CMS Bundled Payments for Care Improvement Advanced Model: Year 1 Evaluation Annual Report

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The Lewin Group, Inc. with our partners
Abt Associates, GDIT, and Telligen

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Executive Summary

The Center for Medicare & Medicaid Innovation (CMMI) in the Centers for Medicare & Medicaid Services (CMS) launched the Bundled Payments for Care Improvement Advanced (BPCI Advanced) Model, an Advanced Alternative Payment Model (Advanced APM), to test whether linking Medicare provider payments for an episode of care can reduce Medicare expenditures while improving quality of care. Begun in October 2018 and extending through December 2023, BPCI Advanced builds off of the success of Model 2 of the Bundled Payments for Care Improvement (BPCI) Initiative, one of CMMI's previous bundled payment models that ended on September 30, 2018.

BPCI Advanced participants voluntarily entered into agreements with CMS to be held accountable for total Medicare payments for clinical episodes they selected. A BPCI Advanced participant may be a hospital, physician group practice (PGP), or other eligible entity. Participants may be a convener participant (convener), which has at least one hospital or PGP downstream episode initiator (EI). A convener bears financial risk on behalf of its EIs and often provides services intended to help their EIs succeed in the model. Alternatively, a hospital or PGP may be a non-convener participant that bears financial risk only for itself.

There are 29 inpatient and 3 outpatient clinical episodes included under the model. A BPCI Advanced inpatient episode begins with a hospitalization in which the discharge is categorized in the Medicare Severity-Diagnosis Related Group (MS-DRG) for one of the participant's selected clinical episodes and extends for 90-days post-discharge. An outpatient episode begins with a hospital outpatient procedure that is identified by a Healthcare Common Procedure Coding System (HCPCS) code in the participant's selected clinical episodes and extends for 90-days after the procedure. The EI is either the hospital where the discharge or procedure occurred or the PGP for the attending or operating clinician.

A participant enters into an agreement with CMS where the participant agrees to be held accountable for performance on quality measures and episode payments relative to a target price. If episode payments are above the applicable target price, the participant may owe CMS a payment. Conversely, if its episode payments are below the target price, the participant may receive a payment from CMS. Target prices are calculated separately by EI and clinical episode. Each target price is based on historical episode payments for the hospital where the episode was initiated, updated based on spending trends of the hospital's peers and adjusted for patient case mix. For PGP EIs, the target price incorporates PGP-specific patient case-mix and adjustments for differences between PGP and hospital historical payments. Target prices are discounted 3% to help ensure savings to Medicare.

This annual report provides a formative evaluation of the BPCI Advanced Model from its beginning on October 1, 2018 through March 31, 2019. We describe the BPCI Advanced participants and EIs; their participation decisions, including their choices of clinical episodes; and the reach of the model.

A. Results

1. What types of providers and organizations chose to participate in the model?

As of March 1, 2019, which was after the CMS one-time retroactive withdrawal period, 334 convener and non-convener participants that represented 715 hospital EIs and 580 PGP EIs were in BPCI Advanced. Over 80% of the EIs were under one of the 82 conveners, 5 of which accounted for 44% of EIs.

Approximately 22% of eligible hospitals participated in BPCI Advanced. Generally, BPCI Advanced hospital EIs were larger and more likely to be located in urban and more competitive markets than hospitals that were eligible but did not participate. Hospital EIs also were primarily non-profit and part of a health care system, although less likely than eligible but non-participating hospitals to be an academic medical center. All nine census regions had participating hospitals. Relative to BPCI hospitals, BPCI Advanced participating hospitals were more similar to all eligible hospitals.

There were 580 PGPs, defined by a unique Taxpayer Identification Number (TIN), participating as EIs in BPCI Advanced. However, 74 of these PGPs did not bill Medicare for any services during the first six months of the model, so the count of participating PGPs may overstate participation. Approximately 28% of the TINs associated with participating PGPs did not exist in the baseline period. The composition of PGPs can be fluid as clinicians change employment status and billing arrangements. Also, clinicians can submit Medicare claims through any TIN to which they have assigned their Medicare billing rights. As a result, we cannot adequately assess the breadth or distribution of PGP EIs in BPCI Advanced. Relative to BPCI PGP EIs, however, BPCI Advanced PGPs tended to be smaller with respect to number of unique clinicians, volume of discharges, and number of hospitals where the clinicians admitted patients. BPCI Advanced PGP EIs also included more surgical specialties and less primary care specialties than BPCI PGP EIs.

2. What were the participation decisions and how were they made?

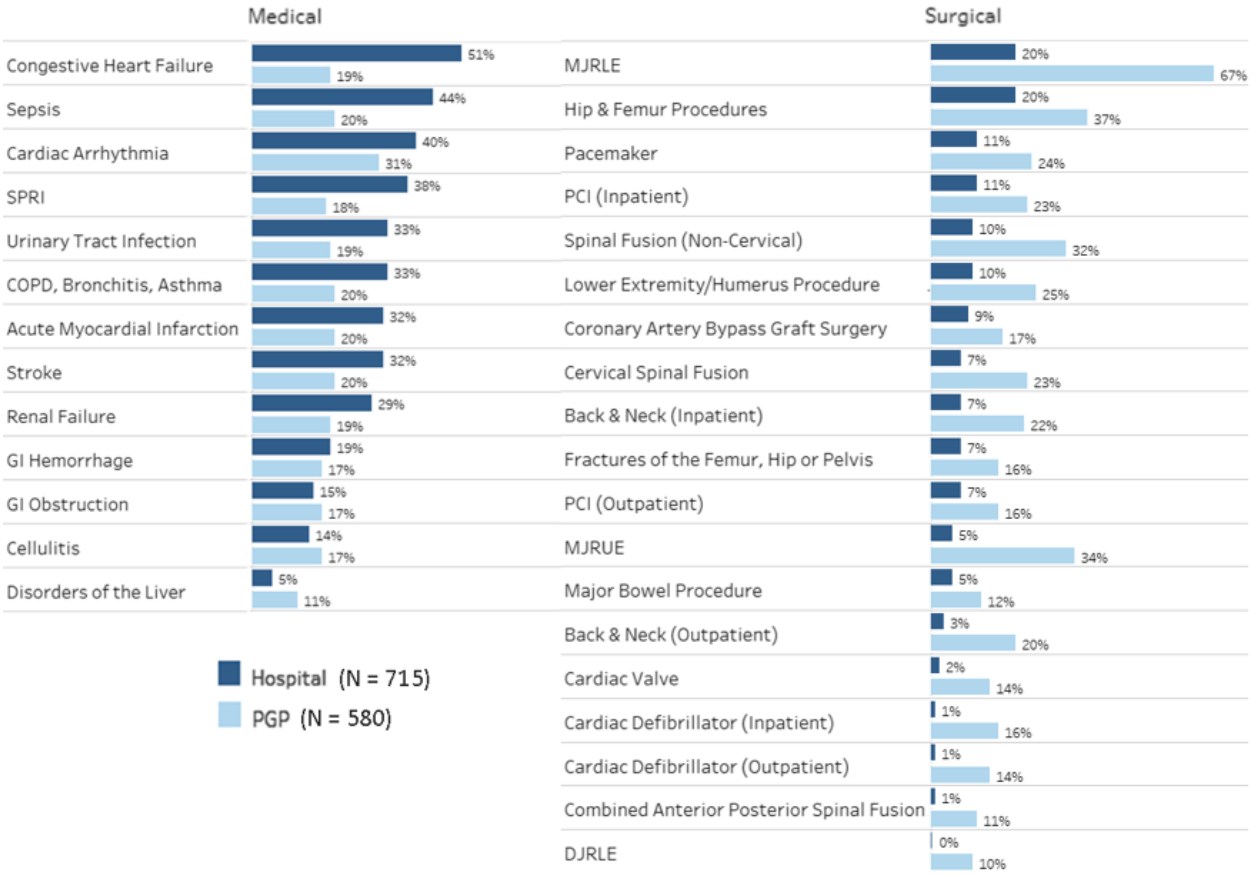
BPCI Advanced participants and EIs we interviewed told us that they decided to join the model and chose particular clinical episodes based on their assessment of the financial opportunity. They also said that participation in BPCI Advanced was a chance to gain experience with bundled payment approaches and to partner with other providers in care transformation. Participants and EIs told us that they evaluated historical episode payments and preliminary target prices that were supplied by CMS when making these decisions. Hospital EIs participating in a given clinical episode had higher historical payments than hospitals not participating in the clinical episode. At least some hospital EIs used their historical episode payments as an indicator of whether they could reduce payments for the clinical episode.

3. What clinical episodes were chosen by participants and how did preliminary target prices affect these decisions?

All of the 32 clinical episodes had participation from both hospital and PGP EIs, although most EIs participated in relatively few clinical episodes. Hospital EIs participated in an average of five clinical episodes and PGP EIs participated in an average of seven. Hospital EIs were more likely to choose medical clinical episodes, and, PGP EIs, surgical clinical episodes (Exhibit ES-1). Over

half of hospital EIs participated in the congestive heart failure clinical episode. Sepsis, cardiac arrhythmia, simple pneumonia, and chronic obstructive pulmonary disease were other popular selections among hospital EIs. Major joint replacement of the lower extremity was chosen by over two-thirds of PGP EIs, followed by hip and femur procedures, major joint replacement of the upper extremity, non-cervical spinal fusion, and cardiac arrhythmia.

Exhibit ES-1: BPCI Advanced Hospital EIs were More Likely to Choose Medical Clinical Episode and PGP EIs were More Likely to Choose Surgical Clinical Episodes, March 1, 2019



Note: Back & Neck = back & neck except spinal fusion; COPD = chronic obstructive pulmonary disease; Disorders of the Liver = disorders of liver except malignancy, cirrhosis, or alcoholic hepatitis; DJRLE = double joint replacement of the lower extremity; EIs = episode initiators; GI = gastrointestinal; Hip & Femur Procedures = hip & femur procedures except major joint; Lower Extremity/Humerus Procedure = lower extremity/humerus procedure except hip, foot, femur; MJRLE = major joint replacement of the lower extremity; MJRUE = major joint replacement of the upper extremity; PCI = percutaneous coronary intervention; PGPs = physician group practices; SPRI = simple pneumonia and respiratory infections.

Source: BPCI Advanced evaluation team's analysis of CMS BPCI Advanced Database, as of March 1, 2019.

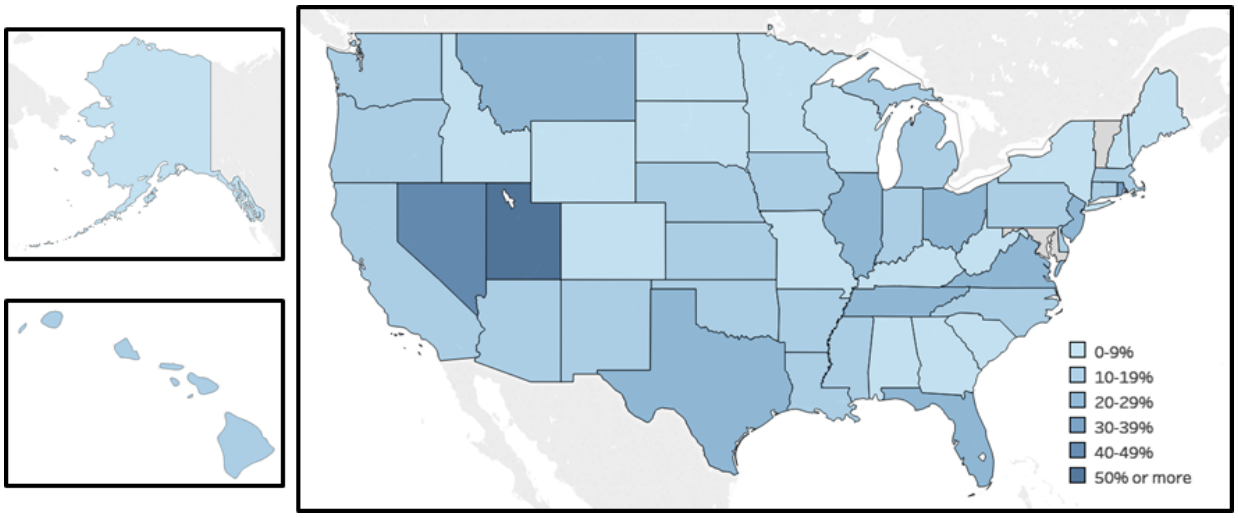
CMS sent historical episode payment data and preliminary target prices to organizations that submitted applications to participate in BPCI Advanced to use in making decisions about participation, downstream EIs, and clinical episode selection. Across all clinical episodes, the average historical payments for the hospitals that chose to participate in BPCI Advanced were higher than the average for hospitals that were eligible but did not participate. The distributions of historical episode payments overlapped for hospitals that participated and those that did not. This indicates that the target pricing method was successful in attracting hospitals with a range of

historical payments to the model. Even so, the proportion of BPCI Advanced hospital applicants that participated in a given clinical episode increased as the difference between the preliminary target price and historical payments approached a positive amount.

4. What is the reach of BPCI Advanced?

During the first six months of the model, approximately 22% of eligible hospitals participated in BPCI Advanced, compared with 13% of hospitals eligible for BPCI Advanced that participated in BPCI. Across several key hospital categories, such as rural and safety net hospitals, participation was broader in BPCI Advanced than under BPCI. Approximately 23% of eligible clinicians participated in BPCI Advanced. Approximately 9% of BPCI Advanced eligible Medicare fee-for-service (FFS) discharges and outpatient procedures were at a BPCI Advanced hospital and 7% were attributed to a PGP EI that was participating in the clinical episode.

Exhibit ES-2: BPCI Advanced Discharges and Procedures as a Share of Eligible Discharges and Procedures, by State, October 2018 - March 2019



Note: Eligible discharges and procedures include Medicare beneficiaries who met the BPCI Advanced beneficiary inclusion criteria at a BPCI Advanced eligible hospital. Minimum hospital volume in the baseline period was not applied. See **Appendix C** for additional details on inclusion criteria. When accounting for the overlap of PGP discharges at BPCI Advanced hospitals, BPCI Advanced represents 16% of eligible discharges.

Source: The BPCI Advanced evaluation team's analysis of October 2018 through March 2019 Medicare Part A and B and CMS BPCI Advanced Database as of March 1, 2019.

B. Discussion

BPCI Advanced, which builds on the success of earlier bundled payment models, was responsible for up to 16% of eligible Medicare discharges for the model's clinical episodes in its first 6 months. Features of BPCI Advanced were intended to encourage participation from providers with a range of historical episode costs and increase the likelihood that the Medicare program will achieve savings. Its refined target pricing methodology is based on provider-specific historical episode payments and incorporates patient case-mix and peer group adjustments. BPCI Advanced meets all requirements as an Advanced APM under the Quality Payment Program (QPP), including that participants are accountable for quality through the reconciliation process. These and other features of BPCI Advanced are intended to help ensure

wide participation in the model to adequately test whether and in what circumstances it can achieve Medicare program savings while maintaining or improving quality of care.

There are more hospitals and PGPs in BPCI Advanced than in BPCI. The broader experience across providers with bundled payment, and value-based payment more generally, may have expanded the group of providers willing to accept risk under the model. Some conveners and EIs that we interviewed mentioned the target pricing methodology and potential financial opportunities as factors in their participation decision. BPCI Advanced participants and EIs said that they used the historical claims data and preliminary target prices they received upon applying to the model to make decisions about whether or not to join and which clinical episodes to select. Interestingly, interviewees indicated that their participation decision was not due to BPCI Advanced's status as an Advanced APM.

The majority of hospital and PGP EIs joined BPCI Advanced through a convener. Five conveners accounted for 44% of all EIs. Conveners were involved in participation decisions, particularly choices among the clinical episodes.

Approximately 40% of hospitals and 10% of PGPs that were included on BPCI Advanced applications ended up actually joining. In addition, even though hospitals and PGPs that applied received preliminary target prices and historical episode payments, 14% of hospital EIs and 19% of PGP EIs subsequently withdrew completely from BPCI Advanced. Because they withdrew by March 1, 2019, they were not held accountable for episodes triggered prior to their withdrawal. With notice, participants may still terminate their participation in the model, although they remain accountable for the clinical episodes triggered prior to their withdrawal.

The hospitals that participated in BPCI Advanced were more similar to all hospitals eligible to participate than BPCI hospital participants. BPCI Advanced hospitals were geographically dispersed, although they were predominantly larger and urban facilities that were part of a health system.

When deciding on which clinical episodes to choose, participants told us that they evaluated historical episode payments and preliminary target prices, as well as opportunities for reducing payments and quality improvement options. In fact, across all 32 clinical episodes, the median episode payment for hospitals that chose to participate was higher than the median for eligible hospitals that chose not to participate. The higher historical payments may result in a higher target price and it may be easier for a hospital to reduce its payments below a higher target price to achieve a Net Payment Reconciliation Amounts (NPRA) payment from CMS. Although BPCI Advanced hospital EIs had higher median payments than non-participating hospitals, there was overlap in the distribution of historical payments, indicating that hospitals with high and low episode payments participated in a given clinical episode.

More PGPs participated in BPCI Advanced than BPCI. It is not possible, however, to determine how participating PGPs compare to all eligible PGPs. This is because it is relatively easy for physicians and other clinicians to change PGPs and for PGPs to form or be dissolved. In fact, some PGPs were formed specifically for BPCI Advanced participation. Physician groups are identified through TINs and 28% of the TINs in BPCI Advanced were not in existence during the baseline period for which target prices were calculated (2013 through 2016).

Creating new TINs may have been a BPCI Advanced participation strategy for some PGPs. Creating a new TIN can potentially be financially advantageous under the model because of the target price calculation method. Furthermore, a clinician can choose which TIN will submit the claim to Medicare. For a clinician with more than one TIN, it would be advantageous to submit claims for patients with lower expected episode payments under the TIN in BPCI Advanced and submit claims for patients with higher expected episode payments under another TIN. While a totally appropriate billing practice, this could limit the reductions in payments achieved under the model.

Hospitals and PGPs generally chose different clinical episodes. The top five hospital clinical episodes were medical episodes. Four of the top five PGP clinical episodes were surgical, which likely reflects the specialties of the clinicians. Hospitals' and PGPs' choices may indicate differences in which costs they are able to control. Additionally, for certain PGPs, their conveners appeared to have had a significant role in the ultimate choices. Interestingly, a much lower proportion of hospital EIs than PGP EIs participated in MJRLE, the most popular clinical episode for hospital EIs in BPCI Model 2, which may indicate that hospitals were concerned about their ability to continue to reduce MJRLE episode payments.

BPCI Advanced has expanded the reach of Medicare's bundled payment approach beyond what was achieved in BPCI Model 2. Because the hospitals chose clinical episodes for which they had higher episode payments, they stand a better chance of reducing episode payments than they would have with lower episode payments. Similarly, PGPs may make strategic choices in the TINs to use for billing purposes to boost their chances of achieving NPRA. All of these factors will make it challenging to generalize the results of BPCI Advanced to a larger or different group of participants.

This report presents an early assessment of the BPCI Advanced Model based on Model Years 1 and 2 participants and EIs and data from the first six months of the model. As such, the analysis is limited in scope. The next BPCI Advanced evaluation annual report will incorporate estimates of the impact of the model on payment, utilization, and quality of care. The claims-based analyses will reflect Model Years 1 and 2 (October 2018 through December 2019). We will also include beneficiary-reported outcomes on functional status and satisfaction based on data collected in the fall of 2019. The next report will also include the first estimate of Medicare program savings for the BPCI Advanced Model; incorporating our estimate of the change in episode payments and any NPRA paid to participants by CMS or recoupment received by CMS from participants.

I. Introduction

The Bundled Payments for Care Improvement Advanced (BPCI Advanced) Model is designed to test whether linking Medicare provider payments for an episode of care can reduce Medicare expenditures while improving quality of care. The Center for Medicare & Medicaid Innovation (CMMI) in the Centers for Medicare & Medicaid Services (CMS) launched BPCI Advanced in October 2018.[1]

The Lewin Group, with our partners Abt Associates, Inc., GDIT, and Telligen, is under contract to CMS to evaluate the impact of BPCI Advanced. This initial annual report focuses on the providers and organizations participating in the model, their participation decisions and clinical episode selection, and the reach of the model. Subsequent annual reports will describe the impact of BPCI Advanced on Medicare payments, utilization, and quality.

A. The BPCI Advanced Model

BPCI Advanced is a voluntary model in which participants entered into agreements with CMS to be held accountable for total Medicare episode payments for clinical episodes they selected.[2] If total payments for a participant's clinical episodes are below the target price, the participant may receive additional payments from CMS. Conversely, if total payments are above the target price, the participant may owe payments to CMS. Thus, participants have financial incentives to ensure that care is delivered efficiently during the entire episode, which begins with a triggering hospitalization or outpatient procedure and ends 90 days after discharge or procedure.

BPCI Advanced was based on the Bundled Payments for Care Improvement (BPCI) Initiative and incorporates lessons learned, primarily from Model 2 (Exhibit 1). BPCI, one of CMMI's previous bundled payment approaches, was comprised of four models and ended on September 30, 2018.

[1] See **Appendix A** for a glossary of terms and abbreviations used in this report.
[2] Centers for Medicare & Medicaid Services (2019, June 28). BPCI Advanced. Retrieved from https://innovation.cms.gov/initiatives/bpci-advanced.

Exhibit 1: Comparison of Key Components of BPCI Advanced and BPCI Model 2

Feature	BPCI Advanced	BPCI Model 2
Voluntary or Mandatory	Voluntary	Voluntary
Reconciliation	Retrospective	Retrospective
Length of Episode	90 days	Participant choice of 30, 60, or 90 days
Providers that can Initiate Episodes	Hospitals and physician group practices (PGPs)	Hospitals and PGPs
Clinical Episodes	29 triggered by an inpatient hospitalization and 3 triggered by a hospital outpatient procedure	48 triggered by an inpatient hospitalization
Advanced Alternative Payment Model (Advanced APM)	Yes, quality metrics are used to adjust reconciliation payments	No
Target Prices	• Applicants received preliminary target prices before making participation decisions • Hospital target prices were based on hospital historical payments, patient risk adjustment, a prospective peer-group trend factor, 3% discount • PGP target prices adjust hospital target prices for PGP-specific patient case mix and differences between PGP and hospital historical payments	• Based on hospital or PGP-specific historical payments, a retrospective national trend factor, discounted by 2% for 90-day episodes and 3% for others
Entry and Withdrawal Rules	• Only two opportunities for participants and EIs to join the model • Participants can make changes to clinical episode selections or withdraw EIs only at the beginning of Model Years 3 and 4 • Can terminate participation in the model with 90 days advance written notice	• Multiple opportunities for Awardees and EIs to join the initiative • Multiple opportunities for Awardees to add clinical episodes during the first nine quarters and could drop clinical episodes or EIs throughout the initiative on a quarterly basis • Could terminate participation in the initiative with 60 days advance written notice

Source: Centers for Medicare & Medicaid Services (2019, June 28). BPCI Advanced. Retrieved from https://innovation.cms.gov/initiatives/bpci-advanced; Centers for Medicare & Medicaid Services (2019, June). Pricing Methodology: Frequently Asked Questions (FAQ). Retrieved from https://innovation.cms.gov/Files/x/bpciadvanced-my3-pm-faqs.pdf; Centers for Medicare & Medicaid Services (2019, April 17). Bundled Payments for Care Improvement (BPCI) Initiative: General Information; Retrieved from https://innovation.cms.gov/initiatives/bundled-payments/; Centers for Medicare & Medicaid Services (2016, April 18). Bundled Payments for Care Improvement (BPCI) Initiative: Fact Sheet; Retrieved from https://www.cms.gov/newsroom/fact-sheets/bundled-payments-care-improvement-initiative-bpci; Centers for Medicare & Medicaid Services (2018, August 1). Bundled Payments for Care Improvement Advanced Participation Agreement. Retrieved from https://innovation.cms.gov/Files/x/bpciadvanced-participation-agreement.pdf; Centers for Medicare & Medicaid Services (2019, June). Application Process: Frequently Asked Questions (FAQ). Retrieved from https://innovation.cms.gov/Files/x/bpciadvanced-my3-app-faqs.pdf; Centers for Medicare & Medicaid Services (2019, May 15). Bundled Payments for Care Improvement (BPCI) Advanced Model Overview Open Forum. Retrieved from https://innovation.cms.gov/Files/transcripts/bpciadvanced-my3-modeloverview-maytrans.pdf. Centers for Medicare & Medicaid Services (2019, November 26). BPCI Model 2: Retrospective Acute & Post Acute Care Episode. Retrieved from https://innovation.cms.gov/initiatives/BPCI-Model-2/; Centers for Medicare & Medicaid Services (n.d). Bundled Payments for Care Improvement Model 2 Agreement; Dummit L, Marrufo G, Marshall J, et al. (2018, June). CMS Bundled Payments for Care Improvement (BPCI) Initiative Models 2–4: Year 4 Evaluation & Monitoring Annual Report. https://innovation.cms.gov/Files/reports/bpci-models2-4-yr4evalrpt.pdf.

1. Participants and Episode Initiators

Each BPCI Advanced participant, which may be a hospital, physician group practice (PGP), or other eligible entity, enters into an agreement with CMS to be held accountable for performance on quality measures and episode payments relative to a target price. If episode payments are above the applicable target price, the participant may owe CMS a payment. Conversely, if its episode payments are below the target price, the participant may receive a payment from CMS. Participants are expected to undertake efforts to coordinate care across the providers involved in an episode to reduce health care utilization and spending and improve the quality of patient care.

Participants may be either a convener participant (convener) or a non-convener participant. A convener has at least one downstream episode initiator (EI), which is a hospital or a PGP. A convener bears financial risk on behalf of its downstream EIs and often provides services (e.g., data analysis, guidance on clinical episode selection, or case management services) intended to help EIs succeed in the model. A convener may have multiple participant agreements with CMS but an EI can only be listed on one agreement.[3] A non-convener participant is a hospital or PGP EI that bears financial risk only for itself.

2. Clinical Episodes

A BPCI Advanced episode begins with a hospitalization or procedure at a hospital EI or when the attending or operating clinician for the hospitalization or procedure is a member of a PGP EI. Inpatient episodes start when a Medicare beneficiary is admitted to a hospital (anchor stay) and the resulting Medicare Severity-Diagnosis Related Group (MS-DRG) for the discharge is in one of the participant's selected clinical episodes. Outpatient episodes begin when a beneficiary has an outpatient procedure (anchor procedure) in a hospital outpatient setting that is identified by a Healthcare Common Procedure Coding System (HCPCS) code in the participant's selected clinical episodes. (See **Appendix B** for a list of the clinical episodes and associated MS-DRGs and HCPCS codes.) All Medicare-covered items and professional services, with certain exclusions, furnished during the anchor stay or the anchor procedure plus the 90 days after are included in the episode.

3. Target Prices and Reconciliation

CMS calculates BPCI Advanced target prices separately for each EI and clinical episode. A hospital EI's target price reflects its historical Medicare fee-for-service (FFS) episode payments during the baseline period, adjusted for its patient case mix and its payments relative to national historical payments, and is then updated based on spending trends of its hospital peers.[4] PGPs are treated as separate EIs at each hospital where they initiate clinical episodes, so one PGP may receive multiple target prices for the same clinical episode category. A PGP EI's target price is based on the target price of the hospital where the hospitalization or procedure occurs, with PGP-specific patient case-mix and efficiency adjustments. CMS applies a 3% discount to the target price, which is intended to be Medicare savings under the model.

The target price calculation method was designed to support participation from a broad range of providers by accounting for variation in episode payments and factors that contribute to payment

[3] A convener may have chosen to have multiple participant agreements, each with different downstream EIs, in order to potentially increase the number of clinicians eligible for QPP participation and to facilitate NPRA sharing.

[4] The baseline period for Model Years 1 and 2 is January 1, 2013 through December 31, 2016.

differences that are beyond providers' control. The use of hospital-specific historical payments, adjusted for patient mix and peer group trends, is to encourage participation from providers with high and low payment episodes. The patient case-mix adjustment accounts for variations in spending due to patient needs. The peer adjustments recognize that underlying costs and circumstances that affect episode payments and episode spending trends differ across types of hospitals in different circumstances.[5]

Individual providers are paid regular Medicare FFS amounts for providing Medicare-covered services. At the end of each performance period, episode payments are compared with the target price for each EI for each of its clinical episodes and the differences are netted across all of the EI's clinical episodes. The total net difference is then adjusted by the EI's Composite Quality Score (CQS).[6] When this difference is negative, that is, when aggregate Medicare episode payments minus the aggregate target prices, adjusted by the CQS, is negative, participants will receive Net Payment Reconciliation Amounts (NPRA). When the difference is positive, that is, aggregate episode payments are higher than the aggregate target price, after CQS adjustment, participants will pay amounts to CMS.[7]

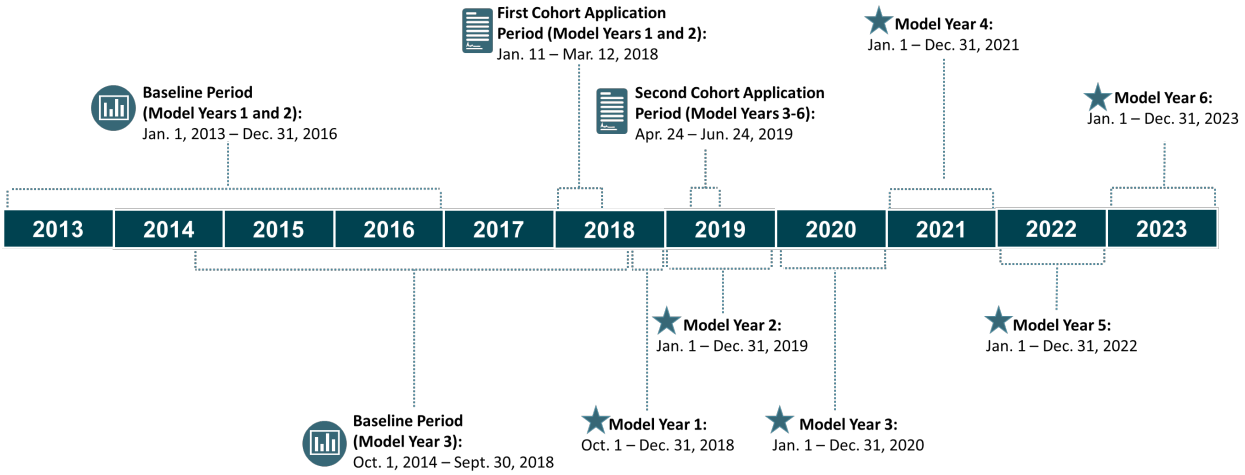
4. Model Timeline

The BPCI Advanced Model extends for more than five years: Model Year 1 began October 1, 2018 and Model Year 6 ends December 31, 2023 (Exhibit 2). The target prices for Model Years 1 and 2 are based on historical payments from 2013 through 2016. The baseline period shifts forward for future Model Years so that target prices will incorporate episode payments achieved under the model.

BPCI Advanced participants can terminate participation at any time, with 90 days advance notice. CMS also allowed participants to retroactively remove downstream EIs or withdraw from clinical episodes on or before March 1, 2019. Participants that retroactively withdrew an EI or a clinical episode were not held accountable for withdrawn clinical episodes initiated prior to that date. Participants and EIs that retroactively withdrew were allowed to reapply for Model Year 3.

[5] Centers for Medicare & Medicaid Services (2018, June). Pricing Methodology for Clinicians and Administrators. Retrieved from https://innovation.cms.gov/Files/slides/bpciadvanced-wc-pricingmethodology-clinadmin.pdf.
[6] The CQS adjustment cannot change the total reconciliation amount by more than 10%.
[7] The reconciliation amount has a 20% stop loss/gain applied at the EI level.

Exhibit 2: BPCI Advanced Timeline through Model Year 6



Source: Centers for Medicare & Medicaid Services (2018, April). BPCI Advanced Model Timeline. Retrieved from https://innovation.cms.gov/Files/x/bpci-advanced-timeline.pdf and Centers for Medicare & Medicaid Services (2019, June). Pricing Methodology: Frequently Asked Questions (FAQ). Retrieved from https://innovation.cms.gov/Files/x/bpciadvanced-my3-pm-faqs.pdf.

Before the start of the model, applicants submitted their initial choices among the 29 inpatient and 3 outpatient clinical episodes.[8] Conveners also had to submit a list of their downstream EIs. Potential EIs could be listed on multiple applications (e.g., with various convener applicants or as non-convener applicants), however, when the model started, each EI could only participate through one arrangement.[9] Hospital EIs must have had more than 40 episodes in the baseline period to be eligible to participate in a particular clinical episode. PGP EIs' discharges or procedures are BPCI Advanced episodes only if the hospital where the inpatient stay or procedure took place had sufficient baseline volume in that clinical episode (41 episodes). Applicants received three years of baseline claims data and preliminary target prices for clinical episodes with sufficient volume.

Participants submitted documentation related to model decisions. They specified whether they expected to use available payment policy waivers (e.g., waiving the three-day hospital stay for skilled nursing facility (SNF) coverage) or financial arrangements (e.g., sharing NPRA) that could be protected under specific waivers of fraud and abuse laws issued for the model. They documented care redesign plans and listed the organizations and individuals with which they planned to share NPRA. Some participants also submitted a Quality Payment Program (QPP) list that is used, in part, to make the Qualifying Alternative Payment Model Participant (QP) determinations for eligible clinicians in the model.[10]

[8] In Model Year 3, there will be 33 inpatient clinical episodes and 4 outpatient clinical episodes.

[9] Centers for Medicare & Medicaid Services (2019, June). Application Process: Frequently Asked Questions (FAQ) – Updated June 2019. Retrieved from https://innovation.cms.gov/Files/x/bpciadvanced-my3-app-faqs.pdf.

[10] Clinicians who meet the criteria to become QPs are potentially excluded from the Merit-based Incentive Payment System (MIPS) reporting requirements and receive a 5% bonus.

B. Research Questions

This annual report provides a formative evaluation of the BPCI Advanced Model since its beginning on October 1, 2018, through March 31, 2019. We describe the BPCI Advanced participants and EIs; their participation decisions, including their choices of clinical episodes; and the reach of the model. Four major research questions provided the framework for our analytic approach.

1. What types of providers and organizations chose to participate in the model?

To understand the types of organizations and providers that participate in BPCI Advanced, we used data from multiple sources including the CMS BPCI Advanced and BPCI databases, Medicare claims, Provider of Service (POS) files, Area Health Resource Files (AHRF), and other secondary sources. We compiled information on the number and type of BPCI Advanced participants, EIs, and non-participating providers, and the characteristics of the EIs' health care markets that may affect their performance.

2. What were the participation decisions and how were they made?

Qualitative data collected from site visits and telephone interviews with BPCI Advanced conveners and EIs provided insights into why and how providers and organizations participated in BPCI Advanced. In particular, we were interested in understanding the influence of specific features of BPCI Advanced, such as outpatient clinical episodes and its designation as an Advanced APM; data and information used to select clinical episodes; and participants' planned approaches for sharing NPRA.

3. What clinical episodes were chosen by participants and how did preliminary target prices affect these decisions?

To understand the variation in participation across the 32 clinical episodes, we analyzed the CMS BPCI Advanced database and the BPCI Advanced hospital target pricing file, which included baseline payments, volume, and target prices for all BPCI Advanced eligible hospitals. We identified the clinical episodes that were most common among hospital and PGP EIs and the average number of clinical episodes in which an EI participated. For each clinical episode, we compared historical episode payments for BPCI Advanced and non-participating hospitals. We also compared the difference between preliminary target prices and clinical episode baseline payments for BPCI Advanced hospital EIs relative to hospital applicants that chose not to participate in the clinical episode. Analyzing the difference between the preliminary target prices and historical episode payments helps us understand participation decisions.

4. What is the reach of BPCI Advanced?

We evaluated the potential extent of the BPCI Advanced Model's influence on Medicare practice, or its "reach," during its first six months. We calculated the proportion of eligible hospitals and clinicians participating in the model and the proportion of eligible discharges and procedures at participating hospitals or by participating PGPs. We relied on the CMS BPCI Advanced database to identify BPCI Advanced hospital and PGP EIs and the clinical episodes in which they participated, the POS and Inpatient Prospective Payment System (IPPS) to identify all eligible hospitals, and Medicare FFS claims to identify eligible clinicians, discharges, and procedures.

II. Results

A. Key Findings

- As of March 1, 2019, 334 convener and non-convener participants that represented 715 hospital EIs and 580 PGP EIs participated in BPCI Advanced. Over 44% of EIs were participating under one of five conveners.
- Approximately 22% of eligible hospitals participated in BPCI Advanced. Participating hospitals were larger and more likely to be located in urban and more competitive markets than hospitals that did not participate.
- 580 PGPs, defined by a unique Taxpayer Identification Number (TIN), participated in BPCI Advanced. Approximately 28% of the PGP EIs were operating under a TIN that did not exist in the baseline period.
- Financial opportunity was a common reason cited for joining BPCI Advanced and selecting particular clinical episodes. Participants told us that they evaluated historical payments and preliminary target prices, supplied by CMS, when choosing among the clinical episodes. Across all 32 clinical episodes, hospital EIs participating in a given clinical episode had higher mean historical payments than the hospitals that did not participate in the clinical episode. This may be an indication that the hospital EIs chose clinical episodes that had more opportunities for reducing payments.
- Hospital EIs were more likely to participate in medical clinical episodes and PGP EIs were more likely to participate in surgical clinical episodes.
- During the first six months of the model, BPCI Advanced hospitals and PGPs accounted for 9% and 7%, respectively, of eligible BPCI Advanced hospitals' discharges and outpatient procedures in the 32 clinical episodes.

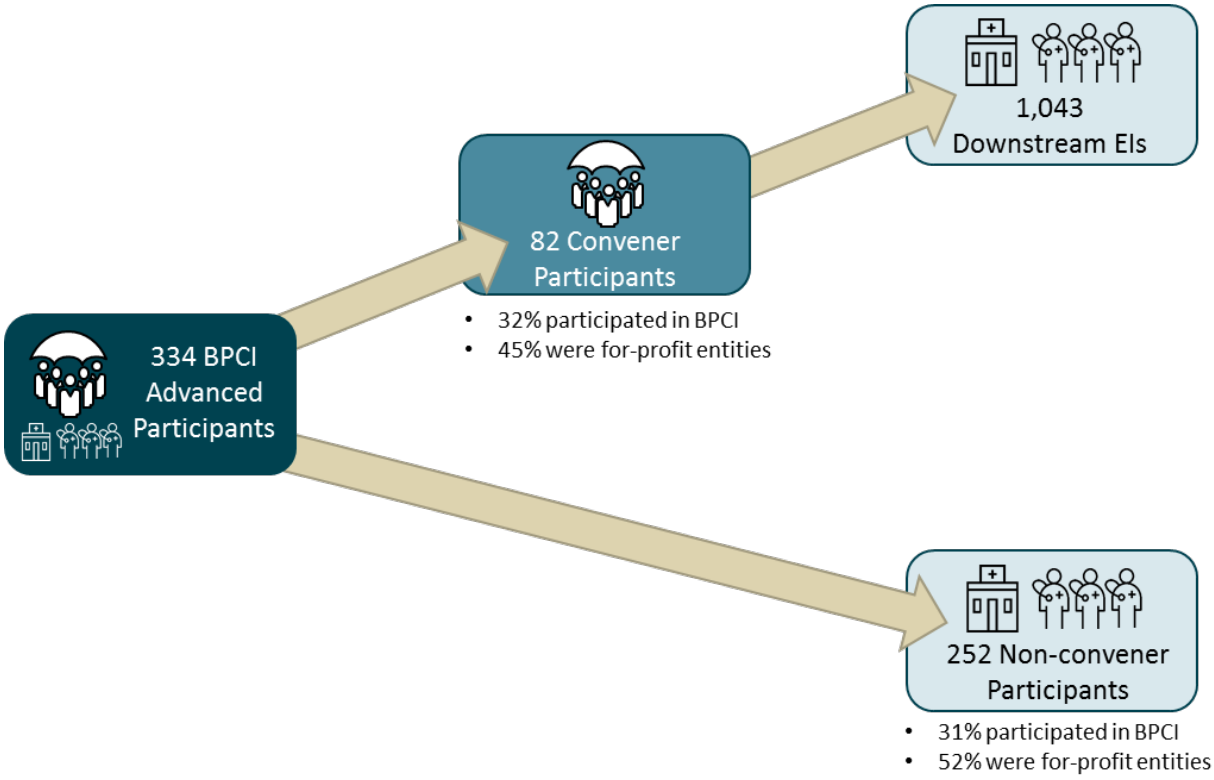
B. Participants and Episode Initiators

1. Convener and Non-convener Participants

As of March 1, 2019, after the one-time retroactive withdrawal period, there were 82 conveners and 252 non-convener participants in BPCI Advanced (Exhibit 3).[11] There were 1,295 PGP and hospital EIs. Over three quarters of the EIs in the model, 595 hospitals and 448 PGPs, were participating as downstream EIs under the 82 conveners. There were five conveners with 44% of all EIs participating under them. Non-convener participants comprised 120 hospital EIs and 132 PGP EIs.

[11] This count refers to the number of unique entities that are participating as a convener or non-convener participant in BPCI Advanced. In total, 1,086 participation agreements were signed with CMS as of March 1, 2019.

Exhibit 3: BPCI Advanced Participants, by Participant Type, March 1, 2019



Note: The count of BPCI Advanced participants refers to the number of unique entities participating as a convener or non-convener participant, meaning conveners with more than one signed participation agreement with CMS were counted only one time. In total, 1,086 participation agreements were signed with CMS as of March 1, 2019. EIs = episode initiators.
Source: The BPCI Advanced evaluation team's analysis of the CMS BPCI Advanced Database for all participants in BPCI Advanced as of March 1, 2019.

Most (81%) participating hospitals and PGPs were downstream EIs under a convener rather than non-convener participants (Exhibit 4). Nearly half of all hospital and PGP EIs were participating under one of the 15 non-provider conveners. The remaining hospital EIs tended to participate under conveners that were health care systems, integrated delivery health systems, or Accountable Care Organizations (ACOs). The remaining PGP EIs, however, were more likely to participate under conveners that were health plans, PGPs, or management service organizations.

The Top 5 Conveners in BPCI Advanced…

Five Conveners accounted for **44%** of the BPCI Advanced EIs.

Convener	Downstream EIs
Remedy BPCI Partners, LLC	228
naviHealth, Inc.	104
Fusion5	91
Stryker Performance Solutions	83
UnitedHealthcare Services, Inc.	64

Exhibit 4: BPCI Advanced Participants and EIs, By Convener Type, March 1, 2019

Participant Type	Convener Type	Number of Participants	Percent of BPCI Advanced EIs (N = 1,295)	Percent of BPCI Advanced Hospital EIs (N = 715)	Percent of BPCI Advanced PGP EIs (N = 580)
Conveners	Non-provider	15	47%	44%	50%
	Health Care System	21	11%	19%	1%
	Health Plan	3	5%	1%	11%
	Integrated Delivery Health System	9	5%	10%	0%
	Physician Group Practice	3	4%	0%	9%
	Accountable Care Organization	8	3%	5%	0%
	Management Services Organization	12	3%	2%	4%
	Acute Care Hospital	7	2%	3%	1%
	Clinically Integrated Network	4	1%	0%	2%
Non-conveners	Non-convener	252	20%	17%	23%

Note: BPCI Advanced conveners were categorized into one of the nine convener types based on information in their participant application. Integrated delivery health system: a network of health care facilities under a parent holding company. Management services organization: an organization that provides specific services, such as claims administration, project management, provider relations, or data analysis, to a health system. Non-provider: an entity that does not furnish Medicare services. Percentages do not add to 100% due to rounding. EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of the CMS BPCI Advanced Database, March 1, 2019.

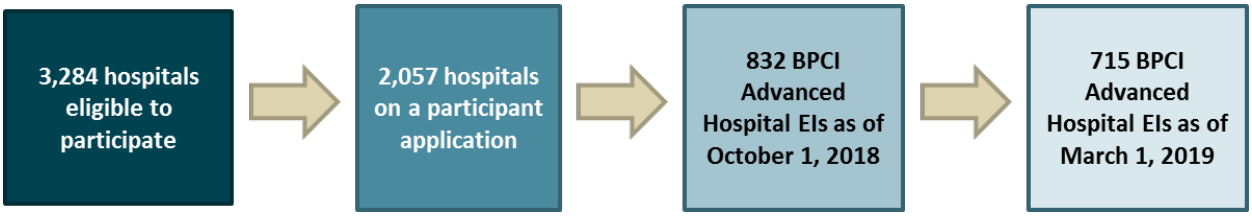
2. Episode Initiators: Hospitals and Physician Group Practices

a. Hospital characteristics

Among the 3,284 hospitals that were eligible to participate in BPCI Advanced, 63% indicated interest by being listed on one or more participant applications (Exhibit 5). There were 2,057 hospitals listed on over 20,000 different applications. [12] As a result, they obtained target price data from CMS. Only 25% of eligible hospitals, however, actually signed up to participate. As of March 1, 2019, 715 (22%) of eligible hospitals were EIs participating in the model.

[12] EIs could be listed on more than one application, but could only participate in BPCI Advanced under one arrangement.

Exhibit 5: BPCI Advanced-Eligible Hospitals, Hospital Applicants, and Hospital EIs

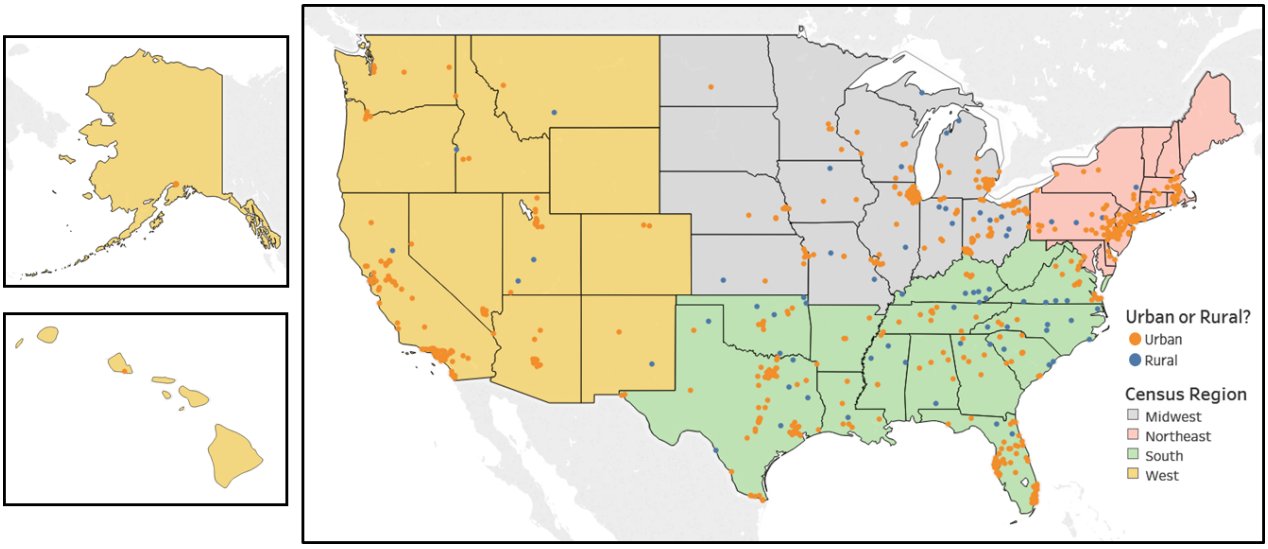


Note: Eligible hospitals are defined as Inpatient Prospective Payment System (IPPS) hospitals in 2018 that existed for at least one year during the baseline period (2013 and 2016) and do not meet any of the following exclusion criteria: PPS-exempt cancer hospitals, located in Maryland, participating in the Pennsylvania Rural Health Model, participating in the Rural Community Health Demonstration, inpatient psychiatric hospitals, and critical access hospitals. In addition, hospitals had to have a minimum volume of discharges or procedures to be eligible for a given clinical episode, however, we did not apply the minimum volume criterion for this analysis to ensure a stable population of non-participating hospitals. EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of the CMS Provider of Service (POS) files from 2013 to 2016, the 2018 CMS Inpatient Prospective Payment System (IPPS) file, and the CMS BPCI Advanced Database as of March 1, 2019.

The hospital EIs were geographically dispersed across the country, although clustered in the most populated areas (Exhibit 6).

Exhibit 6: Urban and Rural Hospitals in all Census Regions Participated in BPCI Advanced



Source: The BPCI Advanced evaluation team's analysis of the 2016 Provider of Service (POS) file and the CMS BPCI Advanced Database as of March 1, 2019.

BPCI Advanced EIs differed from non-participating hospitals in hospital and market characteristics (Exhibits 7a and 7b). Compared to non-participating hospitals, BPCI Advanced EIs were more likely to be non-profit (70% vs. 57%) and larger, as reflected in a higher bed count (338 vs. 213) and more discharges and procedures for the BPCI Advanced clinical episode MS-DRGs (2,281 vs. 1,281) and HCPCS (121 vs. 65). BPCI Advanced hospital EIs were also more likely to be part of a health system (96% vs. 69%), located in the Northeast (20% vs. 14%), and urban (90% vs. 72%). BPCI Advanced EIs were located in markets with larger populations (4,178,862 vs. 2,542,567), and greater market competition, as indicated by the Herfindahl index (0.22 vs. 0.35). Compared to non-participating hospitals, BPCI Advanced hospital EIs were also more likely to have participated in BPCI (30% vs. 9%) and have experience in the Medicare Shared Savings Program (MSSP), Next Generation (Next Gen), or Pioneer ACO Models (10% vs. 6%).

BPCI Advanced hospital EIs and non-participating hospitals were similar with respect to unplanned readmission rate (15.4% vs. 15.3%) and providing outpatient surgery (95% vs. 91%). Disproportionate share percentage was likewise similar (29% vs. 28%).

Exhibit 7a: Characteristics of BPCI Advanced Hospital EIs and Non-participating Hospitals, 2013 – 2016

Domain	Characteristic	BPCI Advanced Hospital EIs (N = 715)	BPCI Advanced Hospital EIs (%)	Non-participating Hospitals (N = 2,569)	Non-participating Hospitals (%)
Census Region***	Midwest	174	24%	576	22%
	Northeast	140	20%	354	14%
	South	259	36%	1,104	43%
	West	142	20%	485	19%
	Puerto Rico	0	0%	50	2%
Urban/Rural***	Urban	645	90%	1,849	72%
	Rural	70	10%	720	28%
Ownership***	For Profit	183	26%	598	23%
	Government	33	5%	502	20%
	Non-profit	499	70%	1,469	57%
Academic Medical Center***	Yes	45	6%	88	3%
Part of Health System***	Yes	685	96%	1,784	69%
Participation in MSSP, Next Gen ACO, or Pioneer ACO Initiatives***	Yes	72	10%	151	6%
Experience in BPCI ***	Yes	213	30%	225	9%
IRF in Market***	Yes	524	73%	1,403	55%
Provides Outpatient Surgery***	Yes	681	95%	2,345	91%

Note: Appendix D includes the test statistic and p-value for each chi-squared test. **Appendix C** contains the BPCI Advanced hospital eligibility criteria and variable definitions. Values for categorical variables are for the most recent year between 2013 and 2016 that data was available. Market characteristics are calculated for the Core-Based Statistical Area (CBSA) in which the hospital is located. ACO = Accountable Care Organization. EIs = episode initiators; IRF = inpatient rehabilitation facility; MSSP = Medicare Shared Savings Program.

*** Indicates significance at the 1% level for the chi-squared test of difference in proportions.

***Source*:** The BPCI Advanced evaluation team's analysis of the 2016 Agency for Healthcare Research and Quality (AHRQ) Hospital Linkage File, Area Health Resource File (AHRF) from 2013 to 2016, CMS Provider of Service (POS) files from 2013 to 2016, 2018 CMS Inpatient Prospective Payment System (IPPS) file, 2018 Master Data Management (MDM) provider file, CMS BPCI Database, and the CMS BPCI Advanced Database as of March 1, 2019.

Exhibit 7b: Characteristics of BPCI Advanced Hospital EIs and Non-participating Hospitals, 2013 – 2016

Characteristic	BPCI Advanced Hospital EIs (mean)	Non-participating Hospitals (mean)
Bed Count***	338	213
Resident to Bed Ratio***	0.09	0.06
Medicare Days Percent***	40%	49%
Disproportionate Share Percent	29%	28%
Total Discharges for BPCI Advanced MS-DRGs***	2,281	1,281
Total Procedures for BPCI Advanced HCPCS***	121	65
Unplanned Readmission Rate, 2017***	15.4%	15.3%
Market Population***	4,178,862	2,542,567
Per Capita Personal Income***	$47,035	$44,803
SNF Beds per 10,000***	52	56
Medicare Advantage Penetration*	31.8%	30.8%
Hospital Market Share for BPCI Advanced MS-DRGs & HCPCS***	21%	26%
Herfindahl Index***	0.22	0.35

Note: Data from 715 BPCI Advanced hospital EIs and 2,569 non-participating hospitals. **Appendix D** shows the test statistic and p-value for each t-test. **Appendix C** contains the BPCI Advanced hospital eligibility criteria and variable definitions. **Appendix B** contains the MS-DRGs and HCPCS that trigger each BPCI Advanced clinical episode. Unless otherwise specified, values for numeric variables are averaged for all years between 2013 and 2016 that data was available. Market characteristics are calculated for the Core-Based Statistical Area (CBSA) in which the hospital is located. EIs = episode initiators; HCPCS = Healthcare Common Procedure Coding System; MS-DRGs = Medicare Severity-Diagnosis Related Groups; SNF = skilled nursing facility.

*Indicates significance at the 10% level for the pooled t-test of difference in means

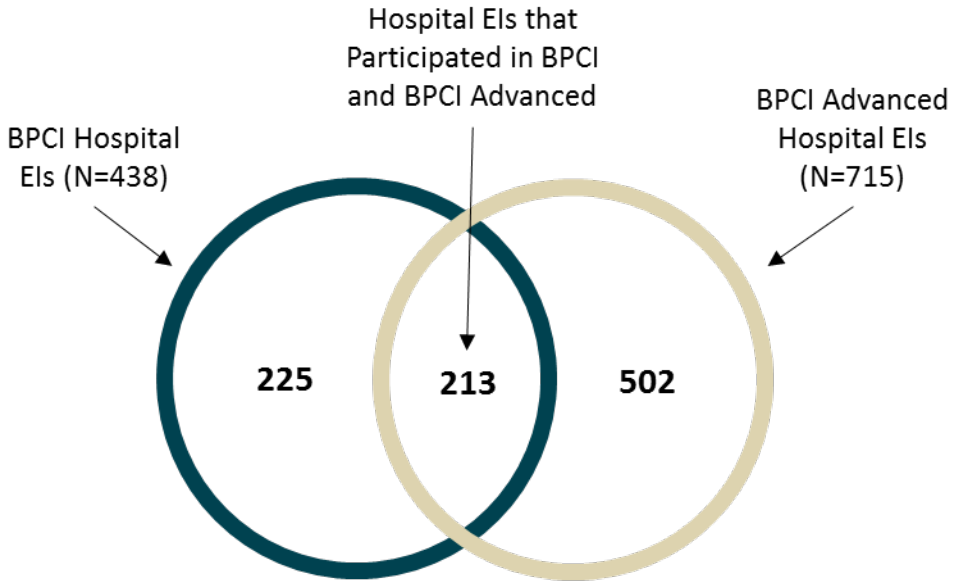
**Indicates significance at the 5% level for the pooled t-test of difference in means

*** Indicates significance at the 1% level for the pooled t-test of difference in means

***Source*:** The BPCI Advanced evaluation team's analysis of the Area Health Resource File (AHRF) from 2013 to 2016, CMS Provider of Service (POS) files from 2013 to 2016, CMS Inpatient Prospective Payment System (IPPS) files from 2013 to 2018, 2017 Inpatient Quality Reporting (IQR) Measures, Part A Medicare claims from 2013 to 2016, and the CMS BPCI Advanced Database as of March 1, 2019.

The BPCI Advanced Model attracted more hospitals than BPCI. Of the 715 BPCI Advanced hospital EIs, 213 (30%) also participated in BPCI (Exhibit 8). Of the 251 hospitals that were BPCI EIs as of the end of the initiative (September 31, 2018), 161 (64%) were BPCI Advanced EIs as of March 1, 2019.

Exhibit 8: BPCI and BPCI Advanced Hospital EIs



Note: BPCI Hospital EIs participated in Model 2 or 4 for at least one calendar quarter of BPCI. BPCI Hospital EIs are limited to those that were also eligible for BPCI Advanced (5 BPCI Hospital EIs were not eligible for BPCI Advanced and excluded from these counts). EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of the CMS BPCI Database and the CMS BPCI Advanced Database as of March 1, 2019.

BPCI Advanced hospitals, compared with those that participated in BPCI, were more similar to all hospitals eligible to participate across several dimensions (Exhibits 9a and 9b). BPCI Advanced hospitals better reflected the regional distribution of eligible hospitals. BPCI Advanced had more participation in rural areas, although rural areas remain underrepresented. While BPCI Advanced hospitals were not as large (as indicated by BPCI Advanced discharges, procedures, and bed count) as BPCI hospital participants, they were still larger than all eligible hospitals. BPCI Advanced hospitals were closer to all eligible hospitals with respect to academic medical center participation and teaching commitment. The markets served by BPCI Advanced participating hospitals relative to BPCI hospitals, however, were larger and the BPCI Advanced participating hospitals had lower market shares than all eligible hospitals. Participation in other CMS initiatives (MSSP, Next Gen, or Pioneer ACOs) by BPCI Advanced hospitals was more similar to that of all eligible hospitals.

Exhibit 9a: Characteristics of BPCI Advanced Hospital EIs, BPCI Hospital EIs, and All Eligible Hospitals, 2013 – 2016

Domain	Characteristic	BPCI Advanced Hospital EIs (N = 715)	BPCI Hospital EIs (N = 438)	All Eligible Hospitals (N = 3,284)
Census Region	Midwest	24%	20%	23%
	Northeast	20%	26%	15%
	South	36%	34%	42%
	West	20%	20%	19%
	Puerto Rico	0%	0%	2%
Urban/Rural	Urban	90%	95%	76%
	Rural	10%	5%	24%
Ownership	For Profit	26%	18%	23%
	Government	5%	6%	16%
	Non-profit	70%	76%	60%
Academic Medical Center	Yes	6%	9%	4%
Part of Health System	Yes	96%	97%	75%
Participation in MSSP, Next Gen ACO, or Pioneer ACO Initiatives	Yes	10%	15%	7%
IRF in Market	Yes	73%	75%	59%
Provides Outpatient Surgery	Yes	95%	97%	92%

Note: Appendix C contains the BPCI Advanced hospital eligibility criteria and variable definitions. Values for categorical variables are for the most recent year between 2013 and 2016 that data was available. BPCI Hospital EIs participated in Model 2 or 4 for at least one calendar quarter of BPCI. BPCI hospital EIs are limited to those that were also eligible for BPCI Advanced (5 BPCI hospitals were not eligible for BPCI Advanced and excluded from these counts). Market characteristics are calculated for the Core-Based Statistical Area (CBSA) in which the hospital is located. ACO = Accountable Care Organization; EIs = episode initiators; IRF = Inpatient Rehabilitation Facility; MSSP = Medicare Shared Savings Program.

***Source*:** The BPCI Advanced evaluation team's analysis of the 2016 Agency for Healthcare Research and Quality (AHRQ) Hospital Linkage File, Area Health Resource File (AHRF) from 2013 to 2016, CMS Provider of Service (POS) files from 2013 to 2016, 2018 CMS Inpatient Prospective Payment System (IPPS) file, 2018 Master Data Management (MDM) provider file, CMS BPCI Database, and the CMS BPCI Advanced Database as of March 1, 2019.

Exhibit 9b: Characteristics of BPCI Advanced Hospital EIs, BPCI Hospital EIs, and All Eligible Hospitals, 2013 – 2016, continued

Characteristic	BPCI Advanced Hospital EIs (mean)	BPCI Hospital EIs (mean)	All Eligible Hospitals (mean)
Bed Count	338	378	240
Resident to Bed Ratio	0.09	0.12	0.06
Medicare Days Percent	40%	40%	47%
Disproportionate Share Percent	29%	27%	28%
Total Discharges for BPCI Advanced Episode MS-DRGs	2,281	2,616	1,499
Total Procedures for BPCI Advanced Episode HCPCS	121	145	77
Unplanned Readmission Rate, 2017	15.4%	15.4%	15.3%
Market Population	4,178,862	3,943,583	2,898,825
Per Capita Personal Income	$47,035	$47,976	$45,297
SNF beds per 10,000	52	51	55
Medicare Advantage Penetration	31.8%	30.5%	31.0%
Hospital Market Share for BPCI Advanced MS-DRGs & HCPCS	21%	20%	25%
Herfindahl Index	0.22	0.21	0.32

Note: Data from 715 BPCI Advanced hospital EIs, 438 BPCI Hospital EIs, and 2,569 non-participating hospitals. **Appendix C** contains the BPCI Advanced hospital eligibility criteria and hospital characteristic definitions. **Appendix B** contains the MS-DRGs and HCPCS that trigger each BPCI Advanced clinical episode. Unless otherwise specified, values for numeric variables are averaged for all years between 2013 and 2016 that data was available. Market characteristics are calculated for the Core-Based Statistical Area (CBSA) in which the hospital is located. BPCI Hospital EIs participated in Model 2 or 4 for at least one calendar quarter of BPCI. EIs = episode initiators; HCPCS = Healthcare Common Procedure Coding System; MS-DRGs = Medicare Severity-Diagnosis Related Groups; SNF = skilled nursing facility.

Source: The BPCI Advanced evaluation team's analysis of the Area Health Resource File (AHRF) from 2013 to 2016, CMS Provider of Service (POS) files from 2013 to 2016, CMS Inpatient Prospective Payment System (IPPS) files from 2013 to 2018, 2017 Inpatient Quality Reporting (IQR) Measures, Part A Medicare claims from 2013 to 2016, and CMS BPCI Database, and the CMS BPCI Advanced Database as of March 1, 2019.

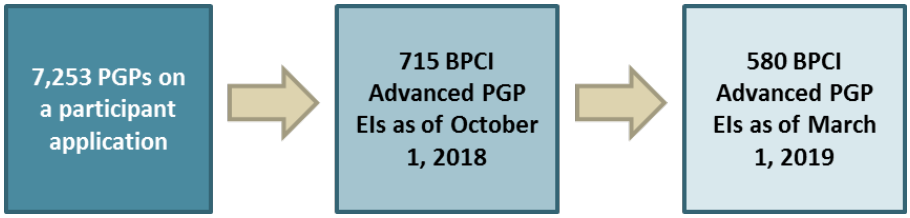
We also compared the 715 BPCI Advanced hospital EIs to the 117 hospitals that retroactively withdrew as of March 1, 2019. BPCI Advanced hospital EIs were larger than hospitals that retroactively withdrew, based on bed count and number of discharges and procedures; and located in larger, more competitive markets, as reflected by urban-rural classification, market population, market share, and the Herfindahl Index (see **Appendix D**).

b. PGP characteristics

There were 7,253 unique PGPs listed on over 120,000 BPCI Advanced applications, although only 715 became EIs at the start of the model on October 1, 2018 (Exhibit 10).[13] Of those, 135 PGPs retroactively withdrew from the model, leaving 580 PGP EIs as of March 1, 2019.

[13] EIs could be listed on more than one application, but could only participate in BPCI Advanced under one arrangement.

Exhibit 10: BPCI Advanced PGP Applicants and PGP EIs



Note: EIs = episode initiators; PGP = physician group practice.
Source: The BPCI Advanced evaluation team's analysis of the CMS BPCI Advanced Database as of March 1, 2019.

In examining the characteristics of BPCI Advanced PGP EIs, it is important to note some key attributes of the BPCI Advanced PGP definition. The composition of PGPs can be quite fluid as clinicians change employment status and billing arrangements. A PGP is defined as a unique TIN and clinicians can submit Medicare claims through any TIN to which they have assigned their Medicare billing rights. Under BPCI Advanced, PGPs could generate new TINs, which allowed PGPs that did not exist in the baseline to participate. Therefore, clinicians under multiple TINs can choose among the TINs for billing purposes. As a result, clinicians may, on a case-by-case basis, choose to submit their Medicare claims to a TIN that was in BPCI Advanced or one that was not, which would determine whether or not that beneficiary would be in a BPCI Advanced episode.

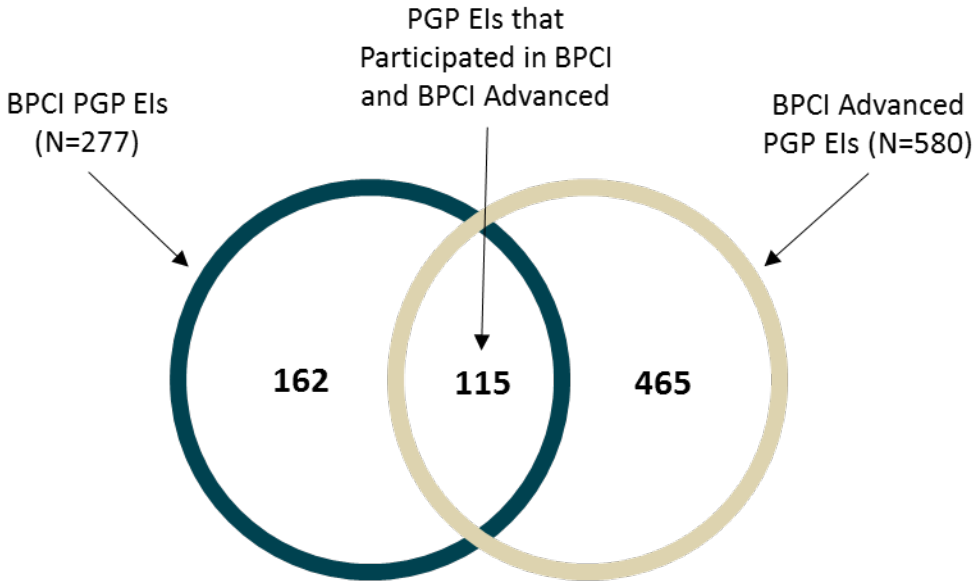
Because of these definition issues, we were only able to provide characteristics of TINs that were present in the Medicare Part B physician claims data during the period of interest, and the results may not represent the characteristics of the PGPs over time. Furthermore, our comparison of BPCI Advanced PGP EIs and BPCI PGP EIs may not accurately convey clinicians' actual experience with value-based payment approaches. Finally, there is no way to compare participating PGPs with all eligible PGPs because there is no database on all PGPs.

Of the 580 BPCI Advanced PGPs, 160 TINs did not exist prior to BPCI Advanced. This aligns with what we learned through our conversations with conveners and PGP EIs. For example, one large PGP informed us that their organization used the target pricing data from CMS, including the PGP efficiency measure, to inform which TIN to use for billing its BPCI Advanced episodes. They determined if the PGP would be likelier to achieve NPRA if they used their existing TIN or if they participated under a new TIN.

Clinicians in 74 PGP TINs did not bill for any Medicare services during the first six months of the model. The unique count of BPCI Advanced PGPs (N = 580), therefore, overstates the number of PGPs actively participating in BPCI Advanced.

Most BPCI Advanced PGPs were not in BPCI. Only 20% (115) of BPCI Advanced PGP EIs were identified as BPCI EIs (Exhibit 11). Less than half (42%) of the BPCI PGPs are BPCI Advanced participants. One-quarter of BPCI Advanced PGPs have at least some experience in Medicare value-based payment approaches through the Medicare Shared Savings Program, Next Generation ACO Model, or Pioneer ACO Model, as of May 2019.

Exhibit 11: BPCI and BPCI Advanced PGP EIs



Note: Each PGP is identified by a unique TIN. Therefore, we can only identify overlap between BPCI Advanced and BPCI if the PGP was participating under the same TIN. EIs = episode initiators; TIN = Taxpayer Identification Number; PGP = physician group practice.

Source: The BPCI Advanced evaluation team's analysis of the CMS BPCI Database and CMS BPCI Advanced Database as of March 1, 2019.

BPCI Advanced PGPs tended to be smaller than BPCI PGPs, as measured by the number of unique clinicians, volume of episodes, and number of hospitals where the clinicians worked (Exhibit 12). BPCI Advanced EIs had a median of 36 clinicians, compared with 43 clinicians for BPCI PGP EIs. BPCI Advanced PGPs had fewer relevant discharges, but more procedures under the model. BPCI Advanced PGPs had a median of 611 annual discharges that could trigger one of the 29 inpatient clinical episodes in 2016 and a median of 6 procedures that would trigger an outpatient episode, compared with 733 discharges and 2 procedures for BPCI PGPs.

Exhibit 12: Characteristics of BPCI Advanced and BPCI PGP EIs, 2016

Characteristic	Statistic	BPCI Advanced PGP EIs (N = 420)	BPCI PGP EIs (N = 277)
Number of unique clinicians associated with the PGP EI	Mean	85	90
	25th percentile	14	11
	Median	36	43
	75th percentile	76	96
Annual discharges for MS-DRGs that map to one of the 29 BPCI Advanced inpatient clinical episodes	Mean	1,087	1,451
	25th percentile	225	101
	Median	611	733
	75th percentile	1,170	1,701
Annual procedures for HCPCS that map to one of the 3 BPCI Advanced outpatient clinical episodes	Mean	38	26
	25th percentile	0	0
	Median	6	2
	75th percentile	30	21
Number of hospitals where PGP EIs had discharges/procedures that map to one of the 32 BPCI Advanced clinical episodes	Mean	7	8
	25th percentile	2	1
	Median	4	5
	75th percentile	8	10

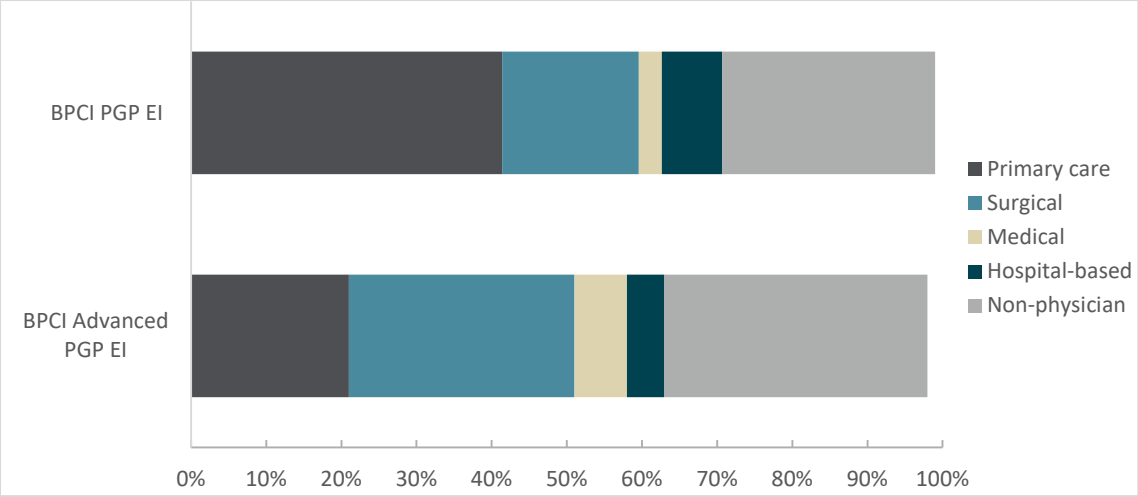
Note: While there were 580 BPCI Advanced PGP EIs, only 420 PGPs existed in the baseline period (2013-2016). Three PGP TINs had no 2016 Medicare FFS claims; their values for all measures in this exhibit were zero. EIs = episode initiators; TIN = Taxpayer Identification Number; PGP = physician group practice; MS-DRGs = Medicare Severity-Diagnosis Related Groups; HCPCS = Healthcare Common Procedure Coding System. Annual discharges and procedures required the attending or operating National Provider Identifier (NPI) to have submitted a carrier claim under the BPCI Advanced TIN for services during the anchor stay or procedure.

Source: BPCI Advanced evaluation team's analysis of 2016 Medicare FFS Claims and the CMS BPCI and BPCI Advanced databases, as of March 1, 2019.

The distribution of clinician specialties differed between BPCI Advanced and BPCI PGP EIs, with BPCI Advanced EIs including more surgical specialties and fewer primary care (Exhibit 13).[14] Among BPCI Advanced participants, 21% of clinicians in the PGP were in primary care and 30% were in surgical specialties. This compares with 41% of clinicians in primary care and 18% in surgical specialties for BPCI PGPs. BPCI Advanced PGPs had a larger proportion of non-physician clinicians (e.g., physician assistant, nurse practitioner, and physical therapists).

[14] A specialty category was assigned to a clinician based on the specialty code on 2016 Medicare Part B claims, mapped to 1 of 8 categories from the Medicare Data on Provider Practice and Specialty (MD-PPAS) User Documentation version 2.3. See **Appendix C** for the definitions of all physician and non-physician specialty categories, including primary care and surgical specialties.

Exhibit 13: More Surgical and Non-physician and Fewer Primary Care Clinicians were in the Average BPCI Advanced PGP Compared to the Average BPCI PGP EI, 2016



Note: This graph represents the distribution of clinicians for 417 BPCI Advanced PGP EIs and 248 BPCI PGP EIs identified in the 2016 Part B claims. Other physician, Ob-Gyn, and psychiatry were not included in the graph and represent 2% of the average BPCI Advanced and 1% of the average BPCI PGP EI's clinicians. For more details on the specialty categories see **Appendix C**. EI = episode initiator; PGP = physician group practice.

***Source*:** BPCI Advanced evaluation team's analysis 2016 Medicare Part B claims, the CMS BPCI and BPCI Advanced database as of March 1, 2019, and the Medicare Data on Provider Practice and Specialty (MD-PPAS) User Documentation version 2.3.

C. BPCI Advanced Participation Decisions

We conducted key informant interviews and site visits to learn about how conveners and EIs decided to participate in the BPCI Advanced Model, which clinical episodes they selected, their partner selection, and financial arrangements. Site visits included interviews with executive and financial leadership as well as clinical leaders and front-line staff, and questions about care redesign in addition to the topics covered in key informant interviews. Additional detail on sample selection, interview topics, and analysis methodology is in **Appendix C**. Findings from conveners and EIs were similar, therefore they are reported together and differences between the two respondent types are noted. Many of the qualitative findings were also similar to results from previous BPCI evaluations (e.g., reasons for clinical episode selection, the role of conveners, and NPRA sharing decisions).[15,16]

1. Respondent Characteristics

Through key informant interviews and site visits, we interviewed eight conveners, one consultant, and twenty EIs. Of the interviewees:

- Five convener interviewees were provider conveners (e.g., health systems or ACOs) and three were non-provider conveners.

[15] Dummit L, Marrufo G, Marshall J, et al. (Updated in October 2018). CMS Bundled Payments for Care Improvement (BPCI) Initiative Models 2–4: Year 3 Evaluation & Monitoring Annual Report. https://downloads.cms.gov/files/cmmi/bpci-models2-4yr3evalrpt.pdf

[16] Dummit L, Marrufo G, Marshall J, et al. (October 2018). CMS Bundled Payments for Care Improvement (BPCI) Initiative Models 2–4: Year 5 Evaluation & Monitoring Annual Report. https://downloads.cms.gov/files/cmmi/bpci-models2-4-yr5evalrpt.pdf

- We interviewed nine hospital EIs and eleven PGP EIs. We specifically chose three EIs that had withdrawn from BPCI Advanced (one hospital EI and two PGP EIs) to understand their decision to exit the model.
- Slightly over half of all convener and EI respondents had participated in BPCI.
- EI interviewees were participating in a range of one to 25 clinical episodes.

2. Entry Decisions and Selection of EIs, Conveners, and Clinical Episodes

EIs and conveners indicated many of the same reasons for joining BPCI Advanced:

- To build on past success either in BPCI or other models such as the Comprehensive Care for Joint Replacement (CJR) Model or ACOs;
- To gain experience with bundled payments with an eye to future CMS models or episode-based payments with commercial payers;
- To drive care transformation and to better understand post-acute care (PAC) utilization; and
- To learn how to partner and work more collaboratively with physicians and hospitals.

Many of the conveners said they joined BPCI Advanced because they thought they could be financially successful due to the target pricing methodology, which they thought was improved from BPCI.

Conveners Said…

CMS made improvements in the BPCI Advanced target price methodology by incorporating patient case-mix adjustments.

Most interviewees, both conveners and EIs, mentioned that they joined BPCI Advanced to drive care transformation by engaging physicians and hospitals as partners. For example, one health system convener, which had not participated in BPCI, joined BPCI Advanced because they wanted to be "a bundle partner for physicians rather than have physicians partner with other organizations." EIs, particularly PGP EIs, also said joining BPCI Advanced was an opportunity to catalyze physician engagement after patients left the hospital.

The Advanced APM feature of BPCI Advanced was not a significant driver in the decisions to participate in BPCI Advanced, or in selecting clinical episodes, among convener or EI interviewees. Most interviewees were uncertain whether clinicians would reach volume thresholds to qualify for Advanced APM incentive payments. Only one EI indicated that the Advanced APM feature of the model was a benefit for joining.

When deciding which hospitals or PGPs to sign up as EIs, conveners used historical data and CMS target prices to help assess whether each potential EI could generate savings. Some conveners also used other selection criteria to choose EIs such as geography; clinical specialties, such as orthopedic surgery; and market characteristics, such as PAC utilization. Several conveners assessed EIs for their commitment and capacity to redesign care prior to partnering with them. One convener reported reading the CMS BPCI evaluation report to better understand the types of EIs that were successful under BPCI, which informed their EI selection strategy.

The conveners we interviewed tended to apply to the model exclusively with hospitals or with PGPs, although the largest conveners included both types of EIs. Most often conveners partnered with EIs with whom they previously had a relationship, either through past BPCI participation in the case of non-provider conveners, or because they were part of the same health system in the case of provider conveners. If there was not an existing relationship, it was more common for a convener to approach a potential EI rather than the other way around.

Several convener participants thought it would be difficult for EIs with lower episode payments to achieve savings in the model. They stated that the target prices were lower in BPCI Advanced than in BPCI, so EIs that were previously successful in BPCI could not continue to be financially successful in BPCI Advanced. One interviewee went further, stating that discouraging efficient, high quality providers from participating in BPCI Advanced was a disservice to patients.

Conveners included EIs on multiple applications to help determine the most advantageous way to participate in the model.[17] One health system convener noted that they submitted six applications with different combinations of their PGPs and hospitals and various convener arrangements (e.g., applying with multiple external conveners and as a non-convener participant). As a result, they received historical claims data and target pricing for each of these combinations, which it used to determine the structure of its final application to participate.

Similar to conveners, most of the EIs we interviewed stated that they partnered with conveners with whom they had an existing relationship, either through BPCI or because they were part of the same health system. As one EI reflected, "we leaned heavily on them in BPCI." Some EIs talked with several conveners to determine which would be the most advantageous. When deciding between conveners, EI interviewees reported that they were interested in the convener's relationship with CMS, their software options, and case management systems. We interviewed one EI that opted for a local convener because there is "something warm and fuzzy about someone being local, rather than someone being far away." The EI said that they appreciated the opportunities for in-person meetings and also found that their local convener's case managers were quick to address any patient-specific issues.

EI interviewees stated that they relied on conveners primarily to analyze data, project financial results, and monitor performance. Several EIs noted that the model is complicated and there are frequent revisions, and they relied on their conveners to help make sense of model details and rule changes.

A minority of EIs we interviewed were non-convener participants. A couple of non-convener participants were in BPCI without a convener and did not think they needed one for BPCI Advanced. Another non-convener participant had a convener for BPCI but chose to participate in BPCI Advanced independently, in part because they had made progress in developing analytic skills. That EI did, however, retain their previous BPCI convener as a consultant. One EI said that they chose to participate without a convener because they thought the convener would take too much of the upside savings.

[17] 60% of hospital EIs and 70% of PGP EIs were on at least two applications.

Conveners and EIs considered financial and other factors when choosing clinical episodes. To understand the range of potential savings that could be realized for each clinical episode, conveners and EIs reported using target pricing data, historical patient volume, readmission rates, and PAC utilization data. Both types of interviewees indicated that one of the most important considerations for clinical episode selection was whether they could reduce the payments or use of services provided after the discharge or procedure. One convener noted that they recommended that EIs be able to achieve a minimum 10% reduction in PAC spending to be successful in a clinical episode.

An Example of the Process for Clinical Episode Selection…

With actuarial help, a convener analyzed historical clinical episode payments, patient volume, and target prices for the 32 clinical episodes for each of its EIs and flagged clinical episodes as green, yellow, or red according to results of their analysis. The convener then discussed with each EI's leadership which clinical episodes best aligned with their existing care redesign efforts and assessed clinician engagement and commitment. The convener participant selected clinical episodes that aligned with quality improvement initiatives because with "limited resources," alignment was viewed as important.

In addition to conducting detailed quantitative analysis for each clinical episode, both conveners and EIs also considered factors such as degree of EI investment in quality improvement and care redesign, and clinician engagement. Several hospital EIs considered the type of contractual relationships with physicians, for example, if the physicians were employed by the hospital they could expect greater physician engagement in care redesign.

For the most part, clinical episode selection was a collaborative process. Several EIs set up multi-disciplinary teams (e.g., clinicians, care navigators, C-suite representatives, and, in one instance, medical record coders) to review data and ensure that everyone – especially physicians - was engaged in the clinical episode selection process. Additionally, EIs and conveners worked together; generally, conveners or consultants analyzed data and recommended clinical episodes to their EIs. Some EIs made decisions contrary to initial convener recommendations. For example, one hospital EI asked its convener to consider adding cardiac clinical episodes because they felt they could succeed in those clinical episodes. Several hospital system conveners decided not to participate in outpatient clinical episodes at all because their EIs had no experience with them or because they thought there was less opportunity for significant savings.

All convener interviewees withdrew from some clinical episodes during the one-time retroactive withdrawal opportunity. All conveners noted that they were monitoring performance to determine whether or not their EIs should drop additional clinical episodes. Low volume was the most common reason given for dropping a clinical episode. Interviewees felt that low patient volume made participation too risky because a single high-cost patient could disproportionately influence their average cost, negatively impacting their performance at reconciliation. Additionally, several EIs told us that they plan to add clinical episodes, but most plan to start conservatively.

We conducted exit interviews with two PGP EIs and one hospital EI to learn about reasons for leaving the model. Concerns about potential financial losses were noted as a reason for leaving the model. Data or administrative challenges were also mentioned as reasons for exiting. For example, one interviewee said that it was time intensive and expensive to administer models like

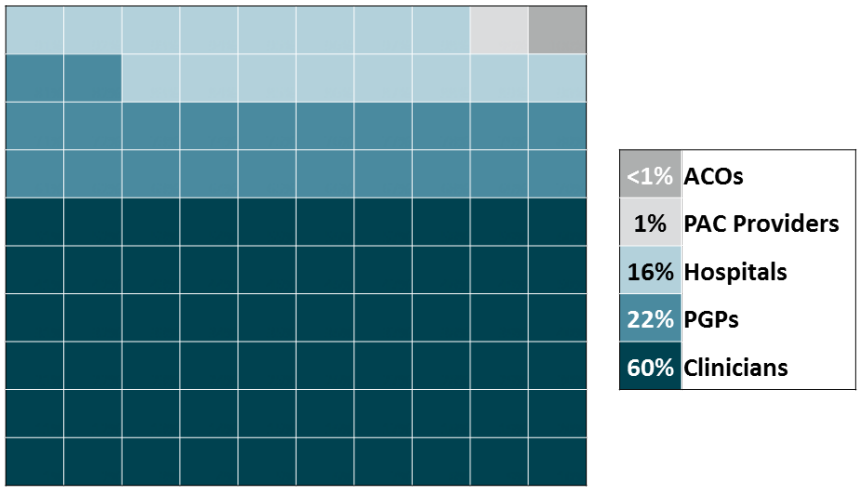
BPCI Advanced (e.g., cleaning data, attending meetings, and educating staff) and their participation was not worth the cost.

3. Financial Arrangements

Convener and non-convener participants are allowed to share NPRA payments from CMS among their NPRA sharing partners. NPRA sharing partners may include downstream EIs, clinicians, or other providers with a NPRA sharing arrangement with the participant. PGP NPRA sharing partners are, in turn, able to share apportioned NPRA, in the form of a partner distribution payment, to individual clinicians, called NPRA sharing group practice practitioners. Prior to the start of the model, and at quarterly intervals, participants submit financial arrangement lists with proposed NPRA sharing partners and NPRA sharing group practice practitioners. We analyzed aggregate financial arrangement list submissions and also spoke with conveners and EIs about financial arrangements during site visits and interviews.

As of March 1, 2019, 86% of participants, 74 convener and 214 non-convener participants, elected to participate in financial arrangements with an average of 17 NPRA sharing partners each.[18] Individual clinicians were the most typical intended NPRA sharing partner, followed by PGPs, hospitals, and to a much lesser extent PAC providers and ACOs (Exhibit 14). About half (575 of 1,065) of PGP NPRA sharing partners indicated they planned to share NPRA with sharing group practice practitioners. Over 8,600 clinicians were listed as preliminary NPRA sharing group practice practitioners, or about 15 clinicians per PGP.

Exhibit 14: Over Half of the Proposed NPRA Sharing Partners on Participant Financial Arrangement Lists were Clinicians, March 1, 2019



Note: PAC providers include inpatient rehabilitation facilities, long-term care hospitals, home health agencies, and skilled nursing facilities. Individual clinicians are identified by their individual NPI. ACO = Accountable Care Organization; PAC = post-acute care; PGP = physician group practice; NPI = National Provider Identifier; NPRA = Net Payment Reconciliation Amount.

Source: Evaluation team's analysis of BPCI Advanced proposed financial arrangement list for all participants that intended to share NPRA as of March 1, 2019 and the CMS BPCI Advanced database.

[18] NPRA sharing partners, by definition, include any provider or group that may receive NPRA from BPCI Advanced participants. It can include both EIs and entities that are not EIs.

At the time of our interviews, most of the conveners and EIs had not finalized their NPRA sharing arrangements. Only a few had these arrangements in place. Those that had not yet established NPRA sharing arrangements were planning to do so in the future.

Several EIs noted that they hoped sharing NPRA would encourage physician engagement and increase physician involvement in managing PAC utilization. The EIs explained that they were designing their NPRA sharing arrangements to incentivize reducing length of stay, readmissions, and SNF use, while improving timely discharge orders and documentation (e.g., post-surgery dictation). One EI planned on using physician participation in regular meetings as a factor in determining NPRA sharing amounts.

A small number of EIs we interviewed decided not to participate in NPRA sharing arrangements, either because they were unsure if they could achieve savings or because they did not think NPRA sharing was necessary to engage providers. An EI participating in only one clinical episode decided not to share NPRA because they were unsure if they could achieve savings in that episode because of their low target price. One EI stated that because PAC providers were motivated by referral volume they were able to engage PAC provider partners without setting up financial arrangements.

4. Clinician and Beneficiary Awareness

We asked site visit interviewees about clinician and beneficiary awareness of the model. Clinician awareness may be important for supporting care redesign. CMS promotes beneficiary awareness by requiring participants to provide notification letters about BPCI Advanced so that beneficiaries know that their providers are participating in the model.

Site visit interviewees reported that physicians at their organizations were generally aware of BPCI Advanced, but had mixed levels of understanding regarding model details. As one respondent described, “Most people kind of know what it is or know it’s coming . . . physicians aren’t scared because it doesn’t change how they care for patients.” Although most physicians knew about the model, interviewees reported that physicians were unaware of which individual patients were included.

Model awareness among other types of providers such as nurses, pharmacy technicians, and office staff was more variable than among physicians. One EI reported that staff were very aware of the model and which patients were attributed to BPCI Advanced. A physician respondent from that EI reported, “[My staff] is completely engaged, they are more engaged than I am.” Some interviewees said that nursing staff were alerted about which patients were attributed to the model through morning rounds or by a flag by the patient’s name, but respondents were not sure whether nursing staff really understood the details of the model.

Interviewees at most sites reported that although beneficiaries received notification letters about their participation in BPCI Advanced, very few beneficiaries understood the details of the model. One interviewee stated that the beneficiary notification letter was just “one more thing” patients received when they were in the hospital. Interviewees at two sites felt that their patients were very aware of the BPCI Advanced Model, because the patients were in regular contact with staff conducting case management for BPCI Advanced.

D. Clinical Episode Selection

A BPCI Advanced hospital or PGP could choose to participate in up to 32 clinical episodes. As summarized earlier, conveners and EIs used the target pricing data sent to them when they submitted their BPCI Advanced application to inform their choices among clinical episodes. We analyzed the hospital target pricing data to better understand its relationship to clinical episode selection.

1. Participation by Clinical Episode

There were notable differences in clinical episode selection choices between hospital and PGP EIs and in the number of clinical episodes chosen (Exhibit 15a). Hospital EIs were more likely to participate in medical clinical episodes and PGP EIs were more likely to participate in surgical clinical episodes (Exhibit 15b). Over half of the hospital EIs participated in the congestive heart failure clinical episode and a third participated in the chronic obstructive pulmonary disease, bronchitis, and asthma clinical episode. These clinical episodes were among the highest volume in 2013 through 2016, the period used to calculate target prices (see **Appendix D** for the discharge volume by each clinical episode in 2013 through 2016). [19] This is consistent with what EIs we interviewed told us about choosing clinical episodes with sufficient volume for success.

The Most Popular Clinical Episodes…

For **hospital EIs,** the most commonly selected clinical episodes were:

- Congestive heart failure
- Sepsis
- Cardiac arrhythmia
- Simple pneumonia and respiratory infections
- Chronic obstructive pulmonary disease, bronchitis, and asthma

In contrast, for **PGP EIs**, the most common clinical episodes were:

- Major joint replacement of the lower extremity
- Hip and femur procedures except major joint
- Major joint replacement of the upper extremity
- Non-cervical spinal fusion
- Cardiac arrhythmia

[19] The top five clinical episodes based on BPCI Advanced hospital EI discharge volume from 2013 to 2016 are sepsis (262,125 discharges), congestive heart failure (232,603), simple pneumonia and respiratory infections (167,118), chronic obstructive pulmonary disease, bronchitis, and asthma (136,835), and cardiac arrhythmia (105,086).

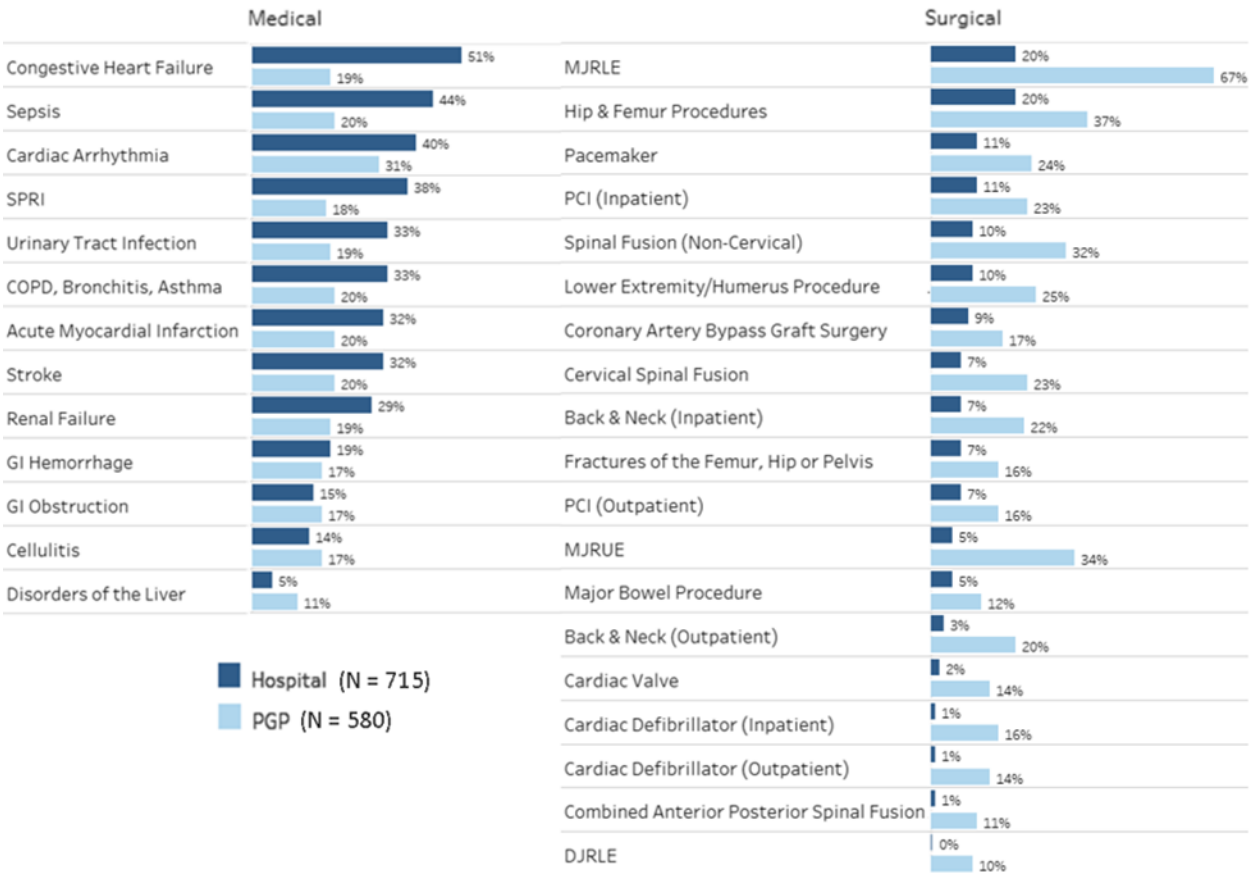
Exhibit 15a: Clinical Episodes Selected by BPCI Advanced Hospital and PGP EIs, March 1, 2019

Clinical Episode	Hospital EIs Total EIs = 715		PGP EIs Total EIs = 580	
	N	%	N	%
Acute Myocardial Infarction	227	32%	117	20%
Back & Neck Except Spinal Fusion (Inpatient)	49	7%	129	22%
Back & Neck Except Spinal Fusion (Outpatient)	20	3%	117	20%
Cardiac Arrhythmia	287	40%	182	31%
Cardiac Defibrillator (Inpatient)	9	1%	94	16%
Cardiac Defibrillator (Outpatient)	7	1%	79	14%
Cardiac Valve	11	2%	82	14%
Cellulitis	97	14%	101	17%
Cervical Spinal Fusion	48	7%	136	23%
Chronic Obstructive Pulmonary Disease, Bronchitis, Asthma	239	33%	115	20%
Combined Anterior Posterior Spinal Fusion	5	1%	65	11%
Congestive Heart Failure	368	51%	111	19%
Coronary Artery Bypass Graft Surgery	66	9%	99	17%
Disorders of Liver Except Malignancy, Cirrhosis, or Alcoholic Hepatitis	34	5%	66	11%
Double Joint Replacement of the Lower Extremity	3	0%	60	10%
Fractures of the Femur and Hip or Pelvis	48	7%	95	16%
Gastrointestinal Hemorrhage	139	19%	96	17%
Gastrointestinal Obstruction	108	15%	98	17%
Hip & Femur Procedures Except Major Joint	145	20%	214	37%
Lower Extremity/Humerus Procedure Except Hip, Foot, Femur	71	10%	147	25%
Major Bowel Procedure	39	5%	72	12%
Major Joint Replacement of the Lower Extremity	145	20%	389	67%
Major Joint Replacement of the Upper Extremity	37	5%	195	34%
Pacemaker	79	11%	142	24%
Percutaneous Coronary Intervention (Inpatient)	77	11%	132	23%
Percutaneous Coronary Intervention (Outpatient)	52	7%	92	16%
Renal Failure	205	29%	108	19%
Sepsis	316	44%	118	20%
Simple Pneumonia and Respiratory Infections	274	38%	104	18%
Spinal Fusion (Non-Cervical)	72	10%	188	32%
Stroke	230	32%	115	20%
Urinary Tract Infection	235	33%	109	19%

Note: EIs = episode initiators; PGPs = physician group practices.

Source: BPCI Advanced evaluation team's analysis of CMS BPCI Advanced Database, as of March 1, 2019.

Exhibit 15b: BPCI Advanced Hospital EIs were More Likely to Choose Medical Clinical Episode and PGP EIs were More Likely to Choose Surgical Clinical Episodes, March 1, 2019



Note: Back & Neck = back & neck except spinal fusion; COPD = chronic obstructive pulmonary disease; Disorders of the Liver = disorders of liver except malignancy, cirrhosis, or alcoholic hepatitis; DJRLE = double joint replacement of the lower extremity; EIs = episode initiators; GI = gastrointestinal; Hip & Femur Procedures = hip & femur procedures except major joint; Lower Extremity/Humerus Procedure = lower extremity/humerus procedure except hip, foot, femur; MJRLE = major joint replacement of the lower extremity; MJRUE = major joint replacement of the upper extremity; PCI = percutaneous coronary intervention; PGPs = physician group practices; SPRI = simple pneumonia and respiratory infections.

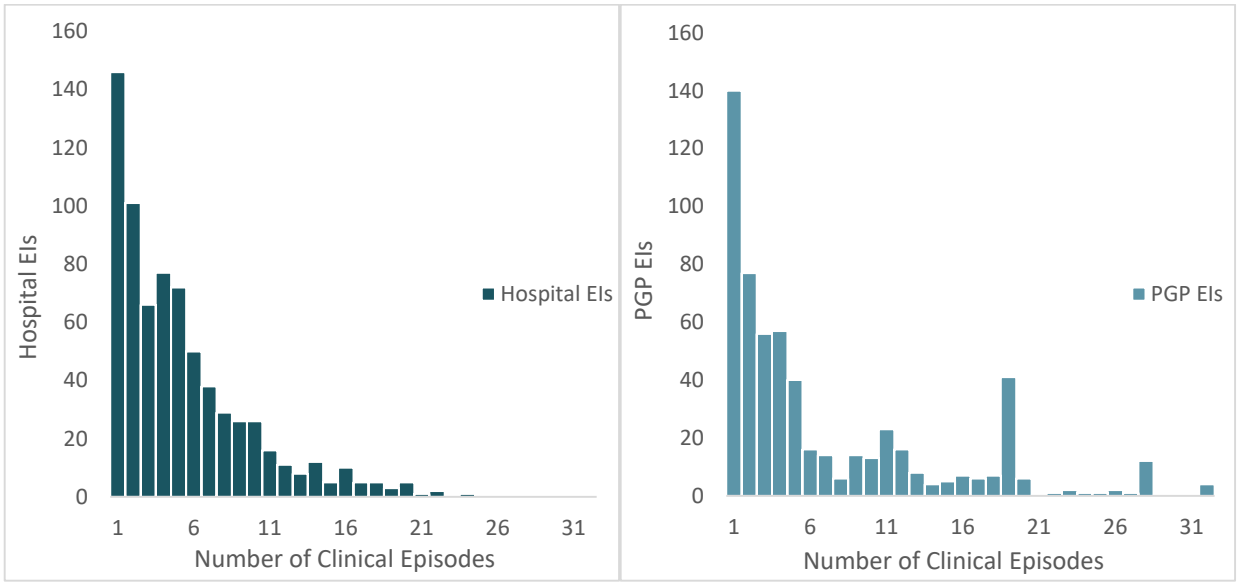
Source: BPCI Advanced evaluation team's analysis of CMS BPCI Advanced Database, as of March 1, 2019.

EIs generally selected only a fraction of the 32 clinical episodes for participation. Approximately 20% of hospital EIs were participating in only one clinical episode and 55% were participating in less than five (Exhibit 16). No hospital EI participated in all 32 clinical episodes. Similar to hospitals, 24% of PGPs were participating in a single clinical episode and 57% were participating in less than five clinical episodes.

Although more than half of both hospitals and PGPs participated in less than five clinical episodes, the proportion of PGPs that participated in multiple clinical episodes was higher than hospitals, which may have been due to convener influence. PGPs participated in an average of seven clinical episodes compared to five for hospitals. The higher PGP average is partially driven by four PGP EIs that participated in all 32 clinical episodes and 91 (16%) PGPs that participated in at least 16 clinical episodes. Notably, 39 PGP EIs were participating in the same 19 clinical episodes and all

of these PGPs were under the same non-provider convener. Similarly, all PGP EIs that participated in the same 28 clinical episodes were partnering with the same consulting firm.

Exhibit 16: Number of Clinical Episodes Selected by BPCI Advanced Hospital and PGP EIs, March 1, 2019

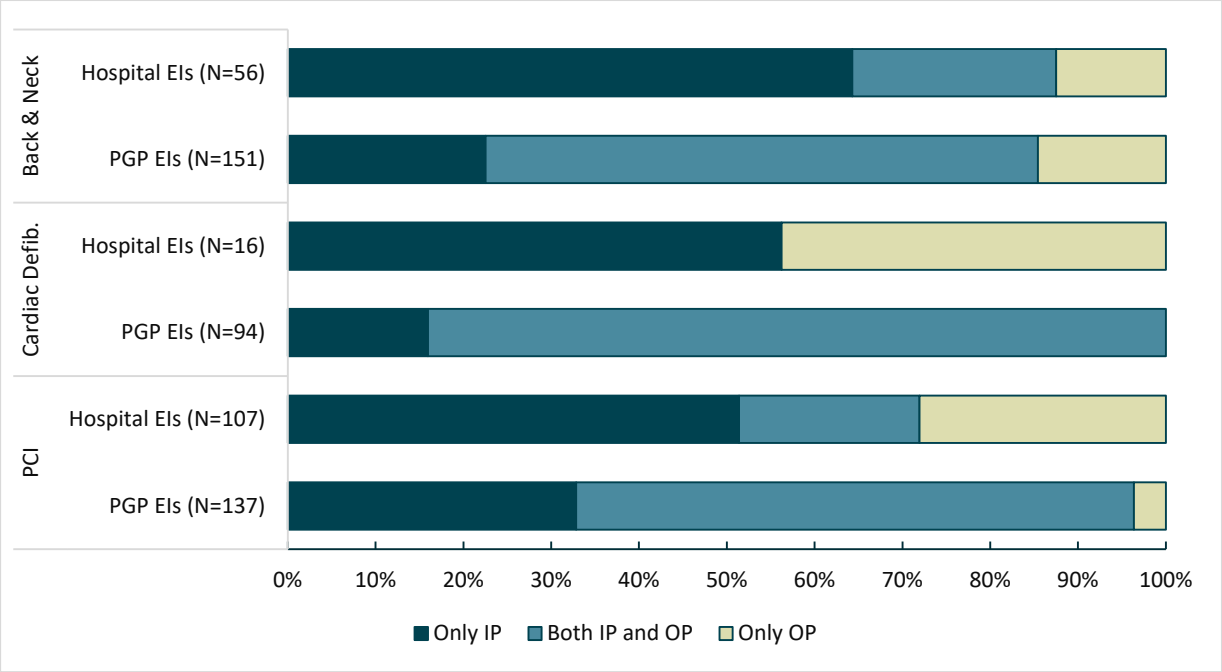


Note: EIs = episode initiators; PGP = physician group practice

Source: The BPCI Advanced evaluation team's analysis of CMS BPCI Advanced Database, as of March 1, 2019.

BPCI Advanced includes three outpatient clinical episodes, which were not available in BPCI. All three of these clinical episodes have an inpatient clinical episode counterpart. PGP EIs were more likely to participate in both the inpatient and outpatient clinical episode for the paired clinical episodes, while hospital EIs were more likely to participate in the inpatient clinical episode only (Exhibit 17). Among EIs that participated in back and neck except spinal fusion, over 60% of PGPs participated in the inpatient and outpatient clinical episodes, but over 60% of hospital EIs participated in just the inpatient clinical episode; the proportions were similar among EIs participating in the percutaneous coronary intervention clinical episodes. Among EIs that participated in cardiac defibrillator clinical episodes, over 80% of PGP EIs participated in the inpatient and outpatient clinical episodes, while no hospitals participated in both.

Exhibit 17: BPCI Advanced Hospital EIs were Less Likely to Participate in Paired Inpatient and Outpatient Clinical Episodes than PGP EIs, March 1, 2019



Note: EIs = episode initiators; IP = inpatient; OP = outpatient; Back & Neck = back and neck except spinal fusion; Cardiac Defib. = cardiac defibrillator; PCI = percutaneous coronary intervention.

Source: The BPCI Advanced evaluation team's analysis of CMS BPCI Advanced Database, as of March 1, 2019.

2. Historical Payments by Clinical Episode[20]

The clinical episodes included in the BPCI Advanced Model vary widely in average payments because of differences in clinical complexity and service use (see Exhibit 18 and **Appendix D**). The mean historical payments for the outpatient back and neck except spinal fusion clinical episode, for example, averaged $11,581 across all BPCI Advanced eligible hospitals. On the other end of the spectrum, the average historical payment for the combined anterior posterior spinal fusion clinical episode was $65,905.

Episode payments varied substantially within each of the 32 clinical episodes as well (Exhibit 18 and **Appendix D** for all clinical episodes). The average episode payment for the chronic obstructive pulmonary disease, bronchitis, and asthma clinical episode, for example, ranged from $9,012 to $47,083 across all BPCI Advanced eligible hospitals.

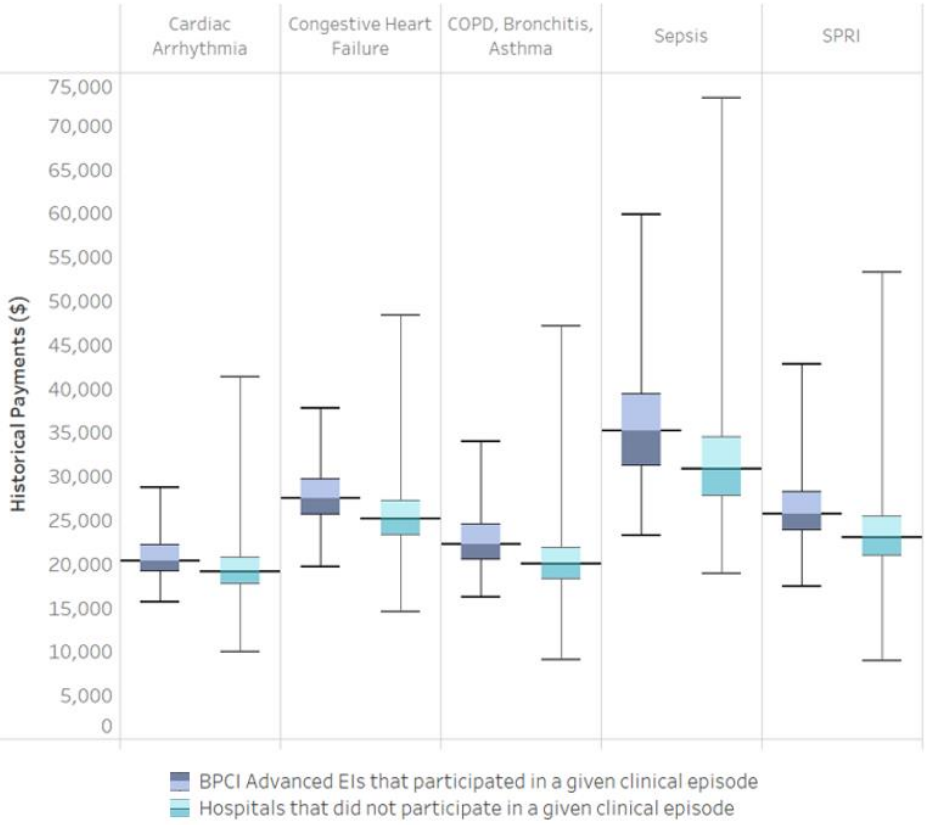
For all 32 clinical episodes, the median historical payment for hospital EIs was higher than the historical payment for eligible hospitals that did not participate in the clinical episode (Exhibit 18 and **Appendix D**). The median historical payment for the sepsis clinical episode, for example, was $35,133 for BPCI Advanced hospital EIs, compared with $30,771 for eligible hospitals that did not participate in sepsis clinical episodes, a difference of $4,362 or 14% of median historical sepsis payments. The difference in median historical payments was $1,298 (7%) between hospital EIs

[20] Historical payments were based on standardized Medicare payments, updated to Model Year dollars, for the anchor stay or anchor procedure plus the 90-day post discharge period that occurred between 2013 and 2016.

participating in cardiac arrhythmia and hospitals that did not participate in the clinical episode ($20,363 vs. $19,065).

Although BPCI Advanced hospital EIs had higher median payments than non-participating hospitals, the distribution of historical payments for participating and non-participating hospitals overlapped. So, many participating hospitals had similar historical episode payments to hospitals that chose not to join the model or participate in the clinical episode. Thus, factors in addition to historical payments contributed to decisions about participating in a particular clinical episode. This overlap also may indicate that the target prices were successful in attracting hospitals with a range of episode payments to the model.

Exhibit 18: Historical Payments were Higher and Less Variable for BPCI Advanced Hospitals than for Non-participating Hospitals in the Five Clinical Episodes with the Largest Participation, 2013 - 2016



Note: This exhibit includes all hospitals that were eligible to participate in the BPCI Advanced clinical episode (i.e., met hospital inclusion criteria and had more than 40 episodes for the given clinical episode between 2013 through 2016). Non-participating hospitals includes hospitals that did not participate in BPCI Advanced in any clinical episode and BPCI Advanced hospital EIs that did not choose to participate in the given clinical episode. This box plot displays the historical payments, 2013-2016, by hospital separately for each clinical episode (see **Appendix D** for similar comparisons for all 32 clinical episodes). The box represents the interquartile range. The line in the middle of the box is the median historical payments. The top and bottom whiskers of each box plot are the maximum and minimum historical payments among the sample. Historical payments were based on standardized Medicare payments, updated to Model Year dollars, for the anchor stay or anchor procedure plus the 90-day post discharge period that occurred between 2013 and 2016. EIs = episode initiators; SPRI = simple pneumonia and respiratory infections; COPD=chronic obstructive pulmonary disease.

***Source**:* The BPCI Advanced evaluation team's analysis of BPCI Advanced Hospital target pricing file, 2013-2016, and CMS BPCI Advanced Database, as of March 1, 2019.

3. Relationship between Preliminary Target Prices, Historical Payments, and Participation by Clinical Episode

We compared preliminary target prices with historical episode payments for each hospital that applied to BPCI Advanced to better understand the decision to participate in a given clinical episode. Applicants received preliminary target price data after they submitted their application. As indicated in our interviews with participants and EIs, they used these data to inform their choice of clinical episodes. It is important to note, however, that the final target price will differ from the preliminary target price because it will reflect patient mix during the model.

For the majority of clinical episodes (21 of 32),[21] historical payments for hospital EIs in that clinical episode were closer to or further below the preliminary target price than the historical payments for hospital applicants that were eligible but did not participate in the clinical episode (Exhibit 19). Thus, for these 21 clinical episodes, on average, participating hospitals would need to reduce payments less than hospitals that chose not to participate in the clinical episode to come below the preliminary target price. For 11 clinical episodes, however, the average reduction in payments to meet the preliminary target price would need to be larger for hospital EIs than hospitals that chose not to participate in the clinical episode.

For two clinical episodes, the average preliminary target price was higher than the average historical payment, indicating that the average participating hospital may not need to lower payments. In both instances, the clinical episodes are in an inpatient/outpatient pair.

In general, the difference in the relationship between the preliminary target price and the historical payment between hospitals participating in the clinical episode and those that were not was rather small. In fact, the average difference between the two groups across the 32 clinical episodes was $295, or 1.1% of mean historical payments. However, there were exceptions, such as sepsis, where the difference was $657, or approximately 2.0% of the mean historical payments.

[21] These 21 clinical episodes contain approximately 62% of all BPCI Advanced hospital EI discharge volume from 2013 to 2016 and approximately 60% of all BPCI Advanced hospital/clinical episode observations.

Exhibit 19: Historical Payments and the Difference between Preliminary Target Price and Historical Payments, BPCI Advanced Hospital EIs and Non-participating Hospital Applicants, by Clinical Episode, March 1, 2019

Clinical Episode	BPCI Advanced Hospital EIs that Participated in a Given Clinical Episode			Hospitals that Applied but did not Participate in a Given Clinical Episode		
	N	Historical Payment (mean)	Difference between Preliminary Target Price and Historical Payment (mean)	N	Historical Payment (mean)	Difference between Preliminary Target Price and Historical Payment (mean)
Acute Myocardial Infarction	227	$28,206	-$517	1,348	$26,545	-$494
Back & Neck Except Spinal Fusion (Inpatient)	49	$26,086	$111	657	$24,498	-$112
Back & Neck Except Spinal Fusion (Outpatient)	20	$13,219	-$310	731	$11,551	-$461
Cardiac Arrhythmia	287	$20,598	-$144	1,536	$19,301	-$282
Cardiac Defibrillator (Inpatient)	9	$57,336	-$545	400	$55,383	-$555
Cardiac Defibrillator (Outpatient)	7	$35,043	-$1,677	898	$33,976	-$1,855
Cardiac Valve	11	$68,322	-$5,893	673	$64,977	-$6,517
Cellulitis	97	$24,075	-$1,451	1,679	$21,429	-$1,620
Cervical Spinal Fusion	48	$35,614	-$1,706	744	$32,362	-$1,307
Chronic Obstructive Pulmonary Disease, Bronchitis, Asthma	239	$22,516	-$1,158	1,666	$20,365	-$1,098
Combined Anterior Posterior Spinal Fusion	5	$70,305	-$4,118	184	$65,992	-$4,358
Congestive Heart Failure	368	$27,683	-$773	1,547	$25,643	-$790
Coronary Artery Bypass Graft	66	$56,820	-$792	774	$53,360	-$1,219
Disorders of Liver Except Malignancy, Cirrhosis, Alcoholic Hepatitis	34	$32,930	-$1,408	722	$29,595	-$807
Double Joint Replacement of the Lower Extremity	3	$42,324	-$3,207	135	$38,238	-$4,125
Fractures of the Femur and Hip or Pelvis	48	$35,025	-$1,610	796	$32,616	-$1,731
Gastrointestinal Hemorrhage	139	$23,304	-$704	1,651	$21,716	-$786
Gastrointestinal Obstruction	108	$20,059	-$1,296	1,533	$18,060	-$1,263
Hip & Femur Procedures Except Major Joint	145	$49,619	-$2,867	1,514	$47,479	-$3,084
Lower Extremity/Humerus Procedure Except Hip, Foot, Femur	71	$42,666	-$801	787	$40,047	-$1,215
Major Bowel Procedure	39	$40,062	-$1,903	1,479	$37,691	-$2,444

Clinical Episode	BPCI Advanced Hospital EIs that Participated in a Given Clinical Episode			Hospitals that Applied but did not Participate in a Given Clinical Episode		
	N	Historical Payment (mean)	Difference between Preliminary Target Price and Historical Payment (mean)	N	Historical Payment (mean)	Difference between Preliminary Target Price and Historical Payment (mean)
Major Joint Replacement of the Lower Extremity	145	$31,525	-$3,553	1,342	$28,854	-$3,426
Major Joint Replacement of the Upper Extremity	37	$26,952	-$2,110	798	$25,486	-$2,027
Pacemaker	79	$32,520	-$1,596	1,112	$30,608	-$1,384
Percutaneous Coronary Intervention (Inpatient)	77	$30,167	-$731	1,282	$29,161	-$889
Percutaneous Coronary Intervention (Outpatient)	52	$16,866	$329	1,056	$16,567	$232
Renal Failure	205	$27,750	-$772	1,642	$25,469	-$918
Sepsis	316	$35,812	-$287	1,588	$31,883	-$944
Simple Pneumonia and Respiratory Infections	274	$26,209	-$1,669	1,653	$23,744	-$1,500
Spinal Fusion (Non-Cervical)	72	$45,652	-$1,603	969	$43,435	-$1,548
Stroke	230	$33,790	-$1,347	1,479	$31,955	-$1,488
Urinary Tract Infection	235	$26,073	-$1,410	1,637	$23,718	-$1,408

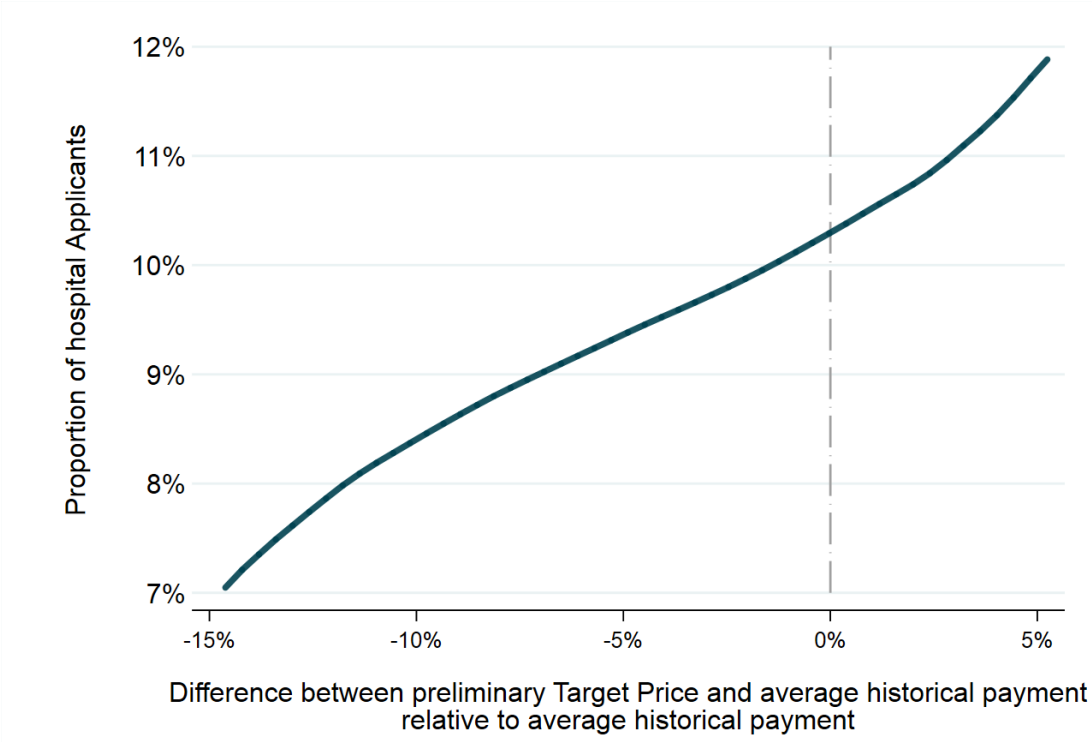
Note: Hospitals that applied but did not participate include all eligible hospitals that were listed on an application and did not participate in BPCI Advanced in any clinical episode and also includes BPCI Advanced hospital EIs that did not participate in the given clinical episode. Historical payments are the equivalent of total episode payments, standardized payments, updated to Model Year dollars, for all non-excluded services, for discharges occurring during the historical period (2013-2016). Preliminary target prices are standardized historical payments adjusted for a preliminary estimate of the hospital's patient case mix, its payments relative to its peers, spending trends of its hospital peers, and incorporate the 3% CMS discount. Hospitals participating in the Comprehensive Care for Joint Replacement (CJR) Model were excluded from statistics on major joint replacement of the lower extremity clinical episode because they cannot participate in that clinical episode. EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of BPCI Advanced Hospital target pricing file, data from 2013 through 2019, and CMS BPCI Advanced Database, as of March 1, 2019.

Aggregating across all clinical episodes, the proportion of BPCI Advanced hospital applicants that participated in a given clinical episode increased as the difference between the preliminary target price and historical payments approached a positive amount (Exhibit 20). A negative difference means that the preliminary target price was lower than the applicant's historical payments, suggesting the need to lower payments to receive NPRA. A positive difference means that the preliminary target price was higher than the applicant's historical payments. Approximately 8% of hospital applicant/clinical episode combinations with a preliminary target price 10% lower than historical payments participated in the clinical episode. Over 11% of hospital applicant/clinical episode combinations with a preliminary target price 5% higher than historical payments participated in that clinical episode. This indicates that applicants may have used the preliminary target price information to assess how much they would need to reduce episode payments to come below the final target prices, which would account for actual patient mix during the intervention period. That the relationship is not stronger could indicate that applicants considered other factors

in choosing clinical episodes or that their expectations for future episode payments and final target prices differed from the preliminary information, or both.

Exhibit 20: Proportion of Hospital Applicants that Participated in a Clinical Episode Increased as the Difference between the Preliminary Target Price and Historical Payments Increased, March 1, 2019



Note: The proportion was calculated as a moving average of the proportion of participating hospital EI/clinical episode observations out of all hospital applicant/clinical episode observations for a given value of the difference between the preliminary target price and historical episode payment relative to average historical payment. Only BPCI Advanced applicants eligible for a given clinical episode were considered. Historical payments were based on standardized Medicare payments, updated to Model Year dollars, for the anchor stay or anchor procedure plus the 90-day post discharge period that occurred between 2013 and 2016. See **Appendix C** for additional details. The vertical dashed line indicates where on the horizontal axis a hospital's preliminary target price equals average historical episode payment for a given clinical episode. Observations below the 1st percentile and above the 99th percentile were excluded. EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of 2013-2016 BPCI Advanced Hospital target pricing file and CMS BPCI Advanced Database, as of March 1, 2019.

E. BPCI Advanced Reach

The BPCI Advanced target price was intended to ensure that a broad range of hospitals would participate, which would increase the proportion of Medicare beneficiaries who receive care through value-based payment arrangements. To understand the breadth of BPCI Advanced participation, we calculated the proportion of eligible hospitals, clinicians, and hospital discharges and outpatient procedures attributed to BPCI Advanced during the first six months of the model (October 2018 through March 2019).

The Reach of BPCI Advanced…

Through the first 6 months of the model:

- **22%** of eligible hospitals participated in at least one clinical episode.
- **23%** of eligible clinicians participated in the model.
- Up to **16%** of BPCI Advanced eligible discharges and outpatient procedures were at a BPCI Advanced hospital or were attributed to a BPCI Advanced PGP.

Because the composition of PGPs can be quite fluid as clinicians change employment status and billing arrangements, there is no way to estimate the proportion of PGPs that participated in BPCI Advanced. Instead, we calculated the proportion of eligible clinicians participating in the model that encompassed clinicians admitting patients to BPCI Advanced hospitals or as part of a BPCI Advanced PGP EI.

1. Hospitals

Approximately 22% of eligible hospitals participated in at least one clinical episode in BPCI Advanced as of March 1, 2019; this compares with 13% of hospitals eligible for BPCI Advanced that participated in BPCI (Exhibit 21). The proportion of BPCI Advanced eligible rural hospitals that participated increased from 3% in BPCI to 9% in BPCI Advanced; the proportion of BPCI Advanced eligible safety net hospitals that participated increased from 10% in BPCI to 22% in BPCI Advanced.

Exhibit 21: BPCI Advanced Attracted a Larger Share of Rural and Safety Net Hospitals than BPCI

Hospital Type	BPCI Advanced Eligible Hospitals	BPCI Advanced Hospital EIs		BPCI Hospital EIs	
		N	%	N	%
All Hospitals	3,284	715	22%	438	13%
Rural Hospitals	790	70	9%	23	3%
Safety Net Hospitals	204	44	22%	20	10%

Note: Safety net hospitals are those with a disproportionate share percent of 60% or greater. Eligible hospitals met BPCI Advanced inclusion criteria, except for the clinical episode volume criterion (**Appendix C**). BPCI hospitals are limited to those that were also eligible for BPCI Advanced (5 BPCI hospitals were not eligible for BPCI Advanced and excluded from these counts). EIs = episode initiators.

Source: The BPCI Advanced evaluation team's analysis of 2016 Provider of Service (POS) File, 2016 Inpatient Prospective Payment System (IPPS) Annual File, CMS BPCI & BPCI Advanced Databases as of March 1, 2019.

2. Clinicians

Approximately 23% of eligible clinicians participated in BPCI Advanced either because they were the admitting or operating clinician billing to the PGP EI or because they were the admitting or operating clinician in the hospital EI. (Exhibit 22).[22] The proportion varied by clinical episode, from 1% for cardiac defibrillator (outpatient) to 21% for congestive heart failure (see **Appendix D**).[23]

Exhibit 22: Proportion of Eligible Clinicians Participating in BPCI Advanced, by Inpatient, Outpatient, and All Clinical Episodes, October 2018 – March 2019

Type of Clinical Episode	BPCI Advanced Eligible Clinicians	Participated in BPCI Advanced	
		N	%
Inpatient Clinical Episodes	201,968	46,256	23%
Outpatient Clinical Episodes	21,077	1,237	6%
All Clinical Episodes	203,352	46,607	23%

Note: Eligible clinicians include attending and operating NPIs who treated Medicare beneficiaries who met the BPCI Advanced beneficiary inclusion criteria at a BPCI Advanced eligible hospital. Minimum hospital volume in the baseline period was not applied. See **Appendix C** for additional details on inclusion criteria. NPI = National Provider Identifier.
Source: The BPCI Advanced evaluation team's analysis of Medicare Part A and B claims, October 2018 through March 2019 and CMS BPCI Advanced Database as of March 1, 2019.

3. Discharges

Approximately 9% of BPCI Advanced eligible Medicare FFS inpatient and outpatient discharges were at a BPCI Advanced hospital and 7% were attributed to a PGP EI that was participating in the given clinical episode during the first six months of the model (See Exhibit 23). For hospital EIs, the proportion ranged from 1% for four clinical episodes to 16% for congestive heart failure. For PGP EIs, there was 1% or less of eligible discharges for four clinical episodes and 26% of major joint replacement of the lower extremity episodes. (See **Appendix D** for proportion by clinical episode.)[24]

[22] When determining if the clinician was participating in BPCI Advanced, we only included discharges or procedures in the clinical episodes in which the BPCI Advanced hospital or PGP EIs were participating.
[23] The proportion of clinicians that participated in a given clinical episode is lower than the proportion of clinicians that participated in any clinical episode because the latter is the sum of unique clinicians participating across all clinical episodes over the sum of unique clinicians that were eligible across all clinical episodes.
[24] Note that the proportions cannot be combined as some PGP-attributed episodes are at BPCI Advanced hospitals. Further, some of these episodes may be attributed to other models, so this is likely an overestimate.

Exhibit 23: Proportion of Eligible Discharges and Procedures Attributed to BPCI Advanced Hospital and PGP EIs, by Clinical Episode Type, October 2018 – March 2019

Type of Clinical Episode	Discharges/ Procedures at BPCI Advanced Eligible Hospitals	Attributed to BPCI Advanced Hospital EIs		Attributed to BPCI Advanced PGP EIs	
		N	%	N	%
Inpatient Episodes	1,806,911	169,112	9%	139,023	8%
Outpatient Episodes	99,396	3,243	3%	2,452	2%
All Episodes	1,906,307	172,355	9%	141,475	7%

Note: Eligible discharges and procedures include Medicare beneficiaries who met the BPCI Advanced beneficiary inclusion criteria at a BPCI Advanced eligible hospital. Minimum hospital volume in the baseline period was not applied. See **Appendix C** for additional details on inclusion criteria. When accounting for the overlap of PGP discharges at BPCI Advanced hospitals, BPCI Advanced represents 16% of eligible discharges. EIs = episode initiators; PGP = physician group practice.

Source: The BPCI Advanced evaluation team's analysis of October 2018 through March 2019 Medicare Part A and B and CMS BPCI Advanced Database as of March 1, 2019.

III. Discussion

BPCI Advanced, which builds on the success of earlier bundled payment models, was responsible for up to 16% of eligible Medicare discharges for the model's clinical episodes in its first 6 months. Features of BPCI Advanced were intended to encourage participation from providers with a range of historical episode costs and increase the likelihood that the Medicare program will achieve savings. Its refined target pricing methodology is based on provider-specific historical episode payments and incorporates patient case-mix and peer group adjustments. BPCI Advanced meets all requirements as an Advanced APM under the QPP, including that participants are accountable for quality through the reconciliation process. These and other features of BPCI Advanced are intended to help ensure wide participation in the model to adequately test whether and in what circumstances it can achieve Medicare program savings while maintaining or improving quality of care.

There are more hospitals and PGPs in BPCI Advanced than in BPCI. The broader experience across providers with bundled payment, and value-based payment more generally, may have expanded the group of providers willing to accept risk under the model. Some conveners and EIs that we interviewed mentioned the target pricing methodology and potential financial opportunities as factors in their participation decision. BPCI Advanced participants and EIs said that they used the historical claims data and preliminary target prices they received upon applying to the model to make decisions about whether or not to join and which clinical episodes to select. Interestingly, interviewees indicated that their participation decision was not due to BPCI Advanced's status as an Advanced APM.

The majority of hospital and PGP EIs joined BPCI Advanced through a convener. Five conveners accounted for 44% of all EIs. Conveners were involved in participation decisions, particularly choices among the clinical episodes.

Approximately 40% of hospitals and 10% of PGPs that were included on BPCI Advanced applications ended up actually joining. In addition, even though hospitals and PGPs that applied received preliminary target prices and historical episode payments, 14% of hospital EIs and 19% of PGP EIs subsequently withdrew completely from BPCI Advanced. Because they withdrew by March 1, 2019, they were not held accountable for episodes triggered prior to their withdrawal. With notice, participants may still terminate their participation in the model, although they remain accountable for the clinical episodes triggered prior to their withdrawal.

The hospitals that participated in BPCI Advanced were more similar to all hospitals eligible to participate than BPCI hospital participants. BPCI Advanced hospitals were geographically dispersed, although they were predominantly larger and urban facilities that were part of a health system.

When deciding on which clinical episodes to choose, participants told us that they evaluated historical episode payments and preliminary target prices, as well as opportunities for reducing payments and quality improvement options. In fact, across all 32 clinical episodes, the median episode payment for hospitals that chose to participate was higher than the median for eligible hospitals that chose not to participate. The higher historical payments may result in a higher target price and it may be easier for a hospital to reduce its payments below a higher target price

to achieve an NPRA payment from CMS. Although BPCI Advanced hospital EIs had higher median payments than non-participating hospitals, there was overlap in the distribution of historical payments, indicating that hospitals with high and low episode payments participated in a given clinical episode.

More PGPs participated in BPCI Advanced than BPCI. It is not possible, however, to determine how participating PGPs compare to all eligible PGPs. This is because it is relatively easy for physicians and other clinicians to change PGPs and for PGPs to form or be dissolved. In fact, some PGPs were formed specifically for BPCI Advanced participation. Physician groups are identified through TINs and 28% of the TINs in BPCI Advanced were not in existence during the baseline period for which target prices were calculated (2013 through 2016).

Creating new TINs may have been a BPCI Advanced participation strategy for some PGPs. Creating a new TIN can potentially be financially advantageous under the model because of the target price calculation method. Furthermore, a clinician can choose which TIN will submit the claim to Medicare. For a clinician with more than one TIN, it would be advantageous to submit claims for patients with lower expected episode payments under the TIN in BPCI Advanced and submit claims for patients with higher expected episode payments under another TIN. While a totally appropriate billing practice, this could limit the reductions in payments achieved under the model.

Hospitals and PGPs generally chose different clinical episodes. The top five hospital clinical episodes were medical episodes. Four of the top five PGP clinical episodes were surgical, which likely reflects the specialties of the clinicians. Hospitals' and PGPs' choices may indicate differences in which costs they are able to control. Additionally, for certain PGPs, their conveners appeared to have had a significant role in the ultimate choices. Interestingly, a much lower proportion of hospital EIs than PGP EIs participated in MJRLE, the most popular clinical episode for hospital EIs in BPCI Model 2, which may indicate that hospitals were concerned about their ability to continue to reduce MJRLE episode payments.

BPCI Advanced has expanded the reach of Medicare's bundled payment approach beyond what was achieved in BPCI Model 2. Because the hospitals chose clinical episodes for which they had higher episode payments, they stand a better chance of reducing episode payments than they would have with lower episode payments. Similarly, PGPs may make strategic choices in the TINs to use for billing purposes to boost their chances of achieving NPRA. All of these factors will make it challenging to generalize the results of BPCI Advanced to a larger or different group of participants.

This report presents an early assessment of the BPCI Advanced Model based on Model Years 1 and 2 participants and EIs and data from the first six months of the model. As such, the analysis is limited in scope. The next BPCI Advanced evaluation annual report will incorporate estimates of the impact of the model on payment, utilization, and quality of care. The claims-based analyses will reflect Model Years 1 and 2 (October 2018 through December 2019). We will also include beneficiary-reported outcomes on functional status and satisfaction based on data collected in the fall of 2019. The next report will also include the first estimate of Medicare program savings for the BPCI Advanced Model; incorporating our estimate of the change in episode payments and any NPRA paid to participants by CMS or recoupment received by CMS from participants.