of CPC+, for 2017 Starters, by track and SSP participation status

	Track 1				Track 2			
	CPC+ mean in Year 1, overall	Percentage impacts, overall	Percentage impacts, SSP	Percentage impacts, non-SSP	CPC+ mean in Year 1, overall	Percentage impacts, overall	Percentage impacts, SSP	Percentage impacts, non-SSP
Medicare expenditures (per beneficiary per month)								
Total Medicare Part A and B expenditures excluding enhanced CPC+ payments (for Track 2 practices, CPC+ CPCPs are included)	\$882	0.3%	0.0%	0.7%	\$877	0.1%	-0.3%	0.5%
Total Medicare Part A and B expenditures including CPC+ CMFs (and for Track 2 practices, CPC+ CPCPs)	\$896	1.9%***	1.5%***	2.3%***	\$902	3.0%***	2.5%***	3.4%***
Total Medicare Part A and B expenditures including CPC+ CMFs and PBIPs (and for Track 2 practices, CPC+ CPCPs)	\$897	2.0%***	NA	2.5%***	\$904	3.2%***	NA	3.7%***
Total Medicare Part A and B expenditures including CPC+ CMFs, CPC+ PBIPs, and shared savings payments to SSP ACOs (and for Track 2 practices, CPC+ CPCPs)	\$899	2.0%***	1.5%***	NA	\$905	3.0%***	2.2%***	NA
Service use (per 1,000 beneficiaries per year)								
Acute hospitalizations (short-stay acute care and CAHs)	279	-0.4%	-1.2%*	0.4%	281	-0.5%	-0.5%	-0.4%
Total ED visits, including observation stays	686	-1.1%***	-1.3%**	-0.9%	684	-1.2%***	-1.3%**	-1.1%**
Outpatient ED visits, including observation stays	478	-1.2%***	-1.2%**	-1.2%*	476	-1.6%***	-2.0%***	-1.2%*
Ambulatory primary care visits (including to FQHCs, RHCs, and CAHs)	4,507	-1.6%***	-1.5%***	-1.7%***	4,585	-1.8%***	-1.4%***	-2.2%***
Ambulatory specialty care visits	4,644	-0.2%	-0.6%**	0.4%	4,449	-0.2%	-0.3%	0.0%
Sample sizes								
Number of CPC+ practices		1,373	738	635		1,515	636	879
Number of comparison practices		5,247	2,981	2,266		3,784	1,817	1,967
Number of beneficiaries in CPC+ practices		1,039,783	536,943	504,756		1,263,651	563,755	702,985
Number of beneficiaries in comparison practices		3,455,337	2,012,629	1,453,322		2,928,232	1,469,296	1,467,369
Total number of beneficiary years		7,631,289	4,319,927	3,311,362		7,130,927	3,449,139	3,681,788

Source: Analyses of Medicare claims data from January 2013 through December 2017.

Note: We base impact estimates on a difference-in-differences analysis; they reflect the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC+ practices in Year 1 of CPC+ compared with the average outcome in the baseline year, relative to the same difference over time for attributed Medicare FFS beneficiaries in comparison

Table 5.1. (continued)

practices. **Yellow shading** with **bold, italicized text** signifies that an estimate was statistically significant. CPC+ practices that participate in SSP are eligible to receive shared savings payments, and only non-SSP practices are eligible to receive Performance-based Incentive Payments. For Medicare service use, measures of outpatient ED visits and total ED visits include observation stays. Ambulatory visits with primary care practitioners and specialists include office-based visits and visits at home, as well as visits in other settings, such as FQHCs, RHCs, and CAHs.

Although this table indicates statistically significant estimates, when we interpret evidence, we combine evidence from the magnitude of the effect, the p -values, findings on related outcomes, subgroups, sensitivity tests, and other data sources.

*/**/*** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

NA = not applicable, because only CPC+ practices that participate in SSP are eligible to receive shared savings payments, and only non-SSP practices are eligible to receive Performance-based Incentive Payments.

ACO = Accountable Care Organization; CAH = critical access hospital; CMF = care management fee; CPCP = Comprehensive Primary Care Payment; ED = emergency department; FFS = fee-for-service; FQHC = federally qualified health center; PBIP = Performance-based Incentive Payment; PBPM = per beneficiary per month; RHC = rural health center; SSP = Medicare Shared Savings Program.

Table 5.2. Summary table of impacts (in percentage points) on claims-based quality-of-care measures for Medicare FFS beneficiaries over the first year of CPC+, for 2017 Starters, by track and SSP participation status

	Track 1				Track 2			
	CPC+ mean in Year 1, overall	Impact estimates (percentage points), overall	Impact estimates (percentage points), SSP	Impact estimates (percentage points), non-SSP	CPC+ mean in Year 1, overall	Impact estimates (percentage points), overall	Impact estimates (percentage points), SSP	Impact estimates (percentage points), non-SSP
Planned care and population health measures for beneficiaries ages 18–75 with diabetes								
Received HbA1c test	90.8%	-0.1	-0.2	0.0	92.4%	0.4*	0.1	0.5*
Received eye exam	62.5%	1.0***	0.4	1.6***	63.8%	0.6**	0.7**	0.5
Received attention for nephropathy	81.7%	0.7***	0.3	1.1***	83.1%	0.5*	0.5	0.4
Diabetes composite Measure 1 (received all three tests above: HbA1c test, eye exam, attention for nephropathy)	50.3%	0.8***	-0.1	1.8***	52.8%	0.8***	1.0**	0.7*
Diabetes composite Measure 2 (received none of the three tests above)	2.3%	-0.2**	-0.2**	-0.2	2.0%	-0.1	0.0	-0.2**
Sample sizes for the diabetes measures								
Number of beneficiaries in CPC+ practices		136,656	69,176	67,694		166,562	73,486	93,387
Number of beneficiaries in comparison practices		455,268	259,547	196,830		378,816	186,315	193,302
Total number of beneficiary years		912,744	506,478	406,266		842,962	400,201	442,761
Planned care and population health measures for female beneficiaries 52–74 years of age								
Received breast cancer screening	73.3%	0.4***	0.1	0.8***	74.5%	0.4***	0.2	0.6***
Sample sizes for the breast cancer screening measure								
Number of beneficiaries in CPC+ practices		248,926	128,127	121,248		297,867	132,295	166,230
Number of beneficiaries in comparison practices		819,120	475,297	346,253		688,236	343,379	346,745
Total number of beneficiary years		1,708,383	963,087	745,296		1,580,382	759,876	820,506
Care coordination measures								
30-day all-cause unplanned readmissions	15.4%	0.0	0.0	0.0	15.3%	-0.1	-0.1	-0.1
Patient and caregiver engagement measures								
Received hospice services	2.7%	0.0	0.1**	0.0	2.8%	0.0	0.0	0.1
Had an advance care plan visit	3.6%	-0.4	0.0	-0.8*	3.7%	-0.1	0.0	-0.1

Table 5.2. (continued)

	Track 1				Track 2			
	CPC+ mean in Year 1, overall	Impact estimates (percentage points), overall	Impact estimates (percentage points), SSP	Impact estimates (percentage points), non-SSP	CPC+ mean in Year 1, overall	Impact estimates (percentage points), overall	Impact estimates (percentage points), SSP	Impact estimates (percentage points), non-SSP
Sample sizes for unplanned readmission, receiving hospice services, and having an advance care plan visit measures								
Total number of index discharges for readmissions		1,813,899	1,023,608	790,291		1,704,836	835,144	869,692
Number of beneficiaries in CPC+ practices		1,039,783	536,943	504,756		1,263,651	563,755	702,985
Number of beneficiaries in comparison practices		3,455,337	2,012,629	1,453,322		2,928,232	1,469,296	1,467,369
Total number of beneficiary years		7,631,289	4,319,927	3,311,362		7,130,927	3,449,139	3,681,788

Source: Analyses of Medicare claims data from January 2013 through December 2017.

Note: We base impact estimates on a difference-in-differences analysis; they reflect the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC+ practices in Year 1 of CPC+ compared with the average outcome in the baseline year, relative to the same difference over time for attributed Medicare FFS beneficiaries in comparison practices. **Yellow shading** with **bold, italicized text** signifies that our estimate was statistically significant. For the binary quality-of-care outcomes, we present the absolute impact estimate on the relevant measures only in percentage points. We do so because percentage impacts for some of the measures are likely to be misleadingly large, given the low means for the measures. We grouped the claims-based quality-of-care measures into four domains according to the CPC+ function where they are covered in the 2018 implementation guide (CMMI 2018)

Although this table indicates statistically significant estimates, when we interpret evidence, we combine evidence from the magnitude of the effect, the *p*-values, findings on related outcomes, subgroups, sensitivity tests, and other data sources.

*/**/*** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

SSP = Medicare Shared Savings Program.

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REFERENCES

- Anglin, Grace, Deborah Peikes, Mary Harrington, Arkadipta Ghosh, Kristin Geonnotti, Ann O'Malley, Stacy Dale, Sheila Hoag, Dana Petersen, Pragya Singh, Ha Tu, Laura Blue, Sean Orzol, Rosalind Keith, Anne Mutti, Genna Cohen, Tricia Higgins, Laurie Felland, Linda Barterian, Victoria Peebles, Amanda Lechner, Nikkilyn Morrison, Melanie Au, Jessica Laird, Grace Oh, Rachel Machta, Jasmine Little, and Randall Brown (plus contributing authors). "Evaluation of the Comprehensive Primary Care Plus Initiative: First Annual Report, Supplemental Volume." Princeton, NJ: Mathematica Policy Research, 2019.
- Ashburner, Jeffrey M., Daniel M. Horn, Sandra M. O'Keefe, Adrian H. Zai, Yuchiao Chang, Neil W. Waggle, and Steven J. Atlas. "Chronic Disease Outcomes from Primary Care Population Health Program Implementation." *American Journal of Managed Care*, vol. 23, no. 12, 2017, pp. 728–735.
- Center for Medicare & Medicaid Innovation (CMMI). "2017 CPC+ Implementation Guide: Guiding Principles and Reporting." CMMI, Centers for Medicare & Medicaid Services, May 10, 2017. Available at https://xiyeg3kibip1m7w6b1hmkozg-wpengine.netdna-ssl.com/wp-content/uploads/2017/12/2017_CPCPlus_Implementation_Guide_FINAL.pdf.
- Cuellar, Alison, Lorens A. Helmchen, Gilbert Gimm, Jay Want, Sriteja Burla, Bradley J. Kells, Iwona Kicingier, and Len M. Nichols. "The CareFirst Patient-Centered Medical Home Program: Cost and Utilization Effects in its First Three Years." *Journal of General Internal Medicine*, vol. 31, no. 11, 2016, pp. 1382–1388.
- Dale, Stacy Berg, Arkadipta Ghosh, Deborah N. Peikes, Timothy J. Day, Frank B. Yoon, Erin Fries Taylor, Kaylyn Swankoski, Ann S. O'Malley, Patrick H. Conway, Rahul Rajkumar, Matthew J. Press, Laura Sessums, and Randall Brown. "Two-Year Costs and Quality in the Comprehensive Primary Care Initiative." *New England Journal of Medicine*, vol. 374, 2016, pp. 2345–2356. DOI: 10.1056/NEJMsa1414953.
- Friedberg, Mark W., Eric C. Schneider, Meredith B. Rosenthal, Kevin G. Volpp, and Rachel M. Werner. "Association Between Participation in a Multipayer Medical Home Intervention and Changes in Quality, Utilization, and Costs of Care." *JAMA*, vol. 311, no. 8, 2014, pp. 815–825.
- McWilliams, J. Michael, Laura A. Hatfield, Michael E. Chernew, Bruce E. Landon, and Aaron L. Schwartz. "Early Performance of Accountable Care Organizations in Medicare." *New England Journal of Medicine*, vol. 374, no. 24, 2016, pp. 2357–2366.
- McWilliams, J. Michael, Laura A. Hatfield, Bruce E. Landon, Pasha Hamed, and Michael E. Chernew. "Medicare Spending After 3 Years of the Medicare Shared Savings Program." *New England Journal of Medicine*, vol. 379, no. 12, 2018, pp. 1139–1149.

- Nichols, Donald E., Susan G. Haber, Melissa A. Romaine, and Suzanne G. Wensky. “Changes in Utilization and Expenditures for Medicare Beneficiaries in Patient-Centered Medical Homes: Findings from the Multi-Payer Advanced Primary Care Practice Demonstration.” *Medical Care*, vol. 56, no. 9, 2018, pp. 775–783.
- Office of the Inspector General. “Medicare Shared Savings Program Accountable Care Organizations Have Shown Potential for Reducing Spending and Improving Quality.” OEI-02-15-00450, Washington, DC: Department of Health and Human Services, August 2017.
- Orzol, Sean, Rosalind Keith, et al. “The Impact of a Health Information Technology-Focused Patient-Centered Neighborhood Program Among Medicare Beneficiaries in Primary Care Practices.” *Medical Care*, vol. 56, 2018, pp. 299–307.
- Peikes, Deborah, Grace Anglin, Stacy Dale, Erin Fries Taylor, Ann O’Malley, Arkadipta Ghosh, and contributing authors. “Evaluation of the Comprehensive Primary Care Initiative: Fourth Annual Report.” Prepared for the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. Princeton, NJ: Mathematica Policy Research, May 2018a.
- Peikes, Deborah, Grace Anglin, Stacy Dale, Erin Fries Taylor, Ann O’Malley, Randall Brown, Nancy Duda, Sean Orzol, Lauren Vollmer, Laura Blue, Jesse Crosson, Kristin Geonnotti, Jeffrey Holt, Laurie Felland, Kaylyn Swankoski, Arkadipta Ghosh, Mary Harrington, Tricia Higgins, Rosalind Keith, Genna Cohen, Mariel Finucane, Sheila Hoag, Nancy McCall, Rachel Machta, Ha Tu, Sarah Forrestal, Nikkilyn Morrison, Linda Barterian, Pragya Singh, Jared Coopersmith, Nancy Clusen, and Barbara Carlson. “Independent Evaluation of Comprehensive Primary Care Plus (CPC+): Draft Design Report.” Princeton, NJ: Mathematica Policy Research, April 2018b.
- Peikes, Deborah, Grace Anglin, Mary Harrington, Arkadipta Ghosh, Kristin Geonnotti, Ann O’Malley, Stacy Dale, Laura Blue, Sean Orzol, Rachel Machta, Jessica Laird, Pragya Singh, Anne Mutti, Nikkilyn Morrison, Grace Oh, Nancy Duda, Geraldine Haile, Min-Young Kim, Jeffrey Holt, John Shurrer, Jia Pu, Greg Peterson, Lauren Vollmer, Keith Kranker, Jesse Crosson, Sheila Hoag, Dana Petersen, Mariel Finucane, Carol Urato, and Randall Brown (plus contributing authors). “Evaluation of the Comprehensive Primary Care Plus Initiative: First Annual Report, Appendices to the Supplemental Volume.” Princeton, NJ: Mathematica Policy Research, 2019.
- Peikes, Deborah, Stacy Dale, Arkadipta Ghosh, Erin Fries Taylor, Kaylyn Swankoski, Ann S. O’Malley, Timothy J. Day, Nancy Duda, Pragya Singh, Grace Anglin, Laura L. Sessums, and Randall S. Brown. “The Comprehensive Primary Care Initiative: Effects on Spending, Quality, Patients, and Physicians.” *Health Affairs*, vol. 37, no. 6, 2018c, pp. 890–899.
- Rosenthal, Meredith B., Shehnaz Alidina, Mark W. Friedberg, Sara J. Singer, Diana Eastman, Zhonghe Li, and Eric C. Schneider. “Impact of the Cincinnati Aligning Forces for Quality Multi-Payer Patient Centered Medical Home Pilot on Health Care Quality, Utilization, and Costs.” *Medical Care Research and Review*, vol. 73, no. 5, 2016, pp. 532–545.

- Shi, Leiyu, De-Chih Lee, Michelle Chung, Hailun Liang, Diana Lock, and Alek Sripipatana. “Patient-Centered Medical Home Recognition and Clinical Performance in US Community Health Centers.” *Health Services Research*, vol. 52, no. 3, 2017a, pp. 984–1004.
- Shi, Qian, Thomas J. Yan, Peter Lee, Paul Murphree, Xiaojing Yuan, Hui Shao, William H. Bestermann, et al. “Evaluation of the Quality Blue Primary Care Program on Health Outcomes.” *American Journal of Managed Care*, vol. 23, no. 12, 2017b, pp. e402–e408.
- Sinaiko, Anna D., Mary Beth Landrum, David J. Meyers, Shehnaz Alidina, Daniel D. Maeng, Mark W. Friedberg, Lisa M. Kern, et al. “Synthesis of Research on Patient-Centered Medical Homes Brings Systematic Differences into Relief.” *Health Affairs*, vol. 36, no. 3, 2017, pp. 500–508.
- Song, Zirui, Sherri Rose, Dana G. Safran, Bruce E. Landon, Matthew P. Day, and Michael E. Chernew. “Changes in Health Care Spending and Quality 4 Years into Global Payment.” *New England Journal of Medicine*, vol. 371, no. 18, 2014, pp. 1704–1714.
- Timbie, Justin W., Peter S. Hussey, Claude M. Setodji, Amii Kress, Rosalie Malsberger, Tara A. Lavelle, Mark W. Friedberg, Suzanne G. Wensky, Katherine D. Giuriceo, and Katherine L. Kahn. “Association Between Patient-Centered Medical Home Capabilities and Outcomes for Medicare Beneficiaries Seeking Care from Federally Qualified Health Centers.” *Journal of General Internal Medicine*, vol. 32, no. 9, 2017, pp. 997–1004.
- Yoon, Jean, Adam Chow, and Lisa V. Rubenstein. “Impact of Medical Home Implementation Through Evidence-Based Quality Improvement on Utilization and Costs.” *Medical Care*, vol. 54, no. 2, 2016, pp. 118–125.
- Zulman, Donna M., Christine Pal Chee, Stephen C. Ezeji-Okoye, Jonathan G. Shaw, Tyson H. Holmes, James S. Kahn, and Steven M. Asch. “Effect of an Intensive Outpatient Program to Augment Primary Care for High-Need Veterans Affairs Patients: A Randomized Clinical Trial.” *JAMA Internal Medicine*, vol. 177, no. 2, 2017, pp. 166–175.

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