NORC at the University of Chicago

Fifth Evaluation Report

Next Generation Accountable Care Organization (NGACO) Model Evaluation

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Report 5

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Key Takeaways

As of 2020, its fifth performance year (PY5), **the Next Generation Accountable Care Organization (NGACO) Model was associated with $1.05 billion in gross savings, representing a 1.5 percent reduction** relative to similar fee for service (FFS) beneficiaries in the comparison group. In PY5, the NGACO Model reduced gross spending by $369.29 million or 3.1 percent in aggregate, higher than reductions seen in the previous two PYs.

Despite these gross spending reductions, **The NGACO Model increased cumulative net Medicare spending by $386.5 million** after taking into consideration shared savings and other payments to NGACOs. The increase in net spending in 2020 relative to 2019 reflected multiple factors, including selective NGACO attrition out of the model; improved financial and spending outcomes among NGACOs remaining in the model, and flexibilities offered to NGACOs through a COVID-19 amendment to the Participation Agreement.

Some NGACOs reported that the infrastructure, partnerships, and resources developed from participation in the NGACO Model better positioned them to respond to needs during the COVID-19 Public Health Emergency (PHE). These NGACOs reported leveraging their population health infrastructure, including data analytics and care management strategies, to identify beneficiaries most at-risk from COVID-19 and address their medical and non-medical needs. Some NGACOs also served as information hubs and provided technological and financial support to providers and SNFs.

NGACOs reduced hospital spending and utilization, skilled nursing facility (SNF) stays and days, and spending in institutional post-acute care (PAC) settings. These findings reflect the activities of NGACOs in response to the model's incentives as noted in prior reports as well as NGACOs' efforts to keep beneficiaries out of institutional settings during the PHE.

The Centers for Medicare & Medicaid Services (CMS) launched the Next Generation Accountable Care Organization (NGACO) Model through the Center for Medicare & Medicaid Innovation (CMMI) in January 2016. The NGACO Model was an advanced alternative payment model (AAPM) that built on previous CMS ACO initiatives by offering greater risk-sharing opportunities and flexible payment arrangements to promote value over volume. Three cohorts of NGACOs launched in successive performance years (PYs) of the Model—2016 (PY1), 2017 (PY2), and 2018 (PY3). Initially, the Model was planned to conclude in December 2020 (PY5); however, it was extended through December 2021 on account of the COVID-19 public health emergency (PHE).

This Fifth Evaluation Report for the NGACO Model is an abridged report focused on changes to the Model in response to the COVID-19 PHE and on key outcomes observed in 2020 (PY5). Because of the exceptional circumstances of PY5 and the extension of the Model through 2021, we focus on a select set of findings in this report and will produce a comprehensive summative evaluation report in 2023. The Executive Summary presents evaluation findings during PY5 and cumulatively as of PY5. Following an overview of NGACO- and Model-level changes in response to the COVID-19 PHE, we present Model-wide impacts on gross and net overall spending, as well as impacts on categories of Medicare spending and utilization.

Model Overview and Changes in Response to COVID-19 PHE

The NGACO Model was an ACO model that held participating providers responsible for quality of care and Medicare Parts A and B spending for their aligned beneficiaries and measured spending against a benchmark based on historical and regional trends. The NGACO Model differed from previous ACO models in that it prospectively aligned beneficiaries based on a plurality of evaluation and management (E&M) visits, provided opportunity for greater risk-sharing, and offered alternative payment mechanisms and specific benefit enhancements.

Policy Changes Due to COVID-19. CMS offered several flexibilities to the NGACO Model in PY5 to protect NGACOs from catastrophic losses during the PHE, in addition to extending the Model an additional year. For NGACOs that signed a COVID amendment to their participation agreements (PAs), CMS removed COVID-19 episodes from spending measures and retrospectively updated the prospective trend with a regional observed trend for 2020 benchmarks. In addition, NGACOs that signed did not face downside risk in months with a declared PHE and their caps on shared savings were locked at 5 percent. For NGACOs that maintained the existing PA, CMS updated the prospective trend with the *national* observed trend in the NGACO reference population. Twenty-one of 37 NGACOs (57 percent) signed the amendment; the NGACOs that did not sign the PA amendment had earned shared savings in prior PYs and may have anticipated earning less in PY5 if they had opted to sign. CMS also offered a series of blanket waivers that were available to all fee-for-service (FFS) providers, including SNF and telehealth waivers. These waivers were similar to those offered in the NGACO Model and may have affected impact estimates for SNF and telehealth services.

NGACO Model Participants, PY1 Through PY5

Thirty-seven NGACOs participated in the Model in PY5, down from the 41 that participated in PY4. Of the 37 NGACOs, 11 were from the 2016 cohort, 12 were from the 2017 cohort, and 14 were from the 2018 cohort. Three of the four NGACOs that exited the Model after PY4 had shared losses in PY4. The fourth, Steward, did not have shared losses but did experience a leadership change. Because Steward was one of the largest NGACOs, the Model saw an overall decline between PY4 and PY5 in the average number of providers per NGACO (from 1,492 to 1,377), the average number of beneficiaries per NGACO (from 29,400 to 27,600), and the number of hospital referral regions (HRRs) with NGACOs (from 112 to 98). Other features of NGACOs in PY5 are presented below.

Structure: Organizational Characteristics. PY5 resembled prior PYs in that most NGACOs were affiliated with integrated delivery systems (IDS) or hospital systems (41 percent); others were either physician practice-affiliated (32 percent) or physician-hospital partnerships (27 percent). At the start of PY5, the majority of NGACOs (71 percent) had at least six years of organizational experience as Medicare ACOs, including time in the NGACO Model.

Structure: Provider Characteristics. Primary care practitioners composed the largest subgroup of participating practitioners in NGACOs. From PY2 to PY5, there were increasing proportions of *participating* practitioners in NGACOs that continued from the previous PY (55 percent to 83 percent). In contrast, the proportion of *preferred* providers continuing in NGACOs were largely similar across PYs (~60 percent). The trend reflected the provider characteristics among NGACOs that departed the Model, compared with those that remained in the Model over time. Departing NGACOs were less likely to achieve savings and saw higher rates of practitioner change. NGACOs that remained in the Model were more likely to achieve savings and had greater provider stability.

Model Features Selected. At the start of PY5, about 41 percent of NGACOs elected 100 percent risk, a slight increase from PY4; the change reflected the move of two NGACOs from 80 percent to 100 percent risk. After the COVID-19 PA amendment relieved NGACOs of any downside risk, five NGACOs switched from 80 percent to 100 percent for the sharing of upside risk, and one switched from 100 percent to 80 percent risk. The distribution of NGACOs changed to 51 percent with 100 percent risk and 49 percent with 80 percent risk.

Similarly, at the start of PY5, about half (49%) of NGACOs elected 5 percent risk caps and the remainder elected 6-9 or 10-15 percent risk caps. After the PA amendment, five NGACOs that originally chose risk caps of 6 percent or higher had their risk cap automatically set to 5 percent under the COVID amendment, resulting in 62 percent of NGACOs having 5 percent risk in PY5.

Most NGACOs opted for FFS or FFS payment with a fixed per beneficiary per month infrastructure payment (ISP) (65 percent) and the remainder chose population-based payments (PBPs) or all-inclusive PBPs (AIPBP). The implementation of benefit enhancements was not measured in PY5, but a majority of NGACOs noted the intention to implement each benefit enhancement waiver at the start of PY5.

NGACOs' Responses to the COVID-19 PHE

In November 2021, NORC held a series of discussions with NGACO leaders, to better understand responses to the Covid-19 PHE. Leaders reported that NGACOs adapted their implementation strategies to support beneficiaries and providers during the PHE, leveraging infrastructure, partnerships, and resources established through participation in the Model. Strategies that NGACOs mentioned included using information technology (IT) and data analytics to identify beneficiaries at highest risk from COVID-19 (e.g., those with chronic conditions). Some NGACOs redeployed staff to focus on COVID-19, while others increased their outreach to identify beneficiary needs; NGACOs were then able to work with community organizations to provide wraparound services, including food and medication delivery. NGACOs also helped facilitate COVID-19 testing and vaccinations. Some engaged physicians by providing information on COVID-19 guidance, by helping obtain personal protective equipment, and by assisting with the transition to telehealth. Finally, some NGACOs said they continued to collaborate with SNFs to efficiently manage PAC, although during the PHE, NGACOS focused more on keeping beneficiaries out of institutional settings.

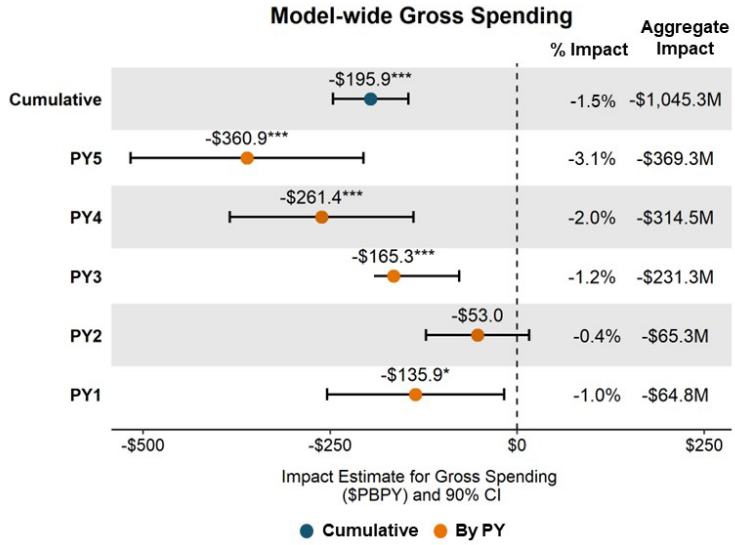
NGACO Model Impacts on Spending and Utilization

We used a difference-in-differences (DID) design to estimate Model-level impacts on spending and utilization between a baseline period and each PY among NGACO beneficiaries, relative to a matched comparison group.

Gross Spending. We estimated the Model's aggregate impact on Medicare Parts A and B spending before shared savings payouts (gross spending). Cumulatively as of PY5, the NGACO Model significantly reduced gross spending by $195.91 per beneficiary per year (PBPY), or $1.05 billion in the aggregate, representing a 1.5 percent reduction relative to the comparison group; see **Exhibit ES.1**. In PY5, the NGACO Model reduced gross spending by $360.93 PBPY or $369.29 million in the aggregate, representing a 3.1 percent reduction, higher than reductions seen in the previous two PYs.

Net Spending. We estimated NGACOs' net impact on Medicare Parts A and B spending by taking gross spending impacts and subtracting shared savings paid and adding shared losses recouped by CMS (net spending). Despite gross spending reductions, shared savings and other incentive payments by CMS totaled $1,432, more than offsetting reductions in gross spending. As a result, cumulative net Medicare spending as of PY5 increased by $72.40 PBPY, or $386.5 million total. Net spending increased from $103.2 PBPY in PY4 to $137.3 PBPY in PY5. The net spending increase reflected the COVID-19 PA amendment (with the lack of shared losses paid by ACOs to CMS in 2020) and selection effects: NGACOs that generated shared savings in prior years continued into PY5 while NGACOs with shared losses in PY4 exited the Model. See **Exhibit ES.2.** NGACOs' decisions to opt in or out of the PA amendment affected shared savings and therefore net savings estimates in PY5. If all NGACOs had opted for the PA amendment, shared savings would have been $119.7 million lower; if the NGACOs that signed the PA amendment did not change their risk elections, shared saving would have been $8.6 million lower.

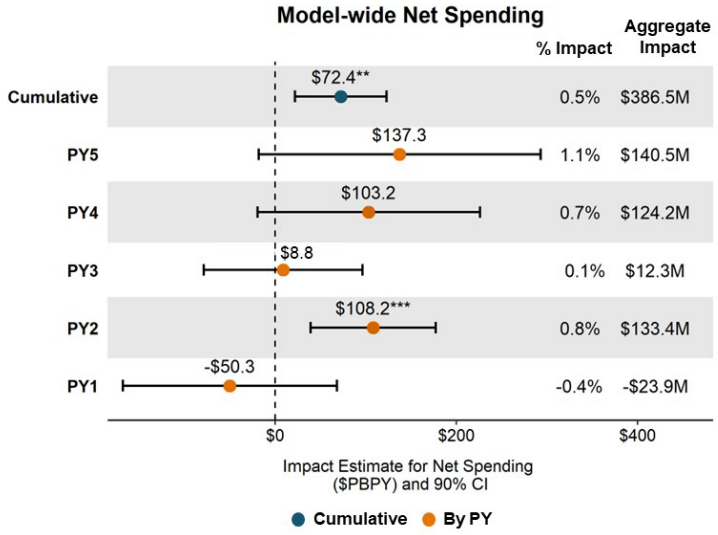
Exhibit ES.1. Cumulatively and in PY5, NGACOs Reduced Gross Spending Relative to the Comparison Group



NOTES: Estimated impacts PBPY for spending significant at *p<0.1, **p<0.05, and ***p<0.01.

We conducted sensitivity analyses, including COVID-19-related risk measures in the regression models, to ensure our findings reflected Model-related effects rather than effects of the PHE. All spending impact estimates in the sensitivity regression model were similar to those in the main regression model.

Exhibit ES.2. After Accounting for Shared Savings, NGACO Model Resulted in Net Losses to Medicare, with PY5 Net Spending Higher Than in Prior Years



NOTES: Estimated impacts PBPY for spending significant at *p<0.1, **p<0.05, and ***p<0.01.

Spending Categories. Professional services accounted for the largest share of total spending reductions. Hospice spending had the largest relative spending reduction in PY5 within individual categories (9.3 percent), followed by other PAC (5.0 percent) and professional services (3.4 percent). Spending reductions observed for hospice and professional services were higher than in previous PYs, while the decline in other PAC spending was smaller than in previous years. Acute care hospital spending also declined in PY5 (1.6 percent), though by a lower percentage than it had in previous PYs.

Utilization Categories. Cumulatively, the largest percentage reductions in utilization (among those assessed in this report) were in SNF days (6.4 percent in PY5, about 2.5 times the impact seen in PY4). Consistent with reductions in hospital spending, there was a 1.5 percent reduction in acute care hospital stays, nearly twice the size of the impact in the previous PY. Notably, SNF stays decreased in PY5 relative to the comparison group, in contrast to an increase in previous PYs. Findings were likely related to a decline in hospitalizations as well as NGACOs' efforts to keep beneficiaries out of institutional settings during the Covid-19 PHE.

Conclusion and Next Steps for Evaluation

The COVID-19 PHE posed unprecedented challenges for NGACOs, as it did for all health care providers in 2020. NGACOs reported they leveraged resources established through participation in the Model to adapt to changes in beneficiary and provider needs. As a result, the Model increased reductions in gross spending, hospitalizations, and SNF days, compared with previous PYs. However, with the availability of the COVID-19 PA amendment, most NGACOs were not responsible for shared losses in PY5. For this reason, the NGACO Model increased net spending in PY5 at a higher rate than it had in previous PYs. This finding underscores the challenge of designing models that incentivize participation and mitigate the extreme financial risk to participants that stem from uncontrollable events, while still offering financial savings to CMS.

In our next and final report, we plan to expand on our previous exploration of market, structural, and Model features associated with spending reductions, to identify the implementation factors associated with such reductions. In addition, we will present analyses regarding health equity in terms of NGACOs' impact on disparities in outcomes, access to care, and other metrics.

Chapter 1: Overview of NGACO Model, Participants, and Changes in PY5

Key Findings

Changes to the Model in PY5

- In PY5, CMS offered several flexibilities to protect NGACOs from catastrophic losses during the Covid-19 PHE. NGACOs that signed a COVID amendment to their Participation Agreements (PAs) did not face downside risk in months with a declared PHE, and their caps on shared savings were locked in at 5 percent.
- Twenty-one of 37 NGACOs (57 percent) signed the amendment. The NGACOs that did not sign had earned shared savings in prior PYs and may have anticipated earning less in PY5 if they had opted to sign.

Model Participation in PY5

- In PY5, 37 NGACOs participated in the Model, down from 41 participating NGACOs in PY4.
- Between PY4 and PY5, there was a decrease in the average number of providers per NGACO (from 1,492 to 1,377), the average number of beneficiaries per NGACO (from 29,400 to 27,600), and the number of hospital referral regions (HRRs) with NGACOs (from 112 to 98). Changes reflected the exit of one of the largest NGACOs (Steward) after PY4.
- As in previous years, most NGACOs were affiliated with an integrated delivery system (IDS) or hospital; most participating practitioners were primary care; and most NGACOs selected fee-for-service (FFS)-based payment mechanisms.

Responses to the COVID-19 PHE

- The infrastructure, partnerships, and resources developed through Model participation positioned NGACOs to respond to the COVID-19 PHE. With a prospectively aligned beneficiary population, NGACOs could leverage their population health infrastructure to identify beneficiaries most at-risk from COVID-19.
- NGACOs varied in how each addressed beneficiary medical and non-medical needs. Some NGACOs also served as information hubs and provided technological and financial support to independent providers and SNFs.

The fifth evaluation report for the Next Generation Accountable Care Organization (NGACO) Model is an abridged report focused on changes to the Model in response to the COVID-19 public health emergency (PHE) and on key outcomes observed in 2020, the Model's fifth performance year (PY5). Because of the PHE in PY5 and the extension of the Model through 2021, the report considers a select set of Model-level findings and does not include effects at the cohort or NGACO level. We plan to produce a comprehensive summative evaluation in 2023 that includes a broader range of outcomes through PY6 (2021).

1.1 Overview of NGACO Model and Changes in PY5

The Center for Medicare & Medicaid Innovation (CMMI) at the Centers for Medicare & Medicaid Services (CMS) launched the NGACO Model in 2016. NGACO was an advanced alternative payment model (AAPM) that built on CMS's previous ACO initiatives by offering greater risk-sharing opportunities and flexible payment arrangements to promote value over volume of health care services. The goal of the NGACO Model was to test whether strong financial incentives, along with tools to support patient engagement and care management, could improve health and reduce spending for Medicare fee-for-service (FFS) beneficiaries.[1] Three cohorts of NGACOs launched in successive performance years (PYs) of the Model—2016 (PY1), 2017 (PY2), and 2018 (PY3). Original plans were for the Model to conclude in December 2020 but the Model was extended through December 2021 in light of the COVID-19 PHE.

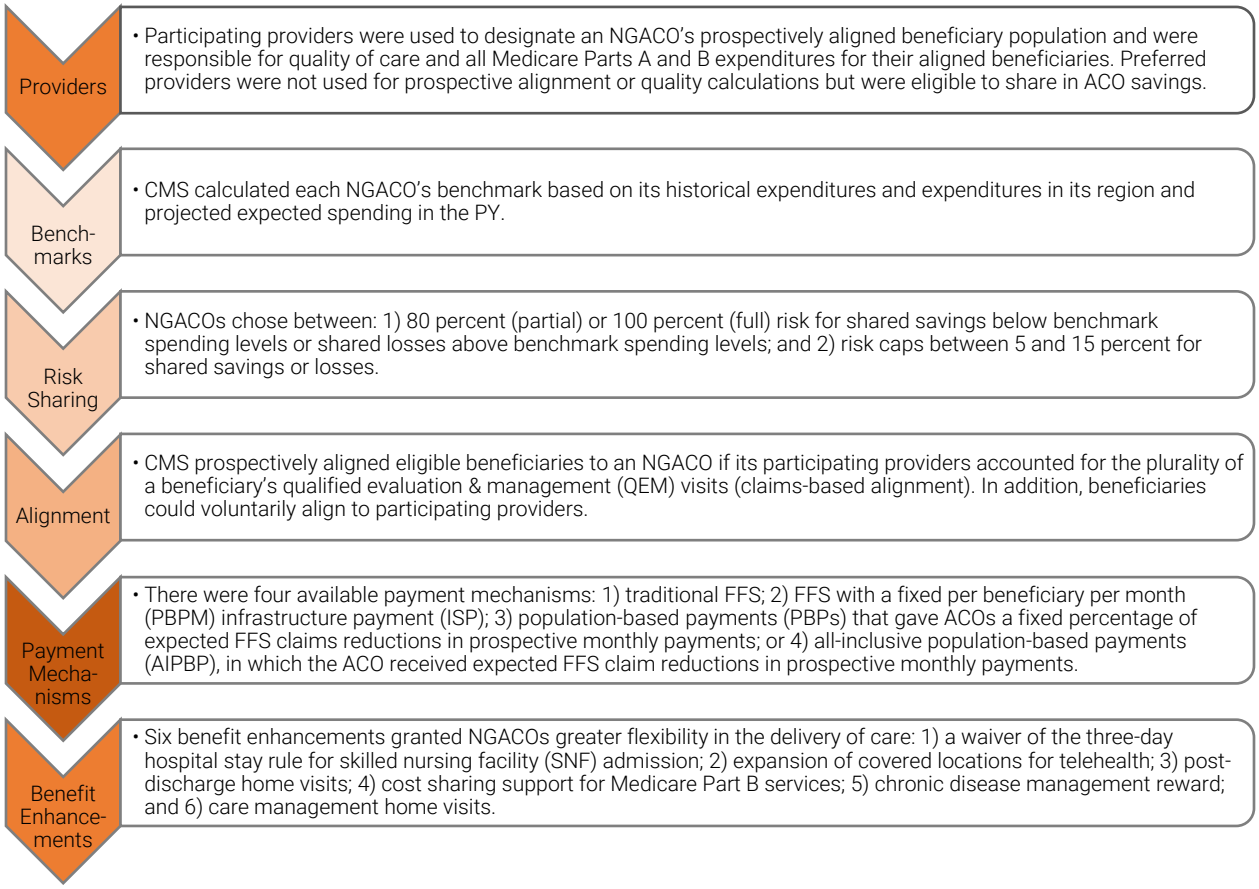
1.1.1 Model Features and Changes in PY5

ACOs, including those in the Medicare Shared Savings Program (SSP) and NGACO Model, are "groups of doctors, hospitals, and other health care providers and suppliers that come together voluntarily to provide coordinated, high-quality care at lower costs to their original Medicare patients."[2] ACOs earn shared savings if Medicare spending for their aligned populations is lower than a benchmark set by CMS; shared savings may be adjusted based on performance on quality measures. Benchmarks are based on a given ACO's historical spending and national trends. ACOs in two-sided risk arrangements must share losses if their spending exceeds their benchmark (downside financial risk). The NGACO Model built on previous ACO initiatives by offering stronger financial incentives, the opportunity to use alternative payment arrangements with providers, and benefit enhancements for beneficiaries. NGACOs had latitude to select risk levels, risk caps, and payment mechanisms based on their organizational priorities and capacity, which in turn affected provider incentives and the scale of shared savings and shared losses. NGACO Model features are summarized in **Exhibit 1.1**.

[1] Centers for Medicare & Medicaid Services. Next Generation ACO Model. 2021. https://innovation.cms.gov/initiatives/Next-Generation-ACO-Model/ (Accessed 29 October 2021).

[2] Ibid at 1.

Exhibit 1.1. NGACO Model Features



CMS offered a series of flexibilities in 2020 to protect NGACOs from unforeseeable losses related to the COVID-19 PHE, by means of a COVID amendment to the participation agreement (PA amendment).[3] First, because many NGACOs reported constrained cash flows during the PHE as patients avoided health care facilities, CMS delayed the repayment due dates for NGACOs owing shared losses for 2019 (PY4). As a result, no NGACOs made shared loss repayments during the 2020 calendar year. Other features and adjustments made to the Model in 2020 are summarized below.

Providers. NGACOs enlisted individual practitioners and facilities in their networks as participating or preferred providers. Qualifying visits to participating providers were used to designate an NGACO's prospectively aligned beneficiary population and to contribute to CMS's calculations with respect to quality, benchmark, and spending. NGACOs were responsible for all Medicare Parts A and B expenditures for their participating providers' aligned beneficiaries. In contrast, preferred providers were not used for prospective alignment or quality calculations but were eligible to share in ACO savings and to participate in benefit enhancements.

[3] Centers for Medicare & Medicaid Services. CMS Innovation Center Models COVID-19 Related Adjustments. 2020. https://www.cms.gov/files/document/covid-innovation-model-flexibilities.pdf (Accessed 29 October 2021).

Benchmarks. CMS estimated each NGACO's expected total spending level, or benchmark, to calculating shared savings or losses based on both the NGACO's own historical expenditures and expenditures in its region in the PY. The "regional blend" of regional and historical expenditures included in the baseline depended on both the NGACO's efficiency relative to its region and the region's efficiency relative to the national average.[4] CMS had the flexibility to retroactively adjust the projected trend for the benchmark if "unforeseen events have occurred during the performance year that have rendered the projected trend invalid for purposes of assessing the expected level of Medicare FFS spending."[5] In 2020, CMS exercised this flexibility in light of the COVID-19 PHE and offered NGACOs the option to sign a new PA amendment. Those NGACOs that signed had a benchmark that established a retrospective, rather than prospective, trend to set the PY5 benchmarks. For NGACOs that signed the PA amendment, CMS used a retrospective regional trend; for those that did not sign, CMS used a retrospective national trend.[6] Additionally, in PY5, for NGACOs that signed the PA amendment, all episodes of care related to COVID-19 were removed from benchmark spending calculations.[7]

Risk-Sharing and Caps. NGACOs chose between 80 percent (partial) or 100 percent (full) risk for shared savings below benchmark spending levels or shared losses above benchmark spending levels. In PY5, NGACOs had the option of signing an amendment to their PA in which they would not be liable for shared losses during the months in which the COVID-19 PHE declaration was effective, which covered all of 2020.[8] For the 21 out of 37 NGACOs that opted to sign the amendment, the maximum amount of shared savings or gross savings was capped at 5 percent of the benchmark; those NGACOs that did not sign (16 of 37) selected caps of up to 15 percent.[9]

Alignment. CMS aligned eligible beneficiaries to an NGACO if its participating providers accounted for the plurality of a beneficiary's qualified evaluation & management (QEM) visits (claims-based alignment). NGACO used prospective alignment in which CMS provided NGACOs with the list of beneficiaries for whom they were accountable at the start of each PY. Alternatively, alignment-eligible beneficiaries could confirm their care relationship with an NGACO-participating provider (voluntary alignment).[10] Beneficiaries who did not wish to participate in the Model were able to opt-out; their information was not shared with the NGACO, but their care counted toward the NGACO's quality and financial results.

Payment Mechanisms. The NGACO Model offered four payment mechanisms "to enable a graduation from FFS."[11] In addition to traditional FFS, NGACOs could receive FFS with a fixed per beneficiary per month (PBPM) infrastructure payment (ISP); population-based payments (PBPs) that gave ACOs a fixed percentage of expected FFS claims reductions for PBP providers in prospective monthly payments; or all-inclusive population-based payments (AIPBP), in which the

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[4] Centers for Medicare & Medicaid Services. Next Generation ACO Model: Frequently Asked Questions May 2021. https://innovation.cms.gov/media/document/ngaco-2021-faqs (Accessed 22 November 2021).

[5] Ibid at 5

[6] Ibid at 3

[7] Ibid at 3

[8] Ibid at 3

[9] Ibid at 1

[10] Ibid at 5

[11] Ibid at 5

ACO received all expected FFS claims reductions for AIPBP providers in prospective monthly payments. In the PBP and AIPBP arrangements, NGACOs were responsible for compensating their providers, who agreed to receive fee reductions from Medicare for covered services, based on the terms of payment agreements executed in the beginning of each year.

Benefit Enhancements. The NGACO Model offered benefit enhancements through waivers that granted ACOs greater flexibility to deliver care. In PY5, these waivers included:

- A three-day skilled nursing facility (SNF) waiver, allowing SNF admissions without a qualifying three-day hospital stay
- A telehealth expansion waiver, permitting telemedicine services to originate in the patient's home and in non-rural areas
- Cost sharing support for Medicare Part B services, which allowed NGACOs to forgo collecting copays for beneficiaries in certain categories
- A chronic disease management reward that allowed NGACOs to provide gift cards to beneficiaries participating in qualifying chronic disease management programs
- A post-discharge home visit benefit enhancement
- A care management home visit benefit enhancement

Both home visit waivers allowed a limited number of home visits from a licensed clinician under the general supervision of an NGACO provider, rather than direct supervision. NGACOs could use these visits either following a hospitalization (post-discharge) or to prevent hospitalization (care management).

1.1.2. Policy Changes in PY5 that Applied to the Comparison Group

In addition to the policy changes specific to the NGACO Model, CMS issued a series of blanket waivers under the COVID-19 PHE that affected both NGACOs and the comparison group. Two of these waivers provided flexibilities to all Medicare providers similar to those granted under NGACO benefits enhancements for telehealth and SNF stays.[12] The telehealth waiver eliminated the requirement that patients live in a designated rural area or travel to an approved site for telehealth visits, allowing Medicare payments for telehealth services in all geographic areas and in a beneficiary's place of residence.[13] The SNF waiver removed the requirement that beneficiaries be hospitalized for three days before being discharged to a SNF, for beneficiaries who experienced dislocation or were otherwise affected by the PHE.[14] CMS COVID-19 blanket waivers

[12] [Centers for Medicare & Medicaid Services. COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers. 2021. https://www.cms.gov/files/document/summary-covid-19-emergency-declaration-waivers.pdf (Accessed 29 October 2021).

[13] Centers for Medicare & Medicaid Services. Medicare Telemedicine Health Care Provider Fact Sheet. 2020. https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet (Accessed 29 October 2021).

[14] Ibid at 12.

for the SNF 3-day rule and telehealth services were available to all providers beginning March 1, 2020.[15]

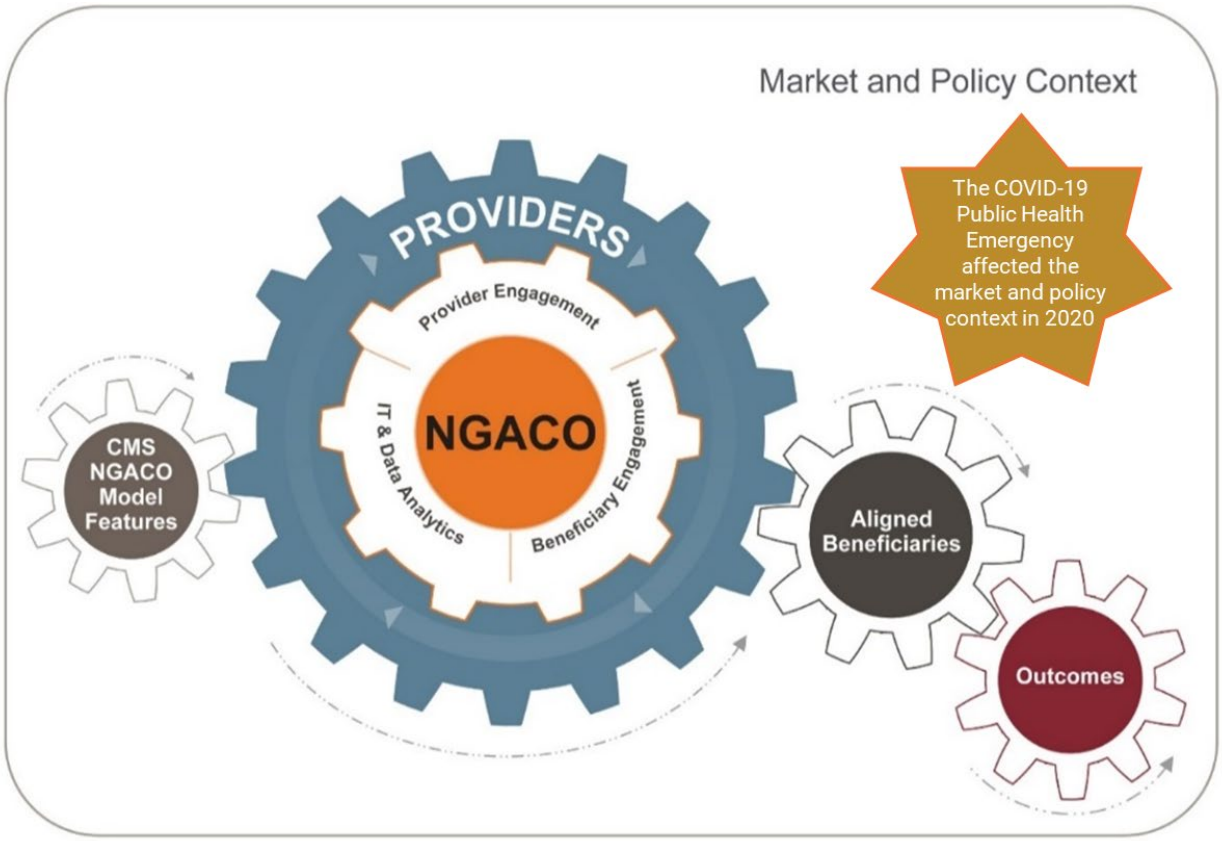
1.2 Conceptual Framework Considering the Covid-19 PHE

The evaluation's conceptual framework depicts interdependencies among components of the NGACO Model and factors that may have affected NGACO performance; see **Exhibit 1.2**. The framework is based on existing literature, findings from previous ACO initiatives, findings to date from our evaluation of the NGACO Model, and the driver diagrams developed by individual NGACOs. In the framework, NGACOs selected Model features that influenced organizational and population health management strategies and provider behavior, affecting the care that aligned beneficiaries receive. Beneficiaries' care-seeking behavior, influenced by both NGACOs and independent factors, ultimately contributed to the outcomes for which NGACOs were held accountable. All actors operated within a market and policy context that also influenced these decisions and outcomes.

In 2020 (PY5), the COVID-19 PHE disrupted the market and policy context for NGACOs and comparison group providers and beneficiaries. The impact estimates presented in this report reflect spending and utilization in the context of the PHE—including workforce shortages and burnout and emergency department (ED) and hospital crowding—in addition to the effect of the PHE itself. We include sensitivity analyses to account for potential differences in COVID-19 rates in NGACO versus comparison markets. In addition, we explore trends in telehealth use during PY5, to describe how care settings changed in response to the PHE.

[15] Ibid at 13.

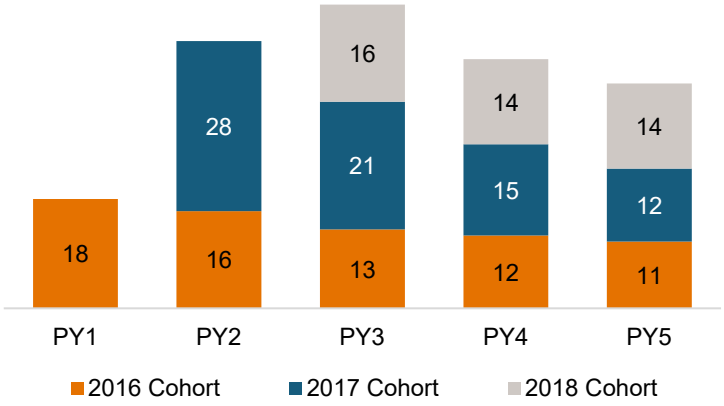
Exhibit 1.2. NGACO Conceptual Framework



1.3 Overview of Model Participants in PY5

Thirty-seven NGACOs participated in the Model in PY5, down from the 41 that participated in PY4. Of the PY5 participants, 11 were from the 2016 cohort, 12 were from the 2017 cohort, and 14 were from the 2018 cohort; see **Exhibit 1.3** below. Three of the four NGACOs that exited the Model after PY4 had shared losses in PY4. The remaining NGACO that exited (Steward) earned shared savings in PY4, but the organization had a change in leadership and decided to exit the NGACO Model and participate in the Medicare SSP in 2020.

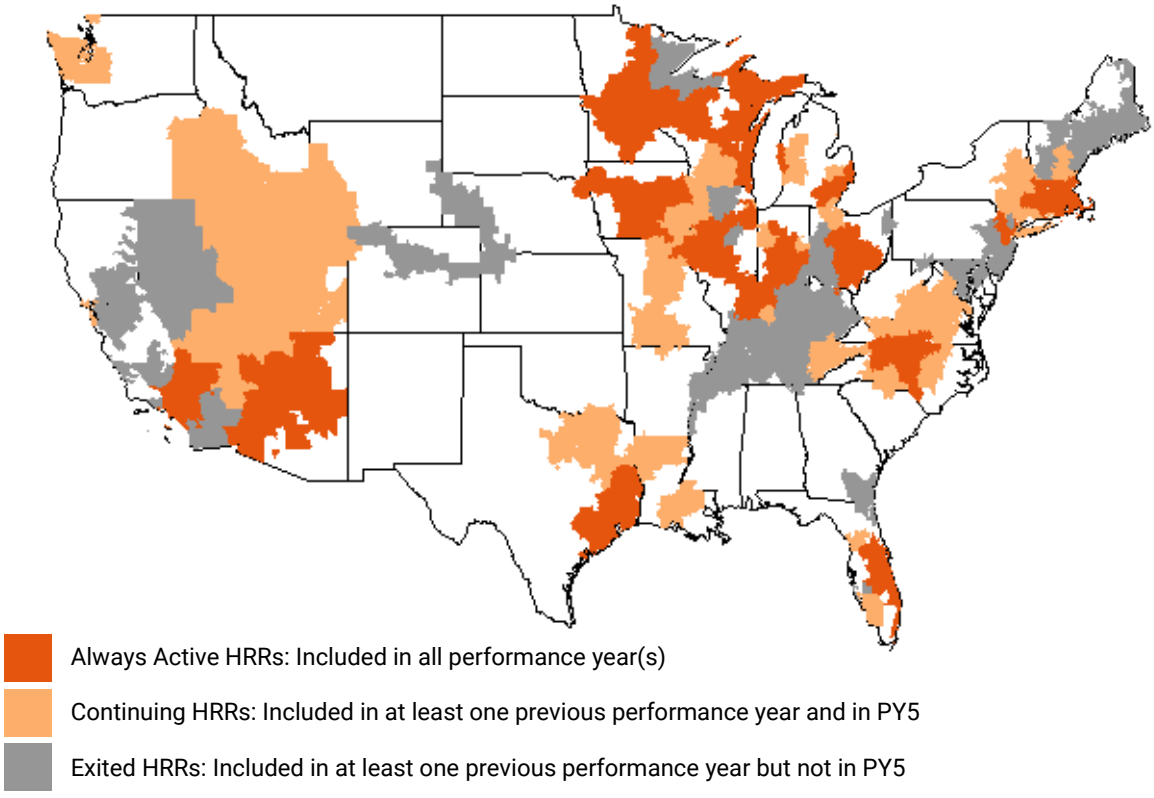
Exhibit 1.3. Number of NGACOs Increased Through PY3, Then Declined in PYs 4 and 5



1.2.1 Markets

From PY4 to PY5, the NGACO was active in an additional three hospital referral regions (HRRs). However, the total number of HRRs covered by the Model declined from 112 to 98 due to the exit of four NGACOs; see **Exhibit 1.4**. In addition, the exit of Steward from the Model contributed to the decline in market coverage, as the NGACO spanned seven HRRs.

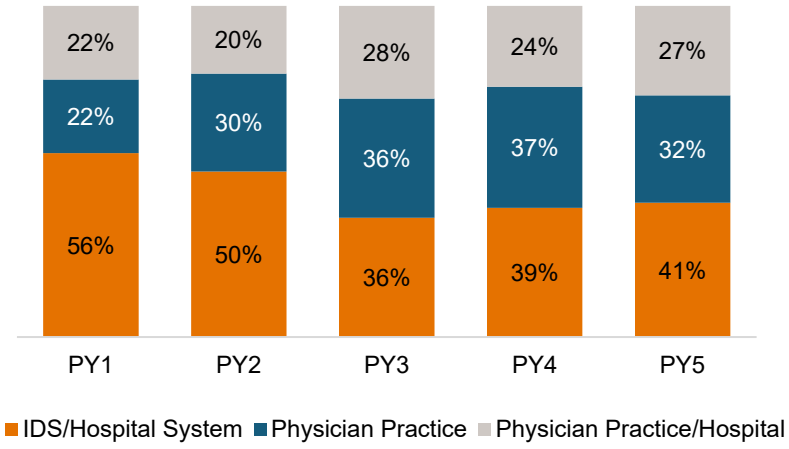
Exhibit 1.4. In PY5, the NGACO Model's Market Coverage Declined



1.2.2 Structure: Organizational Characteristics

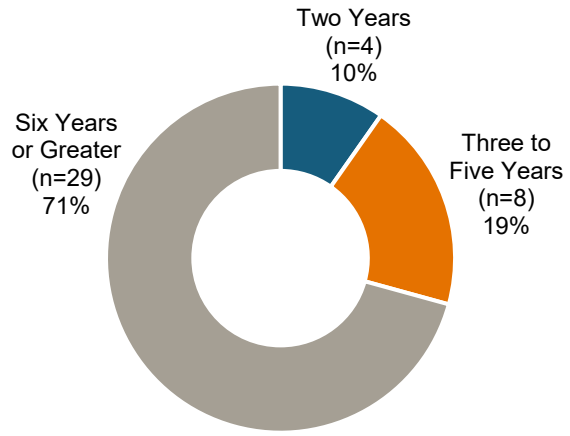
As in prior PYs, the largest proportion of NGACOs in PY5 were IDS/Hospital system-affiliated (41 percent). Others were either physician practice-affiliated (32 percent) or physician-hospital partnerships (27 percent); see **Exhibit 1.5.**

Exhibit 1.5. Proportions of IDS/Hospital System, Physician Practice, and Physician Practice/Hospital NGACOs Were Stable Between PY3 and PY5



At the start of PY5, the majority of NGACOs had six or more years of organizational experience as Medicare ACOs, including time in the NGACO Model (71 percent); see **Exhibit 1.6**. Four NGACOs in the 2018 cohort had no ACO experience prior to joining the Model and two years of ACO experience at the beginning of PY5.

Exhibit 1.6. At the Start of PY5, the Majority of NGACOs Had at Least Six Years of Medicare ACO Experience

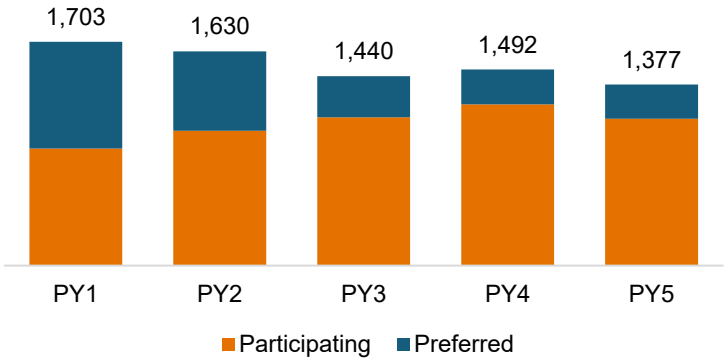


SOURCE: NORC analysis of NGACO evaluation's qualitative data and CMS's ACO program data.

1.2.3 Structure: Provider Characteristics

From PY1 through PY5, the average number of practitioners in NGACOs decreased (from 1,703 to 1,377), reflecting a decrease in preferred practitioners; see **Exhibit 1.7**. A decrease in the overall number of preferred practitioners was consistent with NGACOs' increased focus on primary care over time; preferred providers tended to be specialists, while participating providers tended to be primary care providers. The decline in the overall average number of providers between PY1 and PY3 also reflected growth in the proportion of physician practice-affiliated and physician-hospital partnership NGACOs that tended to have smaller provider networks than IDS-affiliated ACOs, which often included all attribution-eligible employed providers in their network. In addition, the exit of the largest IDS/hospital system-affiliated NGACO (Steward) contributed to a decline in the average number of total providers between PY4 and PY5.

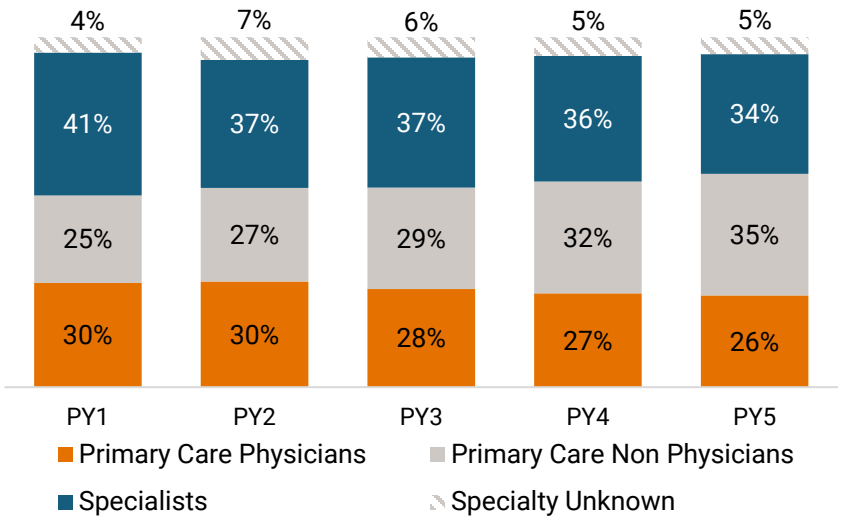
Exhibit 1.7. Between PY1 and PY5, the Average Number of Practitioners in NGACO Provider Networks Decreased



SOURCE: NORC analysis of NGACO provider data. Practitioners included participating and preferred practitioners.

Primary care non-physicians and physicians comprised the largest subgroup of participating practitioners in NGACOs, with the proportion of primary care non-physicians (e.g., nurse practitioners and physician assistants) increasing from PY1 through PY5; see **Exhibit 1.8**. NGACOs generally saw primary care as the focal point for population health management, while specialist physicians made up the bulk of preferred providers.

Exhibit 1.8. Between PY1 and PY5, Primary Care Practitioners Comprised the Majority of Participating Practitioners

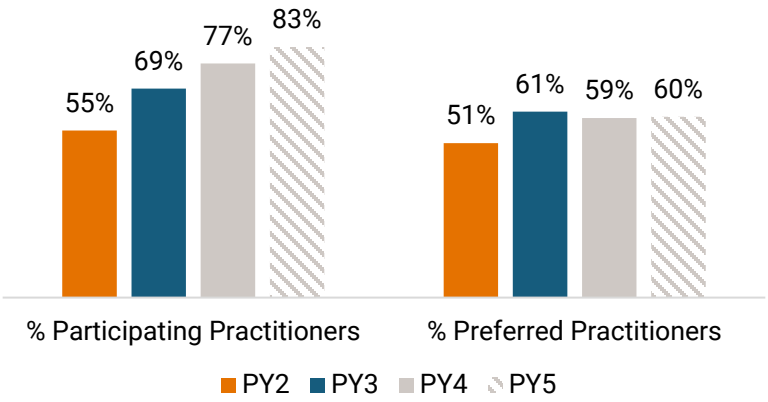


NOTES: Specialists included medical/surgical specialty, obstetrics/gynecology, hospital-based specialty, and psychiatry. Unknown denotes practitioner specialty unidentified.

SOURCE: NORC analysis of NGACO provider data linked to CMS provider files. Medicare Data on Physician and Physician Specialties (MD-PPAS) categories were used to group the taxonomy code for individual practitioners reported on the National Plan and Provider Enumeration System into the broad specialty classification provided in CMS MD-PPAS documentation. See Appendix A for more information.

NGACO provider networks became more stable over time. From PY2 to PY5, increasing proportions of participating practitioners in NGACOs continued on from the previous PY (55 percent to 83 percent). The proportions of preferred practitioners in NGACOs that continued from the previous PY were largely similar across PYs (~60 percent); see **Exhibit 1.9**.

Exhibit 1.9. Most Participating Practitioners and the Majority of Preferred Practitioners in PY5 Continued in the Model from PY4.

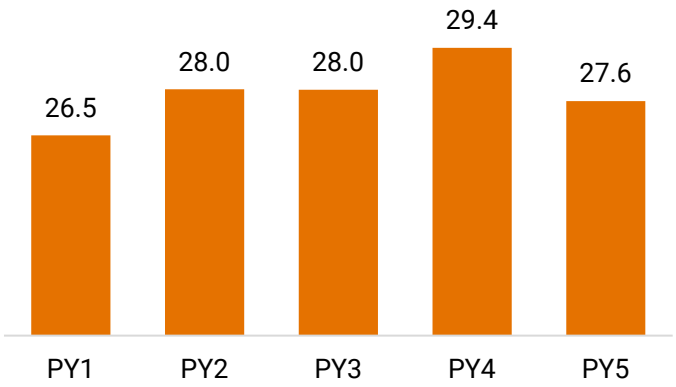


SOURCE: NORC analysis of NGACO provider and beneficiary data from PY1–PY5.

1.2.4 Structure: Beneficiary Characteristics

In PY5, over one million beneficiaries (n=1,023,160) were aligned to NGACOs; see **Exhibit 1.10**. The average number of beneficiaries per NGACO declined between PY4 and PY5, reflecting in part by the exit of Steward, one of the largest NGACOs that had over 100,000 beneficiaries in PY4.

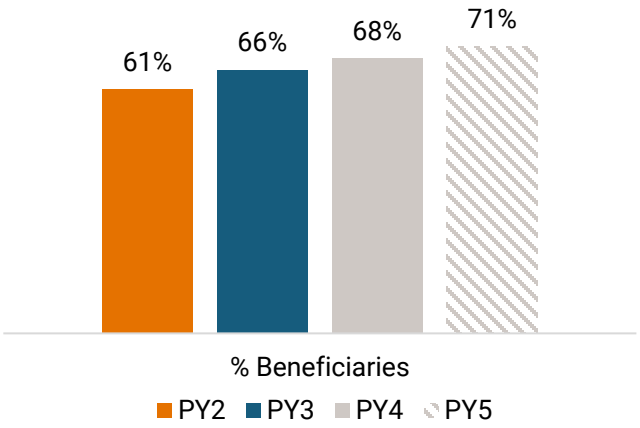
Exhibit 1.10. Between PY4 and PY5, the Average Number of Beneficiaries per NGACO Declined



NOTE: Average number of beneficiaries per NGACO expressed in thousands.
SOURCE: NORC analysis of NGACO Model beneficiary data.

Between PY2 and PY5, the proportion of beneficiaries who continued with their NGACO from the previous year increased (61 percent to 71 percent); see **Exhibit 1.11**.

Exhibit 1.11. Between PY4 and PY5, the Proportion of Aligned Beneficiaries who Continued in the Model from the Previous PY Increased

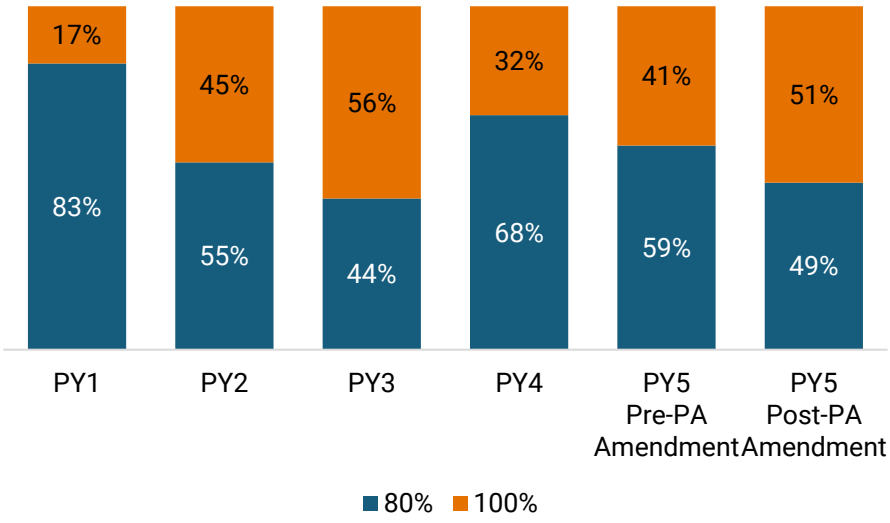


NOTE: Denominator includes all beneficiaries in a PY (including decedents) The numerator includes beneficiaries who were also in the NGACOs in the prior PY.
SOURCE: NORC analysis of NGACO provider and beneficiary data from PY1–PY5.

1.2.5 Model Features Selected

At the start of PY5, about 41 percent of NGACOs (15 of 37) elected 100 percent risk for shared savings or shared losses, a slight increase from PY4 that reflected the move of two NGACOs from 80 percent to 100 percent risk. After the COVID-19 PA amendment, which eliminated liability for shared losses during the months in which the COVID-19 PHE declaration was effective, five NGACOs switched from 80 percent to 100 percent risk, and one NGACO switched from 100 percent to 80 percent; see **Exhibit 1.12**.

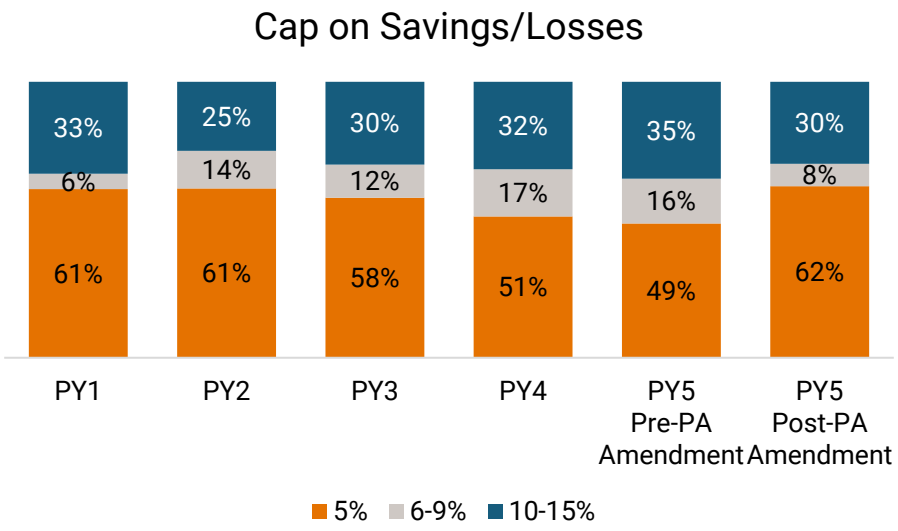
Exhibit 1.12. Between PY4 and PY5, the Proportion of NGACOs Selecting the 100 Percent Risk Level Increaseds



SOURCE: NORC's analysis of NGACO Model program data. PA = Participation Agreement.

At the start of PY5, 49 percent of NGACOs elected caps on shared savings/losses of 5 percent of the total benchmark expenditures; 16 NGACOs elected caps of 6-9 percent or 10-15 percent, a higher percentage than had done so in previous years. After signing the PA amendment, five NGACOs that originally chose caps on shared savings/losses of 6 percent or higher had their caps limited to 5 percent, resulting in 62 percent of NGACOs having 5 percent caps in PY5; see **Exhibit 1.13**.

Exhibit 1.13. Over Time, More NGACOs Selected Risk Caps Over 6 Percent, but Majority had Risk Levels Capped at 5 Percent in PY5 Due to PA Amendment



SOURCE: NORC's analysis of NGACO Model program data. Risk caps are rounded to the nearest percent. PA = Participation Agreement.

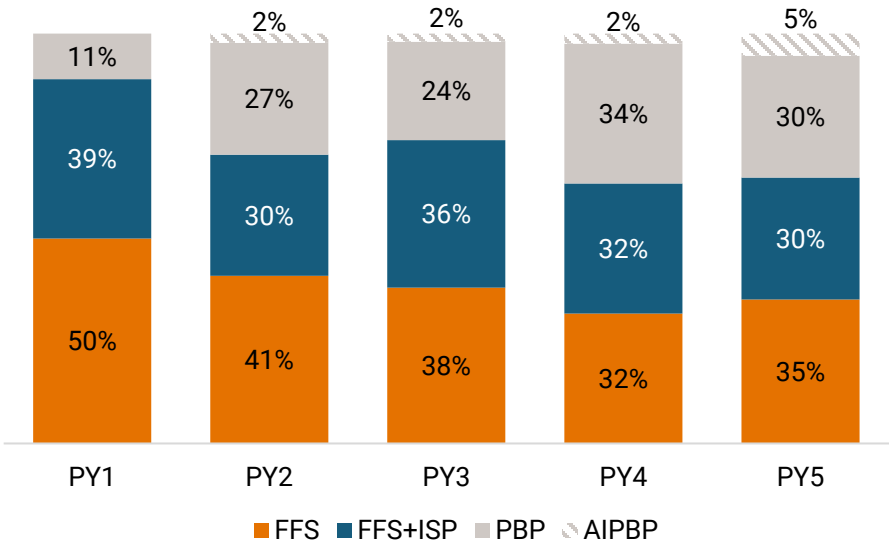
As noted above, the NGACO Model offered four payment mechanisms "to enable a graduation from FFS."[16] In addition to traditional FFS, NGACOs could receive one of the following:

- FFS with a fixed PBPM infrastructure payment (ISP)
- PBPs that gave ACOs a fixed percentage of expected FFS claims reductions for PBP providers in prospective monthly payments
- AIPBPs, in which the ACO received all expected FFS claims reductions for AIPBP providers in prospective monthly payments.

In PY5 the choices were largely consistent with PY4. Thirty-five percent of NGACOs opted for standard FFS payments in PY5; see **Exhibit 1.14**. Equal proportions opted for FFS with monthly infrastructure payments and PBPs (30 percent each). Only two NGACOs (Primary Care Alliance and APA ACO) (5 percent) opted for AIPBP; APA ACO had elected AIPBP in PY2, PY3, and PY4.

[16] Ibid at 5.

Exhibit 1.14. From PY1 Through PY5, Most NGACOs Elected FFS Payment



NOTES: FFS = fee-for-service; FFS+ISP = FFS & monthly infrastructure payments; PBP = population-based payment; AIPBP = all-inclusive PBP.

SOURCE: NORC's analysis of NGACO Model program data.

We do not have data on the use of waivers in PY5; for prior years, this information had been collected by the Learning System contractor, which ceased operating in 2020. A majority of NGACOs indicated the intention to use each waiver at the start of PY5, but implementation likely changed in response to the PHE.

1.4 NGACOs' Responses to the COVID-19 PHE

The COVID-19 PHE affected NGACOs' priorities and operations throughout 2020, with the greatest decrease in utilization in the second quarter of PY5. We held four conversations with approximately two-thirds of the NGACOs in the fall of 2021, to learn about their responses to the PHE. Some NGACOs commented that they were able to ramp up operations; others experienced operational disruptions, with staff either deployed to support health system COVID response or furloughed.

Overall, during the conversations, NGACO leadership stated that they felt well-positioned to respond to the PHE due to the infrastructure, partnerships, and resources developed through their participation in the Model (see **Exhibit 1.15**). A prospectively aligned beneficiary population meant that NGACOs could target outreach. Leveraging their population health infrastructure, NGACOs could identify beneficiaries most at-risk from COVID-19 and address medical and non-medical needs proactively; this could involve helping beneficiaries avoid unnecessary ED visits and offering support to access needed care through telehealth or at the hospital. NGACOs also served as information hubs and provided technological and financial support to independent providers and SNFs.

Exhibit 1.15. During the COVID-19 PHE, NGACOs Supported Providers and Beneficiaries, Leveraging Infrastructure and Resources From Model Participation

Information Technology and Data Analytics

- NGACO population health infrastructure and data analytic capacity enabled some NGACOs to take on proactive management of beneficiary populations at-risk for COVID-19.
- EHR data and risk stratification tools used in the NGACO Model helped enable identification of beneficiaries at-risk and informed critical outreach strategies.

Beneficiary Engagement

- Many NGACOs reported that they used care managers to conduct outreach to aligned beneficiaries. Outreach helped identify beneficiary needs and connect them to services, including food and medication delivery.
- NGACOs educated beneficiaries on the risks of COVID-19 and assisted in accessing testing and vaccinations.
- NGACOs increased home-based care across the continuum as an alternative to hospital-based and SNF care.

Provider Engagement

- NGACOs served as information hubs on COVID guidance and emerging regulations for providers, including physicians and SNFs, and connected them with personal protective equipment and vaccinations.
- NGACOs facilitated physician transitions to telehealth by standing up platforms and systems to increase beneficiary access to care as COVID-19 spread.

SNF Collaboration & Post-Acute Care

- Strong relationships with SNFs established under the Model helped some NGACOs work closely with SNF staff to manage patients' care, avoid readmissions, and accelerate discharge when appropriate.
- Some NGACOs noted that with the blanket waiver for the SNF 3-day rule, they had less control over patient care, as more patients went to SNFs outside of the NGACO network.

Chapter 2: Model-Wide Impacts on Spending and Utilization

Key Findings

Impact on Cumulative Spending

- **Gross spending:** Cumulatively as of PY5, the NGACO Model significantly reduced gross spending by $195.91 PBPY, or $1.05B in the aggregate, representing a 1.5 percent reduction relative to the comparison group.
- **Net spending:** As of PY5, Medicare's net spending increased significantly, after accounting for shared savings payouts to NGACOs, by $72.40 PBPY, or $386.5M in the aggregate. Net spending grew by 0.5 percent as of PY5, from 0.4 percent as of PY4. NGACOs' decisions to opt in or out of the PA amendment in PY5 influenced shared savings payouts.
- Part of the net spending increase may have reflected the COVID-19 PA amendment, which annulled shared losses for NGACOs in 2020.

Impact on PY5 Spending

- In PY5, the NGACO Model reduced gross spending by $360.93 PBPY, or $369.29M in the aggregate, representing a 3.1 percent reduction, higher than reductions in spending in the previous two PYs.
- In PY5, shared savings payments were larger than payments in all previous PYs.
- In PY5, after considering shared savings payouts to NGACOs, the Model increased net Medicare spending by $137.3 PBPY, or 1.1 percent. The increase was not statistically significant.[17]

Impact on Categories of Medicare Spending

- The Model reduced acute care hospital spending by 1 percent cumulatively and 1.6 percent in PY5.
- In PY5, professional services accounted for the largest share of total spending reductions, reaching $101.6M, with a reduction of 3.4 percent relative to the comparison group.
- In PY5, hospice spending had the largest relative spending reduction (9.3 percent), followed by SNF spending (8.4 percent), other post-acute care (PAC) (5.0 percent), home health (4.5 percent), and professional services (-3.4 percent).

[17] This includes the Coordinate Care Rewards in Performance Years 2 and 3.

Impacts on Utilization

- In PY5, hospitalizations decreased by 1.4 percent, a smaller reduction relative to PY4 (2.4 percent).
- In PY5, SNF days declined by 6.4 percent, about 2.5 times the impact seen in PY4 (2.6 percent). SNF stays also decreased in PY5 relative to the comparison group (3.2 percent), in contrast to an increase in previous PYs (e.g., 2.8 percent in PY4).
- These findings are consistent with the activities of NGACOs in response to the model's incentives as noted in prior reports, as well as model attrition by poorer performing ACOs. The effects also likely reflect NGACOs' efforts to keep beneficiaries out of institutional settings during the PHE.

* All key findings reported are significant at p<0.1 level unless stated otherwise. Sensitivity analyses found that all spending impact estimates were robust to the inclusion of COVID-19-related risk measures in the regression models.

In this chapter, we present average impacts of the NGACO Model in its first five PYs on total Medicare Parts A and B spending and on key individual spending and utilization categories. The report does not present Model impacts on claims-based quality measures (which were included in our prior reports) because of the unprecedented challenges of the PHE in PY5.

We used a difference-in-differences (DID) framework to estimate differential changes in spending and utilization between a baseline period and each PY among NGACO beneficiaries, relative to a comparison group. Beneficiaries in the NGACO group were those aligned with NGACO-participating providers in a given PY and the respective baseline period. Beneficiaries in the comparison group were aligned with providers in the same markets as NGACOs but not participating in NGACOs. Comparators were weighted so as to be similar to NGACO beneficiaries, using propensity score weighting. We balanced the NGACO and comparison groups on their county-level COVID-19 rates in 2020 because disruptions from COVID might differ between the two groups in our DID design.

We report spending impact estimates per beneficiary per year (PBPY) in aggregate, and the percent change is presented for PY5 and cumulatively. We report utilization results per 1,000 beneficiaries per year (PBY) and as percent changes, in PY5 and cumulatively. We report impacts estimated using multivariable regressions that adjusted for differences between NGACO and similarly weighted comparison groups, for beneficiary demographics, health status, and community and market characteristics. We note all results that are statistically significant at the 0.1 significance level or lower. Below, we present Model-wide impacts for key outcomes; Appendix D presents cohort-level impacts. See **Appendix A** for full details on methods and **Appendix C, Exhibits C.1-C.3** for descriptive characteristics for the NGACO and comparison groups, for the three NGACO cohorts in PY5 and in baseline years.

2.1 Impact on Spending

A primary goal of the NGACO Model was to improve efficiency in care and to reduce total Medicare spending. NGACOs received shared savings payouts from Medicare if Parts A and B spending for their beneficiaries was below their financial benchmarks. Our evaluation estimated two types of spending, as follows:

- Gross spending, the NGACO Model's impact on spending for their beneficiaries relative to a comparison group of beneficiaries that received usual care in their markets.
- Net spending, which modifies gross spending by considering payments distributed to a given NGACO either from shared savings or recoupments from another NGACO. The net amount includes payments made to NGACO beneficiaries during PY2 and PY3 for annual wellness visit coordinated care rewards.[18]

The NGACO and comparison groups were balanced on county-level COVID rates. For this reason, we did not exclude COVID-19 expenditures from total Medicare spending for either NGACOs or comparison groups.

2.1.1 Gross and Net Spending, Model-wide

Key Takeaways:

- PY5 had the largest gross spending, compared with all previous performance years.
- However, shared savings payouts to NGACOs also increased over time.
- As a result, the Model increased net Medicare spending.

Gross Spending. Cumulatively, as of PY5, gross spending decreased by $195.91 PBPY or $1.05B in aggregate for organizations in the NGACO Model, representing a 1.5 percent reduction relative to the comparison group; see **Exhibit 2.1**.

In PY5, for organizations participating in the Model, gross spending decreased by $360.93 PBPY or $369.29M in aggregate, the largest amount relative to all previous years. The 3.1 percent reduction in PY5 compared with a decrease of $257.9 PBPY (2.0 percent) in PY4 and a $163.1 PBPY (1.2 percent) decrease in PY3.

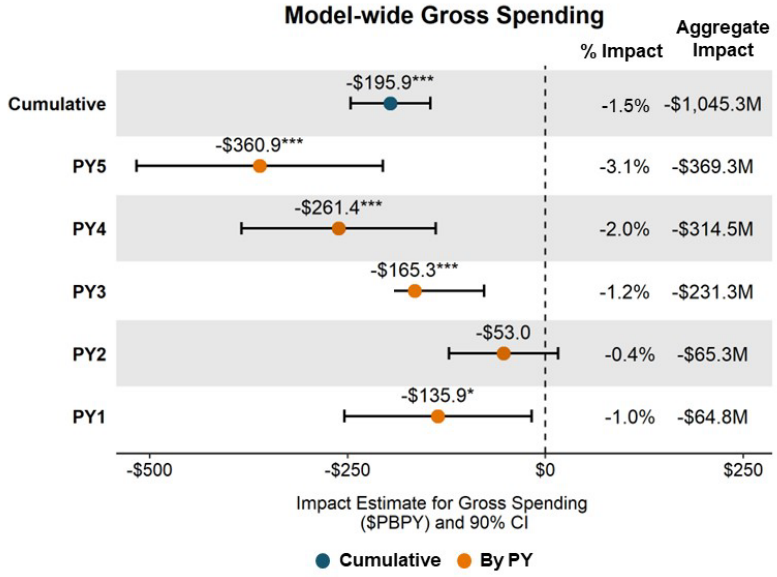
Findings presented in earlier reports noted two factors influencing increases in Model-wide gross spending reductions across PYs, as follows:

- NGACOs that did not see reduced gross spending on average and that did not achieve their intended benchmark performance goals exited the Model in subsequent PYs.
- NGACOs that remained in the Model showed larger average gross spending reductions for their beneficiaries over time.

Together, the two factors help explain the Model's trend toward larger gross spending reductions in PY5. However, shared savings payouts to NGACOs also increased over time. As a result, the Model increased net Medicare spending, as discussed in the next section.

[18] Coordinated care rewards were only disbursed in PY2 and PY3.

Exhibit 2.1. Cumulatively, NGACO Model Decreased Gross Medicare Spending, with Spending Reductions Growing from PY3 Through PY5



NOTES: Estimated impacts PBPY for spending significant at *p<0.1, **p<0.05, and ***p<0.01. Impact estimates are the DID estimates for Medicare spending. Confidence intervals (CIs) at 90 percent level are displayed as bars around the impact estimates. Percentage impact is the impact relative to expected average spending for NGACO beneficiaries in PY(s) absent the Model. **SOURCE**: NORC analysis of NGACO and comparison group enrollment, claims, and Model program data.

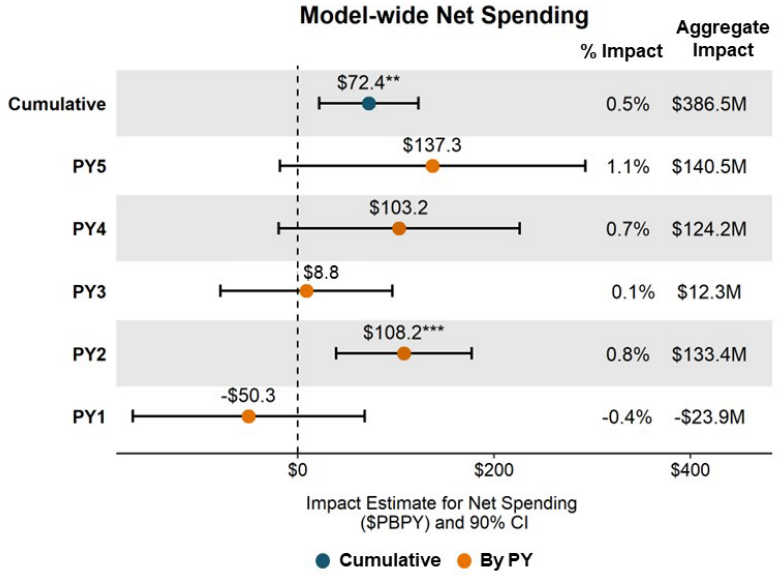
Net Spending. **Cumulatively, as of PY5,** net Medicare spending increased by $386.5M, after accounting for shared savings payments to NGACOs; see **Exhibit 2.2**. PY5 was the first year in which cumulative net spending reached statistical significance. Net spending increased to 0.5 percent as of PY5, from 0.4 percent as of PY4.

In PY5, the net spending was larger than in any prior year, increasing to $137.3 PBPY (1.1 percent) from $103.2 PBPY in PY4 (0.7 percent).

The COVID-19 PA amendment likely contributed to the net spending results in PY5, as the amendment resulted in more generous payouts, for example, through waiving downside risk. In PY5, all but two NGACOs had shared savings, and the two that did not earn shared savings incurred zero shared losses due to the PA amendment. If all NGACOs had accepted the PA amendment, shared savings would have been approximately $199.7 million lower than the PY5 financial settlement that was paid out. If NGACOs had not been given the option of changing their risk elections under the PA amendment, shared savings payments would have been $8.6 million lower. The six NGACOs that switched from partial to full risk contributed to the increase in shared savings payments, while the NGACOs that either switched from full to partial or saw reductions in the cap contributed to decreases in shared savings payments.

Net and gross spending impacts varied by the starting year of the ACOs (a cohort of NGACOs starting in each of 2016, 2017, and 2018), reflecting variation in impacts for individual NGACOs; see **Appendix Exhibits C.5-C.8** for details.

Exhibit 2.2. In PY5, Net Medicare Spending For NGACO Model Increased Relative to Previous Years



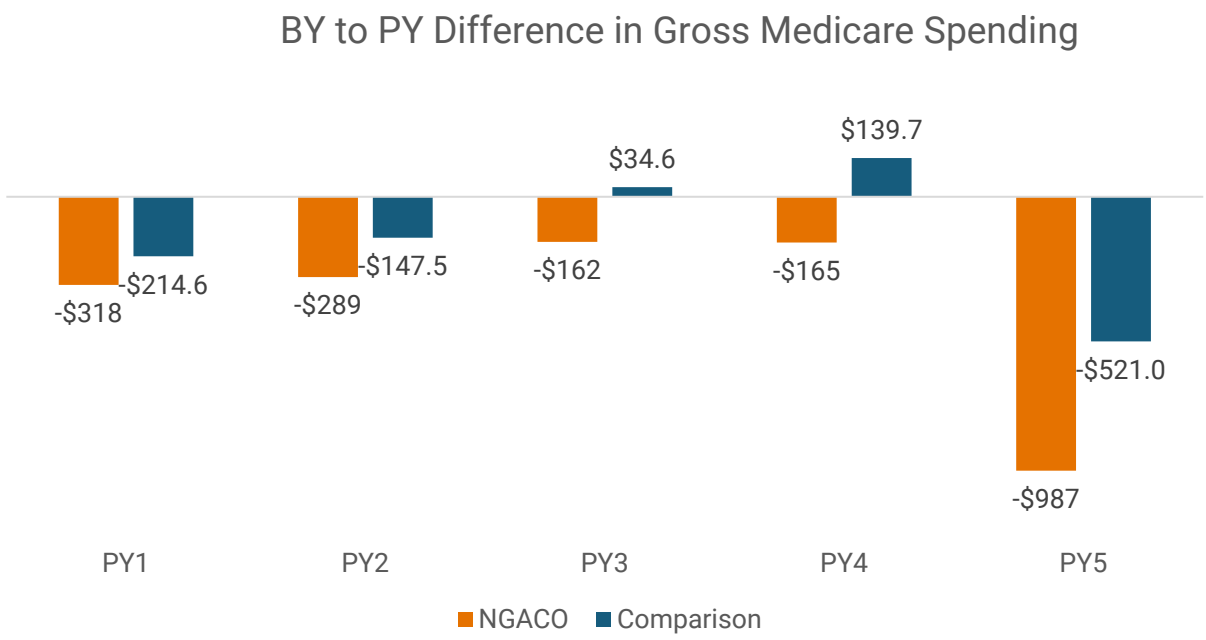
NOTES: Estimated impacts PBPY for spending significant at *p<0.1, **p<0.05, and ***p<0.01. Impact estimates are the DID estimates for Medicare spending. CIs at 90 percent level are displayed as bars around the impact estimates. Percentage impact is the impact relative to expected average spending for NGACO beneficiaries in PY(s) absent the Model. All amounts in 2020 dollars.
SOURCE: NORC analysis of NGACO and comparison group enrollment, claims, and Model program data.

2.1.2. Understanding Gross Spending Results

We analyzed the direction of change in spending for NGACOs and for the comparison group, to assess whether both groups decreased spending or if reduced spending was due to larger increases for the comparison group. In addition, we conducted sensitivity tests to determine whether our results changed after including additional market-level measures of COVID-19. Our working hypothesis was that findings would not change with inclusion of additional area-level measures of COVID-19 because we selected comparison group beneficiaries from the same market area and weighted them on geographic, demographic, and health characteristics.

Differences in spending for the NGACO and comparison groups. Cumulatively, both gross spending and net spending appeared to increase over time; see Exhibits 2.1 and 2.2 above. To help understand trends in gross spending for NGACOs relative to the comparison group through PY5, we examined gross spending over time; see **Exhibit 2.3** below. In the Exhibit, bars depict the *difference* in gross spending PBPY for the NGACO and comparison groups for each PY relative to the baseline years (BYs).

Exhibit 2.3. Over Time, Cumulative Differences in Gross Medicare Part A and B Spending Between NGACOs and the Comparison Group Increased



NOTES: Bars denote differences in total adjusted Medicare spending per beneficiary per year (PBPY), relative to baseline, with orange bars for the NGACO group and gray bars for the comparison group, from PY1 through PY5 of the Model. **SOURCE:** NORC analysis of NGACO and comparison group enrollment, claims, and Model program data.

From PY1 through PY5, the NGACO group saw larger declines in gross spending than did the comparison group, relative to their baseline spending levels, contributing to growing declines in Model-wide gross spending. While this pattern was consistent in most years, we did observe interesting patterns for the groups, which contributed to the model's gross spending reductions. In PY1 and PY2, differences in spending, relative to baseline, were larger for the NGACO group than the comparison group. In PY3 and PY4, NGACOs reduced spending even when the comparison group was increasing spending, relative to their baseline. In PY5, differences in spending were larger for both NGACO and comparison groups, given disruptions from COVID-19, but the NGACO group saw a larger decline in spending. For the NGACO Model, PY5 represented the largest relative reduction in shared savings to date.

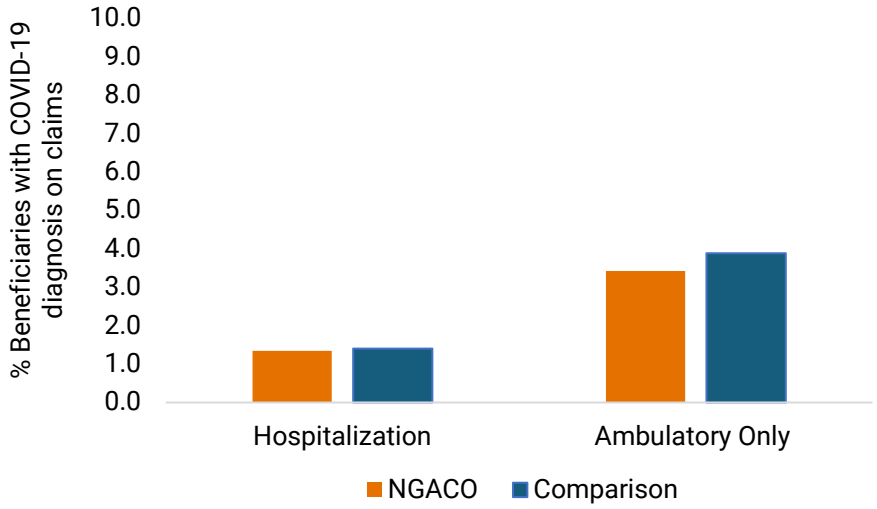
Accounting for the impact of COVID-19 in gross spending estimates. Medicare spending for COVID-19 episodes was included in the estimated impacts on gross spending for PY5, for both NGACOs and the comparison group. To better understand the impact of COVID-19, we examined the sensitivity of the gross spending results, adjusting the regression models for COVID-19 hospitalizations for beneficiaries (any hospital stay for COVID-19 in 2020). For the sensitivty analysis, we chose not to adjust for differences in beneficiaries' COVID-19 rates in the ambulatory care setting alone because ambulatory cases may vary in severity; in contrast, COVID hospitalization rates represented severe cases. Beneficiaries in both the NGACO

Key Takeaway

- Our gross spending findings did not change if we included or excluded COVID-19 hospitalizations in our analyses.

and comparison groups had similar rates of COVID-19 hospital stays in PY5 (1.35-1.41 percent). In addition, ambulatory care utiization was not associated with higher spending. See **Exhibit 2.4** below.

Exhibit 2.4 In PY5, Beneficiaries in NGACO and Comparison Groups had Similar Rates of COVID-19 Hospitalizations



NOTES: Percentage of beneficiaries with diagnoses of COVID-19 on hospital claims and only ambulatory care claims (physician and outpatient claims) in the NGACO group [orange bars] and comparison group [blue bars] in PY5.
SOURCE: NORC analysis of NGACO and comparison group enrollment, claims, and Model program data.

Exhibit 2.5. For PY5, **Including Beneficiary-Level COVID-19 Hospitalizations Did Not Change Impact Estimates** for Spending

	Mean Adjusted Spending PBPY ($)				Gross Impact Estimate	
	NGACO BYs	Comparison BYs	NGACO PY5	Comparison PY5	PBPY ($)	% Impact
Without COVID Adjustment	13,083.2	13,347.7	12,068.4	12,693.8	-360.9***	-3.1
After COVID Adjustment	13,003.7	13,267.3	13,061.2	13,686.7	-362.0***	-3.1

NOTES: Sensitivity analysis includes beneficiary-level adjustments for beneficiaries with a hospital stay for COVID-19 in PY5 within our DID regression models. Estimated impacts PBPY significant at *p<0.1, **p<0.05, ***p<0.01. Estimated gross spending impact is the DID estimate of the NGACO Model. BYs = baseline years (2013 to 2017); PY5 = Performance Year 2020.

Sensitivity analysis findings for gross spending did not change after adjusting for COVID-19 hospitalizations in both the NGACO and comparison groups; see **Exhibit 2.5.** Our analysis drew NGACO and comparison beneficiaries from the same markets (HRRs) and balanced beneficiaries on their county-level COVID-19 rates in 2020. COVID-19 hospitalization rates among NGACO and

comparison group beneficiaries occurred at similar rates. Adjustment for such hospitalizations was associated with higher mean adjusted spending PBPY for the two groups in PY5 (an increase of approximately $1,000 for each group), while the Model's gross spending impact was similar in magnitude after adjustment (3.1 percent reduction). The sensitivity analysis supports the assumption in our DID design of "common shocks" from the COVID-19 PHE.

2.1.2 Impact on Gross Spending by Care Setting

Key Takeaways:
In PY5, gross spending reduction was influenced by significant reductions in the following settings (***Exhibit 2.6)***:

- Acute care hospital spending (20.3 percent)
- Professional services spending (19.7 percent)
- Outpatient facility spending (16.4 percent)
- SNF spending (15.3 percent

To understand factors influencing the Model's impact on gross Medicare spending, we examined impact on Medicare spending categories by care setting, both cumulatively (through PY5) and in each PY (PY1 to PY5); see **Exhibit 2.6**. Cumulatively, the total gross spending reduction was influenced most by significant reductions in acute care hospital spending (20.3 percent) and professional services spending (19.7 percent), followed by reductions in outpatient facility (16.4 percent) and SNF spending (15.3 percent). See **Exhibit 2.6**.

Percentage impacts are reported for each Medicare spending category to depict the relative change in spending within each care setting that can be attributed to the NGACO Model; see **Exhibit 2.7**. Impact estimates for outcomes where assumptions of our study design were not met (as determined by baseline trend tests) are identified with a § symbol.[19] Estimated impacts for these outcomes cannot be attributed solely to the Model; however, estimates are reported for all spending categories, to understand how each category contributes to total gross spending (which had parallel trends in the baseline).

Spending reductions in these care settings, where there are higher beneficiary average expenditures, were consistent with the focus of NGACOs' population health and care management efforts. As noted in our previous reports, such efforts varied across settings based on NGACO organization type.

Acute care hospital spending. In PY5, a significant reduction in acute care hospital spending (1.6 percent) contributed less to spending reductions than in PY4 (2.3 percent significant reduction). The relatively smaller contribution of acute care hospital services in the total spending reduction in PY5 may reflect lower use of hospital services more generally among both NGACO and comparison group beneficiaries during the Covid-19 PHE. The acute care hospital spending

[19] Some impact estimates cannot be interpreted because baseline trends are not parallel between the NGACO and comparison groups. The lack of parallel trends may reflect the participation of over half of NGACO providers in SSP ACOs and Pioneer ACOs during the baseline period. DID model results can only be interpreted as a treatment effect if model assumptions are true. One assumption is that trends in the baseline period for the treatment and comparison group are the same, or parallel. If baseline trends differ, then changes cannot be attributed solely to a treatment effect. The § symbol denotes estimates influenced substantively by non-NGACO factors. To understand the model's effects for such outcomes, we examine their trends visually for the NGACO and comparison groups in PYs and in the respective BYs; see **Appendix C** for results and more information about the parallel trends assumption and tests.

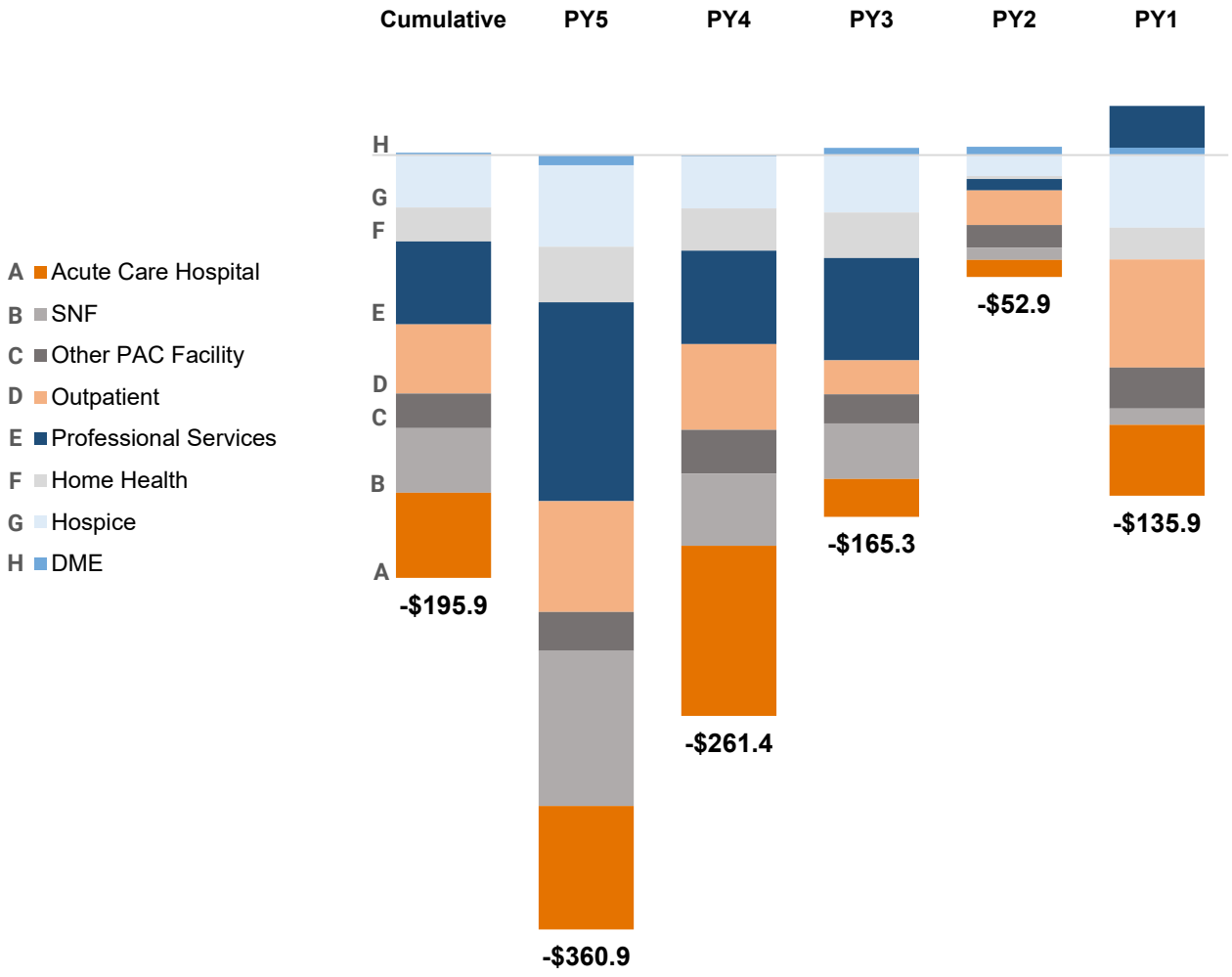
impact estimate in PY5 was smaller in magnitude than PY4 (by a third), because levels of hospital spending reduced for both groups in PY5; particularly the comparison group, which had a higher level of hospital spending in PY4.

Professional services. In PY5, a significant reduction in spending for professional services (3.4 percent) accounted for the largest proportion of the gross spending reduction; see **Exhibits 2.6 and 2.7**.[20] The finding reflected lower professional services spending for the NGACO group relative to the comparison group during the Covid-19 PHE, which may have been a result of NGACOs' proactive care management of NGACO beneficiaries; **see Appendix Exhibit D.1**. This represented a noticeably larger savings over the prior two years of spending in this category (PY4: -1.6%, p<.05, PY3: -1.2% p<.10 compared to PY4: -3.4%, p<.01)

SNF spending. SNF spending (8.4 percent reduction) contributed more to the gross spending reduction than in previous years (4.0 percent reduction in PY4). This may be due to NGACO efforts to facilitate PAC in the home rather than in SNFs during the PHE.

[20] Professional Services includes total Medicare Part B spending for physician and non-physician professional services and ancillary services, including ambulance, anesthesia, labs, imaging, and drugs administered in physician offices. Please see Appendix A for specification of all measures.

Exhibit 2.6. In PY5, Professional Services and SNF Spending Contributed to Greater Percentage of Spending Reductions Than in Previous Years



NOTES: SNF = Skilled Nursing facilities. PAC = post-acute care. This figure is intended to convey the relative proportion of each category to the total. The amounts shown in this Exhibit are approximate contributions based on summing the PBPY estimate from the model-estimated distribution across all spending outcomes and calculating the relative contribution of each to that total. The values shown here do not align with spending estimates for each care setting shown in Appendix D. Because we used different statistical models for total spending, and spending categories, impacts for spending categories do not sum to the impacts for total spending.

Hospice, other PAC, and home health spending had the largest percentage declines; however, only a small proportion of beneficiaries incurred these costs. For this reason, these spending categories did not contribute to a large share of cost reductions overall.

- Hospice spending had relatively large statistically significant reductions in PY5 (9.3 percent) and cumulatively (6.2 percent); see **Exhibit 2.7.** The reductions reflected a lower increase in hospice spending relative to the comparison group rather than a true decrease in hospice spending; see **Appendix Exhibit D.1**.

- Spending for other PAC, which included inpatient rehabilitation facilities and long-term care hospital facilities, also saw large significant reductions in PY5 and cumulatively (5 percent and 4.1 percent, respectively). The finding was consistent with NGACOs' reported efforts to manage PAC and direct patients toward less intensive care settings.
- Home health spending decreased in PY5 and cumulatively (4.5 percent and 2.3 percent, respectively), from larger declines for the NGACO group relative to the comparison group in the PYs. The finding was consistent with NGACOs' efforts to engage providers to improve efficiency in home health care. However, the reduced spending could not be attributed solely to NGACO Model participation, as the estimate failed the parallel trends assumption.

Exhibit 2.7. Percent Spending Reductions by Care Setting Changed Over Time, with Significant Spending Reductions in Acute Care Hospital, Professional Services, and Other PAC Settings

Care Setting	Cumulative	PY5	PY4	PY3	PY2	PY1
Acute Care Hospital Facility	-1.0***	-1.6**	-2.3***	-0.3	-0.3	-0.7
Outpatient Facility	-1.4**§	-2.3	-1.8	-0.5	-1.0	-1.9§
Professional Services	-1.3***	-3.4***	-1.6**	-1.2*	-0.2	+0.5
SNF	-3.1***§	-8.4***§	-4.0***	-2.0**	-0.8	-0.6
Other PAC Facility	-4.1***	-5.0***	-6.0***	-2.6*	-3.6**	-3.3
Home Health	-2.3***§	-4.5***§	-3.2***§	-2.2***§	-0.3§	-1.7*§
Hospice	-6.2***§	-9.3***	-6.8***	-5.2***	-3.7***	-7.3***§
DME	0.4§	-1.8	-0.3	+1.0	+2.4§	+1.1

NOTES: Estimated impacts PBPY for spending significant at *p<0.1, **p<0.05, ***p<0.01 highlighted in green. § Denotes uninterpretable impact estimate due to failure of the parallel trends assumption for outcomes across baseline years. To understand factors influencing total gross spending, we report impacts for all spending categories because the baseline trends for total gross spending were parallel.

2.2. Impact on Utilization

To understand factors influencing Model impact on Medicare spending in different care settings, we examined key utilization outcomes, both cumulatively (as of PY5) and in each PY (PY1 to PY5); see **Exhibit 2.8**. As noted above, impact estimates that included substantive non-NGACO influences (as determined by baseline trend tests) are identified with a § symbol, with the numeric value of the estimate suppressed.

Key Takeaways:

- **Cumulatively**, the Model was associated reduced SNF days.
- **NGACOs also reduced SNF stays**, but impacts are not solely attributable to the NGACO model.
- **In PY5,** NGACOs significantly reduced acute care stays, SNF days, and SNF stays.
- **In PY5, telehealth use** was similar between NGACOs and the comparison group.

For utilization categories assessed in this report, the largest reduction was in SNF days, with a significant reduction cumulatively (1.9 percent) and in PY5 (6.4 percent), about 2.5 times the impact seen in PY4; see **Exhibit 2.8**. In addition, the Model was associated with a significant reduction in SNF stays in PY5 for the first time (3.2 percent). Reductions in SNF use likely reflected NGACOs' efforts to keep beneficiaries out of institutional settings during the PHE.

Consistent with the reduction in hospital spending, the Model was associated with a significant reduction in acute care hospital stays in PY5 (1.4 percent), nearly twice the size of the previous year's impact. This may have been due in part to NGACOs' ability to identify beneficiaries at higher risk from COVID-19, to reach them, and to connect them to services that address social needs. NGACOs' ability to reach out to their attributed beneficiaries also enabled them to proactively address medical needs through care management and to facilitate care at home (e.g., through primary care and specialist telehealth visits and through hospital-at-home programs).

Exhibit 2.8. Direction of Impact on SNF Stays Changed in PY5, while NGACOs Saw Increasing Reductions in Hospitalizations and SNF Days Over Time

Care Setting	Cumulative	PY5	PY4	PY3	PY2	PY1
Acute Care Hospital Stays	-0.3	-1.4**	-0.8*	0.0	+0.3	+0.2
SNF Days	-1.9***	-6.4***	-2.6**	-0.9	+0.6	-0.2
SNF Stays	§	-3.2***	+2.8***	§	+3.4***	+3.3***
Evaluation & Management Visits	§	§	§	§	§	§
Home Health Episodes	§	§	-2.0***	-0.5	0.5	§

NOTES: Estimated impacts PBPY for utilization significant at *p<0.1, **p<0.05, ***p<0.01 highlighted in green for reductions and in orange for increases. § Denotes uninterpretable impact estimate due to failure of parallel trends assumption for outcome across baseline years.

Acute care hospital stays. In PY5, the Model reduced hospitalizations by 3.5 per 1,000 BPY (1.4 percent reduction), compared to a decrease of 2.4 per 1,000 BPY (0.8 percent) in PY4; see **Appendix Exhibit D.2**. The finding was consistent with the trend of NGACOs reducing acute care hospital stays by larger percentages in successive PYs, as well as reductions in acute care spending over time. The larger reduction in hospitalizations relative to the comparison group in PY5 suggests that NGACOs may have been more effective than comparison providers in diverting beneficiaries from acute care settings during the COVID-19 PHE. Cumulatively, the NGACO Model reduced acute care hospital stays by 0.97 per 1,000 BPY (0.32 percent) but this estimate did not reach statistical significance.

SNF days and SNF stays. NGACOs continued to reduce SNF days in PY5 at an increasing rate, with a decrease of 98.7 days per 1,000 BPY (6.4 percent) compared to 46.5 days (2.6 percent) in PY4; see **Appendix Exhibit C.12**. In PY5, SNF stays also decreased by 2.0 fewer stays per 1,000 BPY (3.2 percent), in contrast to PY4, where NGACOs increased SNF stays by 2.0 more stays per 1,000 PBP (2.8 percent); see **Appendix Exhibit C.12**. Findings were consistent with NGACOs' reported efforts to reduce beneficiary time spent in institutional settings during the COVID-19

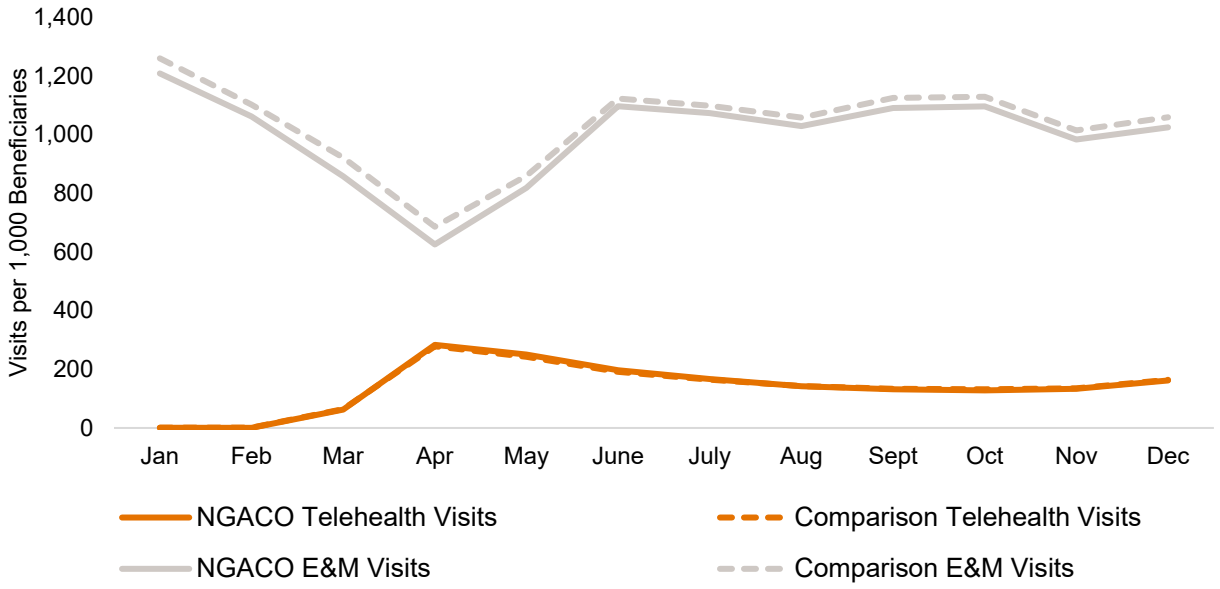
PHE. Relationships established with SNFs through Model participation enabled NGACOs to coordinate PAC more efficiently. Cumulatively, SNF days declined by 32.4 per 1,000 BPY (1.9 percent), consistent with NGACOs' overall focus on building partnerships with SNFs and managing transitions in care. However, findings on SNF stays could not be interpreted due to failure of the parallel trends test in PY3.

Home health episodes. Cumulatively and in PY5, failure of the parallel trends assumption meant that declines in home health episodes were substantively associated with factors other than the NGACO Model. For PY4, there was a decrease in home health episodes associated with the NGACO Model. Trends in PY5 show more modest increases in home health utilization for the NGACO group relative to the comparison group, consistent with observations for home health spending; see **Appendix Exhibit C.15**.

Evaluation and management (E&M) visits. Cumulatively and in PY5, failure of the parallel trends assumption meant that estimated impacts for E&M visits could not be attributed solely to participation in the NGACO Model. In PY5, we saw a larger decline in E&M visits for the NGACO group relative to the comparison group, consistent with observations for professional spending; see **Appendix Exhibit C.15**. Many beneficiaries in both the NGACO and comparison groups may have avoided non-urgent care in PY5 due to concerns about COVID-19, starting in February, preceding the onset of the PHE declaration in March 2020; see **Exhibit 2.9**. E&M visits increased again after April of 2020 but did not to return to the rates seen as of January 2020. NGACO beneficiaries may have had more of a decline in E&M visits, as NGACOs made concerted efforts to provide outreach and support to beneficiaries during the PHE to help avoid in-person visits. Telehealth may have substituted for some office visits (as explained below); however, an overall decline in E&M visits remained in 2020.[21]

[21] Uscher-Pines, L., Thompson, J., Taylor, P., Dean, K., Yuan, T., Tong, I., & Mehrotra, A. (2020). Where Virtual Care Was Already a Reality: Experiences of a Nationwide Telehealth Service Provider During the COVID-19 Pandemic. *Journal of Medical Internet Research*, *22*(12), e22727.

Exhibit 2.9. During the COVID-19 PHE, Trends in E&M and Telehealth Use Were Similar Between NGACOs and Comparison Group



SOURCE: NORC analysis of NGACO and comparison group claims data.

Telehealth visits. At the onset of the COVID-19 PHE, health care providers across the U.S. substituted telehealth appointments for in-person visits. As noted above, both NGACOs and the comparison group saw a decline in E&M visits in the first few months of the PHE, with a sharp uptick in telehealth. NGACOs facilitated physician transitions to telehealth, supporting independent practices in standing up platforms and systems; however, NGACOs had similar telehealth utilization in PY5, relative to the comparison group. Both groups experienced an increase of 200 times the level of telehealth usage prior to the Covid-19 PHE; see **Appendix Exhibit C.29**. In both NGACO and comparison groups, telehealth visits leveled later in PY5, and in-person E&M visits returned to levels seen just before the Covid-19 PHE.

Discussion

The emergence of the COVID-19 PHE in 2020 posed an unprecedented challenge for all health care providers. The PHE also provided an opportunity for NGACOs to leverage the resources they developed through their participation in the Model, including population health management infrastructure and strategies, to anticipate and address beneficiary needs. NGACOs shifted their focus to supporting providers responding to COVID-19 and to diverting beneficiaries from acute care settings, to reduce the risk of COVID-19 infection. These efforts helped NGACOs continue to reduce gross spending as well as acute care spending and utilization relative to the matched comparison group in PY5. NGACOs also reduced SNF stays in PY5, following increases in the previous two PYs. Reduction in SNF stays likely resulted from changed patterns of care during the PHE, specifically the decline in hospitalizations and NGACOs' efforts to keep beneficiaries out of institutional settings.

Despite the gross spending reductions under the model, net spending continued to increase, underscoring the persistent challenge in designing benchmarks that attract participation in alternative payment models (APMs) while reducing costs to the Medicare program. This challenge was clearly exacerbated by the PHE and the need to offer protections to ensure the solvency of NGACOs. With the majority of NGACOs exempt from downside risk and the remainder earning shared savings in PY5, CMS recouped no shared losses, and the net spending increase was higher than in previous PYs. In addition, the exit of three NGACOs that paid shared losses in PY4 contributed to a greater increase in net spending.

As noted in our evaluation reports to date, NGACOs varied widely in performance, with such variation related to combinations of market and structural characteristics and to the election of Model features. This abbreviated report does not present NGACO-level impacts. We plan to return to such analyses in our next and final report, to determine if specific factors made NGACOs more robust or vulnerable to the effects of the PHE. It will be especially informative for CMS to understand how providers in APMs can adapt in the face of future PHEs and how APMs can support these providers and the beneficiaries they serve during crises.

Limitations. There are a few limitations to consider when interpreting the evaluation impact estimates. First, the larger spending and utilization reductions in PY5 were likely influenced by the selection effect of successful NGACOs continuing in the Model and by the exit of less successful NGACOs from the Model. Over the course of Model implementation, NGACOs that left generally did not reduce gross spending during their participation, did not achieve their intended benchmark performance goals, or incurred shared losses. Meanwhile, NGACOs that remained in the Model earned shared savings and continued to improve their population health management strategies, leading to larger payouts and less recoupment of costs by CMS. This observation has implications for the generalizability of findings to other Medicare providers joining similar AAPMs that may not have experience with value-based care and have not yet developed processes to improve efficiency.

Second, we were not able to link specific NGACO implementation strategies conclusively to specific outcomes. We have insights on how some NGACOs pivoted their approaches in response to the PHE; however, comparison providers could have adopted similar strategies. For this reason, NGACOs' reductions in spending and utilization may be from other factors.

Preview of the Final Evaluation Report

Qualitative Comparative Analysis. In our next and final report, we will leverage the qualitative comparative analysis conducted for the Fourth Evaluation Report and explore how implementation factors, in combination with market context, structural characteristics, and the election of Model factors, influenced NGACO performance. We plan to triangulate findings from previous qualitative interviews, recent survey data, and quantitative impact estimates to determine the combinations of factors associated with spending reductions. We hope to provide CMS and prospective APM participants with actionable information on how to leverage favorable conditions and how to mitigate challenges to achieve smarter spending while improving or maintaining quality of care.

Equity Analysis. Advancing health equity is a key priority of the U.S. Department of Health and Human Services and its agencies. In our previous report, we found that Black and dually eligible beneficiaries did not see the same level of spending reductions from NGACOs as did White beneficiaries. We have continued to monitor these trends. Toward this end, we have fielded an additional survey in PY6 to learn what strategies NGACOs used to address health equity. Survey insights will be synthesized with updated quantitative findings to explore whether certain strategies to improve health equity were associated with larger spending reductions. We expect that these findings will shed light on how APM participants can improve health equity in the process of delivering more efficient care.