

Public funding for private for-profit centres and access to cataract surgery by patient socioeconomic status: an Ontario population-based study

Robert J. Campbell MD MSc, Sherif R. El-Defrawy MD PhD, Chaim M. Bell MD PhD, David R. Urbach MSc MD, J. Michael Paterson MSc, Therese A. Stukel PhD, Sudeep S. Gill MD MSc, Jonathan Irish MD MSc, Nancy N. Baxter MD PhD, Andrew S. Wilton MSc, David Gomez MD PhD

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Abstract

Background: Public funding of cataract surgery provided in private, for-profit surgical centres increased to help mitigate surgical backlogs during the COVID-19 pandemic in Ontario, Canada. We sought to compare the socioeconomic status of patients who underwent cataract surgery in not-for-profit public hospitals with those who underwent this surgery in private for-profit surgical centres and to evaluate whether differences in access by socioeconomic status decreased after the infusion of public funding for private, for-profit centres.

Methods: We conducted a population-based study of all cataract operations in Ontario, Canada, between January 2017 and March 2022. We analyzed differences

in socioeconomic status among patients who accessed surgery at not-for-profit public hospitals versus those who accessed it at private for-profit surgical centres before and during the period of expanded public funding for private for-profit centres.

Results: Overall, 935 729 cataract surgeries occurred during the study period. Within private for-profit surgical centres, the rate of cataract surgeries rose 22.0% during the funding change period for patients in the highest socioeconomic status quintile, whereas, for patients in the lowest socioeconomic status quintile, the rate fell 8.5%. In contrast, within public hospitals, the rate of surgery decreased similarly among patients of all quintiles of socioeconomic status.

During the funding change period, 92 809 fewer cataract operations were performed than expected. This trend was associated with socioeconomic status, particularly within private for-profit surgical centres, where patients with the highest socioeconomic status were the only group to have an increase in cataract operations.

Interpretation: After increased public funding for private, for-profit surgical centres, patient socioeconomic status was associated with access to cataract surgery in these centres, but not in public hospitals. Addressing the factors underlying this incongruity is vital to ensure access to surgery and maintain public confidence in the cataract surgery system.

Cataract surgery has a positive effect on quality of life and is the most common operation in most high-income countries.¹⁻⁴ The COVID-19 pandemic led to backlogs in cataract surgeries worldwide, straining health systems that were already struggling to meet population needs for cataract surgery.⁵ Expanding the role of private for-profit surgical centres has been proposed as a solution; however, the business models of such centres in Canada have traditionally involved billing public insurance programs for the surgeon fee and also charging patients for extra services that are priced to offset overhead costs for operating rooms and generate profit.⁶⁻¹²

Consequently, moving surgical cases out of public hospitals and into private for-profit centres could have a negative effect on access to surgery for patients who are unable to pay.^{8,11-13}

In Ontario, public funding of facility costs for surgeries performed in private for-profit centres was designed to mitigate the need to charge patients for extra services to cover costs.^{6,7} As a result, pre-existing, profit-generating practices — including prioritizing patients willing to pay for extra services — should decrease with the infusion of additional public funding for private for-profit centres. Hence, our objective was to evaluate differences in

patient socioeconomic status between patients receiving cataract surgery in public hospitals versus those receiving care in private for-profit surgical centres and to determine whether such disparities decreased in conjunction with the recent infusion of public funding for private for-profit centres.

Methods

Study design and setting

We evaluated the relationship between socioeconomic status and rates of cataract surgery in Ontario, Canada, before and during the period of expanded public funding for surgeries performed in private for-profit centres after the onset of the COVID-19 pandemic. We conducted a population-based, repeated cross-sectional study of rates of cataract surgery between January 2017 and March 2022 using linked health administrative databases. Ontario has a publicly funded health insurance program, serving a population of around 15 million people. We included all people aged 18 years and older who were living in the province and eligible for provincial health insurance. The study followed the Reporting of Studies Conducted Using Observational Routinely Collected Data for Pharmacoepidemiological Research (RECORD-PE) checklist for reporting observational studies.¹⁴

Historically, in Ontario, cataract surgeon fees for operations done in private for-profit surgical centres have been charged to the provincial, publicly funded insurance program; however, extra fees for uninsured services (e.g., intraocular lenses with specific features, procedures designed to decrease the need for glasses) have been charged to patients to offset overhead facility costs and generate profit. After the onset of the COVID-19 pandemic, the need for rapid expansion of cataract surgery led to new public funding of facility overhead costs for operations performed in private for-profit centres, beginning in September 2020, in addition to the pre-existing public funding of surgeon fees.^{6–9} We described the period of increased public funding of cataract surgery performed in private for-profit surgical centres as the funding change period. For analysis, we defined the pre-funding change period as the period from January 2017 to February 2020, while the funding change period extended from March 2020 to the study end in March 2022. The definitions ensured that the COVID-19 pandemic did not affect the pre-funding change period used in the prediction of subsequent expected surgical rates.

Data sources

We accessed population-based, administrative health care databases from Ontario via ICES, an independent, nonprofit research institute whose legal status under Ontario's health information privacy law allows it to collect and analyze health care and demographic data, without consent, for health system evaluation and improvement. These data sets were linked using unique encoded identifiers and analyzed at ICES. Numerous population-based studies have used these databases.^{15–17} The Ontario Health Insurance Plan (OHIP) Claims History Database provides accurate information on all inpatient and outpatient physician services.¹⁸ The Canadian Institute for Health Information (CIHI) Discharge Abstract Database contains diagnosis and procedure

information for all admissions to Ontario hospitals.^{15,19–22} The CIHI National Ambulatory Care Reporting System (NACRS) captures diagnosis and procedure information for visits to hospital outpatient surgical units (Same Day Surgery database) and emergency departments.^{23,24} The Registered Persons Database contains demographic data and information on place of residence for all people eligible to receive insured health services in Ontario. The Ontario Wait Time Information System provides information on cataract procedures, including geographic location of surgery.^{5,25} We measured patient socioeconomic status using the Ontario Marginalization Index, which incorporates multiple dimensions, including income, education, housing, and family structure.^{26,27} Information in this database is based on Canadian census dissemination area, which is a small, relatively stable geographic unit with an average population of 400–700 people. We evaluated comorbidity using the Johns Hopkins Adjusted Clinical Groups System (version 10), which generates categories of morbidity by summing aggregated diagnosis groups.²⁸ This measure is associated with mortality and health resource utilization.^{29,30} The databases used are summarized in Appendix 1, Supplementary Table 1, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.240414/tab-related-content.

Surgical case and surgical centre identification

We identified cataract surgery procedures using the OHIP database, which captures all cataract operations in Ontario and has been used in other population-based studies.^{16,31,32} We included all eyes of all patients, and all public hospitals, not-for-profit surgical centres, and private for-profit centres providing cataract surgery. In all analyses, we grouped all hospitals and the lone not-for-profit centre together. We identified the location of surgery using the NACRS Same Day Surgery database (hospital outpatient operations), the CIHI Discharge Abstract Database (hospital inpatient operations) and the Ontario Wait Time Information System database (out-of-hospital surgical centres). Additional details can be found in Appendix 1.

Outcomes

We generated monthly rates of cataract surgery per 1000 people eligible for public health insurance (identified with the Registered Persons Database), using the population eligible for OHIP on Jan. 1 of each year as the denominator.^{33,34} We expressed surgical procedure rates overall and stratified by predictors, particularly patient socioeconomic status.

Statistical analysis

We compared rates of cataract surgeries in not-for-profit public hospitals and in private for-profit surgical centres. We also evaluated the distributions of age, sex, and comorbidity subgroups among patients treated in public hospitals, compared with those treated in private for-profit surgical centres. To assess the changes in rates of cataract surgery during the funding change period, we used Poisson generalized estimating equation models for clustered count data to model pre-COVID-19 trends and used these to forecast expected rates during the funding change period.^{33,34} Our primary analysis included all months of the funding change

period. Although cataract surgeon fees were paid publicly for surgeries performed in private for-profit centres throughout the study, the addition of new public funding for overhead costs within private for-profit surgical centres began in September 2020. Hence, in a secondary analysis, we excluded the period from March to August 2020. The model's dependent variable was the population rate of cataract procedures in the age–sex–month strata, with autocorrelation accounted for in the model to address surges (first-order autocorrelation by week). The pre-COVID-19 model included age–sex indicators, a linear secular time trend, and month indicators to model seasonal variations.

We computed expected rates of cataract surgery during the funding change period with 95% confidence intervals (CIs) by applying the linear combination of pre-COVID-19 regression coefficients to the age–sex–month strata of the funding change period. The relative changes in cataract surgery rates were expressed as adjusted incidence rate ratios (IRRs) of observed-to-expected rates. Cumulative absolute gaps in cataract surgeries were also

generated based on monthly differences between observed and expected surgery volumes.³⁵ We used Cochran–Armitage trend tests to evaluate trends across ordinal categories. We conducted statistical analyses using SAS version 9.4 (SAS Institute).

Ethics approval

The use of data in this project was authorized under section 45 of Ontario's *Personal Health Information Protection Act*, which does not require review by a research ethics board.

Results

Over the study period, 935 729 cataract operations were performed and included in the analysis. Of these, 761 393 (81.4%) were performed in public hospitals and 174 336 (18.6%) took place in private for-profit surgical centres (Table 1). Patients who received surgery in public hospitals were older and had slightly

Table 1: Characteristics of patients who underwent cataract surgery in public hospitals and private for-profit surgical centres in Ontario, January 2017 to March 2022

Characteristic	No. (%) of patients		Standardized difference
	Hospital n = 761 393	Private centre n = 174 336	
Age, yr			
18–39	2605 (0.3)	1098 (0.6)	0.04
40–44	2696 (0.4)	1188 (0.7)	0.05
45–54	22 443 (2.9)	9015 (5.2)	0.11
55–64	111 789 (14.7)	35 607 (20.4)	0.15
65–74	343 372 (45.1)	80 033 (45.9)	0.02
75–84	224 903 (29.5)	39 124 (22.4)	0.16
≥ 85	53 585 (7.0)	8271 (4.7)	0.10
Sex			
Female	431 889 (56.7)	95 357 (54.7)	0.04
Male	329 504 (43.3)	78 979 (45.3)	0.04
Comorbidities*			
0	5980 (0.8)	2439 (1.4)	0.06
1–5	212 773 (27.9)	51 583 (29.6)	0.04
6–9	287 781 (37.8)	66 751 (38.3)	0.01
≥ 10	254 859 (33.5)	53 563 (30.7)	0.06
Socioeconomic status quintile			
Q1 (lowest)	149 506 (19.6)	25 150 (14.4)	0.14
Q2	151 851 (19.9)	31 513 (18.1)	0.05
Q3	152 081 (20.0)	37 665 (21.6)	0.04
Q4	155 275 (20.4)	38 628 (22.2)	0.04
Q5 (highest)	146 736 (19.3)	40 694 (23.3)	0.10

*Number of Johns Hopkins Aggregated Diagnosis Groups.

more comorbidities than those who received surgery at private for-profit surgical centres (Table 1). Throughout the overall study period, patients in high socioeconomic status quintiles were more likely to receive surgery at private for-profit surgical centres than patients in lower quintiles (Figure 1). For example, 23.3% of surgeries performed in private for-profit centres were for patients in the highest quintile, whereas 14.4% were for those in the lowest quintile. In contrast, cataract surgeries performed in hospitals were evenly distributed across socioeconomic quintiles.

The percentage of cataract operations performed in private for-profit centres increased from 15.5% before the funding change to 22.5% in the funding change period. During the funding change period, the rate of cataract surgeries at public hospitals dropped 22.3% relative to the expected rate (IRR 0.78, 95% CI 0.76–0.80; Figure 2), whereas the rate at private for-profit centres remained stable (IRR 1.00, 95% CI 0.96–1.04; Figure 2). Within private for-profit surgical centres, the rate of cataract surgeries rose 22.0% during the funding change period for patients in the highest socioeconomic status quintile (IRR 1.22, 95% CI 1.12–1.33; Figure 2), whereas for patients in the lowest socioeconomic status quintile, the rate fell by 8.5% (IRR 0.92, 95% CI 0.84–0.99; Figure 2). In contrast, within public hospitals, the rate of surgery consistently decreased for patients of all socioeconomic status quintiles, relative to expected rates (Figure 2). Age and comorbidity were not associated with rates of cataract surgeries (Appendix 1, Supplementary Table 2).

During the funding change period, within private for-profit centres, the percentage of months in which the observed surgical rate matched or exceeded the expected rate increased with rising socioeconomic status ($p < 0.0001$), whereas the effect of

socioeconomic status was not significant in public hospitals ($p = 0.1$; Figure 3). Overall, during the funding change period, 92 809 fewer cataract operations than expected were performed. This gap comprised a decrease of 92 022 cases in hospitals and a decrease of 787 cases in private for-profit surgical centres. The gap was associated with socioeconomic status, particularly in private for-profit surgical centres, where patients with the highest socioeconomic status were the one group to achieve an increase above predicted rates of cataract surgeries (Figure 4). Results were analogous in the secondary analysis, which excluded March to August 2020 (Appendix 1, Supplementary Figure 1 and 2).

Interpretation

We evaluated all cataract operations at public hospitals and private for-profit surgical centres over a 6-year period in Ontario, Canada. We observed a large difference in socioeconomic status of patients undergoing cataract surgery in private for-profit surgical centres compared with those treated in public hospitals. Unexpectedly, despite new public funding for operations provided in private for-profit surgical centres, which was intended to fully cover all overhead costs and remove the need to charge patients, this disparity did not decrease, but instead grew during the funding change period. In contrast, in public hospitals, the rate of surgery decreased similarly among patients of all socioeconomic status quintiles.

The presence of separate wait-lists for patients who have their procedure performed in private for-profit centres versus patients who do not is a potential contributor to our findings. Surgeons and private for-profit centres also have financial

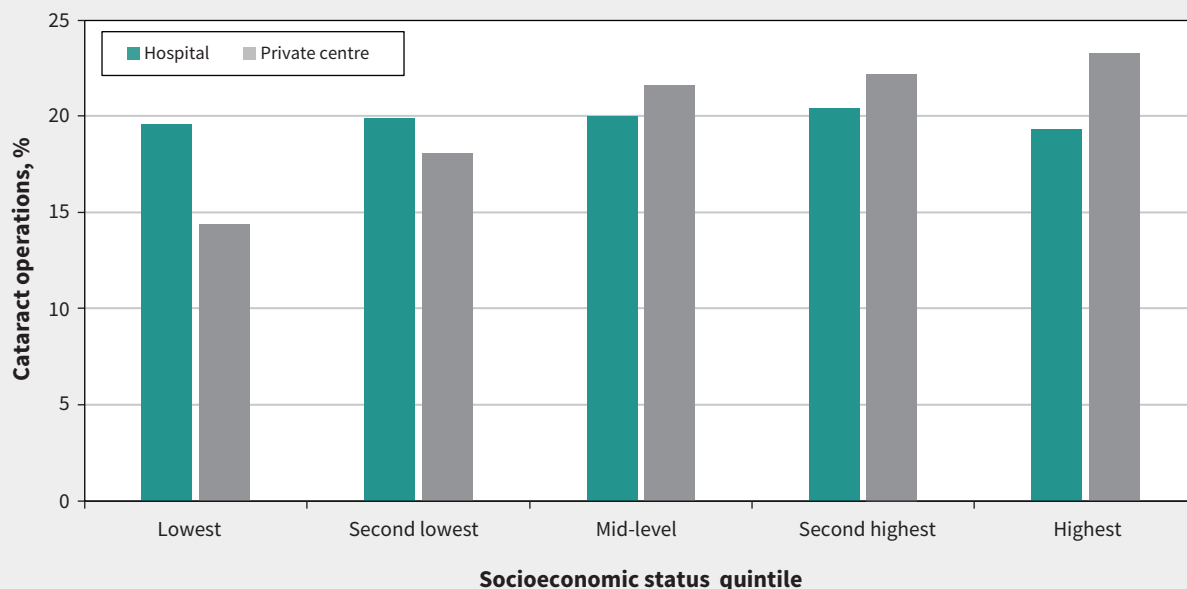


Figure 1: Distribution of cataract surgeries performed at public hospitals and private for-profit surgical centres by patient socioeconomic status quintile. Standardized differences of patients in the lowest and highest socioeconomic status quintiles were 0.1 or greater. See Related Content tab for accessible version.

incentives to prioritize patients paying for extra services. Finally, surgeons working in private for-profit centres may have practices that focus on referrals for patients with a greater ability to pay for extra uninsured services.

Previous work has shown that out-of-hospital, outpatient surgical centres have some advantages associated with their focused processes. These benefits may include faster innovation, economies of scale, and efficiencies stemming from homogeneity of tasks and business practices such as the nature of the employed work force (e.g., required level of training).^{36,37} Notably, the ownership of such centres does not seem central to these efficiencies, which have been observed in both for-profit and not-for-profit outpatient centres.^{36–38} Potential drawbacks of private for-profit surgical centres have also been highlighted. For instance, financial conflicts of interest among surgeons and owners may incentivize upselling of extra services and medically nonessential options.^{10,11,39} Private for-profit centres may also exacerbate human resource constraints in public hospitals by competing for the same pool of nurses and other care providers.^{40–42}

Important policy changes would be needed to achieve better access to care across the entire population while increasingly using private for-profit surgical centres. Patient protection requires the removal of all conflicts of interest among surgeons, including centre ownership and incentive plans aimed at promoting the sale of add-on services. Patients need clear, non-conflicted information regarding the availability of publicly funded options without additional fees within both public and private for-profit centres. Safeguards are needed to ensure that patient decisions regarding the purchase of uninsured services do not influence their opportunity for timely care in private facilities when public funding supports the procedure. One way to support this would be the creation of common wait-lists incorporating all surgical centres in a region, rather than maintaining different wait-lists for private for-profit centres and public hospitals. Patients require guarantees that overhead costs are not embedded within extra services when public funding is already covering overhead costs and that the charges for uninsured services are equal whether provided within hospitals or private for-profit centres. There should be regional

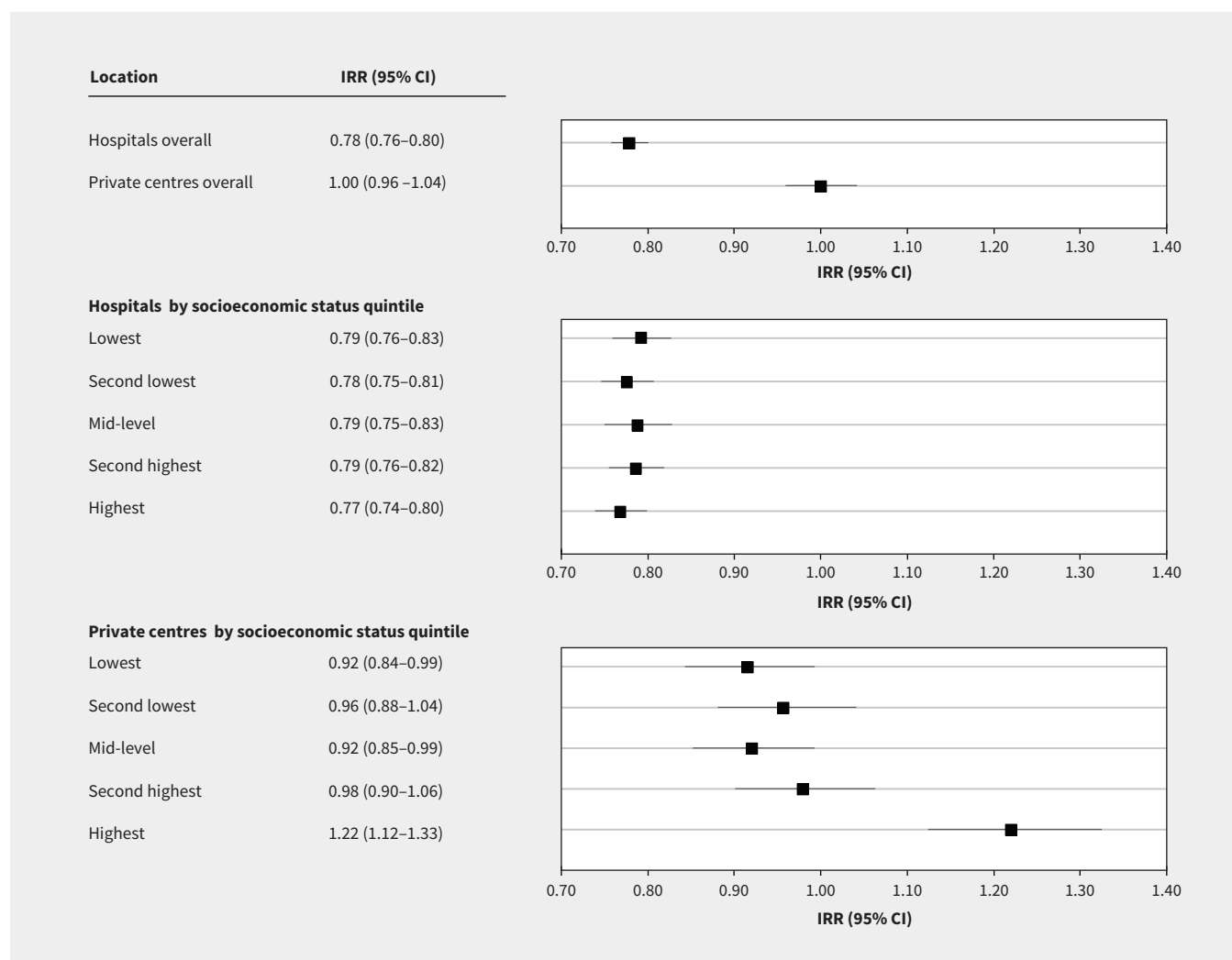


Figure 2: Incidence rate ratios (IRRs) of cataract surgeries during the funding change period within public hospitals and private, for-profit surgical centres, overall and stratified by patient socioeconomic status quintile, defined as the observed surgical rate divided by the expected surgical rate (based on model generated from the pre-funding change period). Note: CI = confidence interval. See Related Content tab for accessible version.

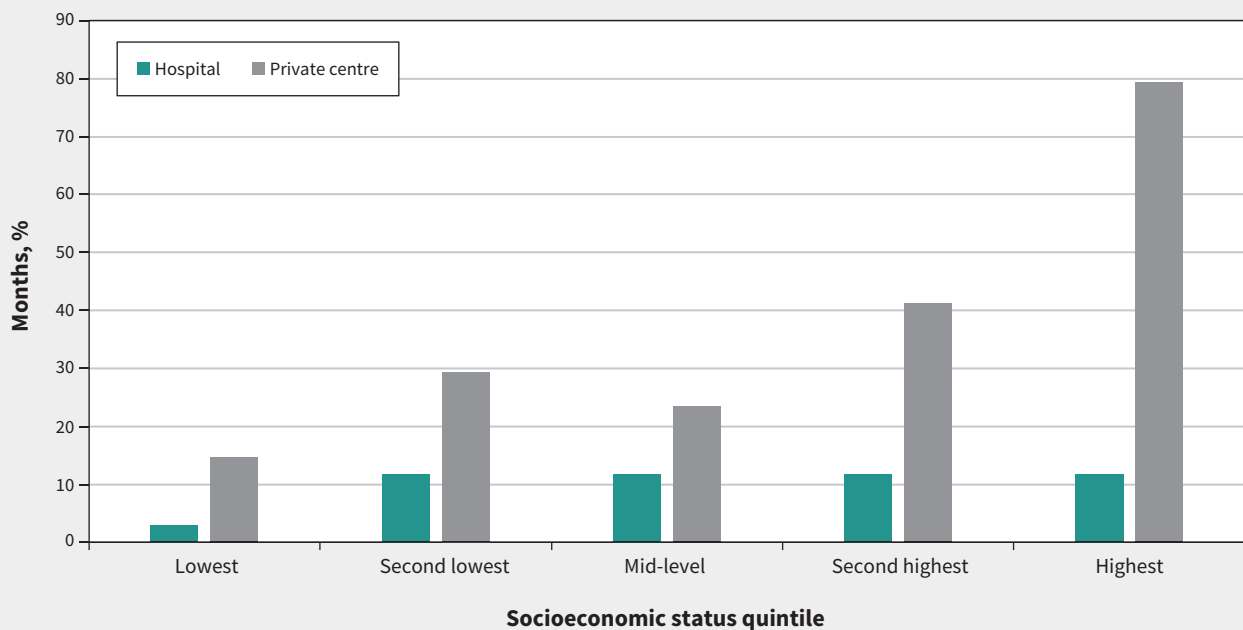


Figure 3: Percentage of months during the funding change period in which the rate of cataract surgeries matched or exceeded the expected rate (based on model generated from the pre-funding change period) by patient socioeconomic status quintile (Cochran–Armitage trend tests $p = 0.139$ among hospitals, $p < 0.0001$ among private for-profit centres). See Related Content tab for accessible version.

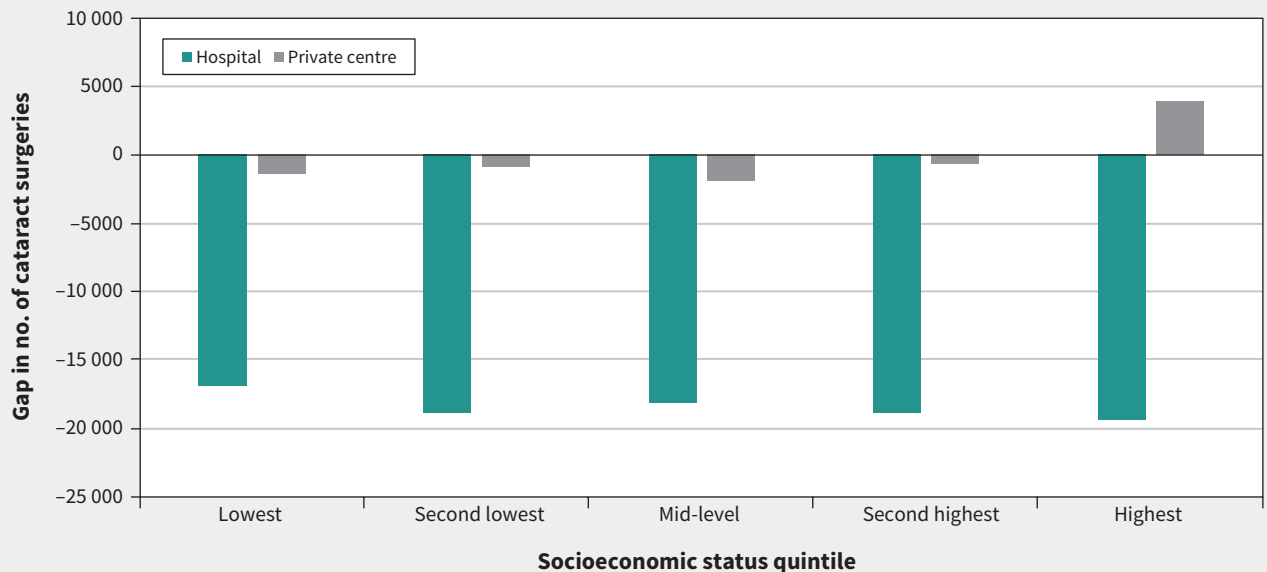


Figure 4: Cumulative gaps in cataract surgery procedures during the funding change period in public hospitals and private, for-profit surgical centres by patient socioeconomic status quintile. See Related Content tab for accessible version.

coordination between private for-profit centres receiving public funding and local hospitals to ensure equitable and coordinated care.^{43,44} This would also help to avoid competition for resources such as nurses and other care providers. Finally, the theoretical economic value of using private for-profit surgical centres hinges

on actually decreasing costs. To date, this has not been the case in Ontario's cataract program, nor has it been in a similar program in Quebec.^{45,46} Future studies should compare health care system costs within private for-profit and public not-for-profit surgical centres.

Limitations

Our study period ended in 2022; with more time, access to care in private for-profit centres may improve for patients of lower socioeconomic status. We did not have access to information quantifying out-of-pocket patient costs. We expect that an analysis of patients who paid more would strengthen the observed associations. We grouped all private for-profit centres together in our analysis, although facilities differ in many of their business practices. Future policy studies could address this potential variability. Given that the Ontario Marginalization Index is based on the Canadian census, it is susceptible to any misclassifications within the census. For example, institutionalized populations, such as those living in nursing homes or penitentiaries, are not included in the index. Important questions remain unanswered, including whether our observations are related to specific surgeons, whose opportunity to operate in each system (private and public) may influence their approach to extra charges; whether patients of lower socioeconomic status decline surgery at private for-profit centres because of financial barriers; or whether separate wait-lists for those willing to pay plays a role in our findings.

Conclusion

We observed a large difference in socioeconomic status between patients receiving cataract surgery at private for-profit centres compared with those treated in public hospitals. Despite increased public funding of overhead costs within private for-profit surgical centres, patient socioeconomic status was associated with access to cataract surgery in private for-profit centres, but not public hospitals. Addressing the factors underlying this incongruity is vital to ensure equitable access to surgery and maintain public confidence in the cataract surgery system.

References

- Hatch WV, Campbell EDP, Bell CM, et al. Projecting the growth of cataract surgery during the next 25 years. *Arch Ophthalmol* 2012;130:1479-81.
- Lafortune G, Balestat G, Durand A. Comparing activities and performance of the hospital sector in Europe: how many surgical procedures performed as inpatient and day cases? Paris (FR): OECD Directorate for Employment, Labour and Social Affairs; 2012. Available: https://www.oecd.org/health/Comparing-activities-and-performance-of-the-hospital-sector-in-Europe_Inpatient-and-day-cases-surgical-procedures.pdf (accessed 2024 Mar. 16).
- Cullen KA, Hall MJ, Golosinskiy A. Ambulatory surgery in the United States, 2006. *Natl Health Stat Report* 2009; Jan 28:1-25.
- Cataract surgeries. In: *Health at a glance 2013: OECD indicators*. Paris (FR): OECD Publishing; 2013:100-1. Available: <https://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf> (accessed 2024 Mar. 16).
- Felfeli T, Ximenes R, Naimark DMJ, et al. The ophthalmic surgical backlog associated with the COVID-19 pandemic: a population-based and microsimulation modelling study. *CMAJ Open* 2021;9:E1063-72.
- Plan to stay open: health system stability and recovery. Ontario: Government of Ontario; updated 2023 Apr. 26. Available: <https://www.ontario.ca/page/plan-stay-open-health-system-stability-and-recovery> (accessed 2024 Mar. 16).
- Offices of the Premier of Ontario & Minister of Health of Ontario. Ontario reducing wait times for surgeries and procedures: community surgical and diagnostic centres connecting people to faster, more convenient care with your health card [news release]. Ontario: Government of Ontario; 2023 Jan. 16. Available: <https://news.ontario.ca/en/release/1002641/ontario-reducing-wait-times-for-surgeries-and-procedures> (accessed 2024 Mar. 16).
- El-Defrawy S, Bell CM. Privatizing eye surgery deeply short-sighted move that will harm care in Ontario. *Toronto Star* 2021 Feb. 9. Available: https://www.thestar.com/opinion/contributors/privatizing-eye-surgery-deeply-short-sighted-move-that-will-harm-care-in-ontario/article_511f6b6f-4f19-5510-b65e-784572d007f0.html (accessed 2024 Mar. 16).
- Value-for-Money audit: outpatient surgeries. Toronto: Auditor General of Ontario; 2021. Available: https://www.auditor.on.ca/en/content/annualreports/arreports/en21/AR_Outpatient_en21.pdf (accessed 2024 Mar. 16).
- Armstrong WS. The consumer experience with cataract surgery and private clinics in Alberta: Canada's canary in the mine shaft. Alberta: Consumers' Association of Canada; 2009. Available: <https://www.semanticscholar.org/paper/The-Consumer-Experience-with-Cataract-Surgery-and-Armstrong/0278832fd4f6f7b843f194e0e239b951aab523ec>. (accessed 2024 Mar. 16).
- Private clinics and the threat to public Medicare in Canada: Results of surveys with private clinics and patients. Toronto: Ontario Health Coalition; 2017. Available: <https://healthcoalition.ca/wp-content/uploads/2017/06/Private-Clinics-Report.pdf> (accessed 2024 Mar. 16).
- Illegal, unlawful and unethical: case studies of patients charged for medical care in Ontario's private clinics. Toronto: Ontario Health Coalition; 2024 Apr. 16. Available: <https://www.ontariohealthcoalition.ca/wp-content/uploads/Final-private-clinics-report-for-release.pdf> (accessed 2024 May 8).
- DeClerq K. Ontario health advocates warn of 'manipulative upselling' at private clinics. *CTV News* 2023 Feb. 27. Available: <https://toronto.ctvnews.ca/ontario-health-advocates-warn-of-manipulative-upselling-at-private-clinics-1.6291150#:~:text=Ontario%20health%20advocates%20say%20they,upselling%20%80%9D%20of%20medically%20unnecessary%20services> (accessed 2024 Mar. 16).
- Langan SM, Schmidt SA, Wing K, et al. The reporting of studies conducted using observational routinely collected health data statement for pharmaco-epidemiology (RECORD-PE). *BMJ* 2018;363:k3532.
- Campbell RJ, Gill SS, Bronskill SE, et al. Adverse events with intravitreal injection of vascular endothelial growth factor inhibitors: nested case-control study. *BMJ* 2012;345:e4203.
- Bell CM, Hatch WV, Fischer HD, et al. Association between tamsulosin and serious ophthalmic adverse events in older men following cataract surgery. *JAMA* 2009;301:1991-6.
- Govindarajan A, Urbach DR, Kumar M, et al. Outcomes of daytime procedures performed by attending surgeons after night work. *N Engl J Med* 2015;373:845-53.
- Williams JI, Young W. A summary of studies on the quality of health care administration databases in Canada. In: Goel V, Williams JI, Anderson GM, editors. *Patterns of health care in Ontario: the ICES Practice Atlas*. 2 ed. Ottawa: Canadian Medical Association; 1996:339-45. Available: <https://www.ices.on.ca/publications/research-reports/patterns-of-health-care-in-ontario-2nd-edition/> (accessed 2024 Mar. 16).
- Gill SS, Rochon PA, Herrmann N, et al. Atypical antipsychotic drugs and risk of ischaemic stroke: population based retrospective cohort study. *BMJ* 2005;330:445 doi: 10.1136/bmj.38330.470486.8F.
- Juurlink DN, Preyra C, Croxford R, et al. Canadian Institute for Health Information Discharge Abstract Database: a validation study. Toronto: Institute for Clinical Evaluative Sciences; 2006. Available: <https://www.ices.on.ca/Publications/Atlases-and-Reports/2006/Canadian-Institute-for-Health-Information> (accessed 2024 Mar. 16).
- Tirschwell DL, Longstreth WT Jr. Validating administrative data in stroke research. *Stroke* 2002;33:2465-70.
- Hwang YJ, Sharriff SZ, Gandhi S, et al. Validity of the International Classification of Diseases, Tenth Revision code for acute kidney injury in elderly patients at presentation to the emergency department and at hospital admission. *BMJ Open* 2012;2:e001821.
- Gruneir A, Bell CM, Bronskill SE, et al. Frequency and pattern of emergency department visits by long-term care residents — a population-based study. *J Am Geriatr Soc* 2010;58:510-7.
- Gill SS, Anderson GM, Fischer HD, et al. Syncope and its consequences in patients with dementia receiving cholinesterase inhibitors: a population-based cohort study. *Arch Intern Med* 2009;169:867-73.
- Hall S, Thabet R, Dummett M. Building a sustainable system: the making of the WTIS. *Healthc Q* 2009;12 Spec No Ontario:43-51.
- Moin JS, Moineddin R, Upshur REG. Measuring the association between marginalization and multimorbidity in Ontario, Canada: a cross-sectional study. *J Comorb* 2018;8:2235042X18814939.
- Matheson FI, Moloney G, van Ingen T. 2021 Ontario Marginalization Index: user guide. Toronto: St. Michael's Hospital (Unity Health Toronto) and Public Health Ontario; 2023.
- The Johns Hopkins University ACG Case-Mix System. Baltimore: Johns Hopkins University; 2006.
- Austin PC, van Walraven C, Wodchis WP, et al. Using the Johns Hopkins Aggregated Diagnosis Groups (ADGs) to predict mortality in a general adult population cohort in Ontario, Canada. *Med Care* 2011;49:932-9.
- Halling A, Fridh G, Ovhd I. Validating the Johns Hopkins ACG Case-Mix System of the elderly in Swedish primary health care. *BMC Public Health* 2006;6:171.

31. Campbell RJ, El-Defrawy SR, Bell CM, et al. Effect of cataract surgery volume constraints on recently graduated ophthalmologists: a population-based cohort study. *CMAJ* 2017;189:E424-30.
32. Campbell RJ, El-Defrawy S, Gill S, et al. New surgeon outcomes and the effectiveness of surgical training: a population-based cohort study. *Ophthalmology* 2017;124:532-8.
33. Saunders N, Guttman A, Brownell M, et al. Pediatric primary care in Ontario and Manitoba after the onset of the COVID-19 pandemic: a population-based study. *CMAJ Open* 2021;9:E1149-58.
34. Schull MJ, Stukel TA, Vermeulen MJ, et al. Effect of widespread restrictions on the use of hospital services during an outbreak of severe acute respiratory syndrome. *CMAJ* 2007;176:1827-32.
35. Gomez D, Simpson AN, Sue-Chue-Lam C, et al. A population-based analysis of the impact of the COVID-19 pandemic on common abdominal and gynecological emergency department visits. *CMAJ* 2021;193:E753-60.
36. Carey K, Mitchell JM. Specialization as an organizing principle: the case of ambulatory surgery centers. *Med Care Res Rev* 2019;76:386-402.
37. Kruse FM, Groenewoud S, Atsma F, et al. Do independent treatment centers offer more value than general hospitals? The case of cataract care. *Health Serv Res* 2019;54:1357-65.
38. Sadri H, Sinigallia S, Shah M, et al. Time-driven activity-based costing for cataract surgery in Canada: the case of the Kensington Eye Institute. *Health Policy* 2021;16:97-108.
39. For health or wealth? The evidence regarding private clinics and user fees in Ontario. Toronto: Ontario Health Coalition; 2014. Available: <https://www.ontariohealthcoalition.ca/wp-content/uploads/March-25-2014-Private-Health-Clinics-Full-Report.pdf> (accessed 2024 Mar. 16).
40. Duckett SJ. Private care and public waiting. *Aust Health Rev* 2005;29:87-93.
41. Canadian Health Services Research Foundation. A parallel private system would reduce waiting times in the public system. *J Health Serv Res Policy* 2006;11:253-4.
42. Derrett S, Bevin TH, Herbison P, et al. Access to elective surgery in New Zealand: considering equity and the private and public mix. *Int J Health Plann Manage* 2009;24:147-60.
43. Duong D. Can Ontario offload surgeries to private clinics without undermining public health care? *CMAJ* 2023;195:E199-200.
44. The Provincial Vision Strategy Task Force. A vision for Ontario: strategic recommendations for ophthalmology in Ontario. Toronto: Ontario Ministry of Health and Long-Term Care; 2013. Available: <https://c2-preview.prosites.com/187380/wy/docs/2013%20Ontario%20Vision%20Strategy%20Report.pdf> (accessed 2024 Mar. 16).
45. Crawley M. Doug Ford government paying for-profit clinic more than hospitals for OHIP-covered surgeries, documents show. *CBC News* 2023 Nov. 14. Available: <https://www.cbc.ca/news/canada/toronto/ontario-doug-ford-private-clinic-surgeries-fees-hospitals-1.7026926> (accessed 2024 Mar. 16).
46. Legault Thuot C. Pilot project on private surgeries: costs up to 150% higher than in the public sector [original press release in French]. *Iris* [Montréal]; 2023 Apr. 24. Available: <https://iris-recherche.qc.ca/communiqués/cout-chirurgies-cliniques-privées/#:~:text=Les%20co%20C3%BBts%20augmentent%20au%20priv%C3%A9%20et%20diminuent%20au%20public&text=%C2%AB%20Le%20projet%20pilote%20vient%20remettre,public%20%C2%BB%2C%20constate%20la%20chercheuse> (accessed 2024 Mar. 16).

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Affiliations: ICES (Campbell, Bell, Urbach, Paterson, Stukel, Gill, Baxter, Wilton, Gomez), Toronto, Ont.; Department of Ophthalmology (Campbell), Queen's University; Department of Ophthalmology (Campbell), Kingston Health Sciences Centre, Hotel Dieu Hospital site, Kingston, Ont.; Department of Ophthalmology (El-Defrawy), University of Toronto; Department of Ophthalmology (El-Defrawy), Kensington Eye Institute; Department of Medicine (Bell), University of Toronto; Institute of Health Policy, Management and Evaluation (Bell, Paterson, Stukel), University of Toronto; Department of Medicine (Bell), Sinai Health System; Department of Surgery (Urbach, Baxter, Gomez), Temerty Faculty of Medicine, University of Toronto, Toronto, Ont.; Department of Family Medicine, McMaster University, Hamilton, Ont.; Division of Geriatric Medicine (Gill), Queen's University; Division of Geriatric Medicine (Gill), Providence Care Hospital, Kingston, Ont.; Departments of Otolaryngology,

Head and Neck Surgery and Surgical Oncology (Irish), University Health Network; Cancer Care Ontario (Irish); Li Ka Shing Knowledge Institute (Baxter, Gomez), St. Michael's Hospital, Toronto, Ont.; Melbourne School of Population and Global Health (Baxter), University of Melbourne, Melbourne, AU; Unity Health Toronto (Gomez), St. Michael's Hospital, Toronto, Ont.

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Correspondence to: Robert Campbell, rob.campbell@queensu.ca