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Physician numbers as a driver of provincial government health spending in Canadian health policy☆

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ABSTRACT

Physician spending is one of the fastest growing Canadian public sector health categories of recent years but despite their recent growth physician numbers are a relatively small contributor to the increases in total provincial government health expenditure. Regression models of the determinants of provincial government health spending are estimated and show physician numbers are a positive and significant driver of provincial government health care spending after controlling for other factors though the overall contribution is relatively small. From 1975 to 2009, the increases in physician numbers accounted for a range of 3.2–13.3 percent of the increase in real per capita total provincial government health expenditures ranging from a low of 1.9 to 7.6 percent for Manitoba to a high of 5.3 to 18.3 percent for Quebec. These are modest contributions to total health spending but vary more substantially across provinces when hospital and physician spending alone are considered particularly for Quebec and British Columbia. Nevertheless, these results suggest that physician numbers alone are a modest policy concern when it comes to restraining health costs and other factors such as utilization and fees are more important.

1. Introduction

The Canadian Institute for Health Information (CIHI) puts total nominal health expenditure in Canada at 193.1 billion dollars in 2010, 200.6 billion in 2011 and 207.4 billion in 2012 – for annual increases of 5.9, 4.0 and 3.4 percent respectively.[1] Physician spending in Canada was recently highlighted as one of the fastest growing public sector health categories of recent years, with half of the growth attributable to increases in physician fee schedules.[2] While it is not surprising that physician spending might grow during a period of perceived physician shortages as physicians negotiate substantial fee increases, the period since 2003 has also seen growth in the number of physicians in Canada due to higher medical school enrollment and the immigration of international medical graduates. The rapid growth is physician expenditures is notable given that compared to many other countries, Canada still has relatively fewer physicians. According to OECD Statistics, at 2.4 practicing doctors per 1000 of population Canada ranks 27th out of 40 countries.[3]

In the wake of recent growth in physician numbers, this paper reexamines the role of physician supply as a

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[1] CIHI, National Health Expenditure Trends [20].

[2] CIHI, Health Care Cost Drivers: The Facts [21].

[3] In 2009, the numbers range from a high of 6.1 per 1000 population for Greece to a low of 0.2 for Indonesia with an average across 40 countries of 2.8. Source: OECD, Health at a Glance [22].

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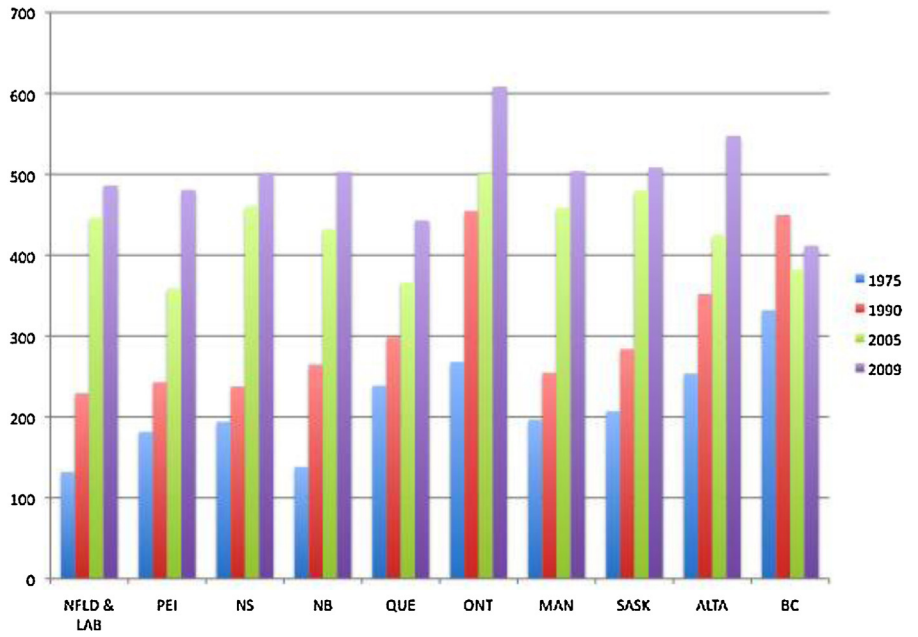

Fig. 1. Real per capita provincial government physician expenditures, 1975–2009 (1997 dollars; data source: Canadian Institute for Health Information).

cost driver in provincial government health expenditures. Province level data is used to estimate a regression model of health expenditure determinants with physician supply as a key variable, while controlling for confounding factors. More importantly, separate regression models are run by health expenditure category to examine the differential effect of physician numbers across health expenditure categories with the physician numbers broken up into family and specialist physicians. The results pinpoint the expenditure categories where physician numbers have had their greatest impact on the provincial government systems of health expenditures.

The results show that physician numbers are a positive and significant driver of provincial government health care spending but the overall contribution to real per capita spending is relatively small for most provinces. However, there are larger differences across provinces when separate expenditure categories are considered which means there are no one size fits all approaches to restraining physician health expenditures. This variation within the Canadian federation can provide a parallel to international diversity in health systems and expenditures but within the simplifying framework of a common currency and labor market. The broader implication is that public policy approaches to restraining rising health expenditures that emphasize physician numbers and their gatekeeper role in the health care system should more carefully re-consider their cost driver role within the context of their own health systems.

1.1. Physicians as cost drivers in the health care system

CIHI national health expenditure data reports that[4] provincial and territorial governments' nominal health expenditure per capita is expected to average $3870 in 2012. The highest per capita spending among the provinces is projected to be in Newfoundland and Labrador ($5190) and Alberta ($4606), while the lowest is forecast to be in Quebec ($3513) and British Columbia ($3690). Rising real per capita spending since 1975 has occurred in three phases – a period of increase from 1975 to 1990, a period of retrenchment from 1990 to 1996 and then a period of even steeper increases since 1996.

Indeed, the period from 1998 to 2008 saw Canadian public health care spending grow at an average of 7.4 percent annually – double the rate of government revenue.[5] This period saw rapidly growing health expenditures driven by cost drivers such as population aging, general inflation, rising physician and health professional remuneration, changes in prescription drug costs driven by volume and mix, and utilization of new diagnostic technologies.[6] However, these rising costs and expenditures were also accompanied by new resources in the form of rising provincial government own-source revenues, increases in federal transfer payments in the wake of the 2004 Health Accord[7]

[4] CIHI, National Health Expenditure Trends [20].

[5] CIHI, Health Care Cost Drivers: The Facts [21].

[6] CIHI, Health Care Cost Drivers: The Facts [21]. See also Di Matteo [23].

[7] The 2003 First Minister's Health Accord led to the implementation of 2004 Health Accord which was a ten year funding plan that emerged in the wake of the Romanow Royal Commission Report and was designed to reinvest in health care in the wake of the restraint of the 1990s so as to buy transformative change. See: Health Canada [65] Fact Sheet – 2003 First Ministers Health Accord. http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/20. From 2004 to 2014, the Federal government provided the provinces and territories with additional funding totaling 41.3 billion dollars the bulk of which was through 6 percent annual increases in the Canada Health Transfer. See Standing Senate Committee on Social Affairs, Science and Technology (2012: 9) [24].