

Research Insights

Does profit-motivated patient selection exist in Australia?

Profit-motivated patient selection – ‘cream skimming’ – is more likely to occur as hospital capacity utilisation rises. With all non-urgent elective surgeries temporarily banned because of COVID-19, cream skimming is likely to occur with even greater intensity when the suspension is lifted.

Cream skimming in the context of the mixed public-private hospital system of Australia

The proliferation of prospective payment arrangements, and more recently bundled payment models, has highlighted issues surrounding cream skimming or cherry picking within Australia's hospital system. Cream skimming refers to when healthcare providers select patients based on financial gains as opposed to the individual's need for care.

One of the major policy concerns with cream skimming by private hospitals is that it leaves public hospitals saddled with higher-cost patients. This can be detrimental to the financial situation of the public sector as the surplus on funded services that would otherwise be used to support additional services is reduced.

Incentives for cream skimming behaviour arise when healthcare providers are reimbursed a fixed and predetermined amount for care services, such as the diagnosis-related group (DRG) payment system.

Providers stand to reap financial gains by selectively treating patients with lower than average cost within a DRG. ⁱ Accounting for cream skimming is therefore an important consideration in the design of payment models to ensure providers are acting on the best interest of patients.

This study examines cream skimming in the context of transfers of patients between hospitals in Australia's mixed public-private system. A theoretical model has been developed considering two types of hospitals: private hospitals that maximise profits and public hospitals that maximise output or volume. Several empirical implications are tested using hospital administrative data from Victoria. The results highlight the importance of accounting for cream skimming in designing hospital payment models.

Key Insights

Complex conditions and hospital capacity drives patient selection

Within both the private and public hospital system, patients with high complexity are up to 15.5 per cent more likely to get transferred, compared to non-complex patients, as capacity utilisation rises. While both private and public hospitals may engage in patient transfers, the reason for doing so differ.

A profit-motivated private hospital may engage in patient selection by transferring patients with more severe or complex conditions to public hospitals in order to free up capacity to accommodate more profitable easy-to-treat patients. Results from our main empirical analysis show that private hospitals are 58.2 per cent more likely to transfer high complexity patients (relative to non-complex patients) than public hospitals.

Although public hospitals do not engage in selecting patients for financial gains, a forward-looking social welfare or output maximising public hospital will transfer patients with severe or complex conditions when the hospital is reaching its capacity, in order to accommodate less severe or complex patients.

There is therefore an observational equivalence between cream skimming and other motives for transferring patients, which has presented a major challenge for empirical studies in identifying cream skimming. ⁱⁱ

A key insight from the theoretical model is that, given the same level of capacity utilisation, the likelihood of public hospitals transferring severe or complex patients is strictly lower than profit-motivated private hospitals. This result breaks the observational equivalence and allows us to detect the presence of cream skimming in our empirical work.

Accounting for cream skimming in hospital payment model design

For Australia's mixed public-private hospital system, cream skimming has long been a policy concern.ⁱⁱⁱ The Australian government has for many years been subsidising private hospital insurance with a purported aim of encouraging private hospital admissions to alleviate the pressure on public hospitals. However, the likely occurrence of cream skimming means that private hospitals get to enjoy higher profits while public hospitals are likely to be saddled with complex and difficult-to-treat patients, worsening the financial situation for the public sector.

Our theoretical model and corresponding empirical analysis lend strong support to the claim that profit-motivated private hospitals engage in patient selection by transferring patients with more severe or complex conditions to free up capacity and accommodate easy-to-treat patients, and this becomes more likely as capacity utilisation rises. The current COVID-19 crisis and temporary suspension of non-urgent elective surgeries is likely to significantly lengthen the waiting list for elective surgeries. A surge in demand can be expected when the suspension is lifted, putting hospital capacity under pressure. Our results imply that the prevalence of cream skimming will likely increase in this scenario, which further stresses the importance of accounting for cream skimming in designing payment models, e.g., the use of financial incentives and risk sharing in value-based payment schemes^{iv},^v, and on attempts to increase market transparency by publicising risk-adjusted hospital performance via public performance reporting mechanisms.^{vi}

Research Insights produced by the Melbourne Institute provide a clear and practical understanding of contemporary economic and social issues in Australia.

Supported by high-quality academic analysis, each Research Insight aims to make sense of complex issues to enable evidence-based decision making for policy and practice.

melbourneinstitute.unimelb.edu.au

Further Information

Datasets

Victorian Admitted Episodes Dataset (VAED), 2000/01 to 2011/12. This administrative dataset contains hospital admission data that include information on patient demographics such as age and gender, clinical details such as relevant diagnoses and comorbidity, administrative details such as dates of admission and discharge, and whether the patient was admitted as a private or public patient.

Further reading:

Yang, O., Chan, M.K., Cheng, T.C. and Yong, J., 2020. Cream skimming: Theory and evidence from hospital transfers and capacity utilization, *Journal of Economic Behavior and Organization*, 173, 68-87. DOI: <https://doi.org/10.1016/j.jebo.2020.03.024>.

Authors

Ou Yang

Melbourne Institute: Applied Economic & Social Research, University of Melbourne

Jongsay Yong

Melbourne Institute: Applied Economic & Social Research, University of Melbourne

References:

- i. Ellis, R.P., 1998. Creaming, skimping and dumping: provider competition on the intensive and extensive margins. *J. Health Econ.* 17 (5), 537-555. doi: 10.1016/S0167-6296(97)00042-8.
- ii. Cheng, T.C., Haisken-DeNew, J.P., Yong, J., 2015. Cream skimming and hospital transfers in a mixed public-private system. *Soc. Sci. Med.* 132, 156-164. doi: 10.1016/j.socscimed.2015.03.035.
- iii. O'Loughlin, M.A., 2002. Conflicting interests in private hospital care. *Aust. Health Rev.* 25 (5), 106-117. doi: 10.1071/ah020106.
- iv. Eijkenaar, F., 2013. Key issues in the design of pay for performance programs. *European J. Health Econ.* 14 (1), 117-131. doi: 10.1007/s10198-011-0347-6.
- v. Scott, A., Liu, M., Yong, J., 2018. Financial incentives to encourage value-based health care. *Med. Care Res. Rev.* 75 (1), 3-32. doi: 10.1177/1077558716676594.
- vi. Chen, Y., Meinecke, J., 2012. Do healthcare report cards cause providers to select patients and raise quality of care? *Health Econ.* 21 (SUPPL. 1), 33-55. doi: 10.1002/hec.2775.

This Research Insight represents the opinions of the author(s) and is not intended to represent the views of Melbourne Institute. Whilst reasonable efforts have been made to ensure accuracy, the author is responsible for any remaining errors and omissions.