Balancing Cost, Innovation, and Access: A Comparative Institutional Analysis of Pharmaceutical Pricing Tools in High-Income Health Systems

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Article

Balancing Cost, Innovation, and Access: A Comparative Institutional Analysis of Pharmaceutical Pricing Tools in High-Income Health Systems

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Abstract

Background: Soaring drug prices threaten affordability and equity in high-income health systems. This study examines how two families of reform tools, international reference pricing (including the U.S. Most Favored Nation–type proposals and Canada's PMPRB comparators) and value-based payment approaches, perform across four core policy goals: cost containment, innovation, equity, and implementation feasibility. Methods: Guided by institutional and governance theories, we conducted a structured comparative policy analysis of the United States, Canada, and the United Kingdom using a four-dimensional trade-off matrix. We coded 37 documents (2007–2025), including policy guidance, legislation, and empirical evaluations, to rate each country–instrument pair (1–5) on cost, innovation incentives, equity of access, and feasibility, based on design features rather than realized outcomes. Results: The U.K.'s integrated model, combining NICE's cost-effectiveness appraisals with the voluntary scheme for branded medicines (VPAG), shows the most consistent alignment across all four dimensions. Canada's PMPRB-based system achieves strong cost control and broad baseline access but provides weaker, indirect innovation incentives and limited outcome-linked pricing. In the U.S., MFN-type proposals and pharmaceutical value-based contracts face legal challenges, fragmented payers, and limited infrastructure, resulting in low scores on equity and feasibility despite some innovation-supportive features. Conclusions: Neither international reference pricing nor value-based payment alone is sufficient to advance Universal Health Coverage goals. A hybrid approach, anchoring negotiations in international benchmarks while linking reimbursement to therapeutic value, appears more realistic for fragmented systems such as the U.S., but only if accompanied by investments in data, governance, and federal negotiating capacity. The trade-off matrix offers a repeatable framework for assessing pricing reforms and illustrates how institutional "fit," rather than technical design alone, shapes policy success.

Keywords: pharmaceutical pricing; value-based care; most favored nation pricing; universal health coverage (UCH); comparative policy analysis; institutional design; international reference pricing; health system governance

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Plain Language Summary

Prescription medication prices are often too high, making it difficult for people to access the medicines they need. This study examines how three countries — Canada, Britain, and the United States — attempt to control these prices while supporting innovation and ensuring fair access. We focus on two main strategies: comparing international prices (known as Most Favored Nation pricing) and paying based on a drug's effectiveness (Value-Based Care). We found that these countries handle these goals differently. Britain's system is highly centralized, whereas the United States's lack of centralization creates challenges. We suggest a combined approach to improve fairness, affordability, and innovation in the United States.

Introduction

In August 2024, the Centers for Medicare & Medicaid Services (CMS) publicly disclosed, for the first time, the negotiated prices for high-cost drugs under the Medicare Drug Price Negotiation Program for the 2026 coverage year. Simultaneously, its UK counterpart introduced a reformed voluntary scheme for brand medicine pricing, access, and growth (VPAG), tightening revenue limits and easing access flexibility.[1,2] With these reforms, a turning point has occurred in pharmaceutical policy in high-income countries as governments face rising expenditures while aiming to preserve innovation and achieve Universal Health Coverage (UHC). Despite increasing investments in biomedical research, costly medicines continue to widen access gaps and strain public resources. [3,4] Policymakers face the difficult challenge of balancing drug affordability and fairness without stifling innovation or overwhelming administrative systems.

In this paper, we focus on two families of pricing tools. First, *international reference pricing* instruments, including the United States' proposed Most Favored Nation (MFN) rule and Canada's PMPRB comparators, anchor domestic prices to those in peer countries. Second, *value-based* approaches link reimbursement to measures of therapeutic value, clinical outcomes, or cost-effectiveness, as seen in NICE appraisals and emerging outcome-based contracts. In this article, we use "Value-Based Care" in a narrow sense to refer to pharmaceutical payment arrangements where price or reimbursement is explicitly linked to measures of clinical benefit, cost-effectiveness, or real-world outcomes (e.g., outcome-based contracts, indication-specific pricing, or HTA-informed value benchmarks), rather than to broader delivery-system reforms or population-level VBC models. MFN represents an extreme form of reference pricing in a highly fragmented system; in contrast, the UK and Canada embed international and value-based benchmarks within more centralized or coordinated governance structures.[2,5-9]

Meanwhile, reforms in the U.S. are hampered by fragmented payers, disputed authority, and underdeveloped infrastructure. Using a trade-off matrix within a structured framework, we assessed the performance of the MFN and VBC models across four policy goals: innovation, access equity, implementation feasibility, and cost control. This research is guided by institutional theory and governance theory, emphasizing how health system design influences reform implementation.[11,12] This study makes three primary contributions. First, it offers a cross-contextual framework for comparing pricing tools. Second, it examines how institutional design supports training in trade-off management. Third, it proposes a hybrid U.S. model that combines international price anchoring with value-based reimbursement tailored to policymakers' constraints. This research addresses a pivotal policy moment: as the U.S. begins Medicare drug price negotiations under the Inflation Reduction Act (IRA) and the UK reorganizes VPAG, a comparative analysis of institutional pricing tools is both timely and vital. Our trade-off matrix provides a conceptual and practical framework to guide these reforms.

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Conceptual Framework and Methodology

Conceptual Approach: Pricing Tools as Institutional Design Choices

This study employs a structured comparative policy framework to evaluate the performance of MFN pricing and Value-Based Care (VBC) models across four interconnected policy dimensions: cost containment, innovation incentives, equity of access, and implementation feasibility. These dimensions are derived from the value-based pricing literature and the institutional theory of health policy, which suggests that pricing outcomes are influenced not only by market signals and technical evaluations but also by institutional channels linking power with finance and coordination, as well as from previous cross-national research on pharmaceutical regulation.[7,11-16] We examine pharmaceutical pricing as a set of institutional trade-offs that depends on the structure of the health system and public policy capacity. Following Wu, Ramesh, and Howlett (2015), we define policy capacity as the combination of analytical, operational, and political skills at the system, organizational, and individual levels.[17] All of these factors relate to the introduction, negotiation, and maintenance of reforms. From this perspective, governance structures rather than technical evaluations drive pricing outcomes. These assumptions guided our development of a four-component trade-off matrix to compare the use of the MFN and VBC tools across countries.

Case Selection: Contrasting Governance Regimes (U.S., Canada, U.K.)

We intentionally sampled three nations — each with different institutional frameworks: a market-disintegrated system (the United States), a mixed public–private system (Canada), and a centrally coordinated single-payer system (the United Kingdom). This research design helps examine how institutional logic influences the implementation and effects of pricing tools across diverse institutional contexts. [11],[18] For simplicity, we refer to these instruments as "MFN-type" or international reference pricing tools in Canada and the UK, and "value-based" tools where prices are explicitly tied to cost-effectiveness or outcomes, even when they are not labeled as VBC in domestic policy.

Data Sources: Policy, Regulatory, and Institutional Documents

Our review analyzed 37 papers published from 2007 to 2025, including peer-reviewed articles, government white papers, reports from government agencies, and grey literature. This was not designed as a full systematic review of all pricing literature, but as a structured document analysis focused on key policy instruments, guidance documents, and empirical evaluations relevant to MFN-type and value-based pricing tools in the three countries. The primary sources examined were CMS advisories on MFN and VBC models, PMPRB Guidelines, and NICE appraisal updates.[1,5,8,10] We performed a structured document search across PubMed, JSTOR, Google Scholar, and policy repositories, including CMS, DHSC, OECD, and WHO IRIS. Selection followed PRISMA principles for transparency in document identification and screening, while retaining the flexibility appropriate to a focused policy analysis.[19]

Analytical Strategy: Trade-Off Matrix for Institutional Design

Documents were analyzed using deductive content analysis. Relevant text extracts were coded into four predefined categories: (1) mechanisms of cost containment, (2) innovation incentives, (3) equity of access, and (4) feasibility of implementation. These dimensions were derived from the value-based pricing and institutional governance literature and align with prior comparative health system research.

For each country–instrument pair (e.g., U.S.–MFN-type proposals, Canada–PMPRB comparators, U.K.–NICE/VPAG), we then assigned scores from 1 to 5 on each dimension. Ratings reflected the design and institutional embedding of pricing tools rather than realized health or expenditure outcomes. Qualitative anchors for each score (1–5) were defined *ex ante* and are reported

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in Supplementary Table A1, specifying, for example, what constitutes "system-wide" cost control (5) versus fragmented, weak control (1).

Initial scoring was piloted on a small subset of documents to refine the anchors and ensure internal consistency. Scores were iteratively calibrated through within-case and cross-case comparisons and revised when documentary evidence was ambiguous or conflicting. This trade-off matrix approach is consistent with standard comparative policy methods in health system research, allowing structured comparison while preserving contextual nuance and transparency in how judgements were made.

To make the ratings transparent, we defined qualitative anchors for each score (1–5) on each dimension. For example, on cost containment, a score of 5 indicated institutionalized, nationwide tools with demonstrated ability to constrain list or net prices across major therapeutic areas; a score of 3 indicated partial or mixed mechanisms with essential gaps in scope or enforcement; and a score of 1 indicated minimal or purely pilot-level instruments. Similar anchors were specified for innovation incentives (from no explicit reward for value to systematic value-based pathways), equity (from universal coverage with limited financial barriers to highly fragmented access), and feasibility (from stable legal authority and administrative capacity to recurrent judicial or political obstruction). The matrix is therefore heuristic rather than a formal index, intended to structure comparison rather than provide definitive quantitative ratings. This matrix approach aligns with standard comparative policy methods in health system research, enabling systematic analysis while maintaining contextual awareness. [15,18]

As shown in **Figure 1**, the cross-system comparison indicates that the United Kingdom consistently outperforms both the United States and Canada across all four policy areas. The trade-off matrix summarizes the relative performance of cost containment, innovation incentives, equity, and implementation feasibility, demonstrating how institutional capacity influences the effectiveness of the MFN and VBC models.

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Figure 1. Design-Based Trade-Off Matrix for Pharmaceutical Pricing Tools across Three Health System Types.

Figure 1 This matrix compares the *institutional designs* of the most-favored-nation (MFN) and value-based contracting (VBC) approaches in the United States, Canada, and the United Kingdom. Each cell presents an expert-assigned score (1–5) and a brief justification, reflecting how well the pricing instrument is embedded in the system's governance, regulatory capacity, and data infrastructure. The matrix assesses design alignment with four policy dimensions—cost containment, innovation incentives, equity of access, and implementation feasibility—without evaluating realized clinical or economic outcomes.[1,2,8,10.]

Scope and Design Constraints (Non-Outcome-Based Assessment)

We did not aim to measure health or economic outcomes. Stakeholder perspectives and implementation timelines vary by country and are not directly evaluated. Ratings reflect relative policy design rather than effectiveness. We also recognize variations in how VBC is defined and implemented, which complicate direct comparisons across countries. [20] Our goal is to identify institutional patterns and trade-offs that can inform pricing reforms aligned with UHC.

Results: Comparative Trade-offs Across Systems

We used the trade-off matrix to evaluate the performance of the MFN and VBC models across four key dimensions in the United States, Canada, and the United Kingdom: cost containment, innovation incentives, equity in access, and implementation feasibility. Table 1 summarizes these scores based on institutional characteristics and published policy tools, rather than outcome measures.

Results: Comparative Trade-offs Across Systems

United States: MFN-Style Proposals and Fragmented VBC Infrastructure

The U.S. MFN pricing experiment under the CMS's 2020 interim rule highlights the difficulty of applying international benchmarks within a politically imperfect system. Although it was projected to save $85.5 billion over 7 years, legal challenges were quickly filed against the rule, leading to its eventual suspension [5,21]. Pharmaceutical value-based payment models, including outcome-based contracts and CMS Innovation Center demonstrations, remain underutilized, with only 4 of 50 demonstrations yielding net savings.[22] Structural barriers, such as weak interoperability of outcome data, dispersed payer alignments, and misaligned provider incentives, continue to obstruct the expansion of Value-Based Care [6,17]. Furthermore, MFN aims to target prices directly, but faces challenges in discouraging pharmaceutical innovation and increasing legal unpredictability. VBC aligns with clinical outcomes but relies heavily on political stability and physical infrastructure. These two models have not succeeded in reducing the persistent inequitable gaps in drug coverage, especially in Medicare and among uninsured groups [3].

Canada: PMPRB-Based Price Regulation and Limited Outcome-Linkage

Canada's pricing system, primarily overseen by the Patented Medicine Prices Review Board (PMPRB), demonstrates strong cost control through international pricing references and legislative measures [8]. Public coverage plans, along with risk pooling, ensure comprehensive access, although provincial formulary differences and coverage levels challenge equity. [9] Innovation incentives remained moderate. Although CADTH endorses value-based health technology assessments, remunerative models have not yet shifted to outcome-based contracts. The latest PMPRB Guidelines (2025–2026) emphasize transparency in procedures, but avoid implementing performance-linked

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pricing. Political feasibility is moderate: federal tools remain in place, but recent jurisprudence has narrowed the scope for more aggressive price-formula mechanisms.[23]

United Kingdom: NICE/VPAG and Integrated Value-Based Design

U.K. scores were consistently high across all four areas. This reflects not only NICE's explicit cost-effectiveness thresholds but also the integration of VPAG-style revenue controls and adaptive access pathways within a single-payer NHS. NICE evaluations of technology are integrated into coverage decisions, while 2024–25 VPAG reforms have introduced flexible rebates tied to sales volume and outcomes.[2,10] The single-payer system of the NHS enhances feasibility through centralized reimbursement management, innovation incentives, and access guarantees.

Innovation is also achieved through methods such as the Innovation Scorecard and adaptive pathways for high-needs therapy. Equity is maintained through universal coverage under the NHS, while feasibility is strengthened through streamlined institutional connections between regulators and payers.[12,14]

Cross-System Comparison: Institutional Fit and Relative Design Strengths

Table 1 summarizes the comparative performance of each system. Overall, the United Kingdom leads, reflecting centralized integration of health technology assessment, pricing, and coverage decisions. Canada performs strongly on cost containment and baseline access but offers weaker, less systematic incentives for innovation. The United States scores lowest on equity and feasibility due to fragmented financing arrangements, contested federal authority, and limited adoption of robust value-based contracts, despite recent reforms.

Table 1. Comparative Design Assessment of Pharmaceutical Pricing Tools in the United States, Canada, and the United Kingdom. Scores (1–5) reflect the *design features and institutional embedding* of pricing instruments—rather than realised health or economic outcomes—across four dimensions: cost containment, innovation incentives, equity of access, and implementation feasibility.

Dimension	U.S. (MFN/VBC)	Canada (PMPRB)	UK (NICE/VPAG)
Cost containment	3/5 – Suspended MFN, fragmented VBC	5/5 – Strong regulatory ceilings	5/5 – NICE + revenue caps
Innovation incentives	3/5 – Mixed; VBC supports R&D	3/5 – Conservative pricing, weak VBC	5/5 – Value-linked access
Equity	2/5 – Fragmented coverage	5/5 – Broad baseline access	5/5 – NHS universalism
Feasibility	2/5 – Legal and political hurdles	4/5 – Provincial variation	5/5 – Centralized integration

Note: Scores (1–5) are derived from structured policy coding of design characteristics, not outcome data. Detailed scoring anchors for each dimension and level are provided in Supplementary Table A1.

Discussion: Institutional Fit, Design Trade-Offs, and Policy Implications

This analysis shows that institutional design, not just the selection of pricing tools, determines whether pharmaceutical pricing reforms meet goals for cost control, equity, and innovation. While MFN and VBC appear as competing strategies, our cross-system comparison suggests that they are modular tools whose success depends on compatibility with governance structures and system capacity. [14,17]

Figure 2 illustrates the governance and policy interaction frameworks that underpin these differences. Institutional coherence, particularly the integration of regulatory, payer, and evaluation

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functions, mediates how pricing tools translate into cost controls, innovation support, and equitable access across systems.

Figure 2. Governance–Policy Interaction Framework for MFN and VBC Pricing Tools.

Figure 2. Governance–Policy Interaction Framework: This conceptual diagram illustrates how MFN-style international reference pricing and value-based contracting interact with three governance archetypes: a market-based system (United States), a hybrid public–private system (Canada), and a single-payer system (United Kingdom). Arrows trace institutional pathways—legal authority, administrative capacity, data infrastructure, and regulatory integration—through which pricing tools are translated into policy practice. The framework emphasizes that observed trade-offs in cost containment, innovation, equity, and feasibility arise from differences in institutional design, not from inherent properties of MFN or VBC alone. [5,9,14]

The U.K. model highlights the advantages of centralized integration: NICE evaluations immediately influence coverage and reimbursement decisions, while VPAG-tied pricing increases therapy value. Importantly, this method uses institutional coherence to establish a predictable investment environment for the industry, thus promoting affordability and access [2,10]. In contrast, the U.S. faces fragmentation… [5,21].

Canada falls between these two poles. The PMPRB exercises weak price discipline, offering no reward mechanisms for innovation beyond cost benchmarking. Its minimal adoption of outcome-

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based payments also highlights the difficulties of adding new instruments to existing structures without supporting infrastructure.[8,9]

For U.S. policymakers, the findings suggest that relying solely on MFN or VBC is unlikely to succeed. Instead, a hybrid model is more practical, anchoring price negotiations in international benchmarks while tying payments to therapeutic outcomes within a structured, adaptable framework.[6,7] However, such a system depends heavily on concurrent investments in real-world evidence platforms, contracting systems, and federal-level negotiation power.

This approach aligns with the National Academies' recommendation to combine price transparency with innovation-proof purchasing strategies. [4] It also aligns findings from a switching behavior analysis in competitive insurance markets, which show that price and value signals influence decisions only when consumers are presented with credible alternatives.[18]

As Bardach and Patashnik argue, successful reform often relies less on finding the "right" policy than on iteratively feasible combinations that pass through institutional bottlenecks. [24] Therefore, U.S. drug pricing reform cannot simply replicate the approaches of the U.K. and Canada. Instead, it would be more effective to incorporate their mechanisms, such as VPAG-type rebates or PMPRB-type comparators, into a federalized, incentive-based framework.

In addition to the U.S. case, this trade-off matrix can be used for other high-income or mixed-payer models that aim to align pharmaceutical pricing with UHC standards. It is a step-by-step, structured approach that helps evaluate whether new reforms are politically feasible at the institutional level and consistent with policy. It functions as both a diagnostic and design tool for cross-policy research and practice when described in this way.

Limitations of a Design-Focused Comparative Approach and Directions for Future Research

This analysis has several limitations that should temper the interpretation of the trade-off scores. First, it is based solely on documentary sources rather than stakeholder interviews or process tracing, so it captures how pricing tools are designed and formally described, not how they perform in practice. Second, the 1–5 ratings are necessarily judgment-based. Although we mitigated this by specifying explicit qualitative anchors for each dimension and score (Supplementary Table A1) and by iteratively calibrating scores across cases, some subjectivity remains. Third, we did not attempt to estimate health or economic outcomes; the matrix reflects *institutional fit* and policy design, not cost-effectiveness or impact on morbidity and mortality. Fourth, definitions and implementations of "value-based" arrangements vary across and within countries, complicating direct comparison even under a common framework.[20] Finally, the study focuses on three high-income systems with relatively strong regulatory and data capacity; caution is needed in generalizing these findings to middle-income or more decentralized settings.

Future research should broaden this framework to include mixed-payment models, incorporate perspectives from payers, industry, and patient groups, and apply policy process tracing or longitudinal case studies to observe how reforms unfold over time. Comparative, stakeholder-focused, and ethnographic work would help explain how decision-makers navigate trade-offs between cost containment, innovation, and equitable access in real-world political and organizational contexts.

Conclusion and Recommendations: Designing Feasible, Value-Oriented Pricing Regimes

Pharmaceutical pricing reform involves more than just choosing a tool; it consists of fitting the system. This cross-case comparison shows that the MFN and VBC approaches yield different outcomes depending on system capacity, legal frameworks, and political orientations. Since the U.K.'s centralized system can support full value-based pricing and access control integration, the

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United States and Canada highlight the limitations of applying similar instruments in fragmented or only partially coordinated systems.[12,14]

For the United States, we recommend a mixed approach, based on institutional realism and adaptable policymaking. Three practical steps are outlined.

1. **Anchors negotiations on Medicaid drug prices around international reference pricing**, not as strict ceilings, but as a basis for comparison to enhance transparency and bargaining power.[1]
2. **Expand outcome-based contracts with both public and private payers** using real-world endpoints, indication-specific pricing, and performance thresholds for therapy.[7]
3. **Revise patent and exclusivity regulations** so that rewards reflect the therapy's value, not just market monopoly or minor innovations.[4]

These steps align with Bardach and Patashnik's (2024) concept of "structured flexibility": developing pathways to manage uncertainty while preserving key policy goals. In this study, MFN and VBC were treated as mutually exclusive rather than complementary.[24] However, they can also be combined to achieve balanced outcomes, including affordability, innovation, and fair access.

In general, the trade-off matrix offers a practical approach for assessing pharmaceutical pricing reforms in different health systems. Future research should adapt this matrix for middle-income countries and incorporate stakeholder perspectives to assess political feasibility.

Supplemental Files and Additional Information

- **Appendix_E_Risks_Mitigation.xlsx** – Expanded risk analysis and mitigation strategies by country.
- **Tables_and_Figures.pdf** – Summary tables, trade-off matrices, and PRISMA diagram.
- **Appendices_B-D.pdf** – Extended trade-off matrix, country-case summaries, and coding framework (read-only).
- **Appendices_B-C.xlsx** – Editable trade-off matrix and coding framework for replication and review.

Supplementary Materials: The following supporting information can be downloaded at the website of this paper posted on Preprints.org.

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Ethical Considerations: This study utilized only publicly available documents; therefore, institutional ethics approval was unnecessary. It is worth noting, however, that ethical diligence was observed in the presentation of sensitive content, as it avoided sensationalism and framed case narratives within a systemic analysis rather than individual blame.

Ethical Approval: This study used publicly available, de-identified secondary data from the RAND Hospital Data (2017–2024), which integrates Medicare Cost Reports and facility ownership information. In accordance

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with federal regulations (45 CFR 46), institutional review board (IRB) approval was not required because no human subjects were involved.

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References

1. **CMS.** 2024. "Medicare Drug Price Negotiation Program: Negotiated Prices for Initial Price Applicability Year 2026." Fact Sheet, August 15, 2024. https://www.cms.gov/newsroom/fact-sheets/medicare-drug-price-negotiation-program-negotiated-prices-initial-price-applicability-year-2026.
2. **DHSC (Department of Health and Social Care).** 2023. *2024 Voluntary Scheme for Branded Medicines Pricing, Access and Growth.* https://assets.publishing.service.gov.uk/media/657b2977095987001295e139/2024-voluntary-scheme-for-branded-medicines-pricing-access-and-growth.pdf.
3. **Kesselheim AS, Avorn J, Sarpatwari A.** 2016. "The High Cost of Prescription Drugs in the United States: Origins and Prospects for Reform." *JAMA* 316(8):858–71. https://doi.org/10.1001/jama.2016.11237.
4. **National Academies of Sciences, Engineering, and Medicine.** 2017. *Making Medicines Affordable: A National Imperative.* Washington, DC: National Academies Press. https://doi.org/10.17226/24946.
5. **CMS (Centers for Medicare & Medicaid Services).** 2020. "Most Favored Nation (MFN) Model Interim Final Rule." *Federal Register*, November 27, 2020. https://www.federalregister.gov/documents/2020/11/27/2020-26037/most-favored-nation-mfn-model.
6. **Neumann PJ, Sanders GD.** Cost-Effectiveness Analysis 2.0. *N Engl J Med*. 2017;376(3):203-205. doi:10.1056/NEJMp1612619
7. **Garrison LP, Towse A, de Pouvourville M, Kissick MJ, Drummond M.** 2013. "Performance-Based Risk-Sharing Arrangements." *Value in Health* 16(5):703–19. https://doi.org/10.1016/j.jval.2013.04.011.
8. **PMPRB (Patented Medicine Prices Review Board).** 2025. *Guidelines for PMPRB Staff: Administrative Process for Excessive Price Hearing Recommendation.* https://www.canada.ca/en/patented-medicine-prices-review.
9. **Lexchin J.** 2022. "Pharmaceutical Company Payments to Healthcare Professionals and Healthcare Organizations in Canada: An Observational Study." *Healthcare Policy* 17(3):42–48. https://www.longwoods.com/content/26729.
10. **NICE (National Institute for Health and Care Excellence).** 2025. *Annual Report and Accounts 2024 to 2025.* https://indepth.nice.org.uk/nice-annual-report-and-accounts-2024-25/index.html.
11. **Sabatier PA, ed.** 2007. *Theories of the Policy Process.* 2nd ed. Boulder, CO: Westview Press.
12. **Walt G, Gilson L, Brugha R, Buse D.** 2008. "'Doing' Health Policy Analysis: Methodological and Conceptual Reflections and Challenges." *Health Policy and Planning* 23(5):308–17. https://doi.org/10.1093/heapol/czn024.
13. **Porter ME.** 2010. "What Is Value in Health Care?" *New England Journal of Medicine* 363(26):2477–81. https://doi.org/10.1056/NEJMp1011024.
14. **Tuohy CH.** 1999. Accidental Logics: The Dynamics of Change in the Health Care Arena in the United States, Britain, and Canada. New York: Oxford University Press.
15. **Paris V, Belloni A.** 2013. "Value in Pharmaceutical Pricing." *OECD Health Working Papers* No. 63. https://doi.org/10.1787/5k43jc9v6knx-en.
16. **OECD.** 2021. *Pharmaceutical Innovation and Access to Medicines.* Paris: OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2018/11/pharmaceutical-innovation-and-access-to-medicines_g1g98d77/9789264307391-en.pdf.
17. **Wu X, Ramesh M, Howlett M.** 2015. "Policy Capacity: A Conceptual Framework for Understanding Policy Competences and Capabilities." *Policy and Society* 34(3–4):165–171. https://doi.org/10.1016/j.polsoc.2015.09.001.

 doi:10.20944/preprints202506.2476.v4

18. **Boonen LHHM, Laske-Aldershof J, Schut FT.** 2016. "Switching Health Insurers: The Role of Price, Quality and Consumer Information Search." *European Journal of Health Economics* 17:339–353. https://doi.org/10.1007/s10198-015-0681-1.
19. **Moher D, Liberati A, Tetzlaff J, Altman DG; PRISMA Group.** 2009. "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement." *PLoS Medicine* 6(7):e1000097. https://doi.org/10.1371/journal.pmed.1000097.
20. **Leão DLL, Struijs JN, Valentijn PP, Dujardin DMWJM.** 2023. "The Impact of Value-Based Payment Models for Networks of Care and Transmural Care: A Systematic Literature Review." *Applied Health Economics and Health Policy* 21(3):441–66. https://doi.org/10.1007/s40258-023-00790-z.
21. **ASPE (Office of the Assistant Secretary for Planning and Evaluation).** 2020. "Comparison of U.S. and International Prices for Top Medicare Part B Drugs by Total Expenditures." https://aspe.hhs.gov/reports/comparison-us-international-prices-top-medicare-part-b-drugs-total-expenditures.
22. **CMS.** 2021. Driving Health System Transformation: A Strategy for the CMS Innovation Center's Second Decade. https://www.cms.gov/priorities/innovation/strategic-direction-whitepaper.
23. **Merck Canada Inc. v. Attorney General of Canada.** 2022 QCCA 240. https://www.canada.ca/en/patented-medicine-prices-review/services/consultations/2022-proposed-updates-guidelines.html.
24. **Bardach E, Patashnik EM.** 2024. A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving. Washington, DC: CQ Press.