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# **Does Changing the Way Doctors are Paid Change the Way They Practice? Evidence from an Ontario Academic Health Science Centre**

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**Decision-maker partner:** Alternative Payment Branch, Ministry of Health and Long-term Care, Toronto, Ontario

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# **Does Changing the Way Doctors are Paid Change the Way They Practice? Evidence from an Ontario Academic Health Science Centre**

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## **Acknowledgements**

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## **Key Implications for Decision Makers**

- Current research literature suggests that non-fee-for-service payment may encourage under-provision of medical services, in comparison to fee-for-service payment.
- This study found that alternative payment formats have no impact on the number and variety of surgical procedures provided to patients.
- And when doctors did change their clinical practice, it was more likely in response to new scientific evidence.
- It is possible to have predictability in funding — which an annual payment format will provide — without a decline in service.
- Surgical work does not shift to surgeons working in small nearby hospitals who remain on the fee-for-service system.
- Researchers should be given timely access to relevant administrative data. It is possible that the conclusions from this study do not hold true for non-surgical practice and for diagnostic interventions. To test this, researchers need to have access to encrypted physician-level billing data from the Ontario Health Insurance Plan (OHIP), but this is difficult to obtain due to the interpretation of confidentiality laws.

## **Executive Summary**

### **Implications**

We conclude that, on the basis of the procedures studied, there is no evidence of a significant change in practice patterns following the introduction of global funding for surgeons at an academic health centre. This finding is relevant for provincial decision makers who are committed to starting alternative funding plans at all Ontario academic health science centres. They will find it useful to know that it is possible to have predictability in funding — which an annual payment format will provide — without a decline in service. It is also important for local health managers who wish to anticipate the impact a funding format change could have on hospital resources and the availability of physicians to meet patient service needs.

### **Results**

The key findings of the study may be summarized as follows:

- There was no overall change in the volume of selected procedures at the South Eastern Ontario Health Science Centre (SEAMO) that are associated with implementing the Alternative Funding Plan.
- There was minimal change in the procedural case-mix of study specialists following Alternative Funding Plan implementation.
- Patterns of practice were similar to those seen at other academic health centres in Ontario.
- Patterns of practice were also generally similar to those in the regional hospitals.
- Survey results indicated no relevant differences between centres in the circumstances of practice other than the differing funding formats.

## **Context**

In 1994 Queen's University and its hospital partners initiated the Alternative Funding Plan, under which fee-for-service billing by clinicians was replaced by a yearly sum from the Ontario Ministry of Health, to cover all care provided by faculty. The program was intended to alter financial incentives in order to eliminate marginally-necessary care, giving faculty additional time for research, educational activities, or enhanced patient care.

Did the new payment system achieve its intended clinical impact? Specifically, is there clear evidence that patterns of clinical practice changed so as to eliminate selectively discretionary or marginally necessary care? The present study sought an answer to this question by exploring changes in the volume and mix of cases at the academic health centre and compared the results to patterns at other academic health centres as well as nearby regional hospitals.

## **Approach**

This study compared changes in volume and practice patterns at an academic health centre, to changes over the same period at four other centres that retained fee-for-service payment. Taking advantage of a natural experiment setting, it was a retrospective study using a longitudinal, pre-post design. Four procedures, known to have a large discretionary component, were chosen to represent all discretionary surgery. An additional non-discretionary procedure was included as a control. All inpatient and outpatient records from 1992 through 1996 at five academic health centres in Ontario were reviewed to determine changes in the volume and proportion of the surgical workload represented by the study procedures. Clinicians were also surveyed to assist in the identification of local factors which might interfere with the interpretation of findings, such as changes in the number of surgeons, altered access to operating room time or hospital beds, or the adoption of practice guidelines which changed practice.

## **Further Research**

This study focussed on four surgical procedures. While we believe the results will be valid for most forms of elective surgery, we are uncertain whether the findings also apply to non-surgical practice and to diagnostic interventions. In previous work, for example, we found an apparent shift in the use of endoscopy at the study centre that differed from trends elsewhere in the province and from a comparison academic health centre. This raises the possibility that the specialty of the physician influences the response to a change in payment format. To pursue this question in greater detail, it would be necessary to have access to encrypted physician-level billing data from the Ontario Health Insurance Plan (OHIP), as well as data from the study centre where OHIP data is no longer generated. Unfortunately, due to interpretation of confidentiality laws, it is difficult for Ontario researchers to get such data access.

## **Additional Resources**

Some of the results reported here are, or will be, available as:

Shortt S. *Paying doctors: impact of a change in remuneration method at a Canadian academic health centre*. In press, *Canadian Journal of Program Evaluation*, Spring 2002.

Two additional papers by Shortt and Stanton, *The Influence of payment method on patterns of physician practice: experience at a Canadian academic health science centre* and *Does a change in physician payment method lead to a shift in site of service provision?*, are currently in preparation. ( Partial results from the latter are available as an abstract to the Fourth International Conference on the Scientific Basis of Health Services, Sydney, September 2001.)

In addition, a complete listing of all evaluation studies done on the AFP is available at: <http://qhp.queensu.ca> . Any of the unpublished studies referred to, excluding those currently under publication review, may be obtained from Queens Health Policy by writing to the Unit secretary at: kv3@post.queensu.ca.