



Patented
Medicine Prices
Review Board

Conseil d'examen
du prix des médicaments
brevetés

Canada

Drug shortages in focus: Why competition is key

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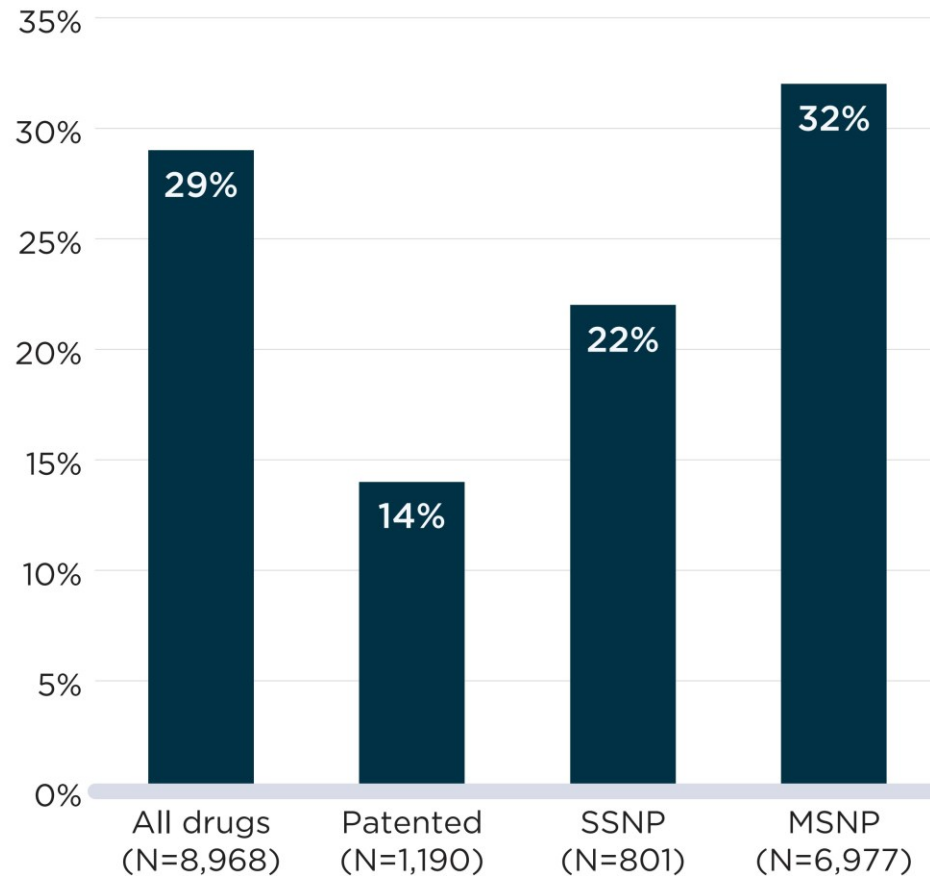


Disclaimer

- I am an employee of the Patented Medicine Prices Review Board (PMPRB), an independent quasi-judicial agency of the Federal Government of Canada. The views expressed today are mine alone and do not represent official views of the PMPRB and the Government of Canada.



1. Drug shortages are more common than you think



- 29% of prescription drugs (DINs) sold in Canada were in shortage at least once in 2019/20.
- For generics, the proportion reached 34%.

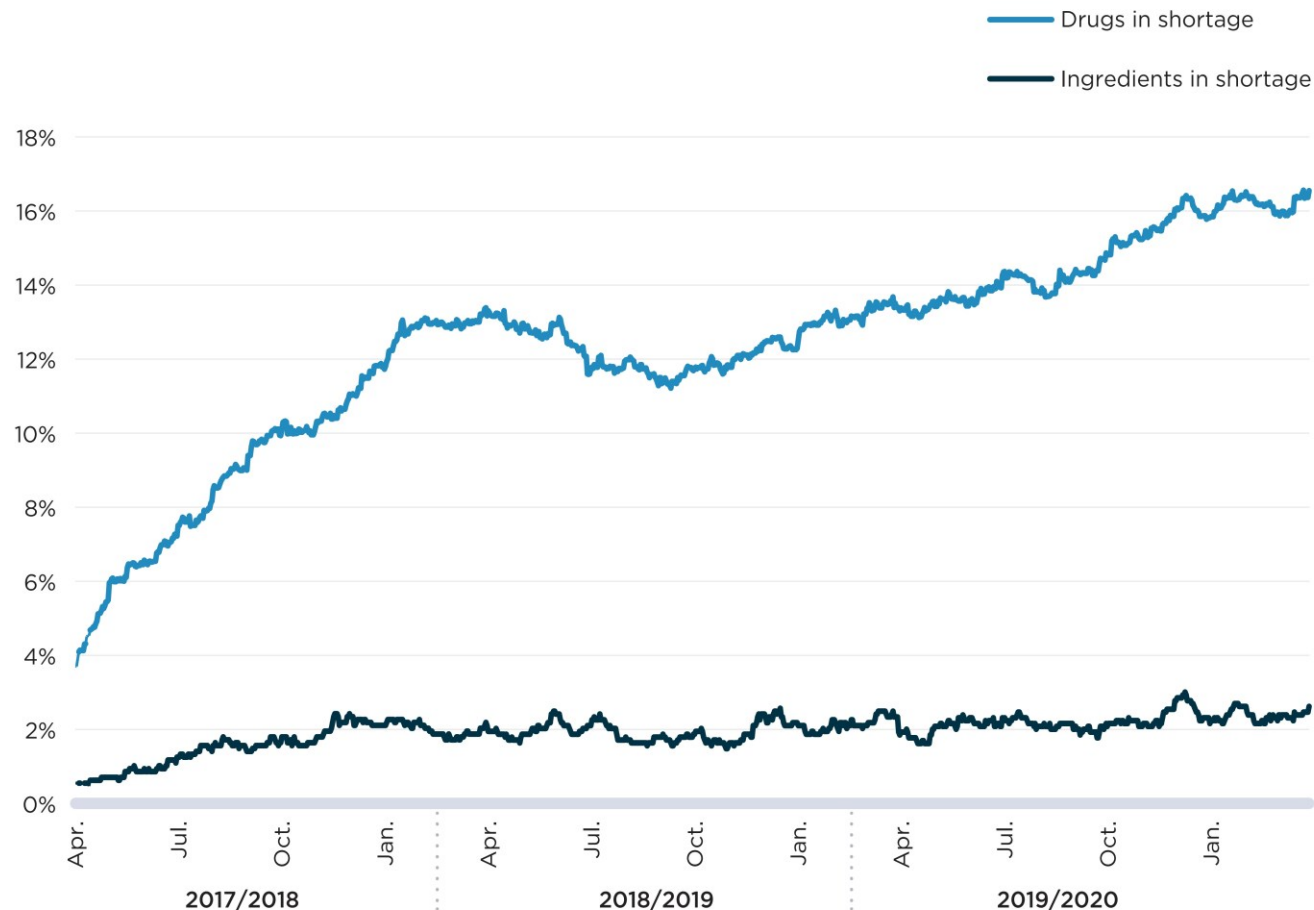
Note: SSNP: Single-source non-patented. MSNP: Multi-source non-patented.

Source: Patented Medicine Prices Review Board, 2022.



2. Single source generics are most vulnerable

- Markets (ingredients) in shortage are much less frequent and hover at about 2% on most days.
- Having multiple generics in a market offers protection against shortages.
- The flipside: "Markets with a single generic manufacturer [are] more likely to be in shortage than other markets", with an OR of 1.99 (Zhang et al., 2020).



Note: Ingredient shortage: DINs with at least 90% of annual sales of the ingredient in shortage on a given day.

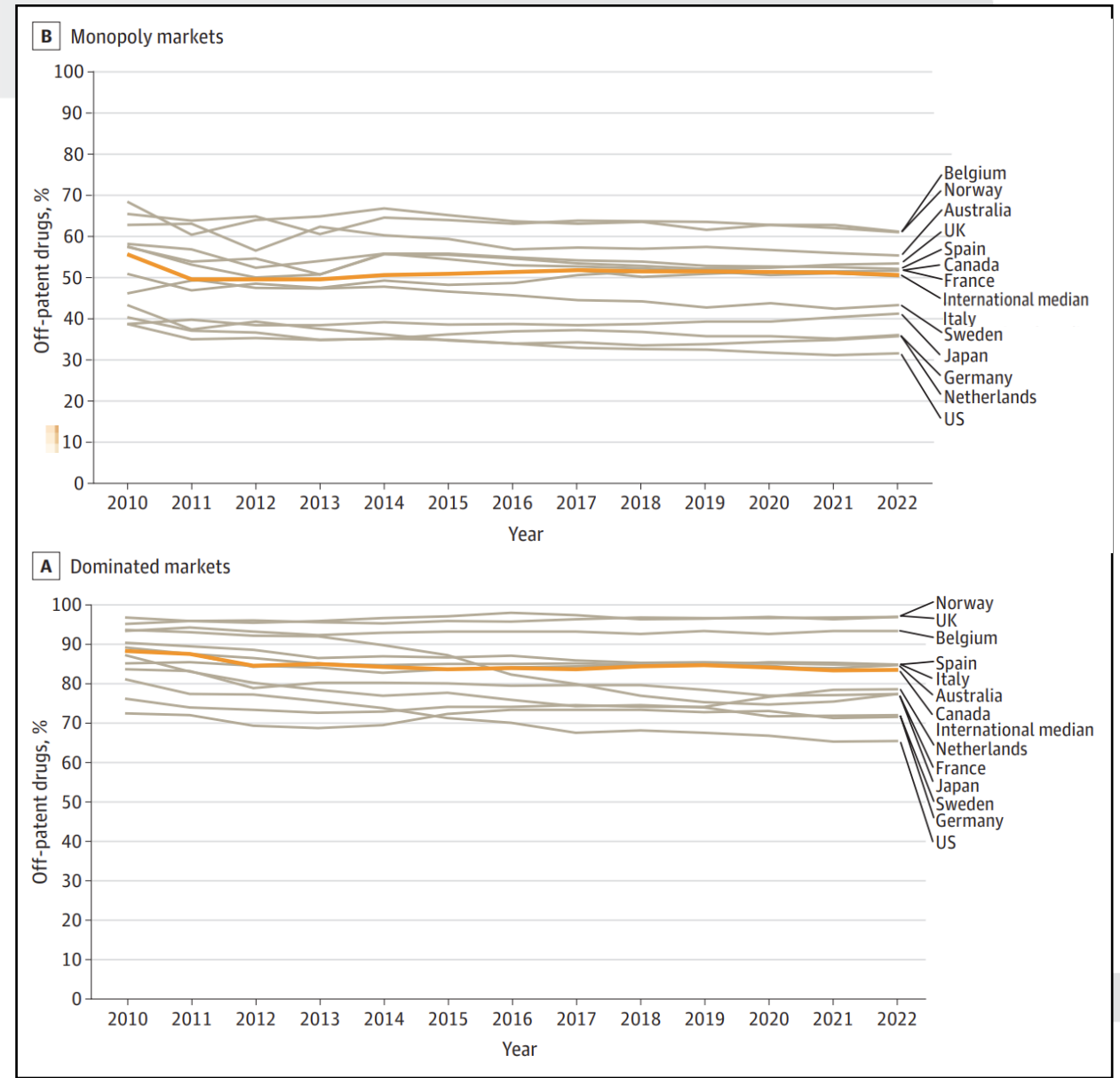
Source: Patented Medicine Prices Review Board, 2022.

3. Generic competition is severely lacking in Canada and elsewhere

- In 8 of 13 countries, over half of off-patent drugs are in a monopoly market.
- 12 of 13 countries have over 70% of off-patent markets dominated by a single company.
- Canada is at the median in both graphs, while the USA has the lowest rates of countries studied.

Note: Dominated: 1 company with >50% of sales.

Source: Gaudette et al., 2024.





Implications

- Low prices of generics are often blamed for generic shortages: higher prices could incent stronger supply chains and favor competition (US Food & Drug Administration, 2019).
- True, but higher prices are not an end goal. Prices are the result of the market structure and of supply and demand.
- We should instead focus on competition:
 - Removing barriers to entry
 - Promoting multi-source procurement
 - Strengthening antitrust enforcement
 - Learning from better-performing countries



References

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- Patented Medicine Prices Review Board. (2022). *Drug Shortages in Canada and their Impact on Public Drug Plans, 2017/18 to 2019/20*. Ottawa: PMPRB. At <https://www.canada.ca/en/patented-medicine-prices-review/services/npduis/analytical-studies/drug-shortages-impact.html>.
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- Zhang, W., Guh, D. P., Sun, H., Lynd, L. D., Hollis, A., Grootendorst, P., & Anis, A. H. (2020). Factors associated with drug shortages in Canada: a retrospective cohort study. *Canadian Medical Association Open Access Journal*, 8(3), E535-E544.



National Prescription Drug Utilization Information System Research Initiative

THANK YOU