Evaluation of the Oncology Care Model

Final Report

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Model Background

In February 2015, the Centers for Medicare & Medicaid Services (CMS) invited oncology physician group practices to participate in the Oncology Care Model (OCM), an alternative payment model (APM) based on six-month episodes for cancer care for Medicare fee-for-service (FFS) beneficiaries undergoing chemotherapy treatment.[1] The six-year OCM began with six-month chemotherapy treatment episodes, starting on July 1, 2016, and operated for 11 consecutive performance periods (PPs). The last episodes ended on June 30, 2022.

This report covers the entire OCM period of performance. OCM tested whether payment reform and health care delivery redesign can improve quality and reduce Medicare spending, by combining attributes of medical homes—patient-centeredness, care coordination, accessibility, evidence-based guidelines, and continuous quality improvement—with financial incentives for providing services efficiently and with high quality.[2]

SUMMARY OF KEY FINDINGS

The Oncology Care Model (OCM) included 1 in 4 people undergoing treatment for cancer who were covered under Traditional Medicare fee-for-service. Participating oncology practices focused on improving clinical and quality outcomes, while finding opportunities for efficiencies to reduce healthcare expenditures.

OCM resulted in lower healthcare expenditures during the six- month episode of care, driven by higher-value (more cost-conscious and guideline adherent) use of supportive care drugs to prevent neutropenia and cancer-related bone fractures. While chemotherapy drug spending is the single largest contributor to expenditures, we found limited evidence for increased adoption of higher-value chemotherapy. Despite the modest payment reductions, OCM resulted in net losses for Medicare exceeding $600M, after accounting for monthly payments and performance-based payments to participating oncology practices.

Practices focused on things they could directly impact including: extended clinic hours, access to same-day appointments, and outreach telephone calls to patients to address symptoms and reduce emergency department visits, and increased communication about treatments and financial counseling. While practices reported substantial efforts to transform care, these changes did not always lead to improvement in clinical and quality outcomes relative to non-participating practices.

Model Incentives

OCM featured a two-pronged financial incentive strategy. First, participating practices were able to bill Medicare a $160 Monthly Enhanced Oncology Service (MEOS) fee for Medicare FFS beneficiaries, which was intended to support practices in providing enhanced oncology services, such as increased access to timely ambulatory care and patient navigation. Second, practices were made accountable for the total episode payments during each six-month episode (episode payments included payments for all Medicare-services, including drugs, provided during the episode). Practices could earn money in the form of retrospective performance-based payments (PBPs) if they were able to meet OCM payment and quality goals. The intent of the performance-based payments was to incentivize practices to reduce episode payments while enhancing quality.

IMPORTANT ACRONYMS

MEOS: Monthly Enhanced Oncology Services payment. The additional $160 per-beneficiary monthly fee that participating practices may bill for, to help support their transformation efforts.

PBP: Performance-based payments. Incentive payments that participants can earn based on their success in achieving quality goals and reducing expenditures enough to meet OCM requirements.

PP: Performance period. Six-month windows into which episodes were assigned based on chemotherapy start date.

PHE: COVID-19 public health emergency, affecting PP7–11.

TEP: Total episode payments. Total of all payments for Medicare-covered services provided to chemotherapy patients during six-month chemotherapy episodes. Does not include MEOS, PBP, or beneficiary copayments (other than beneficiary cost-sharing for Part D drugs).

[1] Chemotherapy is defined for OCM purposes as cytotoxic chemotherapy, biologic therapy, immunotherapy, or hormonal therapy for cancer

[2] More information about OCM can be found at https://innovation.cms.gov/initiatives/oncology-care/.

Participating OCM practices were paid under Medicare's FFS billing rules. CMS then calculated total expenditures for all Medicare-covered services provided to chemotherapy patients during six-month episodes. If practices' total expenditures were below a risk-adjusted historical benchmark, and they met performance quality goals, they were able to receive a performance-based payment. These reconciled payments were calculated for each six-month performance period.

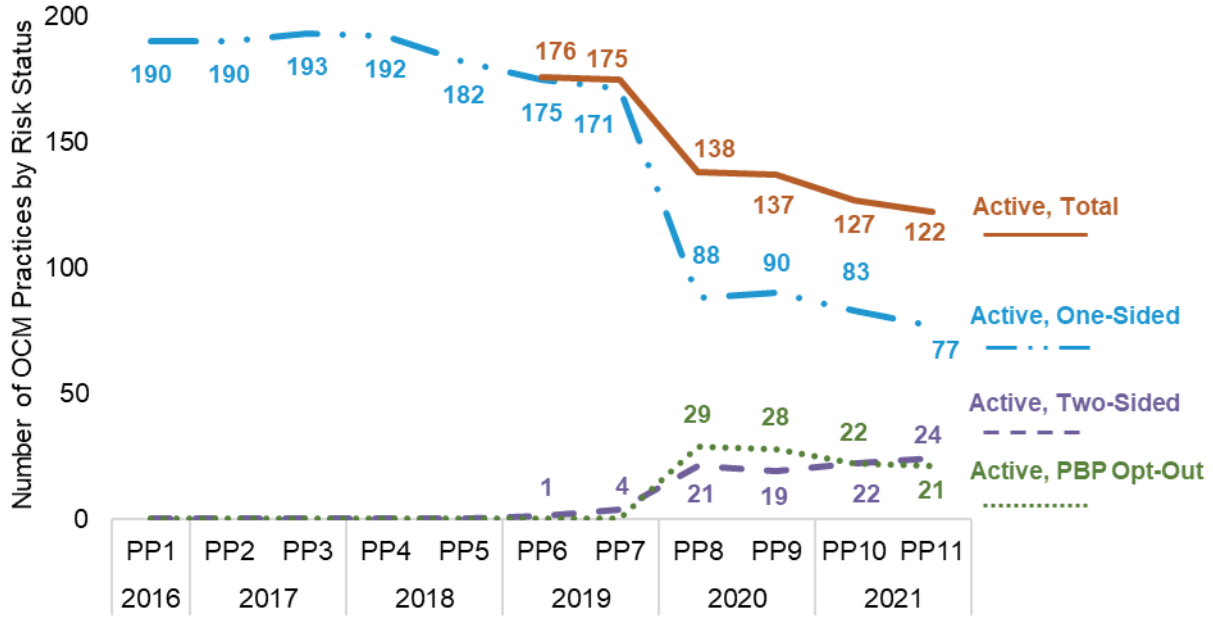
OCM Participation

Participation in OCM changed in response to model risk sharing requirements and COVID flexibilities.

Exhibit ES-1 shows the status of OCM participants across each of the 11 performance periods covered in this report. A total of 202 unique practices joined OCM, and all OCM practices began participation in a one-sided risk status. Practices with one sided risk could earn performance-based payments if total expenditures (including MEOS payments from CMS) were below the benchmark, but were not responsible for recoupments if their total expenditures for episodes exceeded the benchmark. **Practices that were unable to earn at least one performance-based payment by the end of PP4 (early 2018) were required to terminate participation by PP8 (early 2020) or take on two-sided risk effective in PP8.** Practices that believed they could succeed under two-sided risk were encouraged to select that risk status early in OCM. Because of the COVID-19 public health emergency (PHE), CMS offered a third option, beginning in 2020, where practices could continue to submit monthly bills for MEOS but waive their eligibility for any performance-based payments by opting out of financial reconciliation and performance measurement. By opting out of reconciliation, practices that otherwise would have been required to take two-sided risk were able to continue receiving the OCM MEOS payments, without concerns of owing a recoupment as they might have under the two-sided risk arrangement.

The COVID-19 PHE began on January 31, 2020. Roughly 85 percent of episodes in PP7, which began in the latter half of 2019, ended during the PHE. While all PP8 episodes (which began in early 2020) overlapped the PHE, roughly 85 percent of episodes occurred entirely within the PHE, and all episodes in the last 18 months of the Model began and ended during the PHE. In total, 122 practices remained in OCM through the end of the Model. In PP11 (late 2021), 24 practices (including several of the largest) were taking two-sided risk, covering 43.4 percent of all OCM episodes initiated, while 21 practices had opted out of performance-based payments, covering 20.9 percent of all episodes initiated in PP11.

Exhibit ES-1: Over Half of OCM Practices Changed Their Participation Status or Risk Status in Performance Period 8



Source: OCM program data.
Notes: PP: Performance period. PBP: Performance-based payment. Active "one-sided practices" are eligible for PBPs under one-sided risk (no repayments to CMS if total episode payments exceed benchmark target). Active "two-sided practices" are eligible for PBPs under two-sided risk: potential earnings are higher, but practices repay CMS a recoupment if total payments exceed target. Active PBP opt-out practices are those that exercised a COVID flexibility allowing them to bill for monthly payments and not owe a recoupment, but not be eligible for PBPs . Terminated practices are those that no longer participate in OCM.

MODEL REACH

OCM participants treated roughly a quarter of all eligible FFS Medicare chemotherapy episodes, both prior to and during OCM (analyses examined the period through PP6, before the PHE). In general, patients in OCM and non-OCM episodes had similar demographic characteristics, and poverty/socioeconomic status.

OCM practices were larger, more likely to be affiliated with an academic medical center and had a larger share of high-risk cancer episodes than non-OCM practices.

The geographic markets served by OCM participants were similar to markets served by non-OCM practices but had more physicians per capita.

Brief Overview of Evaluation Methods and Approach

The OCM evaluation summarizes OCM impacts using mixed methods, integrating comprehensive quantitative and qualitative data analyses based on Medicare administrative data and claims, patient surveys, case study interviews, and other inputs. The ***First Annual Report from the Evaluation of the Oncology Care Model: Baseline Period*** explained the construction of the evaluation comparison group and described the trends during a multi-year baseline period for both the OCM and comparison groups. Detailed methodology for baseline comparison group selection can be found in the ***First Annual Report from the Evaluation of the Oncology Care Model: Baseline Period Appendix***. **Five subsequent evaluation reports** assessed care delivery changes and impacts during episodes through 2020, which included three performance periods overlapping the PHE. This report, the **Evaluation of the Oncology Care Model: Final Report,** presents Model impacts through the end of the Model and includes six-month episodes that began between July 1, 2016, and December 31, 2021, all of which had ended by June 30, 2022.

The evaluation compares changes over time in OCM episodes with changes over time in a matched group of comparison episodes that were attributed to oncology physician practices that did not participate in OCM. Our impact estimates reflect conservative impacts across both practices that opted to remain in OCM and those that dropped out. **We apply an intent-to-treat (ITT) approach that retains episodes for practices that terminated their participation in OCM.** We do this to avoid a case where only the most successful practices remained in OCM, such that analyses only reflect a very specific set of high-performing practices ("survivor bias"). Such bias would substantially affect the generalizability of our results, limiting their use for policymakers. However, the tradeoff is that we count as "treated" patients whose practices had opted out of the Model, which may bias evaluation impact estimates toward zero (against identifying an impact).

Cancer is not a single disease, and each type of cancer has different treatments, side effects, episode costs, and potential for savings. CMS assigns each cancer episode to one of 24 cancer types. Three types of cancer are categorized for OCM as lower-risk (low-intensity prostate cancer, low-risk breast cancer, and low-risk bladder cancer) and make up about one-third of all OCM episodes. These cancers are treated with hormonal therapies or intra-bladder infusions in the case of bladder cancer. Patients typically have relatively few side effects from their cancer or treatment and episode costs tend to be modest. The remaining 21 cancers are considered higher-risk, making up the remaining two-thirds of OCM episodes; episode costs tend to be much higher than for lower-risk cancer types, because treatment typically involves cytotoxic chemotherapy, targeted therapy, and/or immunotherapy. Treatments for higher-risk cancer types typically have high prices, and patients who receive these treatments more often experience adverse side effects. Many analyses in this report separately assessed lower- and higher-risk episodes, since the two categories tend to have different treatments, severity, and costs. We also separately analyzed the 10 most common cancer categories for payment and utilization outcomes to understand potential differences in OCM impacts across cancer types.

In our analysis, we adjusted for the influence of the COVID-19 PHE by excluding OCM and comparison episodes with a COVID-19 diagnosis (consistent with Model rules) and controlling for local COVID incidence and death rates in our regressions.

Over the course of OCM, costs for cancer treatment increased by about 25 percent in both OCM and comparison episodes due primarily to increased costs of chemotherapy and immunotherapy treatments. OCM episode expenditures averaged about $29,207 during the OCM baseline (July 2014–December 2015) and had increased to $40,013 by PP11 (July–December 2021). This report addresses whether that increase was lower in OCM episodes than in comparison episodes, and whether OCM had differential impacts by cancer type or for specific cancer services, and if so, how these impacts were achieved.

In the ***Evaluation Report for PP1–PP9*** we assessed at baseline how well OCM episodes reflected all Medicare FFS chemotherapy episodes (i.e., OCM reach). Assessing Model generalizability is particularly important for voluntary models like OCM, because some types of oncology practices might have been more likely to participate than others. The more representative OCM's "reach" is into its target population, the more confident we can be that impacts could be replicated if OCM were expanded more broadly to other FFS Medicare beneficiaries. We found that OCM participants treated roughly a quarter of all eligible FFS Medicare chemotherapy patients. In general, patients in OCM and non-OCM episodes had similar demographic characteristics and lived in areas with similar levels of poverty and other socioeconomic characteristics. OCM practices were larger and more likely to be affiliated with an academic medical center, and had a larger share of high-risk cancer episodes than non-OCM practices. The geographic markets served by OCM participants were similar to markets served by non-OCM practices but had more physicians per capita.

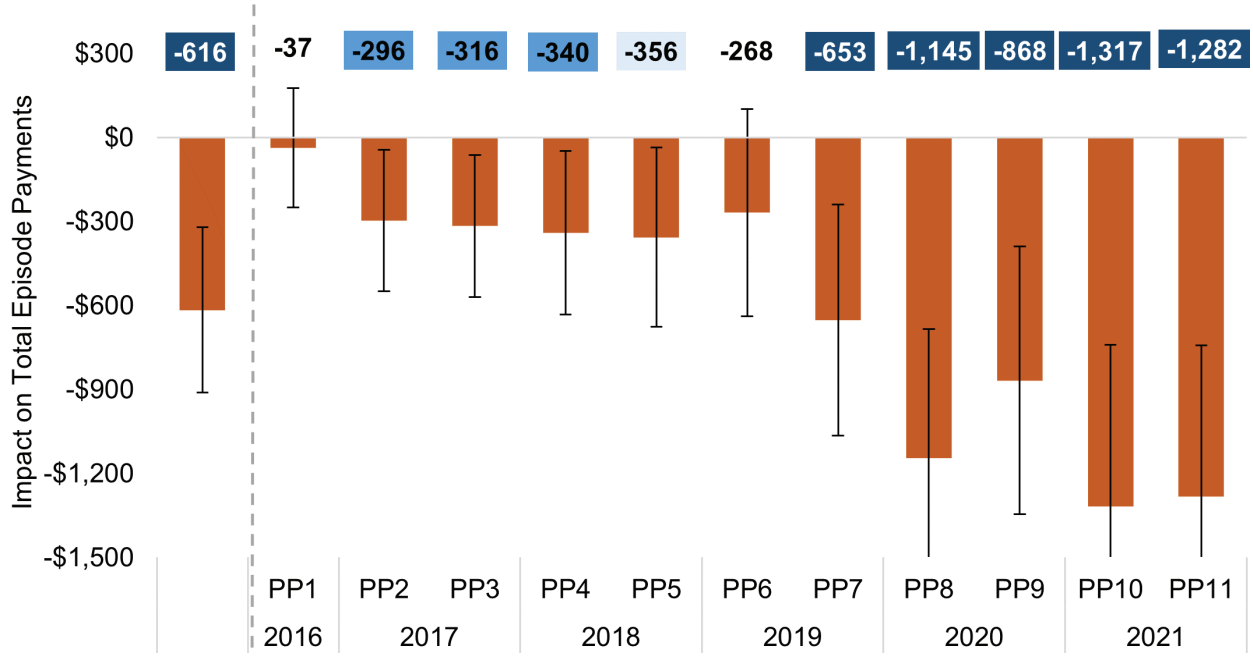
Summary of Key Findings

Medicare Payments and Net Savings/Losses

Performance-based payments through OCM directly incentivized practices to reduce unnecessary acute care and substitute higher-value treatments. CMS designed OCM with the goal of reducing total episode payments sufficiently to cover the costs of the performance-based and MEOS payments. For additional information on Medicare payments and net savings/losses, see **Chapter 2**, **Section 2.3** "Net Impact on Medicare Spending" in the main report.

Total episode payments increased rapidly in both OCM and comparison episodes during OCM. They rose, on average, $616 less ($p<0.05$) in OCM episodes than comparison episodes across all 11 performance periods. This means that OCM practices achieved a relative reduction in spending of 2.1 percent (Exhibit ES-2).

Exhibit ES-2: OCM Significantly Reduced Total Episode Payments in Nearly All Performance Periods



Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: Whisker bars represent 90% confidence intervals. PP: Performance period. PP1 began July 1, 2016. Each subsequent calendar year had two six-month performance periods, from January through June, and July through December.

This represents a reduction in Medicare payments (before accounting for MEOS payments) due to OCM. Reductions were largest in PP10 ($1,317), the first half of 2021. This period is about a year after many OCM practices took on two-sided risk, as well as a year after the PHE began and CMS's implementation of related changes to OCM policy.

The relative reduction in total episode payments was driven by reduced Medicare payments in higher-risk episodes, averaging $898, or 2.2 percent (Exhibit ES-3).

Reductions were largest in episodes for high-risk breast cancer, lymphoma, lung cancer, and colorectal cancer. We found no significant overall OCM payment impact for episodes with lower-risk cancers, but the OCM impact varied across performance periods. Total episode payments increased in PP1–PP7 (mid-2016 through 2019). This included significant increases from 2017 through the middle of 2018 (PP2-4). However, OCM reduced total episode payments in each of the last four performance periods, including significant reductions in the last year of the Model (-$198 in PP10, $p<0.10$; and -$350 in PP11, $p<0.05$).

Payment reductions were greatest in Part B payments (Exhibit ES-3), especially for non-chemotherapy drugs, which are mainly for supportive care.

There were also relative reductions in Part A payments, although there was no impact on payments for acute-care hospitalizations. Estimated relative reductions in Part D payments increased over time (including significant reduction in two of the last three performance periods) but were not statistically significant overall. Part A and Part B payment reductions were driven by reductions observed in higher-risk episodes.

After including OCM MEOS and performance-based payments to practices, OCM resulted in net losses for Medicare.

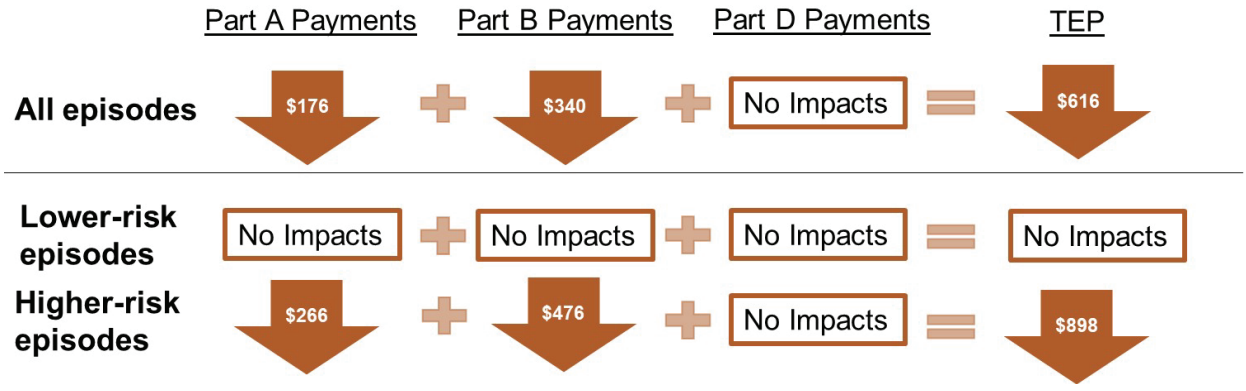
Across the full Model, OCM led to cumulative net losses for Medicare of $639M (**Exhibit ES-4**). Net losses were largest in the first performance period ($108M) and smallest in the last ($1M). Gross savings (from reductions in total episode payments) were not sufficient to cover both MEOS and performance-based payments in any period, for either higher-risk or lower-risk cancer episodes. Gross savings for higher-risk cancer episodes covered the cost of the monthly payments only (but not performance-based payments) in the last two and a half years of the Model (mid-2019 through 2021). Performance-based payments rose sharply at the beginning of 2020, offsetting the larger gross savings in total episode payments.

Calculations for performance-based payments beginning in 2020 were influenced by several changes, including:

- Practices could choose to opt out of reconciliation, an option CMS offered because of the PHE.
- Changes to quality measure reporting related to the PHE made it easier to meet performance benchmarks, resulting in higher performance-based payments.
- Higher adoption of two-sided risk meant that performance-based payments were larger when practices achieved payment reductions.

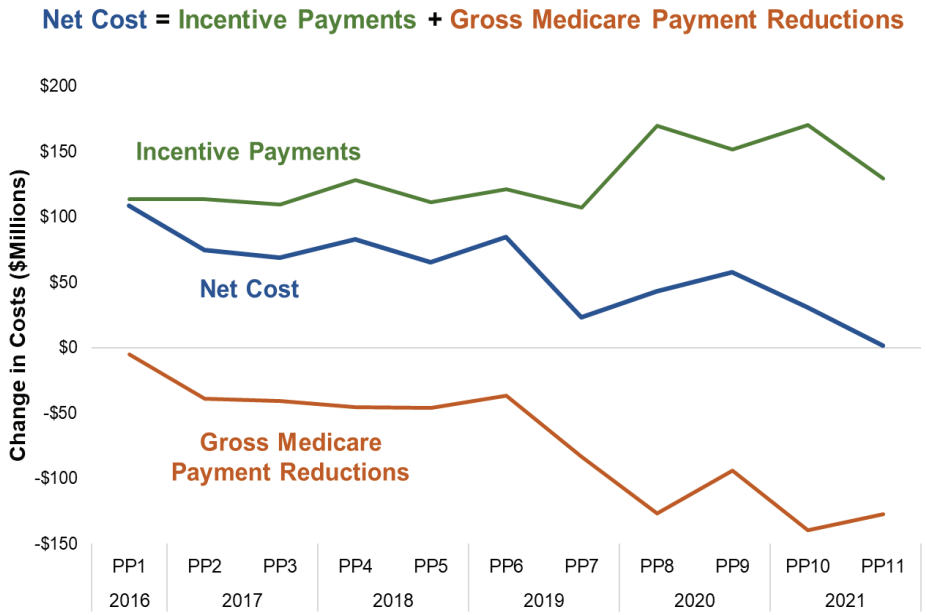
Beginning in PP2 (early 2017), any practice that wished to take on two-sided risk could do so. Given the lower discount retained by CMS applied for practices in two-sided risk relative to one-sided risk, taking two-sided risk would have resulted in higher target amounts, opening the possibility for larger performance-based payments. Starting in PP8 (early 2020), practices that

Exhibit ES-3: OCM Led to an Overall Relative Reduction in Payments for Higher-Risk Episodes, but Not for Lower-Risk Episodes



Source: Medicare claims 2014–2022.
Notes: TEP: Total episode payments.

Exhibit ES-4: Despite Reductions in Gross Medicare Spending, OCM Yielded Net Losses for Medicare



Gross Medicare payment reductions nearly doubled in Performance Periods 7 to 11 relative to prior periods

Performance-based **incentive payments** increased sharply in Performance Period 8 due to increased payment reductions and Model policy changes, but decreased in later periods

Increased **incentive payments** offset the increased **reductions in Medicare payments**, resulting in **net costs to Medicare**

Source: Medicare claims 2014–2022 and OCM program data

Notes: PP: Performance period. Incentive payments included $160 per-beneficiary in Monthly Enhanced Oncology Services payments, as well as performance-based payments for achieving payment and quality thresholds. Gross payment reductions were equal to the average reduction in total episode payments multiplied by the total number of episodes

remained in reconciliation, and were therefore eligible for performance-based payments, either took two-sided risk (i.e., were likely confident of earning performance-based payments) or had achieved one or more performance-based payments in the first two model year and elected to remain in one-sided risk, as OCM rules permitted. All of these factors likely contributed to higher performance-based payments being paid by CMS in the last two and a half years of the Model, offsetting Medicare savings attributable to relative reductions in total episode payments.

Hospital-based Care, Chemotherapy, and Supportive Care

OCM aimed to provide higher-quality and better-coordinated cancer care and reduce avoidable hospitalizations and emergency department (ED) visits. ED visits that did not lead to an inpatient stay were part of practices' quality scores, and during practice interviews, many practices indicated a focus on reducing costly inpatient care. We provide additional detail regarding acute-care utilization in **Chapter 3**.

No impact for most measures of hospital-based care.

Despite the emphasis on reducing unnecessary hospital-based care, OCM did not affect the likelihood of ED visits that did not lead to an inpatient stay, inpatient stays, readmissions, nor intensive care unit admissions.

Reduction in the likelihood of ED visit leading to an inpatient stay.

OCM led to a small but statistically significant decrease in the likelihood of ED visits that led to an inpatient stay: a reduction equivalent to 1.8 percent of baseline values. Despite this, OCM had no impact on the likelihood of an inpatient stay, which may suggest that increased care coordination was helping more patients to be admitted directly without intervening ED visits, but was not keeping people out of the hospital altogether.

Little impact on ED visits or hospitalizations for chemotherapy-related toxicity.

We separately analyzed acute-care use for chemotherapy-related toxicity. OCM practices specifically focused on preventing ED visits and hospitalizations for chemotherapy-related toxicity, to improve quality of care and reduce episode payments. They may also have had more direct control over preventing this type of acute care use, relative to other ED visits and hospitalizations. However, OCM had no impact on chemotherapy-associated hospitalizations or chemotherapy-associated ED visits leading to an inpatient stay. OCM did reduce chemotherapy-associated ED visits not leading to an inpatient stay for some patients, equivalent to roughly two ED visits avoided for every 1000 patient episodes.

The opportunity to earn performance-based payments was intended to motivate participating practices to avoid low-value, costly treatments that have little likelihood of benefiting patients, and to emphasize higher-value care. Key findings about the impact of OCM in these areas included:

Little evidence of value-oriented changes in chemotherapy drug treatments, except for faster adoption of three lower-cost biosimilar cancer treatments.

The chemotherapy drugs used to treat common cancers were very similar in OCM and comparison episodes, and changed similarly over time, with no savings to Medicare, due to more-efficient treatment patterns (i.e., using similarly effective but less expensive drugs). One exception was in use of three biosimilar cancer treatments, which cost less than originator drugs and which were used significantly more in OCM episodes than in comparison episodes following their availability in 2019 with roughly 20-40 percent higher rates of use. There was also evidence that OCM led to greater use of higher-value paclitaxel over protein-bound paclitaxel.

There was no evidence that OCM impaired access to beneficial high-cost treatments.

We found similar use of immunotherapies and novel therapies in OCM and comparison practices; OCM was associated with a modest increase in use of costly but effective immunotherapies, and OCM had no overall impact on use of novel therapies broadly. These results mitigate concerns that OCM incentives would prevent patients from receiving cutting-edge therapies with higher costs.

More value-oriented supportive care.

Episode payments for Part B non-chemotherapy drugs increased significantly less in OCM episodes than in comparison episodes, reflecting more value-oriented use of costly supportive therapies to prevent neutropenia, nausea, and cancer-related bone fractures. OCM also had greater use of biosimilar white blood cell growth factors (granulocyte colony stimulating factors, [GCSFs]). This result is consistent with the substitution of biosimilar anti-cancer treatments described above.

A full discussion of chemotherapy and supportive care drug regimens is provided in **Chapters 5** and **6**, respectively.

Patient-Centered Care

OCM practices implemented strategies to enhance care coordination and symptom management, and expanded clinic access, financial counseling, and palliative care, a topic we explored more thoroughly in the **Participants' Perspective Report**. These changes were intended to improve patient care experiences, improve adherence to oral treatment regimens, and foster more-appropriate care at the end of life.

Observations about patient-centered care during OCM include the following:

Continued high rating of patient care experience.

Most cancer patient respondents rated their cancer care very highly at the start of OCM, and there were no significant changes over time.

Improvements in screening for pain and depression.

Practice-reported measures of pain assessment and management, and depression screening with follow-up plan, showed marked improvement over time.

Symptom management declined in the second half of the Model.

Patient-reported measures of getting help from their cancer treatment team for symptoms they were experiencing were level over the first three years of the Model. During the PHE, which began affecting episodes initiated in the latter half of 2019 and continued throughout the remainder of the Model, scores for patient-reported help for symptoms significantly declined for five of eight measures. Analyses included OCM patients only (no comparison group) and cannot be considered causal. It is possible that changes caused by, or that coincided with, the COVID-19 PHE were associated with reductions in patient perceptions of symptom management for both OCM and non-OCM patients.

Continued high patient adherence to oral treatment regimens.

OCM practices redesigned care processes to identify financial and other barriers to oral cancer treatment and to educate patients about how to take oral drugs and manage side effects. Patient adherence exceeded 85 percent in both OCM and comparison episodes. While OCM did not improve adherence relative to the comparison group overall, OCM was associated with significantly improved adherence for patients who are Black, Hispanic, or dually eligible for Medicaid.

No impact on hospice care use or timing or high-intensity end-of-life care.

Many OCM practices attempted to improve end-of-life care by hiring palliative care specialists and enhancing access to palliative care, encouraging patients and their families to engage in advance care planning, and documenting patient wishes and proxy decision makers. However, OCM had no observable impact on the use of hospice care or the duration or timing of hospice care or on other measures of high-intensity care at the end of life.

Additional information on patient care experience, screening, and symptom management, is provided in **Chapter 4**. Details around adherence to oral treatment regimens can be found in **Chapter 5 Section 5.4**. Full results for analysis of end-of-life care are available in **Chapter 3**, **Section 3.3**.

Health Equity

Although OCM did not include explicit design elements focused on improving health equity, it is possible that efforts participants made to improve care quality may have disproportionately benefited patients from historically underserved communities by helping to address needs that are not met under standard Medicare FFS care. Conversely, OCM may have disproportionately benefited other patients if systemic barriers faced by historically underserved populations prevented them from acquiring the full benefits of the Model. We investigated these possibilities by conducting analyses focused on patients who were Black, Hispanic, dually eligible for Medicare and Medicaid, or living in areas of high neighborhood deprivation, relative to patients who were White, patients with Medicare-only coverage, and those living in less deprived areas. We report full results for these analyses in **Chapter 7**.

This investigation yielded the following findings.

During the OCM baseline period (July 2, 2014, to January 1, 2016), patients from these four historically underserved populations had higher episode payments and indications of worse quality, relative to reference populations that were not historically underserved.

Patients from each of the underserved populations were more likely to use hospital-based care-less likely to have timely initiation of chemotherapy after surgery, had lower adherence to oral medications, and were less likely to receive hospice care at the end of life than patients in their reference populations.

OCM did not decrease pre-existing differences in outcomes in general, but there were a few significant differential changes.

OCM was associated with small differential increases in use of acute care service utilization among patients living in high-disadvantage neighborhoods, which increased pre-existing differences relative to patients living outside of those neighborhoods. While episode payments increased less slowly for all four subpopulations we analyzed during OCM, episode payments differentially decreased among patients who were Hispanic relative to patients who were White. Clinical analyses showed that OCM eliminated baseline differences in adherence to oral medications by improving adherence among historically underserved populations relative to corresponding reference populations. However, results did not show consistent evidence of improved care quality for the four historically underserved populations across other quality measures included in the analysis, such as timely initiation of chemotherapy after surgery and use of recommended supportive care medications.

Patient-reported care experience remained high for all four underserved populations.

At the start of the Model, patient-reported outcomes were similarly high across all subpopulations analyzed. Our results did not show that any of these subpopulations had differentially better or worse trends in care experience over the intervention period, leaving experience scores consistently high.

Looking Ahead to EOM: Lessons Learned from OCM

The ongoing EOM began on July 1, 2023, and uses a similar episode-based design to that of OCM. Our evaluation thus provides several lessons for EOM participants. These include strategies for achieving reductions in episode payments successfully implemented under OCM, as well as areas where OCM practices did not achieve significant change, which may signal opportunities for improvement. We discuss each of these categories below.

Strategies for Success Demonstrated by OCM

OCM participants demonstrated that substitution of higher-value supportive care drugs is an effective strategy for reducing episode payments: although supportive care drugs comprised only 8 percent of payments at baseline, they accounted for roughly one-third of reductions in episode payments. Practices also successfully substituted several higher-value anti-cancer therapies. In aggregate, this did not translate to reduced payments for anti-cancer therapies, but substitution of biosimilar drugs in high-

risk breast cancer episodes was associated with greater payment reductions. New participants adopting these strategies should provide immediate reductions in episode payments relative to their episode benchmark prices. Staying apprised of new higher-value drugs, tracking how costs for supportive care drugs change over time, and developing processes to enable rapid shifts toward cheaper alternatives may allow participants to achieve continued payment reductions as new biosimilar drugs are developed.

Remaining Opportunities Identified by OCM

Chemotherapy Drugs: Although Part B and D chemotherapy drugs were the two biggest contributors to episode payments, and contributed the most to growth in payments, OCM had virtually no impact on chemotherapy drug payments outside of high-risk breast cancer episodes. Advancements in care may provide more biosimilar or other higher-value alternatives, and more generic drugs may become available over time. Infrastructure, staffing, and processes to help identify and substitute new drugs (e.g., establishing pathway programs, having staff identify higher-value treatments and obtain prior authorization, etc.) will allow participants to take advantage of these advances if and when they become available.

Radiation: While radiation therapy only accounts for roughly 2 percent of episode payments, versus the 33 percent attributable to chemotherapy drugs, it is also an area with a known path to reducing payments: reducing the number of fractions for palliative treatment of bone metastases or prescribing higher-value treatment modalities. Our evaluation found that OCM had no impact on radiation therapy. Practices that employ radiation oncologists may have a financial incentive toward the status quo, since reduced payments for radiation therapy would directly reduce FFS revenue. Moreover, during our case studies, both medical and radiation oncologists at participating practices noted that radiation oncologists were not part of OCM, did not share in performance-based payments, and were not involved in OCM-related care process changes. Finding ways to improve engagement with radiation oncologists may provide EOM participants with another strategy to modestly increase reductions in episode payments.

End of Life: Several EOM quality measures also showed additional room for improvement even at the end of OCM. For instance, timely use of hospice care at the end of life showed little change over the course of the Model and was just over 50 percent in the final performance period. Greater focus on improved end-of-life care from practices participating in EOM could yield higher AQS values and performance-based payments.

Exhibit ES-5: Patients Rated Cancer Care Team Highly, but There Is Room for Improvement in Shared Decision Making, Symptom Management, and Patient Self-Management

Source: OCM Patient Survey. Includes episodes initiated from April 2016 to December 2020; data collection for these episodes occurred from January 2017 to August 2022.

Patient Experiences: Similarly, while practices scored very high on some patient care experience measures (particularly the rating of cancer care team), other measures such as shared decision making, symptom management, and patient self-management all have clear room for improvement. During patient interviews (summarized in greater detail in **Chapter 8**), patients described a variety of preferences regarding treatment planning and how to make decisions with their cancer care team. They also highlighted the importance of strong communication with their cancer care time. Finding ways to improve engagement with patients—to ensure that patients and clinicians are on the same page, manage patient symptoms, and equip patients to manage their needs—is a potential area of improvement for EOM participants seeking to improve quality of care (**Exhibit ES-5**).

Better Targeted ED/Hospital admission initiatives: Lastly, payments for Part A services remained high throughout OCM despite modest reductions in acute- and post-acute care use achieved by both the OCM and comparison groups. As discussed above, achieving impacts relative to a comparison group may prove challenging given external trends in hospital-based care, and other value-based payment approaches, such as ACOs, have encountered similar difficulties in reducing use of hospital services among oncology patients.[i-iii] However, innovations that succeed in keeping patients out of EDs and hospitals will allow participants to reduce TEP and improve their quality scores.

Equity: A focus on health equity may enable EOM participants to make progress on equity goals. The OCM evaluation documented substantive differences in quality and use of hospital-based services between historically underserved populations and reference populations that are not underserved, such as higher rates of hospital admissions and lower rates of timely hospice receipt. Historically underserved populations therefore have greater room for improvement. Focusing on eliminating differences between historically underserved populations and other populations will yield improvements in aggregate. For example, OCM patients with dual eligibility were 10 percentage points more likely than those without dual eligibility to have an ED visit that did not result in a hospitalization. Patients with dual eligibility comprised roughly 13 percent of OCM episodes. Therefore, eliminating differences between patients with and without dual eligibility would yield an aggregate reduction of 1.3 percentage points: more than 5 percent of the baseline probability of an ED visit. Additional MEOS payments for patients with dual eligibility, and an emphasis on documenting and addressing health-related social needs, may help position EOM participants to achieve joint goals of improved quality and improved health equity.

Conclusion

OCM reduced episode payments by 2.1 percent, on average, with reductions notably increasing in the last two years of the Model. The OCM evaluation found these reductions despite using an intent-to-treat study design that included episodes from practices even after they had terminated their participation in the Model. The impact achieved by practices that remained active through the end of the Model could be higher (which this report did not explore). Reductions in episode payments were limited to higher-risk cancer types, which collectively made up 67 percent of all OCM episodes. In particular, reductions were concentrated in episodes for high-risk breast cancer, lung cancer, colorectal cancer, and lymphoma. Most reductions in episode payments were attributable to reductions in Part B spending, due primarily to reductions in spending on non-chemotherapy drugs. Although Part B chemotherapy and Part D drug spending (predominantly oral chemotherapy medications) account for the bulk of episode payments, OCM did not generate reductions in spending for such care.

Despite modest reductions in episode payments, OCM resulted in net losses for Medicare exceeding $600M, after accounting for MEOS and performance-based payments to participating practices. Net losses were lower in the last two years than in prior periods (nearly breaking even in the final performance period), and episode payment reductions for higher-risk cancers did cover the MEOS payments in the last two and a half years of the model (performance periods 7-11). Greater reductions in the last two years suggest that it takes time for changes to be fully implemented, while reductions for specific cancer types highlight the fact that opportunities for reductions may vary across cancers. The ongoing Enhanced Oncology Model (EOM) focuses on patients receiving systemic chemotherapy for seven cancer types, which tend to have higher risk of side effects and higher episode costs relative to cancers treated by hormonal therapy only. That higher-risk episodes broke even in the most recent OCM performance periods indicates promise of net savings for EOM.

OCM was intended to transform cancer treatment by incentivizing substitution of higher-value treatment alternatives and encouraging better adherence to clinical guidelines. OCM increased the use of higher-value supportive care therapies to prevent neutropenia and cancer-related bone fractures. These changes in supportive care accounted for nearly 1/3 of the reductions in episode payments attributable to OCM. OCM was also associated with greater adoption of three higher-value biosimilar anti-cancer treatments and biosimilar growth factors, which also contributed to reductions in episode payments. While chemotherapy drug spending is the single largest contributor to episode payments, we found limited other evidence for increased adoption of higher-value chemotherapy. OCM also did not affect the timeliness of chemotherapy initiation following surgery nor patient adherence to oral cancer regimens.

By offering MEOS payments to OCM participants, CMS intended to support participating practices in improving the quality of care provided to OCM patients. Practices reported substantial efforts to transform care and improve quality. However, we found no evidence of significant improvement, relative to the comparison group, among OCM participants in the quality measures on which practices were held accountable (including ED visits not resulting in an inpatient stay, timely receipt of hospice care, and patient-reported care experience from survey data). For some measures (such as ED visits and inpatient admissions) both OCM and comparison practices achieved substantial improvements: in this case, lack of impacts were attributable to improved quality among comparison practices, rather than lack of improvement among OCM practices. For other measures (such as timely receipt of hospice care and patient-report experience) neither group demonstrated meaningful improvement. This may suggest limited room for improvement on these specific measures, at least without further innovations in care delivery. EOM continues to incentivize such innovations, as many of these measures are included in the new Model.

To explore the potential impact of OCM on health equity, we assessed outcomes for four historically underserved populations, including patients who were Black, Hispanic, had dual eligibility for Medicare and Medicaid, or lived in high-disadvantage neighborhoods, relative to patients who were White, only enrolled in Medicare, or lived in less disadvantaged areas. We found that, prior to OCM, patients from historically underserved populations had higher acute-care utilization and episode payments but were less likely to have timely initiation of chemotherapy after surgery, adhere to oral treatment, or receive hospice care at end of life. While OCM improved adherence to oral treatment for all four historically underserved populations, in absolute terms and relative to their reference populations, we did not find consistent evidence of improved care quality for the four historically underserved populations across the other measures included in the analysis. We estimated reductions in episode payments for all subpopulations analyzed; only for patients who were Hispanic were reductions differentially larger than in their reference population.

Overall, OCM did not achieve CMS's goals of net savings or improved care quality.

Practices reported that they introduced or expanded efforts to extend clinic hours, increase access to same-day appointments, and implement outreach telephone calls to patients to address symptoms and reduce emergency department visits, and increase communication about treatments. Practices also made measurable progress in expanding screening for pain and depression, and substituting higher-value supportive care treatments. Despite these changes, OCM practices did not demonstrate meaningful improvements in most dimensions of quality we measured, relative to a comparison group. Estimated reductions in episode payments were not sufficient to cover the cost of Model incentives. However, areas where we did find evidence of success hold promise for more success with the new EOM.

For example, reductions in episode payments increased substantially over time such that OCM had nearly broken even by the last performance period. Lessons learned under OCM may allow these types of reductions to occur earlier in EOM.

EOM's focus on the higher-risk cancer types, most of which generated larger episode payment reductions than other cancer types in OCM, may enhance the financial impact of EOM, while providing smaller MEOS payments and requiring mandatory two-sided risk may better facilitate achieving net savings. Moreover, design elements encouraging participants to engage with underserved populations and address social determinants of health are intended to achieve greater impacts on health equity than OCM. Future CMS evaluation reports covering EOM will continue to refine our knowledge of oncology-focused episode-based payment models.

RELATED CHAPTERS

For additional information see:

Chapter 1 – OCM Background and Evaluation Summary
Chapter 2 – Did OCM Lower Medicare Payments and Generate Net Medicare Savings?
Chapter 3 – Did OCM Affect Service Use Patterns?
Chapter 4 – Did Quality of Care Improve Over Time Among OCM Patients?
Chapter 5 – Did OCM Affect Cancer Treatment?
Chapter 6 – Did OCM Incentivize High-Value Use of Supportive Care Medications?
Chapter 7 – How Did Outcomes Change for Historically Underserved Populations?
Chapter 8 – How Did Patients Describe Their Cancer Care Journeys?