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Putting Our Money Where Our Mouth Is: The Future of Dental Care in Canada

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CANADIAN CENTRE
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Putting Our Money Where Our Mouth Is:
The Future of Dental Care in Canada

Table of Contents

Foreword

By Moira Welsh

The first time I saw Jason Jones he was sitting in a Tim Horton's coffee shop, a young man with no teeth, gathering stares from other customers. He was 25 years old, with the empty cheeks of an elderly man.

I met Jason at the behest of his doctor, a pain specialist, who was outraged that Jason lost his health and job because there were no dental programs for the working poor. His teeth had been decaying for years, but when the pain finally overwhelmed him Jason spent $600 — his wife's life savings — to have most of them removed.

A few months after the surgery, Jason was still in pain. He struggled to form words, and politely described his diet: "I maybe eat one meal a day," he said. "I can eat chicken, if I cook it just right. I chew it with my fingers in a way. Sandwiches, I can eat. Peanut butter and jam sandwiches. I can chew them with my tongue."

Jason's story and photograph ran on the front page of the *Saturday Star* in February 2007. He spoke for the thousands who had spent a lifetime in poverty with little or no access to dental care, especially the preventative treatments that save teeth, health and jobs.

The response to the story was tremendous. Jason received numerous offers of help from dentists and denturists, and hundreds of readers demanded government action. Readers accustomed to their own dental benefits realized that many others have no coverage and could not afford the regular dental visits that keep cavities in check. They learned that if left untreated, infected teeth can lead to devastating health problems like blindness, as told in a subsequent story about convenience store operator Moses Han.

Throughout the series, professionals like Toronto's chief dentist, Dr. Hazel Stewart, spoke on the record about the failures of the health system to care for teeth and put the government on notice with specific recommendations for change. But change does not come quickly, even though the Ontario government subsequently promised $45 million to youth preventative treatments, the working poor still struggle for dental care.

The most telling story in the series arrived six months later when Jason was fitted with dentures, a gift from Markham dentist, Dr. Raj Singh. In that moment, he became a new person, the hollow oddity of his face replaced with a young man's beaming smile.

Jason has a new life now. He has a job, a home and a growing young family — all because someone fixed his teeth.

It became clear in writing these stories that healthy, strong teeth play a major role in health and enable people to emerge from the cycle of poverty. The following report, *Putting our money where our mouth is: the future of dental care in Canada*, aims to broaden our understanding of these important issues and push forward the policy that can create lasting change.

Moira Welsh is a writer with the Toronto Star

Introduction and Overview

By Armine Yalnizyan and Garry Aslanyan

It's a strange truth of Canadian public policy: the care of our lips, tongues and throats is fully covered by public funding, but not our teeth and gums. This toothless approach to health care is a costly oversight for the public purse. A mounting body of evidence shows a correlation between poor oral health and higher incidence of diabetes, cardiovascular disease, pneumonia and Alzheimer's.

Of an estimated $12.6 billion spent on dental services across Canada in 2009, only 5% is publicly funded. (Publicly funded dental care ranged from a low of 1.5% in Ontario to 77% in Nunavut; See Annex 1.) To put this in perspective, total spending on health care stood at $182 billion that year, about 70% through public expenditures.

There are welcome signs that the climate may be warming towards a greater public policy role in Canadian dental care. In October 2010, the Government of Ontario allocated $45 million to oral health initiatives as part of its poverty-reduction strategy, sparking welcome and widespread discussions of how best to invest in improving oral health.

Only a few months earlier the Canadian Public Health Association celebrated its 100th anniversary at a conference entitled *Shaping the Future Together.* The gathering provided a vivid reminder of the many modest and low-cost initiatives that have transformed the quality and length of life for Canadians over the course of the past century. Community water fluoridation was showcased as one of the 12 greatest public health achievements in Canada over the past century — an ironic honour, as the cities of Waterloo and Calgary have both recently voted to stop fluoridating their water, developments that remind us of the importance of informed and engaged public policy.

The conference featured a panel discussion about dental care, reviewing our history and current practice, and presenting evidence from other parts of the world. Experts answered the question: "Denticare, Denticaid….or business-as-usual? What's the best way to put our money where our mouth is?" This publication is a distillation of that discussion, presented in the belief that there are relevant lessons for our decision-makers that could save money today and improve the health of Canadians well into the future.

Denticare refers to a universal approach to the coverage of oral health care needs, similar

to medicare; while *Denticaid* means a targeted approach, usually favouring those with low-incomes, similar to American Medicaid. As for business as usual, the Canadian Health Measures Survey provided a long-overdue look at dental health in Canada in 2010. It found that 62% of Canadians had private dental insurance, and 6% were covered by publicly funded programs, mostly the poorest people in our communities. That left almost a third of Canadians with neither public nor private insurance to help them pay for the care of their teeth and gums. All provinces and territories provide some public support for dental care, but no jurisdiction has a comprehensive oral health strategy.

The lively debate among panelists and with the audience revisited classic tensions: acute care versus primary care; federal versus provincial responsibilities; the role of dentists versus the role of other oral health care providers. There was diversity of opinion, but surprising convergences too.

Dr. Ronald Smith, President of the Canadian Dental Association, underscores that we mostly have things right in Canada. Three out of four Canadians visit a dentist annually, and two out of three Canadians with natural teeth don't need treatment.

But he hastens to add there's plenty of room for improvement, since tooth decay is a totally preventable disease. He makes clear that, while nothing replaces the role of a dentist when it comes to acute care, we will most effectively broaden access and improve oral health if dentists and other service providers work in concert.

Dr. Carlos Quiñonez of the University of Toronto notes that almost six out of ten Canadian children and adolescents have experienced tooth decay, as well as a stunning 96% of Canadian adults. More importantly, many of the people most likely to need dental care are least likely to receive it, unlike residents of many European nations. Surprisingly, even the U.S. has more treatment options for these populations than Canada. That's largely because of the larger role played by public funding elsewhere.

For example, in countries such as Japan and Norway, approximately 75% of dental care is covered by public funding compared to Canada's 5%. They also spend their money differently than we do. A greater emphasis is placed on basic prevention for everyone, precisely because dental problems can be avoided with early treatment and because poor oral health is linked to so many chronic diseases. Australia is currently debating the inclusion of dental care in its universal Medicare system. It's a discussion worth following, as their system is similar to ours.

Dr. Joanne Clovis of the Canadian Association of Public Health Dentistry reminds us of the need to look at the overall effectiveness of health spending, both public and private. She notes that while total public health care spending is on the rise, several provincial and territorial initiatives that addressed oral health in the past have been reduced. Cutting back on the things that could save costs and improve health is penny wise and pound foolish.

We have known for decades that a combination of fluorides and dental sealants can prevent nearly all cavities. Yet only 45% of Canadians live in communities with fluoridated water supplies, compared to 64% of Americans.

Canada loses over 2 million school days and over 4 million working days a year due to ailments associated with our teeth. Many of those problems — and the related costs — are avoidable. Dr. Clovis pointed out that about one in six Canadians who needed dental treatment avoided going to the dentist because of cost.

Dr. Dick Ito, President of the Ontario Association of Public Health Dentistry, drills deeper into that fact. The incidence of dental decay, gum disease and oral cancer is higher among elderly, the homebound, people with disabilities, Aboriginal people, people living in isolated areas, and people who earn little. Both low levels of education and low income are

associated with people not seeking out dental care. Like many other problems, the longer care is delayed the more costly and painful treatment can become.

In October 2010, Ontario started to address this problem by launching a $45 million program to improve access to preventive and early treatment care for children and youth (to age 17) as part of its poverty reduction strategy.

Dr. Ito describes how the new plan builds on other programs for children and social assistance recipients, but points out that the pre-existing gaps in accessing dental care are getting larger: more adults are living in poverty though not receiving welfare, and more people aren't pursuing treatment because deductibles associated with dental insurance have risen too high. He bemoans the already dizzying array of administrative rules that burden public health units, dental offices and insurers alike, and urges replacing the patchwork of targeted strategies with a comprehensive approach.

Dr. Greg Marchildon of the University of Regina reminds us of the historic context behind the current discussion. Publicly funded access to dental care has waxed and waned in Canada since Saskatchewan launched their path-breaking approach in 1974. (Saskatchewan also led the nation by initiating publicly insured hospitalization in 1947 and medicare in 1962.)

Saskatchewan decided to ensure preventative and basic curative dental care for young children, setting them right for life. Care was brought directly to the children in elementary schools all over the province using a cohort of newly trained dental therapists, supervised by public dentists. The school-based approach to dental health attracted national and international attention, and was emulated in Manitoba and elsewhere. By 1981, 82% of all children aged 5 to 14 in Saskatchewan were enrolled in the program, at a per capita annual cost of $77 (See Annex 2). A shift in the political climate, and focus on deficit reduction through program cuts, led to the loss of such programs in the 1980s, in Saskatchewan as elsewhere.

As several authors note, when it comes to basic dental care and dental disease prevention, we've gone backwards in recent decades. Yet these losses are reversible: improving oral health is low-hanging fruit for any government seeking high returns on public investments.

While there will always be differences of opinion on how to advance the goal of improved oral health, there are also points of convergence. At least three points were repeatedly referenced by the participants in the panel.

First: We currently spend a lot of money on dental care, and would have more than enough money to accomplish real improvements in outcomes and savings if we re-allocate some of it to up-stream solutions.

Second: We can provide more care by making better use of the skills and scope of practice of all oral health providers in Canada, from dentists to dental therapists to public health workers to dental hygienists.

Finally — Grandma was right — an ounce of prevention is worth a pound of cure. Building oral health policy from a foundation of preventing dental cavities through fluoridation and school-based programs can reduce disease and costs down the road. The sooner we start, the sooner we save.

A preventive child-focused program could be a relatively small investment with potentially huge dividends down the road. Replicating the Saskatchewan program across Canada today would cost an estimated $564 million nation-wide — about 4.5% of the $12.6 billion being spent on dental care today and 0.3% of total health spending (See Annex 2).

The converse is also true — ignore oral health, and we all pay the price in higher costs later.

The ability to pay has been set back by the economic crisis. Governments are struggling with budgetary deficits. Many jobs with good workplace and pension benefits have vanished,

and many others now have dental plans with higher co-payments.

Doing nothing is a tempting option, but that doesn't address the problems that lie ahead. There will be rising demands for oral health care from an aging population, and a falling supply of dental professionals, who are themselves aging. Human resource shortages are already leading to deteriorating access to oral health care, particularly in rural and Northern communities. That all spells higher costs, particularly if there is no strategy for dealing with these trends.

There's never been a better time to launch this discussion. The Health Accord between provinces, territories and the federal government expires in 2014. As governments gear up for its renegotiation, we all have an opportunity to review and advance options that can save money and improve health.

The following papers offer ideas from other nations, our own history, and current provincial initiatives to help fuel this discussion. They show there are many different ways we can put our money where our mouth is and enhance the health of the nation, one healthy smile at a time.

Armine Yalnizyan is Senior Economist with the Canadian Centre for Policy Alternatives

Dr. Garry Aslanyan is Policy Manager with the World Health Organization, Geneva, Switzerland

Collaborative approach needed to ensure equitable access to oral health care for Canadians

By Ronald G. Smith

Canada has one of the best oral health care delivery systems in the world, with care primarily delivered through private dental clinics. The results from the Oral Health Component of the Canadian Health Measures Survey 2007-2009 indicate that three of every four Canadians visit a dental professional annually and two out of three Canadians with natural teeth do not need dental treatment.

However, access to fully equitable oral health care should not be limited to Canadians who work full time or benefit from comprehensive insurance plans. While most Canadians do have access to professional dental care and, as a result, have good oral health, this is not the case for everyone. Thirty percent of Canadians report that they are not privately or publically insured for dental care (Canadian Health Measures Survey 2007-2009).

The national oral health action plan should be based on the following principles and goals:

- oral health is an integral part of general health;
- all Canadians have the right to good oral health;
- tooth decay (dental caries) is a preventable disease;
- a collaborative approach among oral health, medical and other health providers, provincial and federal health departments and educators produces the best results; and
- new minimum mandatory standards for Canadian dental public health programs, with the resources to meet these standards, are a priority in ensuring good oral health.

Safe and effective disease prevention measures exist for common dental diseases such as tooth decay. A daily regimen of brushing and flossing is an essential part of good oral health; access to professional dental care is equally important for prevention, diagnosis, and treatment. Sadly, not all Canadians in need of care can access dental offices, suggesting that alternative models of care or funding should be explored.

The small minority of Canadians who experience poor oral health include children, seniors, low-income populations, people with special needs and Aboriginal people. These patient groups need the dental profession to advocate on their behalf for equitable access to oral health care. Apart from financial barriers to accessing care, some Canadians do not have dental serv-

ices available to them in their community or geographical area.

We believe that broader access to care is possible through partnerships among the dental profession, other health professions, the federal and provincial governments and non-government community agencies. Finding solutions to the challenge is complex and no one organization, government agency or community can be expected to solely address the disparities.

A collaborative approach among those who have the capacity to contribute to this challenge will lead to improved, equitable access to dental care ensuring better oral and general health for more Canadians. On behalf of Canadian dentists, we have the following recommendations.

- Where the ability to pay for dental care is a barrier to access, increased public funding is most appropriate.
- We support enhanced dental coverage for patients with special needs that recognize and address their medically complex care requirements.
- We support establishing a baseline standard for all long-term care facilities to provide daily oral care for residents with access to annual professional oral health care.
- We support the inclusion of oral health education in school programs, outreach programs and community health centres as part of a larger collaborative approach with dental organizations, child poverty and advocacy agencies, non-dental health care providers and government. This includes supporting education programs that are culturally appropriate and raising awareness in the community to help promote good oral health.
- We recommend the development of a national action plan to reduce the barriers to access to care, where these exist, and we suggest that several factors be considered in this collaborative approach.
- We believe that should additional public resources be made available for dental care they should be targeted to those facing financial barriers to care rather than attempting to provide a universal public program.

As oral health experts, dentists should play a primary role in planning and implementing any proposed oral health recommendations and initiatives, but we cannot do this alone. We strongly believe that we can achieve equitable access to oral health care for more Canadians with a collaborative approach to finding solutions where barriers to access to care exist.

Dr. Ronald Smith is the President of the Canadian Dental Association

Denticare, Denticaid and the Dental Insurance Industry

By Carlos R. Quiñonez

Health Canada recently released the Canadian Health Measures Survey (CHMS), which found that three out of four Canadians (74.5%) had visited a dentist in the previous year. The CHMS also found that 56.8% of Canadian children have been affected by tooth decay, as have 58.8% of adolescents, and 95.9% of adults. The CHMS confirms what we have known for a long time: that poverty is strongly associated with significant oral illness and with a lack of dental insurance. The CHMS reports that Canadians from lower income families have consistently worse outcomes in terms of oral health, untreated disease, lower rates of visiting a dentist, higher proportions of avoiding dental visits and declining recommended care because of costs.

In the Canadian context, this is somewhat surprising, as our health care values of universality and equitable access to care suggest that those with the most needs should receive the most care. When compared to other developed nations, including France, Australia, Spain, and the United States, Canada fares poorly in quantitative assessments of equity in access to dental care. As a result, the Canadian dental professions, social policy groups, and some provincial governments have initiated a policy debate around this issue, though universal dental care has yet to achieve prominence as a national debate. Does the question of increased public investment in oral health deserve the attention of all Canadians? I would argue yes.

This question is first and foremost a question of values. Do we want Denticare, a universal approach to accessing dental care, independent of the ability to pay? Or should we have Denticaid, targeted subsidies for those with the least ability to pay and who generally experience the majority of oral disease? Or is some combination of the two desirable? Answering this question requires a close look at the dental insurance industry in Canada.

Consider that the CHMS found that 62.6% of Canadians have private dental insurance, and 5.5% are publicly insured through government programs, while 31.9% paid for dental care completely out-of-pocket. Dental insurance has become the most significant predictor of utilizing dental care, greatly facilitating access. Not surprisingly, the most significant predictor of having a cost barrier to care was a lack of insurance. This raises an important question: in the wake

of the roll-back of wages, health-related benefits and pensions provoked by the economic crisis, is our dental care system, so broadly dependent on private dental insurance, able to meet the needs of an increasingly uninsured population?

The importance of how insurance is structured is important here as well. For example, those with the highest incomes and steady jobs, or those who are more likely to be covered by employment-based insurance, go to the dentist more than those who have public insurance, or those with the lowest incomes. Yet those with the lowest incomes go to the dentist more often than those just above them on the income scale. This is because the lower middle incomes, or the working poor, do not have insurance, either because of the types of jobs that they have or because they do not qualify for public insurance. Whatever the case, irrespective of government programs, the fact remains that the majority of low income households, not just working poor households, have no dental insurance, and again tend to suffer the most from dental disease. Any form of Denticaid in Canada, if that policy direction is to be pursued, must then be aware of who is at risk. Maybe targeted subsidies in Canada need to reach higher on the income scale and to a greater proportion of those experiencing poverty?

And what about Denticare? Let's go back to the one in four Canadians who said they have had trouble accessing dental care in the past because of cost. Some of these people are walking around with toothaches, limiting their social and economic productivity; surely, these populations constitute a public health concern, and represent a purview of the public good. Yet what about those people that do not have any major disease and that simply need a regular check-up and cleaning? Apart from our increasing knowledge concerning the links between oral diseases and general medical conditions such as diabetes and heart disease, does it not seem reasonable that it's worth investing publicly in helping out those who have trouble affording even this basic care? Many European countries with similar systems to our own provide some public funding for basic preventive needs, and they do so for everyone.

Ultimately, I would argue that in order to improve our oral health care system and the health of Canadians, we need a dual approach: one that recognizes that everyone deserves access to basic dental care, regardless of the ability to pay; and one that recognizes that those who experience the greatest burden of disease also require targeted subsidies that allow access to more complex care. And finally, I would not be meeting my due diligence as a dentist if I did not stress that whether we move to change our dental care system or not, the role of prevention should be a key element to any publicly or privately funded approach to dental care.

Dr. Carlos R. Quiñonez is Assistant Professor and Program Director of Dental Public Health in the Faculty of Dentistry at the University of Toronto.

Let's Put Our Money Where Our Mouth Is

By Joanne B. Clovis

"One cannot have health without oral health" and "oral health is integral to general health" are often-repeated phrases, striking in the context of a health care system that embraces nearly everything but oral health. Despite improvements in oral health and the mounting evidence linking oral and general health, the separation of the mouth from the body continues in Canadian policy and practice. The current status is 'business as usual'; those who can afford dental insurance, either through their employment or personal payments, have direct access to dental services. All Canadians fund health care for the body with the exception of the mouth — that's left to individuals to sort out through their employment plans or direct out-of-pocket expense.

The most current and national oral health data demonstrate the gap: 32% of Canadians have no dental insurance, and the number with no insurance increases with age from 21% for ages 6-11 years to 53% for those aged 60-79 years. Although one-third of all Canadians need dental treatment, 17% avoided going to a dental professional in the past year because of cost. Nearly half of those in need of treatment are in the lower income group, and another 40% are over 60 years of age. The social gradient in the oral health status of Canadians is a stark reminder of an inequitable distribution of wealth and goods. These data are even more compelling when we add the factors that have a huge impact on social interaction and economic productivity: 12 percent had ongoing mouth pain in the past year, and 2.26 million school days and 4.15 million working days were lost due to dental visits or dental sick-days.

Individual provincial and territorial policy choices allow for extensive variation in approaches to oral care. There are many examples of publicly funded initiatives through the promotion of healthy practices and income consideration for oral care. Still, the latest data demonstrate the many gaps in the current system, or perhaps more accurately, the current patchwork of oral care programs in Canada. Many previous initiatives that addressed oral health in the past have been scaled back in recent decades, perhaps in part due to competing health care demands. The reasons seem to vary by jurisdiction but overall there has been a decline in the public funding of oral care. The oral care programs that have

been initiated or enhanced are generally limited to targeted populations.

Unanswered questions remain. Are the existing programs adequate? Which ones are effective? Without adequate data on oral health status collected regularly, and also to evaluate program interventions, we have few measures of program effect or improvement in oral health. With careful program planning and evaluation using oral health data, oral care initiatives are more likely to be successful in reducing the present gaps. Effective oral care requires comprehensive policy development. Reconnecting the mouth with the rest of the body seems more likely if oral care is integrated with all health care planning, or at the very least, considered within the framework of health care in Canada.

Increasing access to oral care is a position promoted by many dental organizations and specialists. The Canadian Association of Public Health Dentistry (CAPHD) mission, values, priorities, and position statement on access to oral health care clearly request the removal of financial barriers by implementing universal coverage for all Canadians.

CAPHD also recommends that priority and emphasis be placed on prevention and health promotion. We have known for decades that combinations of fluorides and sealants can prevent nearly all cavities, yet 96% of Canadian adults have a history of cavities. The gap here is not only the absence of individual oral care, but also the absence of upstream investments in population-based strategies. Established linkages between chronic diseases such as diabetes and oral health can be addressed collectively in oral health promotion programs. And still we don't have widespread utilization of common population health interventions, like the adjustment of fluoride levels in public water supplies. Only about 45% of Canadians benefitted from fluoridated water in 2007 according to Health Canada. Our American neighbours were higher at 64% in 2008 according to the US Centers for Diseases Control.

The options for future public policy are likely many more than implied by the terms 'denticare' and 'denticaid,' adaptations of the American Medicare and Medicaid policies conceptualized as universal and targeted care respectively. With our provincial and territorial governments holding the jurisdictional power for healthcare, there is huge potential for varying forms of both universal and targeted oral healthcare. The effectiveness of any policy, however, will be limited without consideration of the social determinants of health. Some Canadians need dental treatment now, especially for relief of pain. In the longer term, however, the underlying causes such as low or no income must be addressed. Oral care must expand well beyond the immediate relief of pain to the maintenance and improvement of oral health.

Investment in oral care with treatment, prevention and health promotion for individuals and populations will contribute to a healthier, happier and more productive society. At first glance, this seems to be an incredibly simplistic statement. Further, who would disagree with such an inclusive statement?

Although some may assert that the current economy cannot sustain new demands on the public purse, we should note that governments at all levels in Canada have committed, at least in philosophy, to population-based approaches to health. This is the approach to health care that aims to improve the health of the entire population and to reduce health inequities. The key elements include addressing the determinants of health through multiple strategies, investing upstream, basing decisions on evidence, collaborating across sectors, engaging citizens and increasing accountability for health outcomes. The outcomes of this approach are increased productivity and strengthened social cohesion.

There is no question about where our oral health and oral health care fit in our healthcare

system. They are integral, just as the mouth is integral to the body. Committing to an approach that addresses the underlying determinants of health and moving forward with prevention and health promotion action requires a mammoth movement on the part of the public and those who have the power to effect policy change. If we are already aware of and moving in the direction of the population health approach, then there is no justification for excluding oral health, which is essential to general health and well-being.

Dr. Joanne B. Clovis is Associate Professor at the School of Dental Hygiene, Faculty of Dentistry at Dalhousie University and Member of the Canadian Association of Public Health Dentistry

Oral Health for All Ontarians: Why not a future reality?

By Dick Ito

The Ontario Association of Public Health Dentistry (OAPHD) is committed to the principle that all residents of Ontario should have equal access to oral health care services and that oral health is an important part of total health. Although the oral health of most Ontarians has improved over the past 30 years, access-limited populations continue to carry a higher burden of dental diseases. As with many diseases, oral diseases such as dental decay, periodontal disease and oral cancer are more prevalent among those whose access is limited due to financial, physical, socio-cultural, geographic or legislative barriers. Those most affected include the elderly, the homebound, people with disabilities, Aboriginal people, individuals living in isolated areas, "transitional" youth, and people with low incomes. The greatest predictor of poor oral health is the inability to pay.

The oral health care system in Ontario has done little to address the inequalities in access to care that face marginalized groups. For example, any Ontario resident with a broken leg will be able to receive free medical care to fix their leg upon presenting their Ontario Health Card. However, if the same resident had a broken tooth, they may or may not be able to receive dental care depending on several factors, including access to private insurance coverage, age and ability to pay out of pocket. The bottom line is there is no universal coverage for oral health care and many Ontarians have no insurance coverage. According to the Canadian Health Measures Survey, only 62% of Canadians have private dental insurance, 6% have public insurance and 32% have no dental insurance.

Basic oral health services are provided through provincial programs such as the Children in Need of Treatment (CINOT) program and other programs such as Ontario Works and Ontario Disability Support Program. However, these programs only serve as stopgap measures to assist those who qualify to access emergency or basic treatment services. These programs are not accepted by all dentists in Ontario due primarily to the extremely low rates of reimbursement (50-60% of ODA fee guide rates). Furthermore, the Ontario Works adults program is a discretionary program which is locally determined by each Social Services department and the program varies widely throughout Ontario from basic emergency care to more comprehensive ongoing care. Overall, the provincial programs amount to a smatter-

ing of band-aid solutions focussed on pain relief rather than prevention.

In March 2008, the Ontario government began making the first steps towards a reorientation of provincially funded oral health care services. As part of its Poverty Reduction Strategy the provincial government committed $45 million per year to providing access to dental services for low-income families. The first phase was the expansion of the CINOT program to include children and youth up to their 18th birthday; previously the program had stopped at age 13. The next phase of the low-income dental strategy is Healthy Smiles Ontario (formerly known as the Low-Income Dental Program) which will build upon and link with current public health programs and expand access to preventive and early treatment services for children and youth to the age of 17. Two goals of the program are to improve the oral health of children and youth in Ontario and to reduce the need for urgent dental treatment and thereby reduce CINOT costs over the long-term.

The new program was launched on October 1, 2010, and is entirely funded by the Ontario Ministry of Health and Long-Term Care. Through Healthy Smiles Ontario, public health units will provide oral health services using a mix of service delivery models (private dental offices, public health clinics and community sites). The model chosen by each health unit will depend upon local capacity and community needs. Two positive components of this program are the focus on upstream preventive care and the funding provided to health units to increase staffing and improve infrastructure for service delivery.

Although the recent government commitment is a significant improvement over the previous system, significant gaps will remain even after the full implementation of Healthy Smiles Ontario. Two groups excluded from this new program are adults living in poverty and those with dental insurance who still cannot access care. This latter group is growing in number due to reductions in dental benefits. As a result more parents are informing health units that they cannot access care with their dental insurance due to high deductibles, insurance which does not cover the necessary care, or low maximum thresholds of less than $200, which is barely enough to cover a check-up, cleaning, radiographs and a filling for one child.

The provincial government should be given much credit for launching Healthy Smiles Ontario, as it does address a significant gap in dental care for children and youth from low-income families. However, this new program must not be viewed as the end of the revitalization of publicly funded dental care but merely the beginning. The patchwork-quilt approach should be replaced with a single system of care for all residents This would end confusion in public and dental offices and reduce the administrative burden for organizations such as public health units

OAPHD will continue to work with community partners, such as local dental providers and Community Health Centres, to improve access for those who require financial assistance. Over the long term, it is anticipated that the preventive and health promotion activities of Healthy Smiles Ontario and future programs will help to significantly improve the oral health of not just children and youth, but also adults in Ontario.

Dr. Dick Ito is President of the Ontario Association of Public Health Dentistry

Access to Basic Dental Care and the Heavy Hand of History in Canada

By Gregory P. Marchildon

Denticare and Denticaid are shorthand terms for two different types of public coverage for dental care services. Denticare generally refers to a more universal form of coverage, while Denticaid implies an approach that targets the most needy, however defined, in society. Both approaches assume that the private market is deficient in providing the services required to ensure good dental health, or at least prevent a level of dental illness capable of endangering overall health and hygiene. Canada has one of the most privatized systems of dental care among the wealthier countries in the OECD. As the recent Canadian Health Measures Survey (2007-2009) reveals, 62.6% of the Canadian population is privately insured for dental service, leaving almost 32% without insurance and a further 5.5% covered through targeted federal and provincial Denticare and (more numerous) Denticaid programs.

Any discussion of Denticare and Denticaid in Canada must take into account the historical legacy of how health care, including dental care, has been funded and regulated in Canada. For the sake of simplicity, the pieces of the Canadian health system can be grouped into three sectors: 1) universally covered and publicly funded hospital and physician services administered by the provincial and territorial governments, commonly referred to as Medicare; 2) mixed health care goods and services including prescription drugs, long-term care and home care services that are funded both privately, through insurance and out-of-pocket payment, and publicly, through targeted subsidies or direct delivery programs; and 3) predominantly private health care services including most vision care and dental care.

Medicare was the product of almost three decades of experimentation at the provincial level, with additional legislative and funding support at the federal level following the Second World War. Although the government of Saskatchewan and the federal Royal Commission on Health Services (the Hall Commission of 1961-64) wanted universal coverage eventually extended to dental care as well as prescription drugs, long-term care and home care, their immediate priority was to eliminate all financial barriers to access to medical care in the early 1960s. While universal hospitalization had been implemented years before with limited controversy, universal medicare was a very different story. The social democratic government of Saskatchewan endured a 23-day

doctors' strike while the Liberal government of Canada encountered hostility and opposition from without and within.

The implementation of national medical care insurance in the late 1960s and early 1970s marked the end of the road for universality on a national basis despite a host of access problems and market failure for remaining health services including dental care. Instead, provincial and territorial governments patched the holes in medical coverage through provincial subsidies and direct delivery of services to targeted populations. The federal government did some of the same for First Nations and Inuit populations through funding some public health initiatives as well as the non-insured health benefits (NIHB) program, which included dental care.

As was the case with hospitalization (1947) and medicare (1962), Saskatchewan became the first province to initiate a targeted program of dental care in 1974. The program was a belated response to the fact that dental disease had been identified as one of the province's most "extensive" health problems in the Saskatchewan Health Survey of 1951. Poor dental health was a continuing legacy of the Great Depression and the reality that rural and remote communities were poorly served by dentists, most of whom lived in the province's few cities. In the election of 1971, the opposition New Democratic Party promised to introduce dental care for all children if elected. After being elected, the new government spent an agonizing two years figuring out the implementation details, resisted strenuously by private-practice dentists.

Based on a pioneering New Zealand program, the Saskatchewan Dental Health Program publicly delivered dental health to children in schools throughout the province. A newly trained cohort of "dental therapists" provided both preventative and basic curative dental care. Private dentists attacked the publicly delivered program as unnecessary and the dental therapists as unqualified despite the fact that an independent study of the program after its sixth year revealed that the quality of the work equaled or exceeded that performed by private sector dentists. Further, some of the treatment procedures adopted by the dental teams, including the wearing of masks and rubber gloves, eventually became the standard for dental care in Canada and the United States.

The Saskatchewan Dental Health Program attracted national and international attention. It was emulated in other jurisdictions, including the province of Manitoba. In 1976, a Children's Dental Program serving roughly one-third of Manitoba children in rural and remote areas through school-based clinics was implemented by a social democratic government. However, in both provinces, the programs would be short-lived.

In Saskatchewan in 1983, a newly elected Progressive-Conservative government altered the program so that private dentists were mandated to provide services to adolescents rather than the program's public providers. In 1987, the program (along with its 400 employees) was terminated. In Manitoba in 1988, a newly elected Progressive-Conservative minority government narrowed access to the program in terms of age and geographic areas. By 1993, the same government cancelled the treatment component of the program, and eliminated almost all of the staff (from 70 to 4).

Despite the demonstrated need for preventative and basic curative dental care for children and adolescents in rural and remote regions, the organized power of private dentistry succeeded in killing both programs. However, one of the longer-term legacies of the program was the extent to which these initiatives facilitated the establishment of the allied profession of dental therapy in Canada, and the use of dental therapists in the northern territories of Canada as well as in the northern reaches of the provinces. First established in Fort Smith (Northwest Territories) in 1972, the National School of Dental Therapy relocated a decade later to Prince Albert, Saskatchewan, in part because of the Saskatchewan Dental Health Program. Since 1995, the

First Nations University of Canada has administered the National School of Dental Therapy.

Unfortunately, the number of dental therapists in Canada has been declining since the elimination of the provincial dental programs in Saskatchewan and Manitoba. By 2007, there were only 304 dental therapists in Canada compared to almost 21,000 dental hygienists and 19,200 dentists. Moreover, more dental therapists are choosing to work in private dental offices in the south rather than in remote northern settlements. As a result, territorial and provincial governments cannot fill the vacancies for dental therapists, even while dental health is deteriorating at an alarming rate in remote areas previously serviced by publicly employed dental therapists. In the past year, the federal government has cut funding to both the dental therapy program and the First Nations University.

What this history suggests is that when it comes to ensuring basic dental care and dental disease prevention, we have gone backwards in recent decades. So what is the way forward? Given the history described above, I think there are still two avenues open to us.

The first, more Denticaid type of approach, is to continue doing what we are doing but redouble efforts to provide preventative care to at-risk populations. This would require provincial and territorial governments to create school-based programs similar to the Saskatchewan and Manitoba programs of the 1970s knowing in advance that such initiatives would be opposed strenuously by vested interests — in particular, private dentists and their allies in political parties more ideologically oriented to market solutions. In addition, it means a determined effort to create the human resource capacity, a pool of dentists, dental therapists and dental hygienists that would be willing and able to staff such programs. It might also require the Government of Canada to rejuvenate and expand school-based programs for First Nations and Inuit children and adolescents.

The second, and relatively more Denticare way forward, is to make basic dental hygiene and education part of primary care reform by stipulating that such services are an essential component of primary health care. This would require provincial and territorial governments to stipulate that preventative dental care (as opposed to curative dental care) should be an essential part of any future primary care team or organization. Funding would be predicated on these teams or organizations providing a core basket of services including preventative dental care. While this more universal option would be less threatening to organized dentistry, it would require governments to invest in additional human resources and would add to the already considerable cost of existing primary reform initiatives.

Neither approach is exclusive. We could do modest versions of both approaches at the same time. Ultimately, whether we chose Denticaid or Denticare is probably less important than the collective commitment to provide greater access to preventative dental care.

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Annex 1: Expenditures on Dental Services

Canada, the Provinces and Territories, 1975 to 2010

As in other aspects of health care, Canadians are spending more money on their teeth than a generation ago.

Since 2000, the growth of private expenditures has outpaced public spending in most jurisdictions. In fact, with the exception of a brief period from the late 1970s to the early 1980s, private spending on dental services has been consistently more rapid than public spending in almost all parts of Canada.

Nunavut (and the Northwest Territories before the mid 1990s) has always been an exception to this trend. Public sector spending on dental services has also grown more rapidly than private spending in Alberta since 2000. BC and Manitoba have seen more rapid growth in public sector spending since 2005.

Per capita expenditures expressed in constant dollars control for both price inflation and population growth.

Canadian governments increased per capita public expenditures on dental services, but from less than $11 in 1975 to just $19.54 in 2010. In contrast, private sector spending almost tripled over the same 35 year period across Canada, from $135 per capita in 1975 to $379 in 2010. (All figures measured in constant $2010 dollars.)

The Canada-wide per capita figures mask large differences between the provinces and territories.

Per capita public sector spending on dental services ranged from a low of less than $6 per person in Ontario to almost $350 a person in Nunavut in 2010. All the territories have seen a marked increase in public sector per capita spending on dental services over the years.

Per capita spending through the private sector, measured in constant dollars, has almost tripled over the course of the past generation but again there is great variation between jurisdictions. In 2010 per capita private sector spending on dental services was lowest in Nunavut (just over $100 per person) and highest in British Columbia (almost $460 per person).

Public funding accounted for only 4.9% of all spending on dental services in Canada by 2010. The importance of the public sector in the funding of dental services varies significantly between jurisdictions in Canada, from a low of 1.2% in Ontario to a high of 77.6% in Nunavut.

The following series of tables and charts provide a time series of expenditures for dental services through public and private sector spending, for Canada and its provinces and territories from 1975

to 2010. All data is from the Canadian Institute for Health Information's National Health Expenditure Database (NHEX).The figures for 2009 and 2010 are forecasts based on the latest available data.

Average annual rates of growth over various time frames are provided for each jurisdiction at the end of the private and public sector spending tables.

Constant dollar figures are calculated using CIHI's methodology for total public and private health spending, using implicit price indices for government spending (IPI) and the consumer price indices for private sector expenditures. Price indices and population data come from Statistics Canada, and are included in the NHEX tables, Appendix B and C respectively.

List of Tables and Figures

TABLE 1 **Total Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	$7,870	$3,271	$21,896	$11,835	$153,230	$294,115	$31,458
1976	$8,916	$4,084	$25,916	$14,388	$185,250	$341,449	$40,374
1977	$10,637	$4,872	$32,115	$17,233	$216,964	$405,752	$46,040
1978	$13,008	$5,030	$35,611	$21,835	$244,855	$458,281	$50,504
1979	$16,249	$5,234	$40,187	$24,875	$284,845	$526,982	$56,721
1980	$16,494	$5,528	$43,955	$28,128	$335,369	$607,307	$66,999
1981	$17,507	$6,811	$48,117	$29,044	$370,850	$695,823	$77,824
1982	$20,069	$7,030	$61,624	$35,275	$417,675	$801,422	$84,858
1983	$21,177	$7,803	$65,906	$37,029	$423,799	$876,137	$89,751
1984	$23,257	$8,242	$72,671	$40,101	$442,735	$955,428	$98,607
1985	$29,089	$8,826	$82,639	$47,972	$508,191	$1,111,040	$105,736
1986	$32,564	$9,518	$92,127	$49,857	$569,299	$1,221,444	$113,013
1987	$36,909	$10,485	$94,845	$54,799	$621,935	$1,323,255	$122,146
1988	$39,649	$12,587	$102,948	$58,903	$683,027	$1,442,744	$134,520
1989	$42,371	$15,312	$111,074	$62,873	$745,420	$1,565,945	$147,175
1990	$40,318	$15,220	$106,253	$65,170	$770,054	$1,741,639	$155,986
1991	$45,256	$18,952	$116,100	$71,132	$845,791	$1,855,525	$162,455
1992	$47,956	$19,678	$120,509	$74,629	$865,003	$1,959,678	$172,124
1993	$47,684	$20,274	$125,998	$78,005	$906,851	$2,103,979	$178,545
1994	$49,797	$21,369	$128,061	$79,668	$938,759	$2,284,297	$190,096
1995	$55,276	$22,303	$129,892	$83,616	$981,744	$2,410,550	$199,226
1996	$53,162	$24,246	$133,007	$82,268	$1,001,830	$2,504,222	$207,170
1997	$51,322	$22,557	$143,290	$93,514	$1,055,604	$2,519,328	$219,974
1998	$53,471	$21,800	$133,502	$95,734	$1,058,470	$2,717,481	$222,643
1999	$58,732	$21,315	$153,587	$105,007	$1,273,815	$2,929,570	$215,355
2000	$65,755	$20,537	$168,135	$113,322	$1,250,936	$3,163,767	$223,997
2001	$68,818	$27,882	$174,451	$122,221	$1,368,685	$3,499,287	$228,505
2002	$66,872	$30,179	$185,175	$126,724	$1,469,865	$3,713,342	$250,227
2003	$74,469	$29,505	$202,429	$132,853	$1,494,146	$3,699,020	$257,993
2004	$80,419	$33,993	$215,669	$136,258	$1,444,353	$3,973,168	$289,249
2005	$89,520	$32,543	$234,144	$162,749	$1,714,409	$4,336,426	$301,299
2006	$88,042	$34,794	$262,248	$178,892	$1,803,143	$4,383,053	$329,016
2007	$92,444	$36,483	$276,826	$191,761	$1,705,328	$5,042,183	$335,867
2008	$89,963	$35,970	$263,380	$218,292	$2,032,992	$5,063,354	$357,772
2009 f	$94,274	$37,291	$276,004	$249,943	$2,244,127	$5,350,260	$377,850
2010 f	$97,804	$38,262	$287,033	$266,428	$2,317,252	$5,871,274	$401,744

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 1 **Total Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 2)*

Year	SK	AB	BC	YT	NT	NU	Canada
1975	$21,765	$65,893	$127,023	$867	$2,445	$-	**$741,667**
1976	$25,639	$76,217	$143,184	$1,083	$2,616	$-	**$869,116**
1977	$33,081	$93,805	$170,113	$1,130	$2,901	$-	**$1,034,643**
1978	$38,745	$111,918	$206,921	$1,367	$3,179	$-	**$1,191,254**
1979	$43,703	$135,062	$235,547	$1,675	$3,453	$-	**$1,374,531**
1980	$53,847	$161,086	$267,381	$1,875	$4,004	$-	**$1,591,973**
1981	$64,706	$187,213	$306,022	$2,921	$4,967	$-	**$1,811,803**
1982	$66,653	$212,731	$357,034	$2,690	$5,676	$-	**$2,072,737**
1983	$73,058	$230,778	$390,611	$2,826	$6,847	$-	**$2,225,725**
1984	$78,370	$249,638	$424,357	$2,471	$6,412	$-	**$2,402,288**
1985	$86,789	$284,147	$438,276	$2,087	$6,537	$-	**$2,711,328**
1986	$89,363	$315,273	$458,180	$2,001	$6,991	$-	**$2,959,628**
1987	$88,610	$348,377	$493,161	$2,180	$6,899	$-	**$3,203,601**
1988	$94,079	$383,343	$530,810	$2,280	$9,109	$-	**$3,493,999**
1989	$99,808	$437,789	$579,893	$2,454	$10,537	$-	**$3,820,652**
1990	$109,232	$476,765	$644,552	$2,572	$11,203	$-	**$4,138,965**
1991	$122,576	$513,445	$700,364	$3,078	$12,815	$-	**$4,467,489**
1992	$128,283	$532,588	$753,268	$3,232	$13,284	$-	**$4,690,230**
1993	$134,375	$549,694	$764,300	$4,697	$12,517	$-	**$4,926,919**
1994	$134,421	$569,684	$802,843	$5,005	$13,140	$-	**$5,217,140**
1995	$140,766	$567,899	$875,796	$5,065	$13,112	$-	**$5,485,245**
1996	$143,964	$566,555	$929,441	$5,895	$11,632	$-	**$5,663,394**
1997	$160,041	$657,794	$942,097	$7,087	$13,201	$-	**$5,885,810**
1998	$151,834	$663,472	$1,127,635	$6,292	$12,269	$-	**$6,264,601**
1999	$142,401	$738,974	$1,099,305	$6,939	$12,019	$3,675	**$6,760,693**
2000	$164,143	$773,313	$1,212,429	$7,348	$12,037	$3,805	**$7,179,525**
2001	$175,345	$847,070	$1,228,379	$8,498	$12,289	$3,080	**$7,764,510**
2002	$185,994	$886,595	$1,307,038	$9,034	$13,959	$3,096	**$8,248,100**
2003	$201,840	$921,056	$1,434,339	$8,982	$11,971	$8,411	**$8,477,015**
2004	$202,955	$1,053,167	$1,513,938	$9,668	$11,818	$11,550	**$8,976,207**
2005	$227,724	$1,099,163	$1,590,521	$9,656	$15,977	$12,896	**$9,827,028**
2006	$256,936	$1,323,523	$1,670,499	$10,074	$17,791	$10,885	**$10,368,897**
2007	$274,419	$1,414,301	$1,699,827	$12,612	$17,963	$13,348	**$11,113,362**
2008	$266,628	$1,512,514	$1,953,783	$13,185	$18,820	$14,102	**$11,840,754**
2009 f	$294,979	$1,618,627	$2,043,861	$13,742	$18,043	$14,326	**$12,633,327**
2010 f	$320,706	$1,763,577	$2,205,291	$14,707	$18,913	$14,685	**$13,617,677**

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 2 **Private Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	$5,337	$2,531	$18,455	$10,961	$134,920	$286,786	$28,900
1976	$5,917	$3,236	$21,707	$13,557	$160,173	$335,106	$35,450
1977	$7,326	$3,855	$27,327	$16,219	$181,656	$400,264	$40,912
1978	$8,755	$3,820	$29,626	$20,641	$198,357	$451,811	$43,926
1979	$11,553	$3,887	$32,611	$23,720	$208,364	$519,423	$49,620
1980	$11,176	$4,054	$35,463	$26,876	$232,768	$597,764	$59,144
1981	$11,092	$5,177	$37,614	$27,514	$253,167	$684,969	$68,195
1982	$12,519	$5,223	$49,205	$33,286	$315,134	$787,611	$71,886
1983	$13,199	$6,085	$52,362	$34,960	$322,635	$859,565	$75,356
1984	$15,233	$6,675	$57,940	$37,272	$330,056	$939,678	$85,135
1985	$20,993	$7,277	$67,081	$44,526	$392,674	$1,094,938	$92,739
1986	$24,860	$7,853	$76,155	$46,384	$451,587	$1,205,953	$99,637
1987	$29,022	$8,617	$78,497	$51,334	$504,783	$1,306,934	$109,874
1988	$31,318	$10,640	$85,412	$54,634	$560,375	$1,418,162	$118,588
1989	$33,796	$13,137	$92,936	$58,147	$622,090	$1,536,458	$127,993
1990	$31,504	$12,918	$87,967	$59,563	$641,253	$1,706,079	$137,526
1991	$36,325	$16,562	$100,141	$64,866	$695,550	$1,816,266	$147,921
1992	$39,946	$17,146	$105,495	$68,100	$720,642	$1,915,453	$149,269
1993	$40,463	$17,706	$110,895	$71,430	$761,202	$2,057,013	$153,771
1994	$42,734	$18,861	$112,914	$73,105	$790,956	$2,234,909	$163,856
1995	$48,181	$20,002	$115,022	$76,865	$830,144	$2,360,450	$169,862
1996	$46,575	$21,952	$118,750	$75,935	$863,081	$2,458,601	$178,478
1997	$44,669	$20,188	$130,987	$86,953	$929,225	$2,473,942	$191,785
1998	$46,531	$19,364	$120,331	$89,172	$944,992	$2,672,478	$194,962
1999	$52,203	$18,798	$139,467	$98,490	$1,156,174	$2,883,956	$191,547
2000	$58,858	$17,868	$153,989	$106,415	$1,141,829	$3,113,563	$200,926
2001	$61,960	$25,130	$158,699	$114,703	$1,268,224	$3,441,279	$203,723
2002	$60,184	$27,319	$171,675	$119,201	$1,338,758	$3,656,666	$225,501
2003	$67,817	$26,405	$189,855	$125,298	$1,379,800	$3,642,280	$232,359
2004	$74,217	$30,966	$203,550	$129,064	$1,331,520	$3,912,939	$261,176
2005	$83,012	$29,745	$221,761	$155,143	$1,600,479	$4,271,799	$270,019
2006	$81,911	$32,088	$250,087	$171,229	$1,683,167	$4,319,088	$294,207
2007	$85,168	$33,785	$263,807	$183,555	$1,577,464	$4,975,952	$299,765
2008	$81,362	$33,087	$249,628	$208,943	$1,896,094	$4,991,594	$319,120
2009 f	$85,447	$34,229	$262,247	$239,966	$2,093,729	$5,279,148	$336,089
2010 f	$88,434	$35,207	$272,502	$256,124	$2,154,798	$5,796,230	$358,243

Average Annual Rates of Growth, Private Sector Spending on Dental Services

	NF	PE	NS	NB	QU	ON	MA
Since 1975	8.5%	8.1%	8.0%	9.4%	8.2%	8.8%	7.4%
Since 1985	7.4%	7.2%	6.3%	7.8%	7.7%	7.3%	5.7%
Since 1995	4.8%	4.5%	5.8%	8.3%	6.8%	6.2%	5.1%
Since 2000	5.1%	6.5%	6.4%	9.2%	6.1%	6.6%	5.9%
Since 2005	3.1%	2.2%	5.1%	12.2%	8.8%	6.9%	5.4%

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 2 **Private Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 2)*

Year	SK	AB	BC	YT	NT	NU	Canada
1975	$17,510	$58,296	$118,427	$782	$2,368	$-	**$685,272**
1976	$20,009	$67,932	$132,743	$970	$2,510	$-	**$799,310**
1977	$25,967	$85,203	$158,377	$1,014	$2,820	$-	**$950,940**
1978	$30,085	$102,053	$194,046	$1,076	$3,101	$-	**$1,087,296**
1979	$33,485	$122,484	$221,063	$1,244	$3,250	$-	**$1,230,702**
1980	$41,253	$144,740	$238,989	$1,388	$3,421	$-	**$1,397,037**
1981	$48,722	$166,654	$225,120	$1,397	$3,739	$-	**$1,533,360**
1982	$46,871	$186,079	$289,446	$1,530	$3,907	$-	**$1,802,696**
1983	$50,443	$197,687	$347,025	$1,507	$4,239	$-	**$1,965,063**
1984	$56,928	$212,984	$387,605	$1,549	$4,489	$-	**$2,135,546**
1985	$65,699	$242,769	$400,792	$1,525	$4,799	$-	**$2,435,811**
1986	$68,734	$266,037	$418,665	$1,445	$5,155	$-	**$2,672,464**
1987	$69,658	$299,682	$452,076	$1,419	$5,440	$-	**$2,917,335**
1988	$73,986	$329,148	$493,275	$1,239	$5,872	$-	**$3,182,650**
1989	$78,584	$361,513	$538,229	$1,240	$6,261	$-	**$3,470,382**
1990	$85,143	$387,854	$599,968	$1,162	$5,851	$-	**$3,756,788**
1991	$95,099	$433,468	$647,300	$1,453	$6,862	$-	**$4,061,811**
1992	$98,921	$458,511	$691,623	$1,391	$6,318	$-	**$4,272,816**
1993	$106,480	$475,500	$698,083	$2,702	$5,608	$-	**$4,500,853**
1994	$108,874	$493,910	$732,374	$2,757	$5,995	$-	**$4,781,245**
1995	$114,415	$510,303	$806,334	$2,736	$5,934	$-	**$5,060,246**
1996	$119,266	$516,550	$865,751	$3,784	$5,381	$-	**$5,274,104**
1997	$135,842	$609,405	$880,055	$4,791	$6,957	$-	**$5,514,799**
1998	$126,315	$612,251	$1,072,605	$4,025	$6,109	$-	**$5,909,136**
1999	$117,524	$676,505	$1,033,864	$3,878	$5,185	$1,274	**$6,378,866**
2000	$138,092	$705,595	$1,136,098	$4,370	$4,690	$1,305	**$6,783,599**
2001	$148,883	$776,971	$1,150,349	$5,746	$4,076	$1,407	**$7,361,150**
2002	$158,340	$825,941	$1,233,872	$6,412	$4,492	$1,602	**$7,829,962**
2003	$173,028	$856,836	$1,364,145	$6,213	$5,109	$2,145	**$8,071,292**
2004	$172,162	$981,626	$1,442,643	$6,874	$5,510	$2,406	**$8,554,654**
2005	$193,495	$1,023,348	$1,511,049	$5,888	$8,324	$3,947	**$9,378,008**
2006	$220,940	$1,208,087	$1,589,586	$5,882	$8,765	$2,953	**$9,867,991**
2007	$236,133	$1,282,145	$1,615,380	$8,489	$9,449	$3,143	**$10,574,233**
2008	$225,096	$1,369,275	$1,859,688	$8,891	$10,268	$3,153	**$11,256,199**
2009 f	$253,100	$1,469,525	$1,940,722	$9,487	$10,470	$3,393	**$12,017,552**
2010 f	$274,983	$1,609,457	$2,079,955	$10,414	$10,886	$3,297	**$12,950,529**

Average Annual Rates of Growth, Private Sector Spending on Dental Services

	SK	AB	BC	YT	NT	NU	Canada
Since 1975	8.2%	9.8%	8.5%	8.9%	5.0%	3.3%	**8.6%**
Since 1985	6.4%	8.2%	6.8%	9.6%	4.3%	4.6%	**7.2%**
Since 1995	6.2%	7.8%	6.9%	9.9%	5.0%	7.5%	**6.4%**
Since 2000	8.2%	8.3%	6.6%	10.4%	8.0%	11.0%	**6.7%**
Since 2005	8.3%	8.7%	6.4%	8.5%	13.1%	8.4%	**7.2%**

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 3 **Public Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	$2,534	$739	$3,441	$874	$18,311	$7,329	$2,558
1976	$2,999	$848	$4,209	$831	$25,076	$6,343	$4,924
1977	$3,311	$1,017	$4,789	$1,014	$35,309	$5,488	$5,127
1978	$4,253	$1,210	$5,985	$1,194	$46,498	$6,470	$6,577
1979	$4,696	$1,347	$7,575	$1,156	$76,481	$7,559	$7,101
1980	$5,319	$1,474	$8,491	$1,253	$102,601	$9,543	$7,855
1981	$6,414	$1,634	$10,503	$1,530	$117,683	$10,854	$9,629
1982	$7,550	$1,807	$12,419	$1,990	$102,542	$13,811	$12,972
1983	$7,979	$1,719	$13,545	$2,069	$101,163	$16,572	$14,395
1984	$8,024	$1,567	$14,731	$2,829	$112,679	$15,750	$13,472
1985	$8,097	$1,549	$15,558	$3,445	$115,516	$16,102	$12,998
1986	$7,704	$1,666	$15,972	$3,473	$117,712	$15,491	$13,376
1987	$7,886	$1,868	$16,348	$3,465	$117,153	$16,321	$12,272
1988	$8,331	$1,947	$17,536	$4,269	$122,652	$24,582	$15,933
1989	$8,575	$2,175	$18,137	$4,727	$123,330	$29,487	$19,183
1990	$8,814	$2,303	$18,286	$5,607	$128,801	$35,560	$18,460
1991	$8,931	$2,390	$15,960	$6,267	$150,242	$39,259	$14,533
1992	$8,009	$2,532	$15,014	$6,529	$144,360	$44,225	$22,855
1993	$7,220	$2,569	$15,103	$6,575	$145,649	$46,965	$24,774
1994	$7,063	$2,509	$15,147	$6,563	$147,803	$49,389	$26,240
1995	$7,095	$2,301	$14,870	$6,750	$151,600	$50,100	$29,364
1996	$6,587	$2,295	$14,258	$6,332	$138,748	$45,621	$28,692
1997	$6,653	$2,369	$12,303	$6,561	$126,379	$45,387	$28,190
1998	$6,939	$2,436	$13,171	$6,561	$113,478	$45,002	$27,681
1999	$6,529	$2,517	$14,119	$6,518	$117,641	$45,614	$23,808
2000	$6,897	$2,669	$14,146	$6,907	$109,107	$50,205	$23,072
2001	$6,858	$2,753	$15,752	$7,517	$100,461	$58,008	$24,782
2002	$6,688	$2,860	$13,500	$7,523	$131,108	$56,676	$24,727
2003	$6,652	$3,100	$12,574	$7,555	$114,346	$56,741	$25,634
2004	$6,202	$3,028	$12,119	$7,194	$112,832	$60,229	$28,073
2005	$6,508	$2,798	$12,384	$7,606	$113,930	$64,627	$31,280
2006	$6,131	$2,707	$12,161	$7,663	$119,976	$63,965	$34,808
2007	$7,276	$2,697	$13,019	$8,207	$127,864	$66,231	$36,102
2008	$8,601	$2,883	$13,752	$9,349	$136,898	$71,760	$38,652
2009 f	$8,828	$3,062	$13,757	$9,977	$150,398	$71,113	$41,761
2010 f	$9,371	$3,055	$14,531	$10,303	$162,455	$75,045	$43,502

Average Annual Rates of Growth, Public Sector Spending on Dental Services

	NF	PE	NS	NB	QU	ON	MA
Since 1975	4.1%	4.2%	4.6%	7.6%	7.4%	7.3%	9.7%
Since 1985	0.8%	2.7%	0.2%	5.3%	1.8%	6.7%	5.5%
Since 1995	2.0%	1.4%	0.0%	3.0%	1.1%	2.8%	3.4%
Since 2000	3.6%	1.9%	0.5%	4.4%	3.5%	4.8%	5.7%
Since 2005	7.5%	0.3%	3.1%	6.2%	6.3%	3.8%	7.6%

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 3 **Public Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 — Current Dollars ('000) *(Part 2)*

Year	SK	AB	BC	YT	NT	NU	Canada
1975	$4,256	$7,597	$8,595	$85	$77	$-	**$56,395**
1976	$5,630	$8,286	$10,442	$114	$105	$-	**$69,806**
1977	$7,114	$8,602	$11,736	$116	$81	$-	**$83,703**
1978	$8,660	$9,865	$12,876	$292	$79	$-	**$103,958**
1979	$10,218	$12,578	$14,484	$431	$203	$-	**$143,829**
1980	$12,594	$16,346	$28,392	$487	$583	$-	**$194,936**
1981	$15,983	$20,560	$80,902	$1,524	$1,228	$-	**$278,444**
1982	$19,782	$26,652	$67,589	$1,161	$1,769	$-	**$270,041**
1983	$22,615	$33,091	$43,587	$1,319	$2,608	$-	**$260,662**
1984	$21,442	$36,654	$36,751	$922	$1,923	$-	**$266,743**
1985	$21,090	$41,378	$37,484	$562	$1,738	$-	**$275,516**
1986	$20,629	$49,236	$39,515	$555	$1,835	$-	**$287,165**
1987	$18,952	$48,695	$41,085	$761	$1,459	$-	**$286,266**
1988	$20,093	$54,195	$37,535	$1,041	$3,237	$-	**$311,350**
1989	$21,225	$76,277	$41,664	$1,215	$4,276	$-	**$350,271**
1990	$24,088	$88,911	$44,584	$1,411	$5,352	$-	**$382,177**
1991	$27,477	$79,977	$53,064	$1,625	$5,954	$-	**$405,677**
1992	$29,362	$74,077	$61,644	$1,840	$6,966	$-	**$417,414**
1993	$27,895	$74,194	$66,218	$1,995	$6,909	$-	**$426,066**
1994	$25,547	$75,774	$70,469	$2,248	$7,144	$-	**$435,895**
1995	$26,352	$57,597	$69,462	$2,330	$7,179	$-	**$424,999**
1996	$24,699	$50,005	$63,691	$2,112	$6,251	$-	**$389,290**
1997	$24,199	$48,389	$62,041	$2,297	$6,244	$-	**$371,012**
1998	$25,520	$51,220	$55,030	$2,267	$6,159	$-	**$355,465**
1999	$24,877	$62,469	$65,441	$3,061	$6,834	$2,401	**$381,827**
2000	$26,051	$67,718	$76,331	$2,977	$7,347	$2,500	**$395,926**
2001	$26,462	$70,099	$78,031	$2,752	$8,213	$1,673	**$403,360**
2002	$27,654	$60,654	$73,166	$2,621	$9,467	$1,494	**$418,138**
2003	$28,812	$64,220	$70,193	$2,769	$6,862	$6,266	**$405,724**
2004	$30,793	$71,541	$71,295	$2,794	$6,308	$9,144	**$421,553**
2005	$34,230	$75,814	$79,472	$3,768	$7,652	$8,950	**$449,019**
2006	$35,996	$115,436	$80,913	$4,192	$9,027	$7,932	**$500,906**
2007	$38,287	$132,156	$84,447	$4,123	$8,514	$10,205	**$539,129**
2008	$41,532	$143,240	$94,095	$4,294	$8,552	$10,949	**$584,556**
2009 f	$41,879	$149,102	$103,138	$4,255	$7,574	$10,933	**$615,775**
2010 f	$45,723	$154,120	$125,336	$4,293	$8,027	$11,389	**$667,148**

Average Annual Rates of Growth, Public Sector Spending on Dental Services

	SK	AB	BC	YT	NT	NU	Canada
Since 1975	7.3%	9.8%	11.2%	17.0%	20.6%	9.8%	**7.7%**
Since 1985	3.1%	6.8%	5.2%	7.4%	8.1%	13.5%	**3.7%**
Since 1995	3.8%	5.7%	4.1%	4.8%	1.5%	22.0%	**2.9%**
Since 2000	5.7%	9.5%	6.4%	3.6%	2.5%	32.0%	**5.3%**
Since 2005	6.9%	14.8%	10.0%	8.1%	4.8%	4.4%	**8.0%**

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 4 **Public Share of Total Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 (%) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	32.2%	22.6%	15.7%	7.4%	11.9%	2.5%	8.1%
1976	33.6%	20.8%	16.2%	5.8%	13.5%	1.9%	12.2%
1977	31.1%	20.9%	14.9%	5.9%	16.3%	1.4%	11.1%
1978	32.7%	24.1%	16.8%	5.5%	19.0%	1.4%	13.0%
1979	28.9%	25.7%	18.9%	4.6%	26.9%	1.4%	12.5%
1980	32.2%	26.7%	19.3%	4.5%	30.6%	1.6%	11.7%
1981	36.6%	24.0%	21.8%	5.3%	31.7%	1.6%	12.4%
1982	37.6%	25.7%	20.2%	5.6%	24.6%	1.7%	15.3%
1983	37.7%	22.0%	20.6%	5.6%	23.9%	1.9%	16.0%
1984	34.5%	19.0%	20.3%	7.1%	25.5%	1.6%	13.7%
1985	27.8%	17.6%	18.8%	7.2%	22.7%	1.4%	12.3%
1986	23.7%	17.5%	17.3%	7.0%	20.7%	1.3%	11.8%
1987	21.4%	17.8%	17.2%	6.3%	18.8%	1.2%	10.0%
1988	21.0%	15.5%	17.0%	7.2%	18.0%	1.7%	11.8%
1989	20.2%	14.2%	16.3%	7.5%	16.5%	1.9%	13.0%
1990	21.9%	15.1%	17.2%	8.6%	16.7%	2.0%	11.8%
1991	19.7%	12.6%	13.7%	8.8%	17.8%	2.1%	8.9%
1992	16.7%	12.9%	12.5%	8.7%	16.7%	2.3%	13.3%
1993	15.1%	12.7%	12.0%	8.4%	16.1%	2.2%	13.9%
1994	14.2%	11.7%	11.8%	8.2%	15.7%	2.2%	13.8%
1995	12.8%	10.3%	11.4%	8.1%	15.4%	2.1%	14.7%
1996	12.4%	9.5%	10.7%	7.7%	13.8%	1.8%	13.8%
1997	13.0%	10.5%	8.6%	7.0%	12.0%	1.8%	12.8%
1998	13.0%	11.2%	9.9%	6.9%	10.7%	1.7%	12.4%
1999	11.1%	11.8%	9.2%	6.2%	9.2%	1.6%	11.1%
2000	10.5%	13.0%	8.4%	6.1%	8.7%	1.6%	10.3%
2001	10.0%	9.9%	9.0%	6.2%	7.3%	1.7%	10.8%
2002	10.0%	9.5%	7.3%	5.9%	8.9%	1.5%	9.9%
2003	8.9%	10.5%	6.2%	5.7%	7.7%	1.5%	9.9%
2004	7.7%	8.9%	5.6%	5.3%	7.8%	1.5%	9.7%
2005	7.3%	8.6%	5.3%	4.7%	6.6%	1.5%	10.4%
2006	7.0%	7.8%	4.6%	4.3%	6.7%	1.5%	10.6%
2007	7.9%	7.4%	4.7%	4.3%	7.5%	1.3%	10.7%
2008	9.6%	8.0%	5.2%	4.3%	6.7%	1.4%	10.8%
2009 f	9.4%	8.2%	5.0%	4.0%	6.7%	1.3%	11.1%
2010 f	9.6%	8.0%	5.1%	3.9%	7.0%	1.3%	10.8%

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 4 **Public Share of Total Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010 (%) *(Part 2)*

Year	SK	AB	BC	YT	NT	NU	Canada
1975	19.6%	11.5%	6.8%	9.8%	3.1%	-	**7.6%**
1976	22.0%	10.9%	7.3%	10.5%	4.0%	-	**8.0%**
1977	21.5%	9.2%	6.9%	10.3%	2.8%	-	**8.1%**
1978	22.4%	8.8%	6.2%	21.3%	2.5%	-	**8.7%**
1979	23.4%	9.3%	6.1%	25.7%	5.9%	-	**10.5%**
1980	23.4%	10.1%	10.6%	26.0%	14.6%	-	**12.2%**
1981	24.7%	11.0%	26.4%	52.2%	24.7%	-	**15.4%**
1982	29.7%	12.5%	18.9%	43.1%	31.2%	-	**13.0%**
1983	31.0%	14.3%	11.2%	46.7%	38.1%	-	**11.7%**
1984	27.4%	14.7%	8.7%	37.3%	30.0%	-	**11.1%**
1985	24.3%	14.6%	8.6%	26.9%	26.6%	-	**10.2%**
1986	23.1%	15.6%	8.6%	27.8%	26.3%	-	**9.7%**
1987	21.4%	14.0%	8.3%	34.9%	21.1%	-	**8.9%**
1988	21.4%	14.1%	7.1%	45.7%	35.5%	-	**8.9%**
1989	21.3%	17.4%	7.2%	49.5%	40.6%	-	**9.2%**
1990	22.1%	18.6%	6.9%	54.8%	47.8%	-	**9.2%**
1991	22.4%	15.6%	7.6%	52.8%	46.5%	-	**9.1%**
1992	22.9%	13.9%	8.2%	56.9%	52.4%	-	**8.9%**
1993	20.8%	13.5%	8.7%	42.5%	55.2%	-	**8.6%**
1994	19.0%	13.3%	8.8%	44.9%	54.4%	-	**8.4%**
1995	18.7%	10.1%	7.9%	46.0%	54.7%	-	**7.7%**
1996	17.2%	8.8%	6.9%	35.8%	53.7%	-	**6.9%**
1997	15.1%	7.4%	6.6%	32.4%	47.3%	-	**6.3%**
1998	16.8%	7.7%	4.9%	36.0%	50.2%	-	**5.7%**
1999	17.5%	8.5%	6.0%	44.1%	56.9%	65.3%	**5.6%**
2000	15.9%	8.8%	6.3%	40.5%	61.0%	65.7%	**5.5%**
2001	15.1%	8.3%	6.4%	32.4%	66.8%	54.3%	**5.2%**
2002	14.9%	6.8%	5.6%	29.0%	67.8%	48.3%	**5.1%**
2003	14.3%	7.0%	4.9%	30.8%	57.3%	74.5%	**4.8%**
2004	15.2%	6.8%	4.7%	28.9%	53.4%	79.2%	**4.7%**
2005	15.0%	6.9%	5.0%	39.0%	47.9%	69.4%	**4.6%**
2006	14.0%	8.7%	4.8%	41.6%	50.7%	72.9%	**4.8%**
2007	14.0%	9.3%	5.0%	32.7%	47.4%	76.5%	**4.9%**
2008	15.6%	9.5%	4.8%	32.6%	45.4%	77.6%	**4.9%**
2009 f	14.2%	9.2%	5.0%	31.0%	42.0%	76.3%	**4.9%**
2010 f	14.3%	8.7%	5.7%	29.2%	42.4%	77.6%	**4.9%**

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 5 **Per Capita Private Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010, Constant Dollars ($2010) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	$37.92	$105.41	$105.45	$71.45	$87.92	$163.80	$118.89
1976	$36.64	$124.62	$114.39	$76.71	$95.63	$172.07	$125.92
1977	$42.27	$136.04	$132.79	$85.97	$104.17	$190.78	$137.98
1978	$47.64	$119.34	$128.49	$102.97	$107.02	$196.76	$139.61
1979	$59.81	$114.02	$132.69	$113.58	$104.23	$208.90	$150.14
1980	$51.76	$108.32	$128.44	$112.98	$104.07	$218.18	$162.05
1981	$46.34	$119.48	$119.26	$103.49	$101.11	$221.92	$172.18
1982	$46.48	$104.03	$131.91	$112.37	$113.63	$223.37	$165.21
1983	$43.47	$111.99	$125.61	$107.06	$108.77	$220.64	$154.54
1984	$47.17	$111.32	$128.72	$108.53	$105.08	$224.85	$165.74
1985	$63.04	$112.49	$138.49	$123.93	$118.37	$242.97	$171.11
1986	$70.54	$113.72	$148.54	$122.19	$127.33	$248.77	$173.60
1987	$78.45	$118.31	$143.80	$124.97	$132.19	$248.49	$182.91
1988	$81.23	$134.64	$148.08	$123.92	$137.15	$249.68	$183.58
1989	$83.34	$158.01	$153.37	$124.25	$142.23	$249.30	$187.29
1990	$74.66	$145.95	$136.83	$117.67	$137.99	$256.36	$193.16
1991	$81.66	$177.40	$146.41	$118.83	$142.14	$255.88	$196.57
1992	$87.03	$177.61	$150.51	$119.00	$139.66	$257.81	$190.81
1993	$85.97	$177.90	$154.32	$121.96	$142.46	$266.64	$192.72
1994	$91.30	$186.36	$154.19	$121.97	$145.65	$282.40	$201.84
1995	$104.62	$197.67	$156.08	$127.63	$149.52	$294.47	$205.66
1996	$103.60	$213.64	$159.77	$124.73	$152.86	$300.61	$211.75
1997	$100.89	$193.24	$177.83	$141.96	$160.60	$294.42	$224.62
1998	$105.32	$180.87	$160.79	$144.68	$158.80	$307.06	$224.65
1999	$117.86	$173.14	$183.55	$157.23	$189.47	$318.42	$216.58
2000	$131.63	$158.67	$199.78	$167.96	$182.23	$331.62	$217.19
2001	$137.84	$215.84	$199.69	$177.99	$197.46	$349.97	$211.91
2002	$133.13	$229.46	$210.97	$183.78	$205.72	$357.88	$228.00
2003	$148.73	$218.09	$228.62	$190.16	$207.63	$344.94	$227.24
2004	$163.53	$253.41	$240.36	$193.71	$194.17	$359.20	$248.81
2005	$182.37	$239.00	$256.00	$229.66	$227.83	$373.53	$252.49
2006	$177.54	$255.12	$283.45	$252.06	$235.14	$365.86	$269.15
2007	$183.17	$265.98	$294.59	$267.64	$215.84	$407.85	$268.37
2008	$171.53	$255.29	$276.20	$302.42	$253.42	$397.81	$278.23
2009 f	$169.42	$245.22	$281.95	$327.09	$271.64	$409.03	$280.92
2010 f	$174.25	$248.81	$290.33	$341.36	$273.05	$438.11	$290.45

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 5 **Per Capita Private Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010, Constant Dollars ($2010) *(Part 2)*

Year	SA	AB	BC	YT	NT	NU	Canada
1975	$94.47	$163.96	$206.71	$142.28	$248.60	$-	**$134.77**
1976	$107.31	$168.34	$206.25	$151.61	$232.00	$-	**$141.85**
1977	$129.96	$190.48	$228.11	$146.06	$243.07	$-	**$157.46**
1978	$138.05	$203.89	$259.22	$141.17	$244.62	$-	**$166.01**
1979	$146.47	$227.22	$262.54	$154.36	$244.57	$-	**$174.01**
1980	$161.57	$241.85	$244.46	$152.70	$239.35	$-	**$176.80**
1981	$166.37	$239.52	$199.75	$141.53	$229.24	$-	**$171.73**
1982	$142.53	$219.29	$227.60	$134.50	$194.72	$-	**$177.83**
1983	$137.73	$207.54	$250.32	$125.46	$180.04	$-	**$176.43**
1984	$145.41	$210.29	$262.52	$120.69	$164.76	$-	**$180.04**
1985	$161.34	$227.87	$261.09	$113.69	$160.14	$-	**$193.82**
1986	$162.86	$233.71	$259.42	$102.37	$163.56	$-	**$199.63**
1987	$125.76	$248.12	$264.38	$92.02	$165.37	$-	**$201.15**
1988	$109.61	$257.40	$270.27	$75.07	$169.90	$-	**$204.01**
1989	$113.40	$263.29	$278.09	$70.71	$170.32	$-	**$207.61**
1990	$119.69	$261.12	$292.05	$61.61	$148.38	$-	**$210.29**
1991	$128.44	$269.61	$291.94	$69.20	$160.06	$-	**$213.50**
1992	$128.83	$272.16	$294.57	$60.45	$139.13	$-	**$214.25**
1993	$133.11	$271.12	$280.43	$115.12	$117.77	$-	**$217.23**
1994	$134.26	$274.98	$279.33	$118.48	$120.39	$-	**$225.10**
1995	$138.67	$282.18	$296.85	$116.40	$114.91	$-	**$234.36**
1996	$143.31	$277.37	$307.53	$154.87	$102.56	$-	**$239.36**
1997	$167.98	$312.40	$302.91	$193.22	$129.60	$-	**$244.36**
1998	$152.33	$301.75	$355.72	$164.52	$113.16	$-	**$253.88**
1999	$141.48	$321.15	$333.08	$158.81	$156.53	$58.29	**$265.71**
2000	$164.05	$321.84	$353.47	$178.88	$140.38	$57.55	**$273.79**
2001	$172.54	$339.53	$343.57	$229.64	$119.11	$59.69	**$286.23**
2002	$183.19	$346.86	$354.40	$254.67	$128.83	$66.33	**$295.53**
2003	$197.62	$348.18	$380.38	$238.76	$142.52	$86.64	**$296.30**
2004	$194.90	$387.71	$391.05	$257.83	$148.75	$93.88	**$305.24**
2005	$216.75	$386.18	$394.72	$216.24	$223.77	$151.03	**$322.50**
2006	$242.21	$426.38	$406.09	$203.68	$225.81	$106.69	**$329.49**
2007	$251.34	$430.01	$398.40	$285.01	$239.15	$110.74	**$342.52**
2008	$236.37	$434.99	$440.63	$285.71	$250.75	$106.45	**$353.90**
2009 f	$247.76	$429.21	$441.60	$287.83	$247.94	$108.46	**$363.43**
2010 f	$264.08	$427.65	$459.16	$305.40	$248.55	$101.12	**$379.36**

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 6 **Per Capita Public Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010, Constant Dollars ($2010) *(Part 1)*

Year	NF	PE	NS	NB	QU	ON	MA
1975	$17.29	$30.37	$16.94	$5.71	$12.16	$3.98	$11.60
1976	$18.38	$30.36	$18.72	$4.82	$14.11	$3.06	$20.24
1977	$18.72	$32.13	$19.90	$5.52	$18.20	$2.42	$18.86
1978	$22.73	$33.78	$23.35	$5.84	$22.15	$2.63	$22.67
1979	$22.87	$32.80	$27.26	$5.11	$33.14	$2.79	$22.25
1980	$22.71	$33.72	$27.79	$5.17	$39.96	$3.21	$22.32
1981	$23.39	$35.39	$30.33	$5.91	$40.48	$3.21	$24.54
1982	$24.92	$35.09	$32.06	$6.81	$31.66	$3.63	$29.28
1983	$25.27	$31.63	$32.25	$6.56	$30.03	$4.03	$29.66
1984	$24.71	$27.47	$33.01	$8.44	$31.96	$3.63	$26.37
1985	$24.85	$25.47	$34.23	$9.94	$31.24	$3.47	$24.49
1986	$23.39	$26.19	$34.05	$9.84	$31.16	$3.15	$24.30
1987	$23.24	$27.86	$33.61	$9.37	$29.29	$3.10	$21.22
1988	$23.67	$27.75	$34.84	$11.15	$29.37	$4.38	$26.28
1989	$22.96	$29.38	$33.57	$11.41	$27.85	$4.85	$30.05
1990	$22.62	$28.99	$31.87	$12.86	$27.23	$5.44	$27.54
1991	$22.69	$29.39	$26.95	$13.93	$30.44	$5.66	$20.99
1992	$20.04	$29.83	$24.94	$14.21	$28.31	$6.10	$32.09
1993	$17.92	$29.27	$24.75	$14.15	$27.97	$6.34	$34.70
1994	$17.36	$28.50	$24.28	$13.72	$27.82	$6.57	$35.81
1995	$17.52	$25.90	$23.60	$13.89	$28.09	$6.59	$39.16
1996	$16.54	$25.58	$22.45	$12.69	$25.84	$5.91	$37.72
1997	$16.83	$25.87	$19.01	$13.36	$23.19	$5.73	$37.02
1998	$17.89	$25.88	$20.17	$13.29	$20.71	$5.52	$35.71
1999	$16.67	$26.09	$20.95	$12.94	$20.90	$5.49	$30.01
2000	$16.67	$25.71	$20.15	$13.05	$18.37	$5.72	$27.48
2001	$16.39	$26.55	$22.09	$14.01	$16.56	$6.41	$28.96
2002	$15.65	$26.16	$18.24	$13.59	$20.79	$5.95	$27.94
2003	$15.14	$27.84	$16.68	$13.26	$17.24	$5.72	$28.28
2004	$13.88	$26.41	$15.73	$12.15	$16.94	$5.86	$29.97
2005	$14.26	$23.77	$15.50	$12.31	$16.42	$5.98	$31.91
2006	$13.20	$22.63	$14.93	$12.15	$16.97	$5.72	$34.08
2007	$15.41	$21.33	$15.54	$12.52	$17.08	$5.70	$33.88
2008	$17.87	$22.38	$15.98	$13.77	$18.14	$5.91	$34.64
2009 f	$17.78	$22.54	$15.28	$13.94	$19.40	$5.61	$35.43
2010 f	$18.46	$21.59	$15.48	$13.73	$20.59	$5.67	$35.27

DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 6 **Per Capita Public Sector Spending on Dental Services:**
Expenditure by Province/Territory, Canada, 1975 to 2010, Constant Dollars ($2010) *(Part 2)*

Year	SA	AB	BC	YT	NT	NU	Canada
1975	$24.51	$21.26	$16.69	$15.68	$8.57	$-	**$10.82**
1976	$27.53	$20.14	$17.81	$18.14	$10.07	$-	**$11.73**
1977	$31.43	$18.44	$18.27	$16.81	$7.10	$-	**$12.83**
1978	$34.56	$18.89	$18.65	$37.33	$6.48	$-	**$14.74**
1979	$37.01	$21.12	$18.65	$50.30	$14.67	$-	**$18.50**
1980	$40.93	$23.29	$31.46	$52.02	$37.55	$-	**$22.55**
1981	$45.34	$24.77	$74.72	$155.11	$65.67	$-	**$28.32**
1982	$48.98	$27.62	$54.42	$105.63	$83.82	$-	**$24.35**
1983	$51.44	$31.63	$33.26	$117.30	$110.58	$-	**$22.02**
1984	$45.88	$34.34	$27.15	$76.92	$75.88	$-	**$21.51**
1985	$43.24	$37.97	$27.39	$43.61	$62.12	$-	**$21.25**
1986	$40.90	$43.21	$27.58	$43.26	$63.95	$-	**$21.25**
1987	$36.55	$41.32	$27.00	$54.89	$48.86	$-	**$20.03**
1988	$37.56	$44.16	$23.54	$69.42	$100.58	$-	**$20.73**
1989	$38.01	$58.47	$23.94	$74.89	$129.32	$-	**$21.74**
1990	$41.35	$63.73	$23.60	$80.44	$148.05	$-	**$22.17**
1991	$46.25	$53.88	$26.02	$86.67	$151.34	$-	**$22.34**
1992	$48.64	$47.92	$28.04	$91.55	$169.39	$-	**$22.08**
1993	$45.64	$46.15	$28.80	$95.68	$160.61	$-	**$22.00**
1994	$40.43	$45.70	$28.52	$106.80	$158.77	$-	**$21.93**
1995	$40.59	$34.31	$26.25	$105.23	$151.80	$-	**$20.94**
1996	$37.34	$28.90	$23.15	$90.91	$131.43	$-	**$18.91**
1997	$35.67	$26.58	$21.74	$101.02	$128.15	$-	**$17.60**
1998	$36.91	$27.19	$18.83	$101.79	$129.26	$-	**$16.54**
1999	$35.11	$31.81	$22.00	$135.86	$231.47	$127.56	**$17.35**
2000	$35.84	$32.60	$24.61	$127.35	$242.04	$125.73	**$17.08**
2001	$35.88	$32.14	$24.29	$115.67	$264.82	$78.60	**$16.91**
2002	$36.38	$26.16	$21.91	$106.36	$290.66	$66.38	**$16.76**
2003	$37.00	$26.56	$20.50	$108.86	$201.79	$267.56	**$15.64**
2004	$38.40	$28.30	$20.30	$104.57	$176.89	$370.57	**$15.82**
2005	$41.65	$28.20	$21.99	$135.04	$208.33	$344.40	**$16.12**
2006	$42.51	$39.55	$21.33	$140.69	$247.67	$285.84	**$17.23**
2007	$43.12	$42.63	$21.60	$133.26	$211.29	$352.44	**$17.82**
2008	$44.26	$43.09	$22.94	$131.00	$201.20	$356.12	**$18.63**
2009 f	$42.19	$41.94	$23.94	$127.53	$176.49	$343.88	**$18.77**
2010 f	$43.91	$40.95	$27.67	$125.90	$183.26	$349.34	**$19.54**

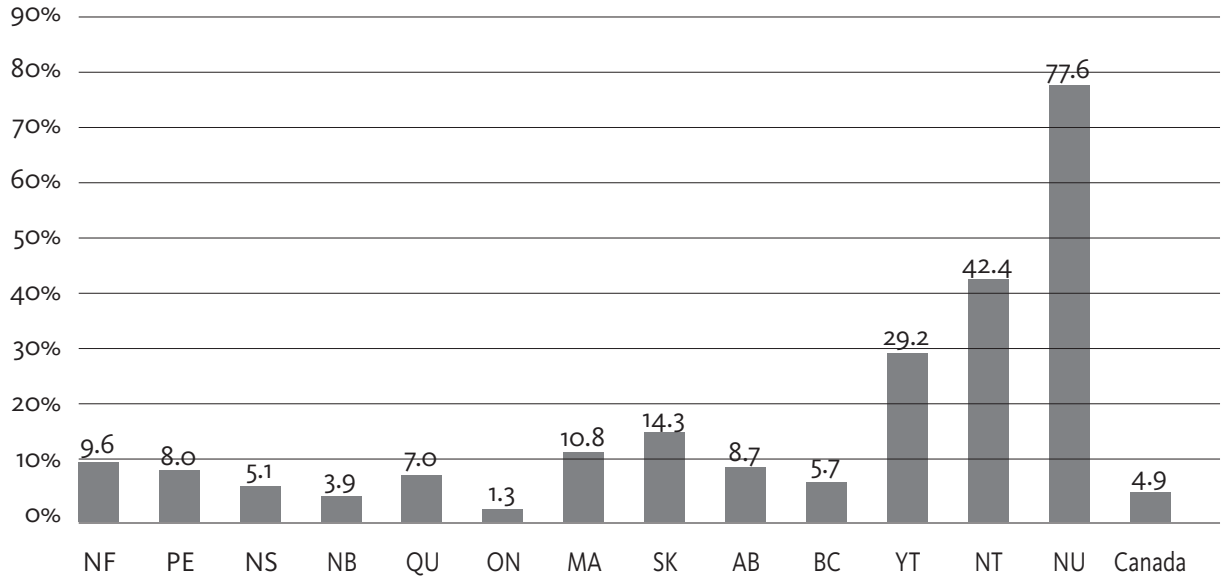
DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX).
f: forecast

TABLE 7 **Per Capita Spending on Dental Services:**
Expenditure by Public and Private Sector, Canada, 1975 to 2010
In Current and Constant Dollars ($2010)

	Current Dollar Per Capita Spending on Dental Services			Constant Dollar Per Capita Spending on Dental Services ($2010)		
Year	Private	Public	Total	Private	Public	Total
1975	$29.61	$2.44	$32.05	$134.77	$10.82	$145.59
1976	$34.09	$2.98	$37.06	$141.85	$11.73	$153.58
1977	$40.08	$3.53	$43.61	$157.46	$12.83	$170.29
1978	$45.37	$4.34	$49.71	$166.01	$14.74	$180.75
1979	$50.85	$5.94	$56.79	$174.01	$18.50	$192.51
1980	$56.98	$7.95	$64.94	$176.80	$22.55	$199.35
1981	$61.78	$11.22	$73.00	$171.73	$28.32	$200.04
1982	$71.77	$10.75	$82.52	$177.83	$24.35	$202.18
1983	$77.47	$10.28	$87.74	$176.43	$22.02	$198.45
1984	$83.39	$10.42	$93.81	$180.04	$21.51	$201.54
1985	$94.26	$10.66	$104.92	$193.82	$21.25	$215.07
1986	$102.39	$11.00	$113.39	$199.63	$21.25	$220.88
1987	$110.30	$10.82	$121.12	$201.15	$20.03	$221.18
1988	$118.78	$11.62	$130.40	$204.01	$20.73	$224.74
1989	$127.21	$12.84	$140.04	$207.61	$21.74	$229.36
1990	$135.64	$13.80	$149.43	$210.29	$22.17	$232.46
1991	$144.90	$14.47	$159.37	$213.50	$22.34	$235.85
1992	$150.63	$14.71	$165.34	$214.25	$22.08	$236.33
1993	$156.92	$14.85	$171.78	$217.23	$22.00	$239.23
1994	$164.88	$15.03	$179.91	$225.10	$21.93	$247.03
1995	$172.69	$14.50	$187.20	$234.36	$20.94	$255.30
1996	$178.11	$13.15	$191.26	$239.36	$18.91	$258.27
1997	$184.40	$12.41	$196.80	$244.36	$17.60	$261.96
1998	$195.95	$11.79	$207.73	$253.88	$16.54	$270.41
1999	$209.80	$12.56	$222.36	$265.71	$17.35	$283.06
2000	$221.04	$12.90	$233.94	$273.79	$17.08	$290.87
2001	$237.29	$13.00	$250.30	$286.23	$16.91	$303.14
2002	$249.58	$13.33	$262.91	$295.53	$16.76	$312.29
2003	$254.81	$12.81	$267.62	$296.30	$15.64	$311.94
2004	$267.37	$13.18	$280.55	$305.24	$15.82	$321.06
2005	$290.23	$13.90	$304.13	$322.50	$16.12	$338.62
2006	$302.92	$15.38	$318.30	$329.49	$17.23	$346.72
2007	$321.09	$16.37	$337.46	$342.52	$17.82	$360.34
2008	$337.75	$17.54	$355.29	$353.90	$18.63	$372.52
2009 f	$356.18	$18.25	$374.43	$363.43	$18.77	$382.21
2010 f	$379.36	$19.54	$398.90	$379.36	$19.54	$398.90

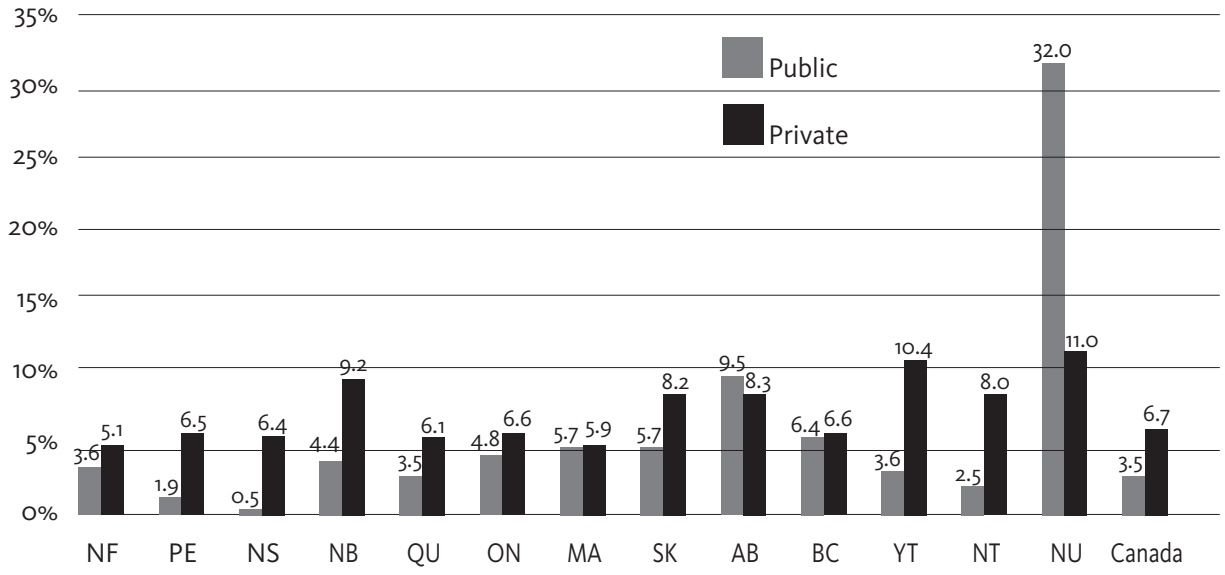
DATA SOURCE: Canadian Institute for Health Information (CIHI), National Health Expenditure Database 2010 (NHEX). f: forecast
POPULATION SOURCE: CIHI, NHEX Appendix C
CONSTANT DOLLAR CALCULATION: CIHI, NHEX Appendix B

FIGURE 1 **Publicly Funded Share of Total Expenditures for Dental Services — Canada, Provinces and Territories, 2010 (%)**



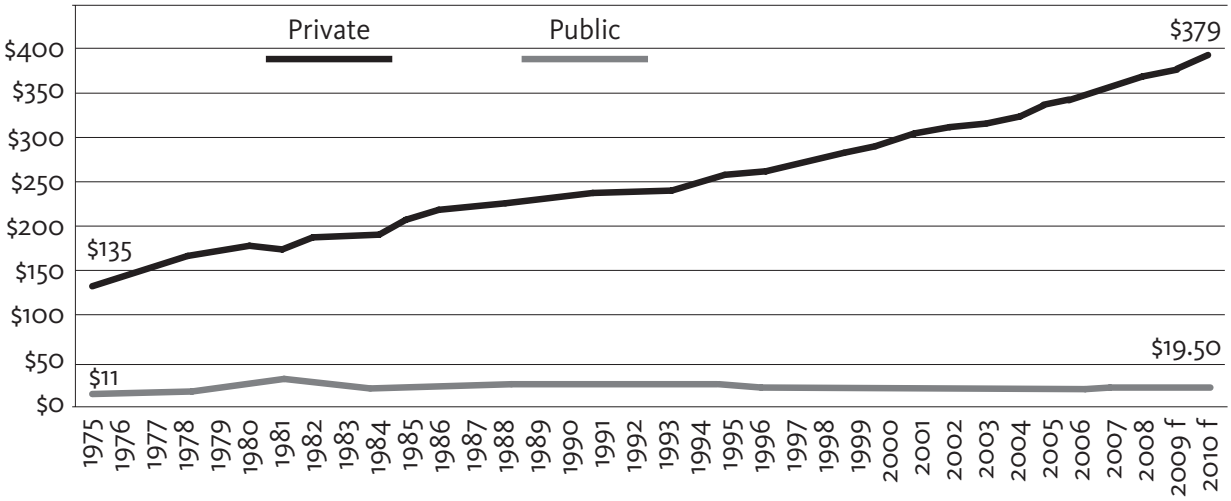
SOURCE: CIHI, NHEX 2010.

FIGURE 2 **Average Annual Growth in Spending on Dental Services Since 2000, Public and Private Expenditures — Canada, Provinces and Territories (%)**



SOURCE: CIHI, NHEX 2010.

FIGURE 3 **Per Capita Spending on Dental Services, Private and Public Sector, Canada, 1975 - 2010, Constant Dollars ($2010)**



SOURCE: CIHI, NHEX 2010.

Annex 2: Revitalizing the Saskatchewan School-Based Program of Preventive and Basic Curative Care for Children's Oral Health

As the saying goes, an ounce of prevention is worth a pound of cure. How much would it cost to revitalize the Saskatchewan approach to providing preventive and basic curative care to set a solid foundation of oral health for all children across Canada today?

Information on the program was supplied by Greg Marchildon from the *Saskatchewan Health Dental Plan Annual Report*, 1980-81 (Regina: Department of Health, 1982). This was the year used because, though the Dental Plan was implemented in 1974 for children between ages of 5 and 12, it was expanded in May 1978 to include 13 and 14 year-old children. That meant, when fully operational, the program covered children from kindergarten to Grade 8 in all elementary schools in the province.

As of August 31, 1981, there were 126,669 children enrolled out of 155,357 eligible children between the ages of 5 and 14 (children born from 1966 until 1976). This represents an 81.5% enrolment rate, but did not include a further 5,004 registered Indians, whose dental care was presumably paid for by the federal government.

Total operating expenses were $10,936,351, including central office expenses of just over $1 million. Salary costs were the biggest line item, at just over $7.3 million. The program was carried out by dental therapists, trained at a newly created school of dental therapy. These therapists were supervised by dentists. (The school also trained therapists who brought dental care to communities in the Territories and rural and remote communities where dentists rarely practiced.)

The annual average cost per enrolled child was used to estimate current costs, nation-wide, at peak enrolment. According to the report, from September 1, 1980, to August 31, 1981, the annual average per capita cost was $77.40. This was higher than the previous year ($69.02) but lower than the initial year ($163.05) because of higher set-up costs.

According to Statistics Canada, there were 3,740,000 children aged 5 to 14 in Canada in 2010. If 85% of them were enrolled in such a program today, based on the inflation-adjusted per capita cost ($176.25) the price-tag would be $560 million, Canada-wide.

This represents 4.1% of the Canadian Institute for Health Information's estimated current total annual expenditures on dental services

(forecast to be $13.6 billion for total private and public spending in 2010), and 0.3% of all annual expenditures on health care for 2010. An ounce of prevention is worth a pound of cure, indeed.

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