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The comparative performance of the Canadian and Australian health systems

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Abstract

Using three data sets, each providing an overview of health service delivery in high-income countries, this article provides a high-level comparative analysis of health system performance against specified key performance indicators in two jurisdictions: Canada and Australia. Several variations, nuances, and points of comparison between delivery and organization of care are discussed. The article examines three policy and structural differences that may help explain the comparatively superior performance of the Australian system on most indicators, and two key areas of improvement for the Canadian system were illuminated: a stronger central government role and a national pharmaceutical plan. It is hoped that this article will empower health leaders to take action in these areas.

Introduction

Canada and Australia share similarities in political culture, values, and institutional arrangements. Both are federations with a large land area, low population density, and many remote areas. One point of difference is that Canada has a larger proportion of residents living in rural/remote areas than Australia, 18% versus 10%. See the following web site for a comparative profile of the two countries: http://ihpme.utoronto.ca/research/research-centres-initiatives/nao/comparative-reports.

The constitutional setting is a federated model in both countries, with responsibilities shared between a central government (referred to as the Commonwealth Government in Australia and the Federal Government in Canada) and subnational governments (states/territories in Australia and provinces/territories in Canada).

Both Australia and Canada have decades of experience with largely publicly-funded universal healthcare systems. The establishment and evolution of those systems has been documented by several authors including Boothe,[1] Crichton,[2] and Philippon and Braithwaite.[3]

Comparing the performance of the two health systems

Two frameworks are assessed, both containing multiple data sets, to compare the performance of the Canadian and Australian health systems: The Health Access and Quality (HAQ) Index[4] and the Commonwealth Fund reports.[5,6] This is supported by statistical data from the Organisation for Economic Co-operation and Development (OECD) to further explore the differences between the two countries.[7]

Health Access and Quality Index

The HAQ Index compares 195 countries across 30 disease categories. An overall HAQ Index is created, giving each country a score out of 100. In 2015, Canada received an overall score of 88, whereas Australia had a score of 90. Of 30 conditions, Canada only rated higher than Australia on three: non-melanoma skin cancer (79/52), epilepsy (91/83), and adverse events from medical treatment (82/77). Moreover, there were six conditions where there were at least five points of difference in Australia's favour, as exhibited in Table 1.

The Commonwealth Fund

The Commonwealth Fund ranks 11 high-income countries on their relative health system performance (rank 1 being the highest). The 2017 results ranked Canada ninth and Australia second. Canada moved up from an overall rank of tenth in the previous report in 2014; however, Australia rose from fourth in the same period. Table 2 shows how Australia and Canada rank on the five major indicators and provides a breakdown of indicators where there was a rank difference of a least five points in favor of Australia.

With the exception of preventive care, Australia performed better on all other indicators. The results for preventative care were mixed: Canada ranked better in two areas—talking with patients about smoking and avoiding hospital admissions for asthma, whereas Australia ranked higher on talking to providers about worry and stress.[6]

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Table 1. Australia and Canada compared on the Health Access and Quality Index[a]

Condition	AUSTRALIA	CANADA
Lower respiratory	82	73
Neonatal	81	71
Cervical cancer	84	79
Testicular cancer	86	81
Ischemic heart disease	78	72
Chronic kidney disease	88	82

[a]Derived from GBD 2015 Healthcare Access and Quality Collaborators (2017).[4]

Organisation for Economic Co-operation and Development data comparisons

Table 3 highlights several areas of difference between Australia and Canada using the statistical data collated by the OECD.[7] Despite spending less as a percentage of gross national product, Australia performs better on measures of health status indicators and most health resource indicators. In line with data from the Commonwealth Fund report, Canada outperforms Australia in certain areas of preventive care.

Although Australia scores much better than Canada on most waiting time–related indicators according to the Commonwealth Fund report, there are some deviations in this respect when the OECD data are reviewed.[6] For example, wait times for cataract surgery and knee replacements are much shorter in Canada. It is important to note that the OECD data only include the public system. Australian patients with Private Health Insurance (PHI) have a median wait time of 20 days for elective surgery compared to public patients who experience a 48-day median wait time.[8]

Factors explaining the difference in performance

In this section, we outline three factors where there is significant policy and structural difference between Canada and Australia: PHI, the role of the central government, and pharmaceutical policy. This discussion is necessarily exploratory rather than definitive given the challenges of inferring causation between system features, involving numerous variables and different contexts, and performance outcomes. Nevertheless, we examine how and the extent to which these three factors may help explain the superior performance of the Australian health system.

Private insurance option

A fundamental difference in the two systems is the option for Australians to purchase PHI for Medicare services, and incentives are in place to encourage people do so. The existence of PHI in Australia, thereby creating a two-tier system, needs to be examined from several standpoints before drawing conclusions on whether this represents a critical difference in driving system performance. Although there is no doubt having

Table 2. The Commonwealth Fund Ranking of Canada and Australia on Five Major Indicators, 2017[a]

Indicator	AUSTRALIA	CANADA
Access	4	10
Care process	2	6
Administrative efficiency	1	6
Healthcare outcomes	1	9
Equity	7	9
Breakdown of indicators	**AUSTRALIA (%)**	**CANADA (%)**
Access—Affordability		
Skipped dental care because of cost	21	28
Insurance denied/or not funded as expected	9	14
Payment issues with medications	25	30
Access—Timeliness		
Doctor answers question same day	86	66
Saw doctor same/next day	67	43
Difficulty with afterhours care	44	63
Wait >2 hours (emergency)	23	50
Difficulty getting specialized tests	11	40
Wait >2 months for specialist apt	13	30
Wait >4 months for elective surgery	8	18
Arrangements in place—afterhours care	78	48
Care process—Preventive care[b]		
Talked to provider about worry/stress	74	63
Care process—Safe care		
Med/lab/medication mistake in past year	11	15
Doctors have electronic decision support systems	72	28
Care process—Co-ordinated care		
Primary care receives timely specialist report	83	78
Specialist/regular doctor information gap	20	27
Gap in hospital discharge in past 2 years	29	40
Care process—Patient engagement		
Doctors spend enough time with patient	88	74
Specialists engaged 65 years+ in care decisions	74	66
Doctors treated patients with courtesy in hospital	80	73
Nurses treated patients with courtesy in hospital	81	65
Chronically ill discussed goals for their care	71	56
Chronically ill discussed treatment options	67	57
Admin efficiency		
Doctors time on medication—coverage issues	11	21
Patient visited ED for regular doctor issue	6	17

[a]Derived from Schneider et al.[6]
[b]In some areas of preventive care, Canada scored higher than Australia.

Table 3. Comparative OECD statistics, Australia and Canada, 2017[a]

	AUSTRALIA	CANADA
Heath status indicators		
Life expectancy (years) (both sexes)	82.5	81.7
Life expectancy at 65 (years)	20.9	20.2
Ischaemic mortality/100,000	85	93
30-day mortality after AMI/100,000	4	5.1
Health risk factors		
% Daily smokers	12.4	14
Alcohol consumption per capita (L/yr)	9.7	8.1
% Obese	27.9	25.8
Air pollution (PPM)	5.9	7.2
Health resource indicators		
Health expenditure (% of GDP)	9.6	10.6
Per capita spending ($US)	4,708	4,753
Per capita spending on retail pharmacy	617	756
Average annual expenditure growth (2009-2016)	2.7	1.1
Acute beds/1,000	3.8	2.6
MRI units/million population	14.5	9.5
Healthcare access indicators		
Physician consults/1,000/year	7.3	7.7
Out-of-pocket (OOP) costs (% of household income)	3.1	2.2
Physician consults skipped due to cost/100	16.2	6.6
Medications skipped due to cost/100	7.8	10.5
Wait time/days—Cataract surgery	93	58
Wait time/days—Knee replacement	188	109
Health utilization indicators		
Hospital discharges/1,000	174.8	83.5
ALOS acute care	5.5	7.8
In-patient admission/100,000 (asthma)	64.8	15.1
In-patient admission/100,000 (diabetic)	141	94
MRI scans/1,000	41.0	55.5
Workforce-related indicators		
Practicing physicians/1,000	3.5	2.7
Medical graduates/year/100,000	15.8	7.8
Nursing graduates/year/100,000	76.9	58.8
Remuneration of physicians vs average wage		
Generalists	1.9	3.9
Specialists	2.8	4.5
Generalist/specialist mix (%)	45/49	47/53
% Patients satisfied with time with physicians	91.7	79.3
Distribution of health expenditure		
Government	67	69
Insurance	16	20
OOP	13	10

Abbreviations: GDP, gross domestic product; ALOS, Average length of stay; PPM, Parts Per Million; AMI, Acute Myocardial Infarction; MRI, Magnetic Resonance Imaging.
[a]OECD Health at Glance, 2017(Data from 2016 or most recent year).[7]

PHI creates faster access for some, it does create inequities in access for others. It is noteworthy that the costliest procedures in acute care are still largely done in the public system.

The Australian system is a mixed public-private system that is largely integrated, for example, private services are often provided in public facilities. One of the key objectives of PHI is to offer benefits in terms of access to its consumers, such as choice of doctor, extra coverage (eg, dental), and timeliness of elective surgery. However, Australia's universal public health system is designed to treat patients on a need basis and does not favour patients with PHI when urgent care is necessary.

Australia's PHI market is very complex, comprising many different options and levels of coverage. In 2015, 47.4% and 55.8% of the population had PHI for hospital care and generalist treatment, respectively.[9] After the introduction of Medicare in 1984, the uptake of PHI began to decline, so starting in 1999, the Commonwealth Government instituted a rebate program to reimburse purchasers for part of their premiums. In 2015, the cost of the rebate program was A$5.8 billion[10] and is projected to rise to over A$7 billion in 2017 to 2018.[11] There is an income tax surcharge for higher income earners who do not take out PHI. Insurance companies also encourage lifetime health cover with higher premium rates for individuals who do not take out PHI prior to age 31.[12]

Although the Government's stated policy intention for PHI is to take pressure off the public system, the actual impact of PHI is less clear. There is evidence that despite increasing the usage of private care, PHI has not been very effective in lowering pressure on the public health system.[13] Although private hospital insurance causes a "sizeable and significant likelihood of admission as a private patient,"[12] this has not meant a concomitant reduction in public hospital waiting lists.[14]

In 2015, the Government identified a number of critical concerns regarding PHI,[15] including:

1. Evidence suggesting that PHI incentives have a limited impact on PHI enrolment;
2. Private patients receiving orthopaedic or cataract surgery within weeks rather than months will very often end up with substantial, unexpected out-of-pocket costs;
3. Private Health Insurance does not buy extra quality and safety, and team-based care in large public hospitals can mean better care coordination;
4. Many people know little about the PHI policy they purchase and about a quarter of people with PHI still choose to use the public system; and
5. International evidence shows that PHI models decrease cost control, and, "gap insurance" has underwritten the dramatic growth in specialist fees.

The growing levels of co-payments and other out-of-pocket costs in Australia are creating mounting concern around the ability to access needed healthcare and further accentuating health inequalities.[16] Out-of-pocket costs have increased by more than 89% in the decade before 2011 to 2012, standing in contrast to most other OECD countries where costs have been decreasing[16] (in that out-of-pocket costs are included in overall per capita spending costs, Australia's higher rate of annual increase in spending in the past few years as noted in Table 3 may be due to this factor).

Weighing all this, in our judgment, the presence of PHI in Australia, while bringing about access advantages for some, is

not likely to be the critical factor explaining the better performance of Australia's health system over Canada's system.

The role of the central government

A second critical factor is the dissimilar roles of Australia's Commonwealth Government versus Canada's Federal Government. Although the origins of constitutional arrangements had similarities, the evolution of arrangements in the health field has been very different.[3]

Australia took a major step toward consolidating more power at the commonwealth level in 1942, when initially as a wartime measure, levying personal income tax was removed from the states in return for fixed grants. To allow for the creation of a national pharmaceutical plan, a constitutional amendment was made in 1946 that gave the Commonwealth Government much more authority in healthcare—a move that did not engender any major resistance from the states, given their dependency on commonwealth funding.[17]

The constitutional amendment, while not removing responsibilities from the states, gave the Commonwealth Government much more latitude to act on health policy and health services. Although states and territories are expected to plan health services, the Commonwealth has the superior funding capacity to comprehensively regulate the services it finances.[18] Starting with the Pharmaceutical Benefits Scheme (PBS), the Commonwealth has taken leadership in several areas such as programs for older Australians, determining the payment levels in the schedule of medical benefits, setting the enrolment levels for health professional programs, and health workforce planning. National initiatives have been established including the primary healthcare strategy, a hospital funding commission, and a quality commission, among others. Critical decisions have been taken on a national basis, for example, the dramatic expansion of medical schools, incentives to encourage rural medical practice, centralizing the regulation of health professions, and the accreditation of health profession programs.

In contrast, over the past two decades, Canada has attempted to use intergovernmental agreements to develop priorities and guide health reform initiatives with significant funding increases from the Federal Government. Additionally, several pan-Canadian health organizations have been established. However, the performance impact of the Federal-Provincial-Territorial (F/P/T) measures in establishing pan-Canadian health reform priorities has been mediocre at best.[19] In its final reports, The Health Council of Canada, an agency set up to specifically monitor progress on major health initiatives in the period 2003 to 2014, concluded that a decade of health reform produced disappointing results for taxpayers and patients. There has been a lack of focus on transforming the Canadian system, which has "not kept pace with the evolving needs of Canadians." The Health Council of Canada argues that there has been inadequate progress in many specific areas and that Canada needs faster, more targeted, and effective health system reform.[19]

A recent review of the pan-Canadian organizations identified several challenges and put forth scenarios for improvement. It is noteworthy that one of its scenarios calls for the Federal Government to assume a much stronger role.[20]

The decentralized system in Canada is sometimes viewed as a good platform for experimentation with different approaches in the provinces and territories. However, decentralization also creates significant hurdles to spreading innovations. For example, in 2000 to 2003, objectives and parameters were set for primary healthcare as part of F/P/T agreements, but now some 15 years later, Canada still lags behind many other countries. The first systematic review of the evidence on primary healthcare notes the heterogeneity of models across the jurisdictions and different implementation approaches make it difficult to reach conclusions on effectiveness.[20] It is also recognized that federal funding is critical in stimulating reforms.[21]

In our view, there needs to be a better balance between decentralization and centralization and the Canadian system. A recent review by Martin et al. indicates that without bolder political vision and courage as well as a rebalanced national role, Canada's universal health system runs the risk of becoming outdated.[22] In developing a stronger national leadership model for Canada, the Australian system is worthy of further detailed consideration and research attention.

National pharmaceutical policy

The third factor we explore is the major difference in pharmaceutical policy between Australia and Canada and how this might explain some of the differences in health system performance. As noted, one of the first steps Australia took in terms of increased role at the national level was to institute the PBS, which came in effect in 1950. It is noteworthy that the main push for this in the mid-1940s appeared to have come as part of fiscal policy driven by the Treasury Board.[17] In sharp contrast, the main arguments against a national pharmaceutical program from the beginning have been fiscal.

Canada is the outlier in this respect, as all other comparator countries with universal, largely publicly-funded health systems have included out-patient pharmaceuticals. Although there were early pharmacare proposals in Canada, the policy approach was to first cover hospital and medical care in the 1950s and 1960s, decades earlier than Australia. In contrast to the universal approach in Australia, out-patient pharmaceuticals in Canada became territory for private insurance and targeted government programs (eg, seniors). The private plans in particular, many of which are part of employee benefits packages, have resulted in a large number of middle class Canadians having access to prescription drugs at little or no charge. This has made it difficult to generate motivation to pursue reform.

For many Canadians, the apparent success of the current model distorts several realities. First, Canada spends much more on pharmaceutical products than most other countries. The OECD data in Table 3 show per capita spending in Canada is US$756 versus US$617 in Australia. Canada's ability to control costs is significantly weakened in two ways. First, there is still no single purchaser to negotiate with major pharmaceutical companies, although some progress has been made

since the establishment of the pan-Canadian Pricing Alliance in 2010.[23] Second, the biggest variable in pharmaceutical expenditure is utilization, and under the current fragmented public-private system, there are limited opportunities to monitor and take action on the appropriate utilization of drugs.

Apart from the high cost of the pharmaceuticals in Canada compared to Australia, there is also a major impact on access and quality of care for patients. One in ten Canadians do not fill prescriptions because of cost.[19] Moreover, the costs for patients who are without plans can be catastrophic.[23] As noted in the Commonwealth Fund data presented earlier, this is the reason that a larger proportion of Canadian patients, compared to Australians, have difficulty accessing drugs.

This area is ripe for action in Canada. Many elements that would be needed in a national plan are partially in place, and several commission reports and studies[24-28] over the years have recommended that Canada move toward a national pharmaceutical plan. These proposals have been stalled in the past largely because of issues around funding and federal-provincial jurisdiction.[17] However, most analyzes indicate while there may be some additional transition costs to move to a new system, in the end, the overall cost to Canadians would be reduced under a national plan.[29] This would, in turn, produce better results in terms of the treatment of at least some disease conditions, which depend heavily on out-patient pharmaceutical therapies.[30-34]

Given the importance of access to pharmaceuticals to effect both disease treatment and overall systems outcomes, we believe it is critical for Canada to move toward a universal pharmaceutical program such as that operating in Australia.

Conclusion

We conclude that while performance ratings of Australia are generally better than Canada, the differences are a matter of degree. Yet the one-sidedness of the ratings should be a major cause for concern in Canada. We explored three factors where significant policy and structural differences exist between Canada and Australia and conclude Canada needs to look more closely at an increased federal role and the introduction of a national pharmaceutical program. Our hope is that this article will encourage health leaders to conduct more targeted research and take action in these two areas. Although more research is required on the connections between these policy changes and health outcomes, we believe these two developments would enhance the performance of the Canadian system.

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