Maryland Total Cost of Care Model
Evaluation of the First Four Years (2019–2022)

MODEL OVERVIEW

Maryland is leading the way in statewide health reforms that combine accountability for healthcare costs and quality with hospital global budgets and investments in primary care. Under the Maryland Total Cost of Care (MD TCOC) Model, the state has committed to save $2 billion in Medicare spending over eight years and to meet goals for health care quality and population health. The MD TCOC Model (2019 to 2026) builds on the Maryland All-Payer Model (MDAPM) (2014-2018), which began all-payer hospital global budgets. The MD TCOC Model continues global budgets and introduces new components, including significant new investment in primary care, to engage a wider range of providers in care transformation throughout the state.

PARTICIPANTS AND MODEL COMPONENTS

Hospitals and their partners

- **All-payer global budgets,** adjusted for quality and total cost of care, are an alternative payment model that pay hospitals a fixed amount each year, untied to volume. They encourage hospitals to reduce preventable hospital use (52 hospitals, reaching all qualifying hospitals in Maryland).
- **Episode-based payment programs** are designed to improve quality and limit total cost of care for episodes (42 hospitals, reaching about one-third of Medicare discharges).
- **Grant funding** is meant to improve diabetes prevention and management and expand behavioral health crisis programs (33 hospitals and their community partners).

Primary care practices

- **The Maryland Primary Care Program** provides advanced payments to practices to increase their role in managing chronic diseases and preventing unnecessary hospital use (508 practices, reaching about half of Medicare beneficiaries).
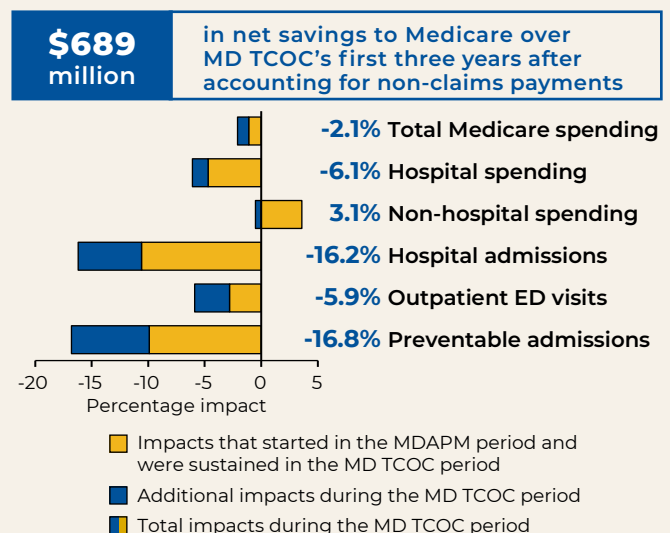
Specialists

- **The episode-based payment program** allows specialists to share in savings from preventing complications and unnecessary care (about 2,000 specialists).

FINDINGS

During the MD TCOC period (2019–2022), the model had favorable effects on spending, service use, and quality.

- The model reduced Medicare spending by limiting growth in hospital budgets, which the state sets through its all-payer rate setting authority.
- The model also reduced admissions and improved related quality measures, mainly due to hospital responses to global budget incentives and substantial baseline room for improvement.
- These impact estimates reflect the accumulated effects of all changes that Maryland and CMS have made since 2014. Impacts began during the MDAPM period and grew during the MD TCOC period.
- Since 2019, the model has sustained but not increased effects on most service use and quality measures, while effects on total Medicare spending have gotten smaller.
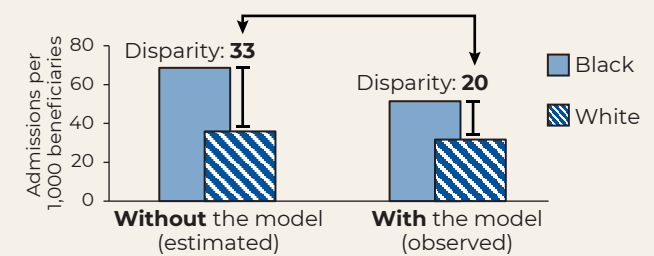
$689 million in net savings to Medicare over MD TCOC's first three years after accounting for non-claims payments

	Percentage impact
-2.1%	Total Medicare spending
-6.1%	Hospital spending
3.1%	Non-hospital spending
-16.2%	Hospital admissions
-5.9%	Outpatient ED visits
-16.8%	Preventable admissions

Impacts that started in the MDAPM period and were sustained in the MD TCOC period

Additional impacts during the MD TCOC period

Total impacts during the MD TCOC period

Note: Total impacts during the MD TCOC period were statistically significant at $p < 0.1$ for all outcomes shown. ED = emergency department.

FINDINGS (continued)

The model reduced disparities in unplanned readmissions, preventable admissions, and timely follow-up by race and place.

- Disparities between Black and White beneficiaries were reduced, across these three outcomes, by a range of 26% to 40%.
- Disparities between those living in areas with higher and lower Social Vulnerability Index scores were reduced, across these three outcomes, by a range of 19% to 31%.
- More than two-thirds of the reductions in disparities occurred by the end of the MDAPM period, which suggests that they were attributable in large part to hospital responses to the quality-adjusted global budgets.

Disparities in preventable admissions reduced by 40% (or 13 admissions per 1,000 beneficiaries)

Admissions per 1,000 beneficiaries

Without the model (estimated) — Disparity: **33**
With the model (observed) — Disparity: **20**

Black / White

Note: Result is statistically significant at $p < 0.1$ level.

- These findings include shifts in sites of care. The model has increased the use of observation stays for all Medicare beneficiaries, but it has done so more for Black beneficiaries and those living in high vulnerability areas. Up to 40% of the reduction in the disparities for admission-related measures were through increased use of observation stays as a substitute for admissions.

Beyond the other model components, the Maryland Primary Care Program (MDPCP) improved timely follow-up after exacerbation of chronic conditions and may have reduced admissions.

- Practices' increased efforts to call patients after hospitalizations and emergency department visits likely contributed to improvements in timely follow-up.
- Many practices we interviewed reported that the program advanced their long-term capacities to deliver comprehensive primary care like assessing health-related social needs.
- MDPCP did not affect total outpatient emergency department use, readmissions, or total spending.
- On average, MDPCP cost CMS about $96 million annually but did not generate any statistically significant savings to offset its costs.

The added effect of MDPCP

1.9% increase in timely follow-up

2.5% decrease in all-cause admissions

No effect on total spending (excluding model payments)

14% of beneficiaries received care management services in 2022, up from 1% in 2019. Care management services may have driven reductions in admissions by increasing high-risk patients' contact with practices.
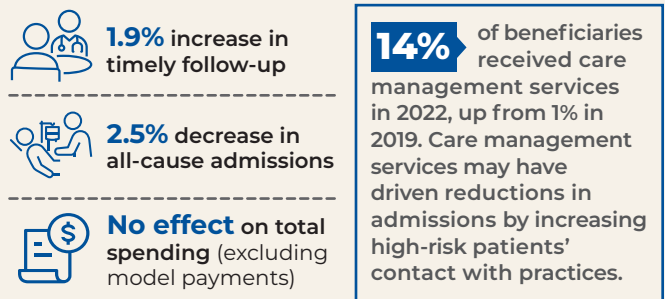
Note: Timely follow-up results are statistically significant at $p < 0.1$, while all-cause admissions results are suggestive ($p < 0.2$).

KEY TAKEAWAYS

During the MD TCOC period, the model reduced Medicare fee-for-service spending by 2.1%, reduced hospital admissions by 16.2%, and reduced disparities in several quality measures. From 2019 to 2021, the model reduced total Medicare spending—including non-claims payments—by $689 million. These effects represent the combined effects of all the changes that CMS and Maryland have made since 2014. Effects were likely driven in large part by hospital responses to global budgets, which reverse traditional fee-for-service incentives and reward hospital efforts to reduce preventable hospital care. Beyond the other model components, MDPCP reduced hospital use modestly but strained statewide savings. On average, MDPCP cost CMS about $96 million annually but did not generate any statistically significant savings to offset its costs. The evaluation will continue to examine the model's impacts on spending, service use, and quality.