

Financing and Delivering Oral Health Care: What Can We Learn from Other Countries?

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A b s t r a c t

In Canada, the delivery of dental care is left largely to private markets; public funding is limited to targeted groups of the population and substantial variation between provinces exists. In this article, the levels and sources of expenditures on dental care, the levels and distribution of service use associated with these expenditures and the oral health outcomes “produced” in Canada are considered in an international context. The international trend toward an increasing share of public funds for dental care expenditures is not observed in Canada. Instead an increasing reliance on private funds is associated with greater barriers to care, particularly among less prosperous groups. In the absence of oral health data at the national level, the impact of these trends on oral health outcomes is unknown. Several key messages are identified in the comparative analysis to inform any future oral health strategy for Canada.

MeSH Key Words: *delivery of health care/trends; dental health services/trends; health services needs and demand*

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Oral health care has traditionally had low priority in public policy discussions in Canada. Although health care is a responsibility of provincial governments, the federal government has been able to exert considerable influence over provinces under the *Canada Health Act* by setting conditions of universal coverage, comprehensiveness, public administration, transferability and accessibility that must be satisfied if provinces are to qualify for federal transfer payments. However, this legislation is restricted to hospital-based and physician services only. Dental care is not subject to these conditions; so each province is left to determine the level and form of public funding for dental care and the eligibility criteria for individual patients to qualify for public funding. Generally, publicly funded programs have been restricted to specific groups with the majority of the population left to cover the cost of dental care services either out of pocket or through private insurance arrangements. As a result, the use of services increases with income, rather than need for care.¹ Moreover, the predominant form of remuneration, fee-for-service, rewards providers for delivering services to clients as opposed to meeting the needs of populations. Hence, the configurations of service funding and provider remuneration fail to support the use of resources in

accordance with relative need for care in the population. Given the absence of any consideration of dental care in recent reports to Parliament, dental care is unlikely to be a priority in future health care reform.

The purpose of this article is to see what messages can be found to inform oral health policy in Canada by comparing the Canadian approach to dental care provision with that of other countries. Attention is focused on 4 English-speaking countries: Australia, New Zealand, the United Kingdom and the United States. Although non-English-speaking countries in Europe were also considered, a broader comparison lies beyond the scope of this article. The study is based on a review of peer-reviewed and grey literature relating to these countries, supplemented by information provided by colleagues familiar with specific systems of care. Although the article does not constitute a formal comparative analysis, we consider the levels and sources of expenditures on dental care, the levels and distribution of service use associated with these expenditures and the oral health outcomes in an international context. The findings provide an important first step in informing policymakers concerned with making the best use of the resources allocated to dental care.

Australia

In Australia, dental care is provided primarily by general dentists working in private practices. A separate system of primary dental care for children and adolescents is funded by state governments and delivered by salaried school-based dental therapists. Although these services were originally free at the point of delivery, some states have introduced co-payments. School dental services account for about half of the dental visits of 5- to 11-year-olds, but only a fifth of the visits of 12- to 17-year-olds.² Increasing staff shortages and an aging workforce have led to these services targeting children at higher risk of dental disease. However, strict processes for gaining positive parental consent to examine and treat children also mean that those from poorer and non-English-speaking backgrounds are less likely to receive care. Among the 29 countries reporting oral health outcomes data in the Organisation for Economic Co-operation and Development (OECD) database, Australian children had the second lowest diseased, missing and filled teeth (DMFT) score.³

State-funded dental care for adults is provided in community or hospital-based dental clinics. Access to these centres is restricted to the elderly, disabled, single parents and the unemployed. In practice, almost 70% of those eligible for these services receive care from private dentists. Other groups, including veterans, the armed forces and aboriginal populations, are eligible for other services funded by the commonwealth (i.e., national) government. The majority of adults, who do not fall into one of these groups, must seek services from private dentists and pay out of pocket or through private insurance. In contrast to children, adults in Australia are toward the bottom of the OECD ranking of oral health status (18th of 21 countries).

In 2001–2002, over 60% of the \$3.6 billion spent on dental care was paid out of pocket.⁴ Public funds contributed less than 12 cents in every dollar compared with over 70 cents for every dollar spent on medical care. However, these figures conceal the substantial public subsidization of dental care via tax rebates for those with private insurance. Spencer³ estimated that tax rebates for dental care insurance amount to twice the public funds spent on dental care for eligible adults. Moreover, because the value of the rebate depends on the marginal rate of taxation, this indirect subsidy increases with income, from \$14 per capita in the lowest income group to over \$60 per capita in the highest income group.⁴

Ironically, the tax rebate policy was introduced as an incentive to purchase private health insurance and, in theory, take pressure off the fiscally stretched public medical care system. But because the public medical care system does not provide dental care, the subsidy resulted in an income transfer to those with private dental care insurance, i.e., the rebate did not relieve pressure from any

public dental care program. Spencer argues that, as a result, the public funds required to address the problems of access to dental care among poor adults are inadvertently being distributed to higher income groups.

New Zealand

New Zealand offers a school-based dental therapist system similar to that of Australia and faces similar challenges of staff shortages and an aging workforce as therapists seek alternative, potentially more financially rewarding employment options. The program only covers children to age 12. To qualify for publicly funded care, adolescents must register with private dentists paid under public contracts. Most contracts are based on a capitation fee that covers a defined package of services; however, for some dentists, the contracts for adolescent care remain on a fee-for-service basis. For services not covered by the capitation fee, dentists “extra-bill” the local health board and no patient charges are permitted. Only about 65% of adolescents receive dental care under these arrangements in a given year. It is unclear to what extent this poor uptake level is the result of some dentists being unwilling to provide services under the program.

Dental care services for adults are provided predominantly by private dentists with patients charged directly on a fee-for-service basis. Private insurance is limited and represents a taxable employment benefit where provided. Public subsidization of adult dental care is very limited and targeted at particular groups. Those holding Community Services Cards are eligible for subsidization of the costs of dental care provided for pain relief at hospital-based dental clinics. In addition, Special Needs Grants are available to adults receiving income support to fund dental care received from private dentists or the dental clinics of public hospitals. However, the majority of the adult population is responsible for the full costs of dental care services.

Over the whole population, public funding contributes 25% of dental care expenditures, but as indicated above, this is largely concentrated on children and adolescents. An additional 5% is from private insurance, with the remaining 70% of expenditures paid out of pocket. Recent primary care reforms involve the introduction of primary health organizations with the possibility that some of these may include the funding and provision of dental care for low-income adults.

United Kingdom

The Community Dental Service of the National Health Service (NHS) provides for screening of schoolchildren and treatment for special needs populations and other groups who have problems accessing care (generally, the poor). Providers are salaried employees of the NHS. The NHS General Dental Service (GDS) covers services provided by private dentists to NHS-registered patients (adults and

Table 1 Annual per capita expenditures on dental care in 5 countries, 1990–2000, in US dollars^a

	1990		1992		2000	
	Per capita spending (\$)	% public funding	Per capita spending (\$)	% public funding	Per capita spending (\$)	% public funding
Australia	66	9.1	81	9.9	142	17.6
Canada	115	9.6	129	8.5	206	5.3
New Zealand	—	—	—	—	—	—
United Kingdom	—	—	64	48.4	—	—
United States	126	3.2	144	3.5	230	4.8

Source: OECD Health Data 2003.⁹

^aConversion using purchasing power parity rates, i.e., rates that reflect the country-specific cost of buying a standard “basket of goods.”

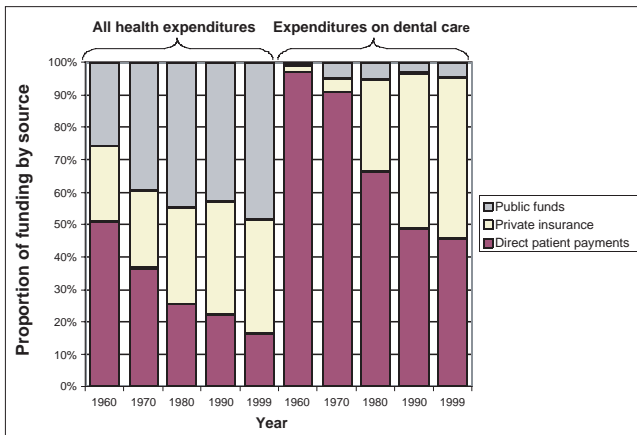


Figure 1: Health care and dental care expenditures in the United States by source of funding, selected years 1960–1999. Source: Bailit and Beazaglou.⁸

United States

In the United States, dental care services are predominantly provided and funded by the private sector. Over the last 40 years, the proportion of total health care expenditure allocated to dental care has fallen from over 7.5 cents per dollar in 1960 to less than 5 cents per dollar in 1999.⁸ Furthermore, the source of funding for dental care has historically been, and remains, markedly different than that for health care as a whole (Fig. 1). The proportion of direct out-of-pocket payments has declined for both health care and dental care, but by 1999 it still stood at almost half (45%) of dental care expenditures; only 5% of expenditures were publicly funded and the rest were funded through private insurance. Although the relative decline in direct patient payments for all health care is largely associated with a growth in public funding (to 48% of all funding in 1999), no such pattern exists for dental care. Public funding accounted for less than 5% of all expenditures on dental care in the United States in 1999.

Comparing Performance among Countries

Table 1 presents OECD data on levels of per capita spending on dental care in the 5 countries for the period 1990–2000.⁹ Expenditures in Canada remained relatively high during this period and approached the level in the United States. In 1990, the proportion of expenditures contributed from public funds was higher in Canada than in Australia or the United States. However, the public contribution to dental care expenditures increased in both these countries over the 1990s, but fell in Canada from almost 10% to a little over 5%.

Table 2 presents OECD data on mean DMFT per 12-year-old child for the same countries for the period 1992–2000. No data are available in this database for Canada (and only for 1992 for the United States). Corresponding information for Canada is found in the World Health Organization’s oral health country profile for 1992¹⁰ and is included in Table 2. The data in this profile appear to be consistent with the OECD data for the 4 other countries and hence allow comparison with these countries. Based on this information, the level of oral disease among

children). To maintain registration, patients must seek care within a 15-month period. The NHS provides a 20% subsidy for care, based on a nationally negotiated fee schedule. Services for children, the unemployed, low-income families and pregnant women are paid in full by the NHS. Care for children is funded through a combination of capitation and service-item fees.

GDS statistics for 2002 show that 60% of children (those under 18 years of age) are registered with a dentist to receive NHS-funded care. For adults, the rate of registration is lower (45%) and the rate is lowest for the oldest groups (30% of those over 75 years of age). An estimated 40% of dentists are not accepting new NHS registrants⁵ and some impose conditions on registration (e.g., they will register a child for NHS care only if the parents register for private treatment).

In 1999, the number of people per NHS dentist varied by almost threefold (from 1,214 to 3,359) across the 105 health authorities in England and Wales.⁶ The NHS has recently introduced over 60 dental access centres to reduce problems of access to NHS-funded care and increase patient choice. No registration is required and services are provided by salaried dentists.⁷

Table 2 Mean decayed, missing and filled teeth (DMFT) per 12-year-old child in 5 countries, 1992–2000

	1992	1996	2000
Australia	1.2	0.9	0.8 ^a
Canada	3.0 ^b	—	—
New Zealand	1.5	1.5	1.6
United Kingdom	1.3	1.1	0.9
United States	1.3	—	—

Sources: OECD Health Data 2003,⁹ except for Canada. Canadian data: WHO Oral Health Country/Area Profile.¹⁰

^aData for 1999.

^bActual data 3.0–3.7 for years 1989–1991.

Table 3 Proportion of adults who needed care but did not consult a physician or dentist due to cost, 2001 and 2002

	% who did not consult a physician				% who did not consult a dentist			
	Sick adults ^a	All adults	High income ^b	Low income ^b	Sick adults ^a	All adults	High income ^b	Low income ^b
Australia	16	11	10	14	44	33	31	38
Canada	9	5	3	9	35	26	15	42
New Zealand	26	20	18	24	47	37	36	40
United Kingdom	4	3	2	4	21	19	19	20
United States	28	24	15	36	40	35	24	51

Source: Exhibits 3, 5 and 7 in Blendon and others.¹¹

^aBased on random samples of adults who met at least 1 of the following 4 criteria: reported health as “fair” or “poor”; reported that they had had serious illness, injury or disability that required intensive medical care in the past 2 years; reported that in the past 2 years they had undergone major surgery; reported that in the past 2 years they had been hospitalized for something other than a normal delivery.

^bLow and high income are defined as below and above median income, respectively, for that country.

children in Canada was about twice that of the other countries. Although oral health among children has been improving in Australia and the United Kingdom, no data are available to show whether similar changes have occurred in Canada or the United States. In the absence of national data, there is no evidence to show that dental care policy has failed to achieve oral health levels consistent with these other countries. But “no evidence” is not the same as evidence of no problems.

Aggregate data such as these do not provide information on the distribution of expenditures, services and needs among various groups in the population. However, turning to survey information on barriers to care causes a clearer picture to emerge. Table 3 presents data on the proportion of adults who experienced health problems but did not seek care because of cost.^{11,12} For all types of adults and in all countries, the incidence of not visiting a dentist due to cost is much greater than not visiting a physician; this is expected as access to dental care is more dependent on user contributions than is medical care in each country. Although cost seems less a barrier in Canada than in Australia, New Zealand and the United States, about 4 times as many Canadians did not seek dental care due to cost than those who did not seek medical care for that reason. Also, the difference in reported accessibility of dental care between high- and low-income groups is greatest in Canada — almost 3 times as many poorer Canadians

do not see a dentist due to cost than those in higher income households. Forty-two percent of low-income individuals with dental needs did not visit the dentist because of cost, a rate exceeded only in the United States. Hence, the impact of the low level of public contribution to the cost of dental care services in Canada is largely confined to less prosperous groups. Unlike their more prosperous fellow citizens, they do not have the same access to alternative resources (i.e., private insurance or personal resources) to substitute for the lack of public contributions.

Summary

This international perspective on the funding and delivery of dental care in English-speaking countries has generated several points. First, per capita dental health expenditures in Canada are high by international standards. Therefore, any perceived problems with oral health or the provision of dental care are not the result of low levels of spending. Instead, we need to look at the sources of funding and the organization of services. Per capita public funding is low by international standards and, in contrast to other countries, is diminishing as a proportion of total expenditures. The impact of this trend is heavily concentrated on the less prosperous members of the population. However, in the absence of systematic collection of data on oral health levels in the population, it is difficult to detect the full consequences of this trend.

Second, the absence of any universal, publicly funded program for children's dental care appears to be restricted to North America. Methods for providing children's programs range from school-based dental therapists to public funding of office-based private dentists; however, uptake is lower and outcomes poorer under the latter approach.

Third, there is some indication of an increasing aversion among some private providers to taking on publicly funded patients. This may be a result of increasing opportunity costs to dentists of participating in publicly funded dental care, as government-regulated remuneration rates fail to keep up with either the real cost of providing quality care or the levels of private fees. Hence, improving access to services, particularly among poorer groups, may require publicly *provided* services. Public funding alone does not guarantee access to services, particularly where providers are free to choose practice locations or can choose to provide mixed public-private care (as in the NHS). Public subsidization of private insurance is unlikely to be an efficient approach to improving access to services in the population, and publicly funded fee-for-service systems must be commercially viable to maintain coverage.

Finally, remuneration mechanisms based predominantly on fee-for-service may be incompatible with social goals for the allocation of dental care resources in the population. Such approaches usually fail to respond to changes in the type and distribution of oral health needs in a population and often hinder more efficient and team-based care provision within practices.⁷ This is not about what the average level of income among dentists should be, but about choosing from alternative payment mechanisms the approach that best supports social goals for dental care, while meeting dentists' expectations for income levels and sustainable models of practice organization. Based on these messages, perhaps it is time to rethink how we deploy the dental care resources available in Canada. ♦

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