

PAYMENT MODEL PRIMER

Outcome Incentives and Disincentives

Initiatives that pay clinicians or facilities based on outcomes broadly fall under the umbrella of pay-for-performance (P4P) models.¹ Performance is judged based on ability to meet certain specified outcomes, targets for certain populations, or for certain areas of clinical care.

HOW IS IT SUPPOSED TO WORK?

Under P4P efforts, payers attach financial incentives or disincentives to provider performance.¹ P4P approaches may use rewards, penalties, or a combination of both. This concept is seen as an easy transition for providers who are used to fee-for-service (FFS) pay arrangements because outcome incentives can be layered with FFS.¹ Under P4P approaches, FFS largely remains intact, but providers receive a payment if they achieve or a penalty of payment withhold if they do not achieve specified outcomes.¹ Payers may also opt to lower FFS payments and use the balance to finance performance incentives.¹

WHAT IS THE GOAL?

The goal of P4P efforts is often to transition providers and hospitals away from focusing on providing as many services as possible to offering services that will improve patient outcomes.¹

HOW AND WHERE HAS IT BEEN USED?

Both public and private payers have been using P4P approaches over the last decade. The Centers for Medicare & Medicaid Services (CMS) is the nation's largest funder of healthcare, and has experimented with several P4P models. As illustrated in Table 1, penetration of P4P incentive and disincentive payments (found in the column labeled Fee-for-service linked to quality or value) varied by payer with Medicare at 48.9%, Medicaid at 10.6% and commercial at 14.2%.

TABLE 1
Share of payments made, by payer and payment category (2018)

	FFS, not linked to quality or value	FFS, linked to quality or value	APMs built on FFS architecture	APMs using population-based payment
<i>Overall</i>	39.1%	25.1%	30.7%	5.1%
Medicare	10.2	48.9	36.5	4.4
Medicare Advantage	39.5	6.9	36.4	17.2
Medicaid	66.1	10.6	17.4	5.9
Commercial	55.7	14.2	27.6	2.5

Source: Werner et al., 2021.² Abbreviation. APM: alternative payment model.

Key components of payment structure

Commercial

Across commercial plans, a common P4P initiatives focus on oncology care, with outcomes that focus on increasing survival rates, and reducing recurrence rates and complications.³ An example of such efforts is Humana's national Oncology Model of Care program which launched in 2019.⁴ Humana's model tracks measures related to inpatient admissions, emergency room visits, medications ordered, and education provided to patients on their illness and treatment.⁴ Numerous commercial companies also participated in the Comprehensive Primary Care Plus (CPC+) model, which launched in 2017.⁵ The goal of this model was to improve the quality of primary care through regionally-based multipayer payment reform and care delivery transformation.⁵ The model spanned 19 states and 79 payers, including private payers Aetna, Amerigroup, UnitedHealthcare and various Blue Cross Blue Shield Plans.⁶

Medicare

Medicare has used P4P models in a few different ways, including¹:

- **The Hospital Value-Based Purchasing Program**, under which a pool of funds is generated by reducing all Medicare payments to acute-

care hospitals by 2%.¹ These funds are then redistributed to the hospitals as determined by their performance on measures related to safety, clinical care, efficiency, and cost reduction, and patient and caregiver-centered experience.¹

- **The Hospital Readmissions Reduction Program**. Under this effort, Medicare penalizes hospitals with higher rates of readmissions relative to all other acute-care hospitals.¹ The program specifically tracks return rates for individuals who were recently hospitalized due to a heart attack, heart failure, pneumonia, COPD, hip or knee replacement, or coronary bypass surgery. Hospitals with poor performance receive up to a 3% reduction of their Medicare payments.¹ There are risk adjustments applied based on demographics such as age and socioeconomic status.¹
- **Medicare's Merit-Based Incentive Payment System (MIPS)** allows clinicians to receive increases or decreases to their Medicare payments based on factors like decreasing costs and increases in quality of care.⁷

Medicaid

Within Medicaid programs, there are also multiple examples of P4P approaches. One of the most common areas of focus are payment initiatives

that target improving maternal health outcomes.⁸ Such efforts have been launched in Arkansas, Ohio, Connecticut, Colorado, North Carolina, and Tennessee, among other states.⁸ The focus of these models is to ensure patients receive an evidence-based professional standard of care by requiring, for example, universal screenings of pregnant women for HIV or requiring that a certain amount of prenatal or postpartum visits occur.⁸

Clinicians who treat Medicaid enrollees have voiced opposition to being held accountable to achieving outcome measures, such as lowering maternal and perinatal mortality rates or cesarean delivery rates.⁹⁻¹² They instead prefer having their payment tied to process measures, which involve requiring that certain steps be taken as part of the care process for each patient, for instance, requiring all pregnant women be screened for Group B streptococcus.⁹⁻¹² The preference for process measures is tied to the belief that providers are more in the control of the clinician or hospital process, whereas achieving outcome measures is more out of the direct control of the provider.¹³ In addition, Medicaid programs tend to reimburse lower than other payers so providers want to ensure that they maintain current levels of program reimbursement.¹³

Multipayer opportunities or past applications

A primary example of a multipayer P4P model is the CPC+ model.⁵ Under this model, clinicians received prospective incentive payments from Medicare FFS, Medicaid, and commercial insurers.⁵ They were allowed to keep all, or a portion of these funds, if they met annual goals for clinical quality, patient experience of care, and utilization measures.⁵ Annual goals were measured primarily by rates of emergency department visits, controlling hemoglobin A1c for diabetic patients, and controlling high blood pressure.⁵ The CPC+ model involved 3,070 primary care practice sites across

19 states with 17 million patients collectively receiving care under the model.⁵

Some Medicaid programs declined to participate in CPC+ over financial concerns.¹⁴ CPC+ required payers to include care management fees and performance-based incentive payments, in addition to standard FFS payments.¹⁴ However, CMS did not provide additional financial support to participating payers, including state Medicaid agencies, to cover these additional fees.¹⁴ As a result, some Medicaid agencies stated that they already pay relatively high rates to clinicians and they could not afford to take on the additional fees without reducing base FFS rates to balance the cost.¹⁴

Provider types and provider characteristics

P4P models can apply to almost any provider type; however, pure P4P models are typically applied to providers that are currently receiving FFS reimbursement. Additionally, some provider types may have regulations that dictate how they are paid or set minimum levels of reimbursement, such as federally qualified health centers. For these providers, P4P models may need to be modified and might not be able to leverage financing mechanisms commonly used for P4P, such as withholding payment for failure to achieve specified outcomes.

WHAT HAVE BEEN THE RESULTS?

Financial

Commercial

In 2017, Highmark, a Blue Cross Blue Shield plan serving 6 million individuals in Pennsylvania, Delaware, New York and West Virginia, launched a primary care outcome initiative known as True Performance.¹⁵ Under this upside only risk model, clinicians were both encouraged to offer comprehensive care management and to perform well on a set of quality metrics, in exchange for incentive payments.¹⁶ Quality metrics included providing immunizations, prescribing appropriate

medications for chronic disease patients, screening for various cancers, and recommending annual wellness exams.¹⁶ By 2021, Highmark estimated that the initiative saved \$2.5 billion in avoidable inpatient admissions.¹⁷

Medicare

There is no evidence that the Hospital Value Based Purchasing Program has saved Medicare costs since the initiative's launch in 2013.^{18,19} By 2018, hospitals earned back anywhere from 17% to 200% of their withheld payments.^{18,19} For roughly a third of participating hospitals, the change in payments under the program were small, equaling less than 0.25% of base payments.¹⁹ The Hospital Readmissions Reduction Program did produce savings as the result of a reduction in return visits to the hospital by Medicare beneficiaries.¹⁹ Medicare spent \$1.73 billion less on readmissions in 2016 than it would have if readmissions had occurred at the same rate as in 2010, the year the readmission program launched.¹⁹

Under MIPS, 93% of providers earned incentive payments for their performance on MIPS measures in 2017, which were paid out in 2019.⁷ However, these bonuses were relatively modest.⁷ For instance, in 2019 clinicians were eligible for a maximum incentive payment of 1.88% of their Medicare rates based on their performance on MIPS measures in 2017.⁷ For a physician with \$90,000 in Medicare Physician Fee Schedule payments in 2017 the maximum bonus would equal \$1,692.⁷

Medicaid

Tennessee Medicaid notes that its perinatal P4P model has saved just over \$10 million between 2014 and 2019 by improving efficiency and quality of care.²⁰ Ohio Medicaid's published report on its P4P perinatal model did not demonstrate savings and showed increased spending in its first 2 years by 3%.²¹ Medicaid staff associated the lack of savings to several factors, including that social determinants of health (SDOH) were not used as

factors to exclude patients from the model and participating clinicians found it hard to maintain quality while meeting the cost threshold outlined by the state.^{22,23}

Multipayer

CPC+ resulted in a slight increase in spending for Medicare, as a result of the incentive payments under the program and an increase in care utilization.⁵ By 2021, the Medicare Payment Advisory Commission (MEDPAC) found that CPC+ generated a net loss of \$4.5 billion as the result of both case management payments to 3,000 practices serving nearly 2 million FFS Medicare beneficiaries and an increase in services use by these individuals.²⁴ In addition, a separate federal auditor could find no evidence that either state Medicaid programs or commercial payers had saved money as a result of the payment initiative.⁵

Health outcomes

Commercial

A United Healthcare P4P oncology model resulted in a 5.1% increase in the prescribing of evidence based medications between 2013 and 2018 among a set of its enrollees that had breast, lung, and colorectal cancer.²⁵

Medicaid

According to Medicaid officials in Tennessee, the three quality measures tied to payment have shown modest improvements since the launch of the P4P model in 2014.⁸ HIV screening rates increased from 90.2% in 2014 to 92.8% in 2018. Group B streptococcus screening increased from 87.8% in 2014 to 95.2% in 2018. The one outcome measure, cesarean delivery rate, saw little change.⁸ In Arkansas, the chlamydia screening rate increased from 76.3% in 2012 to 80.7% in 2019.⁸

Medicare

Under the Hospital Readmission Program, readmissions for patients with acute myocardial infarction, heart failure, and pneumonia all

What works and what doesn't?

Strengths and impacts

- P4P models encourage clinicians and hospitals to focus on quality of care over quantity of care.¹
 - » This may allow providers to redirect their focus to evidence-based care that has demonstrated positive outcomes.
- P4P models also provide transparency to both medical professionals and the public in that both process and outcome measures can be publicized.¹
 - » As such, providers paid under P4P approaches are encouraged to protect and strengthen their reputations in order to remain competitive with others in their markets.¹
- P4P models also utilize existing FFS payment systems which enables clinicians and hospitals to experience incremental changes in the way they are paid, while at the same time exposing them to value-based payment arrangements.¹

Concerns and downsides

- If not properly calibrated, P4P models have the potential to reduce access for low-income populations.¹
 - » This can occur even if there are risk adjustments to payments, since providers who treat a larger share of low-income or higher-risk patients may not perform as well on P4P measures and therefore may be inadvertently incentivized to avoid treating them.¹
 - » Some critics argue that P4P models encourage providers to “game” the system by “cherry picking” patients or skewing their clinical care.³²
- P4P models may not adequately dissuade providers from offering low value services or incentivize them to offer high value care due to inadequate incentive payments and penalties.³³
- Incentive payments must be viewed as worthwhile, in order for clinicians to be interested or encouraged to participate.³³
- There may be data-related challenges including sharing data across different payer types, sharing data among payers and providers, and the increased burden on providers to collect data.¹³
 - » Some state Medicaid programs have reported a lack of data capacity impeded their ability to effectively share data between Medicaid agencies and their partners.¹³

dropped between 0.5% to 3% over the first three years of its launch.^{19,26} The Hospital Value Based Purchasing Program does not appear to have had an impact in terms of improving the quality of care or patient outcomes.²⁷

Model sustainability

A systematic review of 69 studies on P4P models have found limited evidence of long term impact on quality, outcomes, and costs.²⁸ There is some evidence such models may improve processes of care and increase delivery of some preventive services (e.g., cancer screenings).²⁴ One observational study related to the launch a P4P model within the Veterans Health Administration and subsequent end of several quality measures that were tracked under that model found significant improvements in quality measures related to the treatment of acute coronary syndrome, heart failure, and pneumonia.²⁹ Performance improvements continued for these measures 3 years after they were no longer linked to incentive payments.²⁹

Health equity and social determinants of health

P4P models often do not explicitly name the reduction of health disparities as a performance measure.³⁰ To address equity issues, P4P models could include a specific goal, and require outcomes related to quality improvement including disparities impact assessments and health equity reports.³⁰ Such provisions would allow Medicaid and other payers to monitor whether institution-level policies proactively reduce health disparities.³⁰ Historically, outcome measures in the P4P model rely on comparing differences across providers, such as hospitals, rather than assessing quality differences within single health systems.³⁰ This dynamic has resulted in some safety-net systems being financially penalized when their performance on measures are not equal to profitable health systems that treat fewer low income, non-White, and underinsured patients.³⁰ Another area of focus could be the development of P4P

measures that provide incentives to address social determinants of health, such as food insecurity or access to transportation.³¹

WHAT ARE THE OPERATIONAL CONSIDERATIONS?

IT infrastructure and analytics

P4P approaches require the collection and reporting of outcomes measures, as well as other requirements for providers. As a result, administrative systems must be deployed to gather and verify the necessary metrics data and requirements for providers.¹ In addition to the IT infrastructure needed to exchange data between payers and providers, payers that implement P4P models commonly require analytics capabilities to calculate benchmarks, evaluate provider performance, and to translate provider performance into payment based on the P4P model design.

Stakeholder perspective

Physicians

The American Academy of Family Physicians suggest that current P4P models do not provide adequate resources to help practices achieve better health outcomes for high-risk patient populations including those that experience homelessness, food insecurity, lack transportation, or other social risk factors.³⁴ As a result, P4P models could be designed to support and encourage practices to address holistic patients' needs related to outcomes of interest, including social needs, including by providing care management services and coordinating services across interprofessional teams.³⁴ In addition P4P outcome measures must be reliable and provide clear comparisons between providers' performance. They must also be adequately risk adjusted and unbiased.³³

Physician practices parting in MIPS have raised concerns over the modest incentive payments tied to the program.⁷ For instance, one group told the US Government Accountability Office that it

was possible that a well performing practice with \$100,000 in Medicare Part B payments would receive less than \$2,000 in increased payments, but may have spent about \$10,000 to get MIPS-specific reports from their electronic health record vendor to participate in the program.⁷

Authorities (state and federal)

State officials have broad authority to launch P4P initiatives.³⁵ Often they can be initiated at the state level as part of governor's health initiative, or following the passage of state legislation.³⁵ In other instances a Medicaid state plan amendment or 1115 waiver may be needed.³⁵ Generally, value-based pay models implemented under state authority must be available statewide and cannot exclude any beneficiaries or providers.³⁵ Waivers are likely to be required for states looking to test models in specific geographic areas, target services to specific populations, or target certain providers.³⁵ Medicaid Health Homes, which can include outcomes and incentive payment structures, are an exception. As per the Affordable Care Act, they may be launched under state plan amendments.³⁵

Other briefs in this series

- [Bundled Payments](#)
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REFERENCES

1. NEJM Catalyst. What is pay for performance in healthcare? 2018; <https://catalyst.nejm.org/doi/abs/10.1056/Cat.18.0245>. Accessed January 22, 2022.
2. Werner R, Emanuel E, Pham H, Navathe A. 2021; <https://ldi.upenn.edu/our-work/research-updates/the-future-of-value-based-payment-a-road-map-to-2030/>. Accessed February 7, 2022
3. Deloitte Global Life Sciences. The evolution of oncology payment models. 2021; <https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/oncology-payment-models.html>. Accessed January 24, 2022.
4. Humana. Humana launches oncology model of care program to improve the patient experience and health outcomes in cancer care. 2019; <https://press.humana.com/news/news-details/2019/launches-oncology-model-of-care-program/default.aspx#gsc.tab=0>. Accessed January 24, 2022.
5. Mathematica. Independent evaluation of comprehensive primary care plus (CPC+): third annual report. 2021; <https://innovation.cms.gov/data-and-reports/2021/cpc-plus-third-annual-eval-report>. Accessed January 22, 2022.
6. Centers for Medicare & Medicaid Services. Comprehensive primary care plus (CPC+). 2020; <https://innovation.cms.gov/files/x/cpcplus-payerregionlist.pdf>. Accessed January 22, 2022.
7. US Government Accountability Office. Medicare: provider performance and experiences under the merit-based incentive payment system. 2021; <https://www.gao.gov/products/gao-22-104667>. Accessed February 21, 2022.
8. Medicaid and CHIP Payment and Access Commission. Value-based payment for maternity care in Medicaid: findings from five states. 2021; <https://www.macpac.gov/wp-content/uploads/2021/09/Value-Based-Payment-for-Maternity-Care-in-Medicaid-Findings-from-Five-States.pdf>. Accessed January 22, 2022.
9. Bailit JL, Gregory KD, Srinivas S, Westover T, Grobman WA, Saade GR. Society for Maternal-Fetal Medicine special report: current approaches to measuring quality of care in obstetrics. *Am J Obstet Gynecol*. 2016;215(3):B8-b16. doi: 10.1016/j.ajog.2016.06.048.
10. Ohio Medicaid. Detailed business requirements perinatal episode. 2017; <https://medicaid.ohio.gov/Portals/0/Providers/PaymentInnovation/DBR/Perinatal.pdf>. Accessed January 20, 2022.
11. Tennessee Department of Health. Detailed business requirement perinatal episode. 2021; <https://www.tn.gov/content/dam/tn/tenncare/documents2/PERIDBR2021v70.pdf>. Accessed January 20, 2022.
12. Medicaid and CHIP Payment and Access Commission. Public meeting. 2021; <https://www.macpac.gov/wp-content/uploads/2020/08/MACPAC-January-2021-Meeting-Transcript.pdf>. Accessed January 23, 2022.
13. Dickson V, King V. Medicaid maternity billing models. Portland, OR: Oregon Health & Science University; 2021.

14. Howe G, Smithey A, Houston R. Putting primary care first: factors influencing state Medicaid agency participation in federal primary care models. 2021; <https://www.milbank.org/publications/putting-primary-care-first-factors-influencing-state-medicaid-agency-participation-in-federal-primary-care-models/>. Accessed January 24, 2022.
15. Blue Cross Blue Shield. Highmark's true performance program avoided health care costs by more than \$260 million in 2017. 2018; <https://www.bcbs.com/press-releases/highmarks-true-performance-program-avoided-health-care-costs-more-260-million-2017%09>. Accessed September 22, 2022.
16. Blue Cross Blue Shield. Unit 7: value-based reimbursement programs. 2021; <https://content.highmarkprc.com/Files/EducationManuals/ProviderManual/hpm-chapter5-unit7.pdf>. Accessed September 22, 2022.
17. Blue Cross Blue Shield. Highmark's True Performance program nears \$2.5 billion in avoided costs. 2022; <https://www.highmark.com/newsroom/press-releases/highmarks-true-performance-program-nears-2-and-a-half-billion-in-avoided-costs.html>. Accessed September 22, 2022.
18. Ryan A, Krinsky S, Maurer K, Dimick J. Changes in hospital quality associated with hospital value-based purchasing. *NEJM*. 2017;376(24):2358-2366. doi: 10.1056/NEJMsa1613412.
19. Medicare Payment Advisory Commission. Medicare and the health care delivery system. 2018; https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun18_medpacreporttocongress_rev_nov2019_note_sec.pdf. Accessed January 25, 2022.
20. TennCare. 2019 episodes of care results. 2020; <https://www.tn.gov/content/dam/tn/tenncare/documents2/EpisodesOf-Care2019PerformancePeriodResults.pdf#page=4>. Accessed January 23, 2022.
21. Moody G. Moving Ohio's health care payment system upstream. 2018; <https://www.healthpolicyohio.org/wp-content/uploads/2018/04/Moody.pdf#page=11>. Accessed January 23, 2022.
22. Ohio Medicaid. Medicaid quality metrics and spend thresholds for performance period 4. 2019; <https://medicaid.ohio.gov/Portals/0/Providers/PaymentInnovation/Threshold/Perinatal-Thresholds.pdf>. Accessed January 23, 2022.
23. Bailit Health. State strategies to promote value-based payment through Medicaid managed care final report. 2020; <https://www.macpac.gov/wp-content/uploads/2020/03/Final-Report-on-State-Strategies-to-Promote-Value-Based-Payment-through-Medicaid-Managed-Care-Final-Report.pdf#page=24>. Accessed March 3, 2021.
24. Medicare Payment Advisory Commission. Streamlining CMS's portfolio of alternative payment models. 2021; https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/jun21_medpac_report_to_congress_sec.pdf. Accessed February 7, 2022.
25. Bekelman J, Gupta A, Fishman E, et al. Association between a national insurer's pay-for-performance program for oncology and changes in prescribing of evidence-based cancer drugs and spending. *Am J Clin Oncol*. 2020;38(34):4055-4063. doi: 10.1200/JCO.20.00890.
26. Gai Y, Pachamanova D. Impact of the Medicare hospital readmissions reduction program on vulnerable populations. *BMC Health Services Research*. 2019;19(1):837. doi: 10.1186/s12913-019-4645-5.
27. Hong YR, Nguyen O, Yadav S, et al. Early Performance of Hospital Value-based Purchasing Program in Medicare: A Systematic Review. *Med Care*. 2020;58(8):734-743. doi: 10.1097/mlr.0000000000001354.
28. Mendelson A, Kondo K, Damberg C, et al. The effects of pay-for-performance programs on health, health care use, and processes of care. *Ann Intern Med*. 2017;166(5):341-353. doi: 10.7326/M16-1881.
29. Benzer JK, Young GJ, Burgess JF, Jr., et al. Sustainability of quality improvement following removal of pay-for-performance incentives. *J Gen Intern Med*. 2014;29(1):127-132. doi: 10.1007/s11606-013-2572-4.
30. Ojo A, Shah P. Value-based health care must value black lives. 2020; <https://www.healthaffairs.org/doi/10.1377/forefront.20200831.419320/full/>. Accessed January 25, 2022.
31. Medical Economics Staff. Top Challenges 2021: #8 Transitioning to value-based care models. 2021; <https://www.medicaleconomics.com/view/top-challenges-2021-8-transitioning-to-value-based-care-models>. Accessed January 25, 2022.
32. Markovitz AA, Ryan AM. Pay-for-Performance: Disappointing Results or Masked Heterogeneity? *Med Care Res Rev*. 2017;74(1):3-78. doi: 10.1177/1077558715619282.
33. Abduljawad A, Al-Assaf A. Incentives for better performance in health care. *Sultan Qaboos Univ Med J*. 2011;11(2):201-206.
34. American Academy of Family Physicians. Letter to CMS on APMs. 2021; <https://www.aafp.org/dam/AAFP/documents/advocacy/payment/apms/LT-CMMI-APMs-052521.pdf>. Accessed January 24, 2022.
35. Deloitte Global Life Sciences. Alternative payment models in Medicaid: could MACRA be a catalyst for states' value-based care efforts? 2017; <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciences-health-care/us-lshc-alternative-payment-models-in-Medicaid-MACRA.pdf>. Accessed February 8, 2022.

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