

The effect of using existing pricing benchmarks to set state prescription drug payment limits

June 2026

Executive summary

As pressure to control healthcare spending has intensified, state Prescription Drug Affordability Boards (PDABs) continue to pursue setting upper payment limits (UPLs) on prescription drugs, despite facing ongoing complexity, legal challenges, significant administrative burden and the risk of unintended consequences.

Perceived as a way to overcome these challenges, some states are considering using existing pricing benchmarks such as Medicare “maximum fair price” (“MFP”), international reference prices or other state payment limits in future PDAB drug reviews and UPL development as well as in proposed drug pricing legislation outside of a PDAB process. However, as we have established in previous analyses in 2024 and 2025, any prescription drug payment cap—no matter the benchmark or methodology—ignores the market realities of drug pricing, insurance design and patient out-of-pocket (OOP) costs.^{1, 2} Caps based on these existing benchmarks are therefore likely to create a ripple effect of reactions across healthcare stakeholders, potentially leading to higher costs and formulary access barriers for patients.³

In this paper, we will review recent state approaches to setting payment limits—including using benchmarks and data from other states, the federal government and other countries—and detail potential adverse impacts on patients and the broader healthcare ecosystem.

Our previous UPL analyses

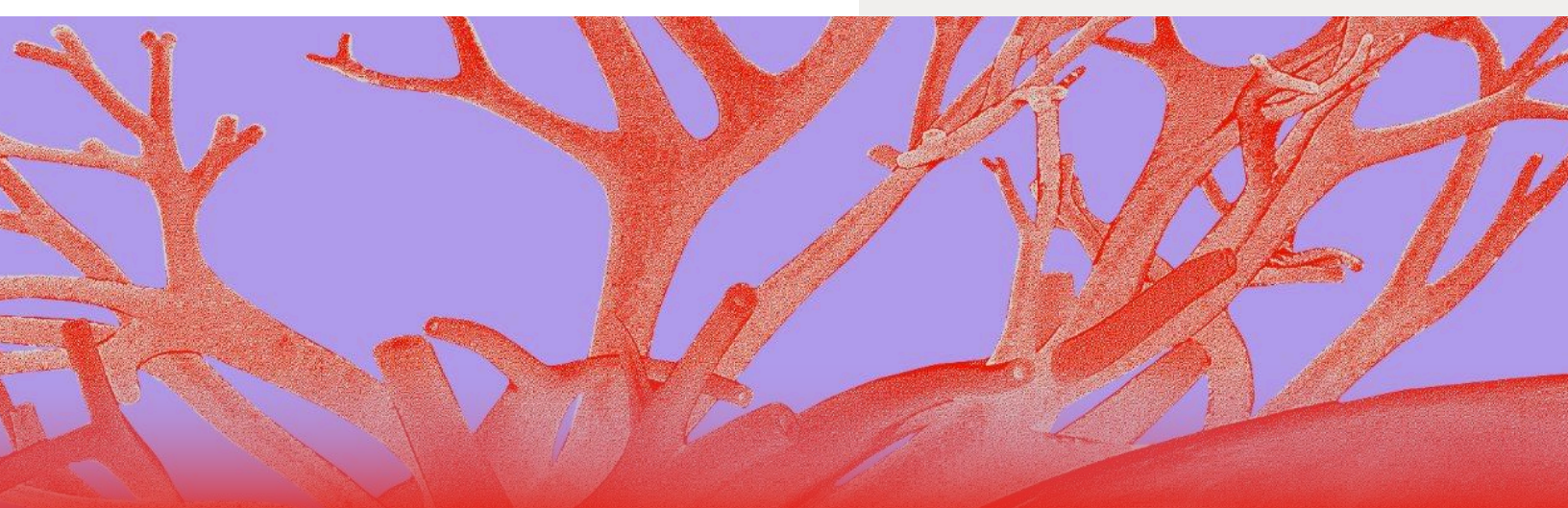
This paper is the third in a series on implications of using UPLs on prescription drugs:

Influence of Prescription Drug Affordability Boards and Upper Payment Limits on the State Drug Pricing Ecosystem (2024):

In this first-of-its-kind analysis, we found that UPLs are unlikely to achieve states’ goals of reducing patient OOP costs or lowering drug spending. Instead, they may lead to unintended consequences, including reduced access, higher patient costs and lower provider reimbursement.¹

Update: Effect of State Prescription Drug Affordability Boards (PDABs) and Upper Payment Limits (UPLs) on the Drug Pricing Ecosystem (2025):

Building on our original analysis, our 2025 update found that UPLs face significant implementation challenges and, if implemented, are likely to result in unintended consequences across the healthcare ecosystem. It also found that despite years of effort and funding across PDABs, there has been little to no impact on patient costs and savings.²



Introduction to ongoing state price control efforts

Concerned over the cost of healthcare and prescription drugs, state legislators over the last decade have passed laws with the stated intent to curb government prescription drug spending, improve patient access and affordability and increase transparency.

This approach continues even though drug spending makes up only 14% of total national healthcare expenditures, and about the same or less in Medicaid.^{4, 5}

States have explored various ways to control spending on prescription drugs, with some choosing to experiment with PDABs. As described in earlier papers, these Boards are tasked with reviewing the perceived affordability of prescription drugs.¹ Several PDABs have the authority to set UPLs for drugs they deem to be “unaffordable” despite nearly all PDABs struggling to define what “affordability” means and to whom it should apply (e.g., the state, patients, taxpayers).² UPLs are designed to cap purchase and payment amounts for prescription drugs—not the manufacturer’s price—meaning that payers or purchasers, as defined by state law, may not pay more than the set UPL amount for the selected drug(s), regardless of the existing rebate or discount arrangements that otherwise determine a plan’s net cost.⁶

Our previous research found that UPLs are not an effective approach for improving patient affordability and access to prescription drugs.² Since UPLs focus solely on the payment for a drug rather than the entire drug supply chain ecosystem, they will likely negatively impact formulary design, patient OOP costs and medication access. Further, PDABs with or without UPLs fail to address other key drivers of prescription drug costs, including the role of pharmacy benefit managers (PBMs) in establishing formulary availability and patient OOP costs.⁷

In addition, PDABs have faced considerable challenges with establishing and justifying payment benchmarks, including difficulty securing adequate clinical and patient perspectives, obtaining and analyzing accurate, timely and relevant pricing and spend data and identifying how to effectuate UPLs if established.^{8, 9, 10} In Oregon, the PDAB declined to recommend seeking UPL authority from the state due to insufficient Board member support and widespread concern from patients, pharmacies, providers and hospitals about potential negative consequences.¹¹ Similarly, in Vermont, the state’s Green Mountain Care Board recently issued recommendations against the establishment of a PDAB given the high costs associated with them.¹² New Hampshire also recently dissolved their PDAB in the wake of state budget cuts.¹³

States are realizing that PDABs are expensive and do not address the root causes of high drug spend. Despite years of effort and funding, states with PDABs and UPLs have yet to realize any savings or successfully implement a UPL.¹⁴

To avoid challenges other states have faced in establishing UPLs, some PDABs have begun relying on pricing benchmarks and payment caps established by other jurisdictions or entities, including those designed for incomparable populations in other states, national programs and international healthcare systems. These benchmarks include Medicare’s “MFP”, international reference prices (IRP) and UPLs developed by/for other states.

While PDABs may view this as a simplified approach to setting their own UPL, the importation of an outside benchmark does not solve broader legal concerns, implementation issues and patient access challenges associated with setting a payment limit.

Adoption and use of existing pricing benchmarks to set payment limits threatens to introduce new flaws, including a failure to account for the unique needs of each state’s population and the risk of replicating and compounding data inaccuracies and evidence gaps.

In addition, some states have been exploring legislation that shifts away from PDABs altogether, in favor of blanket adoption of reference pricing requirements tied to existing drug pricing benchmarks (e.g., “MFP”, IRP).^{15, 16} These approaches may appeal to policymakers because they forego the bureaucratic PDAB process, but they still carry significant operational expenses and raise a new set of concerns, especially if international pricing benchmarks are used.

Each of these approaches creates potential for unintended downstream implications for patients and the healthcare ecosystem as the payment limits interact with other state and federal drug pricing policies and supply chain dynamics. In this paper, we will review the use of existing benchmarks other than a state-developed UPL, their use in the market and the potential impacts of adopting these alternate benchmarks on patient access and the healthcare ecosystem.

Use of existing benchmarks to set state UPLs

Maximum fair price (“MFP”)

The “MFP” is a benchmark developed by the Centers for Medicare and Medicaid Services (CMS) as part of its Medicare Drug Price Negotiation Program (MDPNP). This program was established by the Inflation Reduction Act (IRA) and allows CMS to set prices in Medicare for a certain number of drugs each year, beginning in 2026.¹⁷

States may see referencing the “MFP” as a simpler option for UPL setting since the benchmark has already been developed and is publicly available. There is also often overlap between drugs selected for affordability review by state PDABs and those selected for price setting by CMS.^{18, 19, 20}

Existing PDABs have already leveraged “MFPs” to set UPLs for reviewed drugs. Colorado and Maryland have decided to use the federal “MFP” as the basis of the UPL for several of their selected products.^{21, 22, 23, 24} The Minnesota PDAB has a statutory requirement to set a product’s UPL at “MFP” if the PDAB has determined that the drug creates an affordability challenge for the state healthcare system or patients and an “MFP” is available.²⁵

States have also explored ways to implement “MFP”-based controls outside of the PDAB process. In 2025, the Connecticut State Senate passed legislation that allows state healthcare programs to leverage Medicare’s “MFP” prices in their bulk purchasing contract negotiations.²⁶ Similarly, Maine enacted legislation directing the PDAB to study other states’ implementation of UPLs as well as implementation of Medicare’s “MFP” reference-based pricing, although the bill does not authorize the PDAB to set such price controls.²⁷ Recently passed legislation in Virginia would create an advisory panel on prescription drug pricing and establish “MFP” reference pricing within state regulated markets, excluding Medicaid. If signed by the governor, the bill would prohibit manufacturers and wholesalers from accepting payment greater than the Medicare “MFP” for applicable products sold in the state.²⁸

Misalignment between federal “MFP” and state populations

The adoption of federal “MFPs” as a payment limit fails to account for key differences in population between federal and state programs. Federal “MFPs” were designed specifically for the Medicare population, which encompasses older adults and those with disabilities.²⁹ The data submitted by manufacturers and used by CMS to establish “MFPs” pertain to clinical value and effectiveness for the Medicare population.³⁰ In contrast, state-regulated plans reflect a broader and more diverse patient population than the Medicare population—such as those applicable to pediatric patients, young adults, working adults, pregnant individuals and those with parenting or caregiving responsibilities.

States are tasked with considering the specific needs of their own patient population, which may differ significantly from Medicare beneficiaries. Applying a benchmark developed for one population to another fails to account for the unique health needs and challenges of each group, leading to inaccurate assessments of value and patient access challenges.

“MFP” may not account for utilization and competitive net pricing

In addition, drugs selected by CMS for an “MFP” to date are predominantly used to treat chronic disease.^{31, 32, 33} Because products are chosen based on both volume and price, drugs with high utilization can be swept in even if net pricing is already set competitively through negotiation among private parties (which is also the case in state affordability reviews in general).^{34, 35}

State adoption of Medicare “MFP” could interfere with payers’ rebate-based contracts, resulting in lost savings for the payer. For example, the Oregon PDAB assessed several UPL scenarios to quantify potential savings from UPLs. The analysis found that Oregon’s public employee plans (including both the Oregon Educators’ Benefits Board and Public Employees’ Benefits Board plans) could see outcomes ranging from a cost savings of \$18.7M to a cost increase of \$12.1M.³⁶ Cost increases were predicted in scenarios where state-set UPLs replaced negotiated arrangements that relied on rebates, resulting in higher net plan costs despite the presence of a payment cap.³⁶ In response to cost increases, plans could change tiering, formulary placement or utilization management (UM) of payment-controlled products to limit uptake, leading to losses in patient coverage and access. Additionally, extending the Medicare “MFP” to state-regulated plans without establishing a PDAB would still impose substantial administrative and operational costs on state taxpayers and the health system. For instance, the Virginia Department of Planning and Budget estimated that proposed “MFP” legislation would cost the Commonwealth approximately \$46-47 million to implement over five years.³⁷ CMS’s administration of the “MFP” program is resource-intensive and complex, imposing high costs and a heavy operational burden. To implement a UPL based on an “MFP” benchmark, states will have to similarly set aside funds to develop, operationalize and maintain their own costly systems as the Federal infrastructure is not designed for state use.³⁸

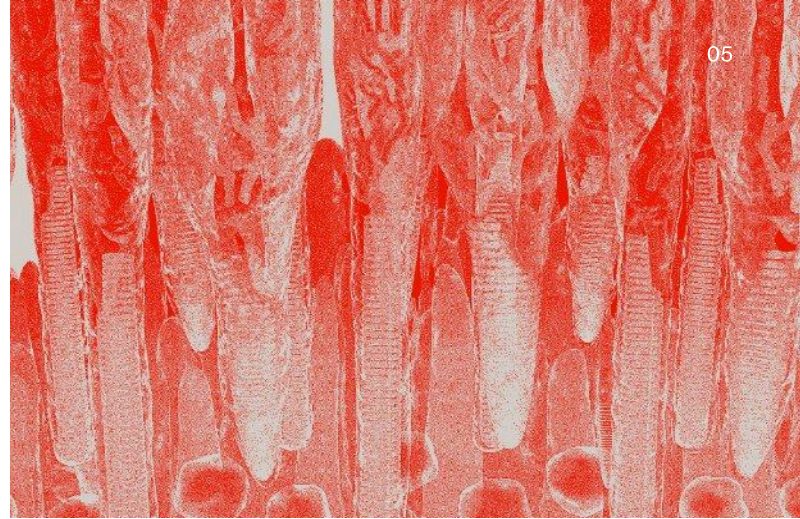
International reference prices (IRP)

International reference pricing refers to the practice of using drug prices from international markets as a benchmark to determine domestic pricing. While specifics vary across proposed programs, drug prices are typically lifted from a set list of reference countries, based on economic comparability measures (e.g., gross domestic product [GDP]).³⁹ Like “MFPs”, PDABs may view adopting international pricing benchmarks as a simple approach to setting UPLs within a state market.

While the Maryland PDAB has recommended using Medicare’s “MFP” as the UPL for its first two reviewed products, the Board has also included international reference pricing as a potential methodology for future UPL-setting.⁴⁰ In the absence of established PDABs, various states have sought to implement legislation that would index prescription drug prices to international reference prices. In 2025, the New York State Assembly proposed a bill that would have set a price cap for certain drugs based on the lower of United States wholesale acquisition cost (WAC) and Canadian drug prices.⁴¹ More recently, in late 2025, legislators in Florida introduced similar legislation to reference international prices in state regulated markets. The bill would prohibit payments and reimbursements for drugs at a rate greater than the reference price, which would be set as the lowest price in a list of reference countries.⁴² While varying in scope, each of these approaches seeks to tie payment for a drug dispensed in the U.S. to an international benchmark.

Like “MFPs”, the adoption of international reference prices as a UPL or on its own fails to account for key differences in patient populations between state-regulated markets and other countries. This lack of comparability is even greater in international markets, which often have vastly different healthcare delivery systems and access to care than the U.S.⁴³ This means that prices available in international markets often reflect entirely different services and products than those used in the U.S. For example, benchmarks measuring U.S. spending on drug costs often reflect the costs of pharmacy dispensing and physician administration, while similar measures abroad may not.^{44, 45, 46} The available dosages and formulations of drugs are also not identical across markets, meaning price benchmarks for seemingly comparable products may represent different product doses or formulations in practice.⁴⁷ Further in the U.S. markets, PBMs and 340B covered entities serve as intermediaries, further distorting drug costs through their contracting and fee structures, in a manner unique to the U.S.

In addition, proposed IRP policies are designed to tie U.S. drug prices to prices in other economically comparable countries, but in practice, these proposals incorporate prices from nations that have vastly different economic circumstances than the U.S.⁴² This occurs because reference countries often base their own drug prices on those in other nations, which have far lower annual and per-person GDPs than the U.S.⁴⁸



Linking U.S. drug prices to those in nations with different economic realities undervalues U.S. patients by basing payments on a population with different needs and challenges.

Moreover, international prices do not reflect the priorities of American patients. International health technology assessment (HTA) bodies set lower prices at the expense of reduced patient autonomy and access to a wide scope of treatment options.⁴⁹ Countries with HTAs lag behind the U.S. in both the number of new drug approvals and time to availability for new products, with an average lag of one year, meaning that importation of international prices could bring the delays and reduced innovation seen in their systems as well.^{50, 51} These international frameworks do not align with American patient expectations or preferences. Research has demonstrated that American patients prefer shared decision-making with providers and comprehensive treatment options, as opposed to externally imposed access controls.⁵² This suggests that relying on international benchmarks could misalign payments with the needs of American patients.⁵²

Further, many international HTA bodies rely on Quality-Adjusted Life Years (QALYs) in their price setting processes.⁵³ Existing U.S. statute prohibits the use of QALYs in Medicare coverage and reimbursement decisions because of its discriminatory impact on patients with disabilities.^{54, 55} Likewise, in May 2024, HHS finalized a rule that prohibits all payers that receive federal funding, including Medicaid and ACA marketplace exchange plans, from using value assessments that discount a patient's quality of life, such as QALYs, when making benefit determinations.⁵⁶ Some states, such as Colorado and Washington, also expressly prohibit PDABs from using QALYs when setting UPLs.⁵⁷ Therefore, adopting international pricing benchmarks that are based on QALYs may be inconsistent with the HHS final rule or state law.^{57, 58} Overall, international prices, which reflect the values of different health systems and populations, are not appropriate benchmarks for U.S. payment policy and could lead to unintended consequences for patients and providers.

Other state UPLs

In addition to domestic and foreign reference prices, state policymakers have contemplated adopting UPLs developed by other state PDABs. States may view this strategy as a less laborious process than developing their own UPLs, since the other states' UPLs already exist and are publicly available.

Given the significant interdependence of PDABs and the effort it takes to conduct UPL rulemaking, Boards are already looking to each other to understand how they should operate. They are also turning to the same external consultants for guidance and data sources. For example, the Minnesota PDAB has stated that it is considering leveraging the work of other PDABs, including Colorado and Maryland, and plans to design its own drug review and data collection methods and potentially set a UPL.⁵⁸ The Colorado PDAB has suggested hosting an Oregon PDAB member to acknowledge cooperation.⁵⁹ The Washington PDAB has begun a meeting with a report on other PDABs' recent activities, has compared their selected drug lists to other states and has sought insight from other state Boards.⁶⁰ As PDABs evolve, it may become more common for them to consider importing another state's previously established UPL.

In addition to sharing a similar set of challenges as "MFPs" and IRP, adopting UPLs developed by other states introduces a new set of concerns. As discussed in a previous paper, states have experienced challenges in independently developing and setting UPLs, due to clinical complexities, inadequate and inaccurate data and lack of stakeholder input.² For example, the Colorado PDAB has faced repeated challenges in data collection and synthesis, with public commenters frequently finding errors in affordability review data.⁶¹ Exacerbating data concerns, some PDABs use their all-payer claims database (APCD) to produce data for affordability reviews.^{35, 62} These databases do not accurately capture the relevant patient populations (i.e., decision-making is based on the data of patients solely from that single state and includes out-of-scope patients, such as Medicare beneficiaries). At one point, the Colorado PDAB was forced to disclose that some of their APCD data used to determine drug eligibility and conduct affordability reviews was misclassified due to a PBM switching labeling for commercial and Medicare data.⁶³ Due to these challenges, PDAB-developed UPLs could be based on flawed or outdated data.

If the UPL were to be adopted by another state, these challenges would compound, as the already flawed data would be applied to a separate population and be increasingly out of date. Patient populations and drug utilization differ meaningfully across the states currently establishing UPLs. Thus, importing or substituting other states' UPLs risks creating payment limits that are misaligned with the clinical and demographic realities of a given state. For example, several PDABs are currently reviewing GLP-1s.^{64, 65}

However, GLP-1 utilization varies substantially across states due to differences in diabetes prevalence, obesity rates, age distribution, insurance coverage and prescribing patterns.⁶⁶ Illustrating this, in 2024, some states experienced GLP-1 utilization increases as high as 67.8% while other states saw decreases ranging from -2% to -11.6%.⁶⁶ Applying a UPL derived from a high-growth, high-utilization state to a lower utilization state may result in payment limits that do not reflect actual patient need, budget impact or market dynamics.

The use of outdated pricing and clinical data is also particularly concerning. If PDABs adopt UPLs developed by other Boards, they could fail to account for new generic or biosimilar entrants, novel medicines, expanded patient assistance or shifts in drug pricing that have occurred since the original UPL was set. This mismatch between a UPL and market realities could prompt payer coverage shifts and changes in pharmacy and provider stocking behavior, ultimately harming patient access.

Whether a state develops and implements its own UPL or adopts an existing price benchmark to set a UPL, ecosystem reactions such as utilization management, increased cost sharing or restricted access will likely persist.

Possible consequences of using existing benchmarks

While each of these approaches leverages a different drug payment benchmark, the challenges presented by each are the same. Payment limits developed for a specific population and purpose cannot account for the needs and nuances of another group, creating a mismatch between payment and value to specific patient populations. Further, existing benchmarks still do not solve for supply chain complexities and overall plan economics that can create new access and affordability barriers for patients, all of which are detailed in our two previous papers.^{1, 2}

Impact on patients

The adoption of existing benchmarks as payment controls has several downstream consequences for patient access. These consequences stem from ecosystem reactions, such as changes in payer coverage and pharmacy stocking behavior. Whether a state develops and implements its own UPL or uses an existing price benchmark to set a UPL, ecosystem reactions such as utilization management, increased cost sharing or restricted access will likely persist.

01 Formulary access

UPLs can possibly increase a plan's net costs even when the capped payment appears comparable to or higher than a plan's negotiated price. In response, plans may restrict patient access via stricter formulary management or tiering changes.⁶⁷ This has already been observed in response to Medicare "MFPs", demonstrating how plans may respond to state use of "MFP" reference pricing and other payment caps. In 2026, Medicare plans have created more restrictive formularies and increased non-medical switching, creating access barriers for patients.^{68, 69} The scope of this impact could be even greater for state-set payment caps. Plans facing state-level payment controls often operate across multiple states. Therefore, what is meant to be a state-level UPL could ultimately prompt cross-state or regional formulary exclusions to avoid implementation issues. Further, some drugs being selected for review by PDABs are specialty, non-first-line treatments, meaning that patients have likely already struggled to access them after stepping through (i.e., failing) multiple other regimens or products.^{70, 71} If patients lose formulary access to these products, there may be negative clinical outcomes.⁷²

02 Cost sharing

Though several states have introduced requirements to pass any resulting savings from UPLs to patients, it remains unclear how this requirement may be implemented or monitored.^{73, 74, 75, 76} State laws also do not prevent changes to plan tiering or coverage for drugs with payment caps, which could further increase patient OOP costs if drugs are shifted to formulary tiers with greater cost-sharing requirements.

03 Availability

Payment limits using any benchmark will likely create significant challenges for pharmacies and physicians. These artificial reimbursement caps may lower reimbursement for pharmacies and providers without requiring a reduction in acquisition costs, meaning they may take a loss.⁷⁷ As such, pharmacies may choose not to stock and providers may choose not to administer drugs with payment caps applied, preventing patients from accessing their critical medications.⁷⁸ For example, regarding "MFP", a 2025 survey of Part B providers found that 92% of respondents would be somewhat or very likely to stop stocking Part B "MFP" products, and 79% anticipate a moderate or severe impact to patient access to Part B drugs due to lower reimbursement associated with "MFP."⁷⁹ If providers are unwilling or unable to stock a product, patients may be forced to go out-of-network to seek care and ultimately face higher costs. Alternatively, patients may get prescribed a product that is not the best clinical fit in order to remain with their desired provider.

Impact to key health stakeholders

Pharmacists and physicians would also likely be affected by the same benchmark-driven UPL constraints, compounding the patient access concerns noted above.

To date, UPLs have sought to limit the reimbursement and not the acquisition cost of the drug; therefore, pharmacies may pay a higher acquisition cost than they will be reimbursed. Pharmacies have expressed concerns over cash flow challenges associated with the implementation of “MFPs” at the federal level and PDAB members have echoed these concerns, acknowledging pharmacy impacts as a key harm of UPLs.^{9, 80, 81}

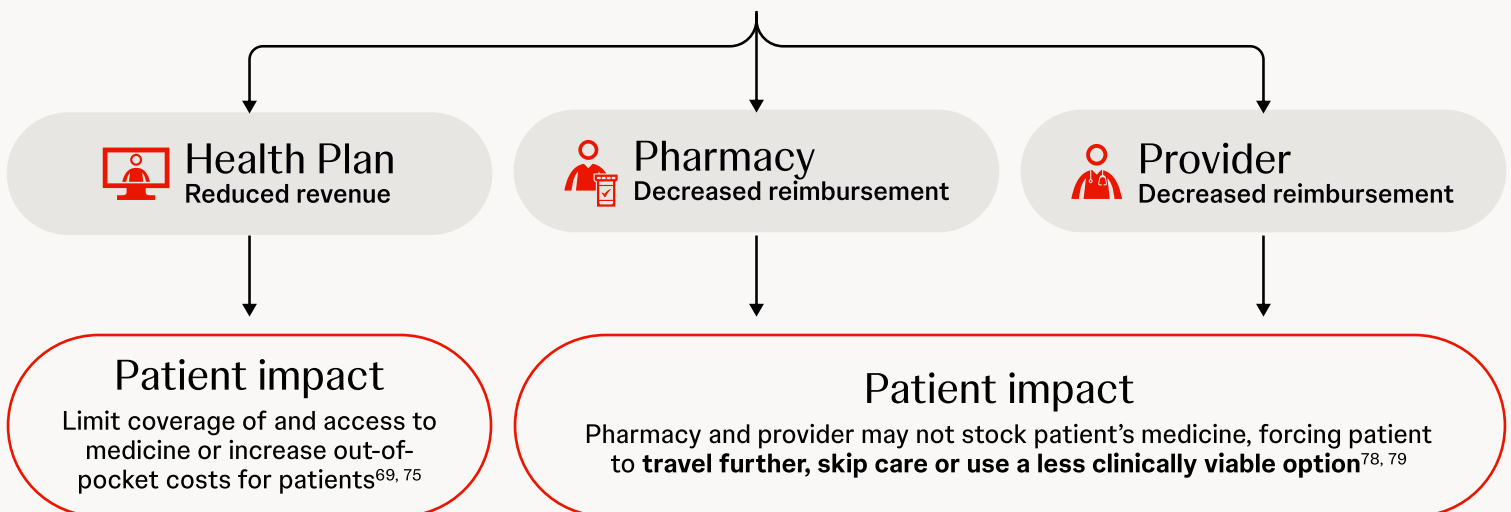
Separately, Avalere estimates that applying “MFPs” to the first ten Medicare Part B drugs could result in at least \$25 billion in lost add-on payments for providers.⁸² These operational and financial pressures could intensify if “MFPs” are extended beyond Medicare.

Use of “MFP”-based controls in additional transactions and in state-regulated markets may also threaten pharmacy revenue and further exacerbate pharmacies’ ability to remain open.⁸³ Specifically, independent pharmacies are at higher risk because they have less ability to manage cash flow challenges.⁸⁴

While PDABs have the authority to set these payment caps, no PDAB has a statutory directive to establish guardrails to ensure that pharmacy reimbursement remains aligned with acquisition cost.

As PDABs and state legislatures seek to regulate reimbursement rates for physician-administered drugs, independent healthcare providers may face similar challenges to pharmacies. Practices may be unwilling or unable to provide drugs that are reimbursed at a lower rate than they cost to purchase.⁸⁵ In the case of smaller and independent practices, lower reimbursement associated with state payment controls threatens to impact broader practice operations via shifts away from provider offices and towards more expensive settings of care like hospital outpatient departments as well as potential reductions in staffing or treatment offerings.⁷⁹

Implications for states using existing benchmarks to set prescription drug payments

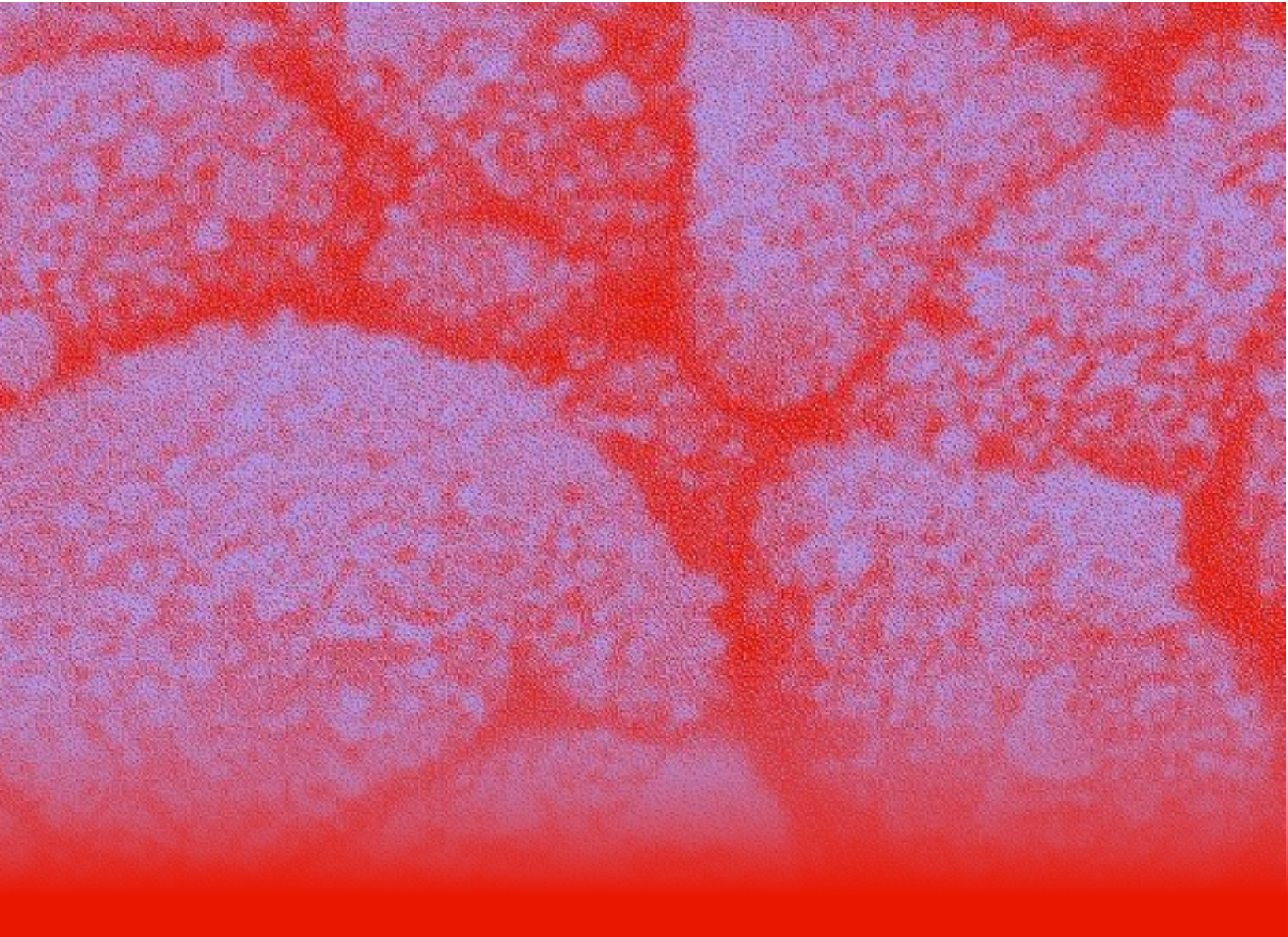


Conclusion

Across each of the frameworks examined above, the critical question remains: how do existing benchmark-driven drug payment policies ultimately translate to patient experience?

While these benchmarks may seem to offer administrative simplicity or consistency, they were developed for different populations, programs and health systems, require costly state oversight to operationalize and may not align with state-specific clinical needs, utilization patterns or insurance design. Most importantly, their application can influence how coverage, reimbursement and care delivery decisions are made. When payment limits—based on any benchmark or methodology—are set without accounting for the wider reactions of the entire healthcare ecosystem, patients may

encounter changes in formulary placement, utilization management requirements, site of care availability or provider participation that affect timely access to appropriate therapies. This analysis suggests that reliance on existing pricing benchmarks—whether implemented through PDABs or standalone legislation—does not remove the current complexity of drug affordability policy and may merely shift how and where patients experience costs and access within the healthcare system.



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