

# DENTAL ASSISTANTS, HYGIENISTS, AND THERAPISTS

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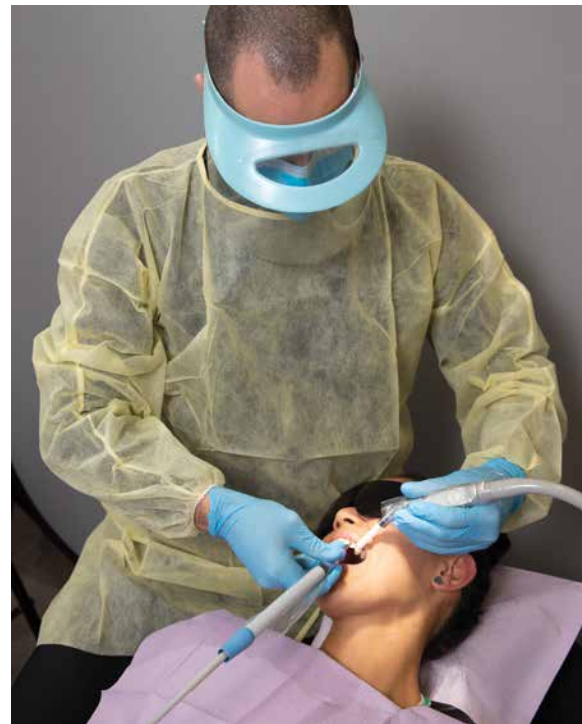
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# Dental Assistants, Hygienists and Therapists

## Introduction

Dental assisting, dental hygiene and dental therapy are three closely related and allied oral healthcare professions. This chapter provides an overview of the history of these professions in Canada as well as a review of the education requirements and scope of practice associated with each profession. Following this is information on current demographic trends in the professions, requirements for internationally educated oral healthcare professionals, and average national salaries and coverage of services. A brief discussion of the major issues within allied oral healthcare concludes the chapter.

It is important to note that while dental assisting, hygiene and therapy are distinct professions with unique histories, scopes and career trajectories, they all share a common professional experience. As such, recognizing the synergies fostered within these allied oral healthcare professions will be essential to maintaining the integrity of each profession.



## Definitions

**Dental Assistants (DAs)** utilize their education and training to provide a wide range of preventive and supportive oral healthcare services. Dental assistants provide pre- and post-operative care and instructions for patients, perform laboratory tasks, and provide a diverse range of administrative and clinical operational functions including office management. Dental assisting duties during patient examination and treatment may be performed under supervision of a licensed dentist, in collaboration with other dental team members, or autonomously as permitted by provincial legislation. DAs are active in oral health advocacy and patient education and participate in research, in oral health promotion and in public programs as oral healthcare team members.

**Dental Hygienists** are oral health professionals who provide clinical assessments and therapy, oral health education and health promotion. They work with clients of all ages in a variety of settings, including independent practice, to address issues related to oral health.

**Dental therapists** are primary healthcare professionals who perform basic clinical and dental treatment and preventative services within a variety of practice settings (National Dental Therapy Working Group, 2004). As members of a multidisciplinary health team, dental therapists provide restorative dental treatment services and promote disease prevention and oral health programs. Dental therapists also advocate for the needs of their clients, helping them access care and referring them to other health professionals for services beyond their scope.

## History of the Professions

### Dental Assistants<sup>1</sup>

Although the history of dental assisting is not well documented, it's safe to assume that dentists have been provided some type of assistance throughout the last 150 years (Crawford, 2002). Dr. Norman W. Kingsley, known as the 'father of orthodontics', first outlined the duties of a dental assistant in 1883, writing that:

*She stands at the side of the chair during an operation and her ability to fill all of the requirements of an assistant at the moment is unexcelled. There are 1,001 little polite attentions to patients that good breeding require, but which unfortunately take the valuable time of the dentist (Crawford, 2002: IX-3).*

### Dentistry and gender dynamics

When dentistry was taught through apprenticeship, male apprentices would assist the dentist as part of their training—one of the only situations where a man would perform dental assisting. There was a slight overlap between the work performed by female dental assistants and that of male dental apprentices, but for the most part these roles had distinct duties. Gender dynamics within dentistry, which saw male dentists and apprentices overseeing female assistants, have been characteristic of the profession since its inception (Adams, 2000).

It was argued that dental assistants could save a dentist time and money by relieve(ing) the dentist of all official duties outside of direct work on the patients” and were in fact, “perhaps the most profitable asset under the control of the modern dentist” (Webster, 1912). Dentists also defined exactly who should be employed in these positions; while it may not have been uncommon for men to be dental assistants prior to the twentieth century, Webster argued the best assistants were “young girls” and should be “a good housekeeper with the knowledge of a nurse, refined tastes, clean habits, good address” and “a certain innate capacity for knowing or divining the wishes of others” (Webster, 1912). Pearl Bartindale, a dental assistant in Hamilton in the early 1900s, had

“Dentists also preferred middle-class female assistants for their inexpensiveness and their acceptance of men’s authority... it was feared that male assistants would turn into illegal practitioners” (Adams, 2000).

all but persuaded Dean Webster of the Royal College of Dental Surgeons of Ontario to begin a course for dental assistants (dental nurses) in 1914 when the project was delayed by the outbreak of World War I (Crawford, 2002). Dentists believed employing dental assistants would improve office efficiency and increase their income and professional status and that ‘lady assistants’—brought qualities to a dental practice that complemented the work of the ‘gentleman’ dentist (Adams, 2000). The Dental Nursing program was finally launched at the Royal College of Dental Surgeons in Toronto in 1919 and applicants were restricted to women 18 years of age and older (Adams, 2000). This feminization of dental assisting continues to affect the demographics of the profession today.

For almost 100 years, dental assisting remained unregulated and DA duties were defined only by employers. The post-war baby boom created increased demand for preventive services and the advent of dental insurance combined with the threat of government intervention after the 1964 Hall Report spurred the dental profession to advocate for the amendment of provincial health acts and promote the role of the dental hygienist in earnest. Mary Brett, formerly a dental assistant in the Royal Canadian Armed Forces, became the first registered dental hygienist in Canada in 1951. Demand for hygiene services exceeded the supply of graduates (only 211 in practice in 1965), causing a “chaotic state of infringement of one category of auxiliary upon another” (Journal of the Canadian Dental Association, 1967, p. 168) and leading to the Ad Hoc Committee on Dental Auxiliaries in 1968-1970 (“Wells Commission’s”). The Wells Report cited dental assistants as the most numerous and well known auxiliary group and recommended a national standard for education and licensing (Wells, 1970). The Wells’ Committee

<sup>1</sup> “Dental assistant” was a common term used to describe women performing “auxiliary” tasks for dentists; in Canada, DAs were the only female auxiliary and performed all auxiliary tasks until the introduction of the dental hygiene profession in the 1950’s at which point their professional roles overlapped until a sufficient dental hygiene workforce had been developed and dental hygiene tasks became mostly exclusive.

recommendations for a national standard of education and regulation of dental assistants were not followed and over the past 25 to 30 years, the need for controlled access to the profession has become a prominent issue as dental assistants routinely perform intra-oral duties. These duties were introduced at different times in different provinces and with varying levels of support from the dental regulatory authorities. As a result, despite the availability of a national certification exam through the National Dental Assistants Examining Board (NDAEB), there is wide variability across the provinces, including at least eight different regulatory models.

### **The Canadian Dental Assistants Association**

In 1926, Marion Edwards led an effort to organize dental assistants in Eastern Canada; however, it wasn't until 1945 that a meeting in Winnipeg led to the creation of the Canadian Dental Nurses and Assistants' Association (CDNAA). The CDNAA was legally incorporated in 1957 and, in 1982, became known by its current name: the Canadian Dental Assistants Association (CDA).

The national voice for dental assistants, the CDA is a unifying body for provincial associations that aims to maintain strategic partnerships across Canada for the benefit of its members. The CDA supports formal education for dental assistants and was instrumental in the creation of the National Dental Assisting Examination Board (NDAEB). The NDAEB was established on November 15, 1997 at which time they assumed responsibility for the administration of the national examination of Canadian dental assistants from the CDA. The CDA collaborated with the NDAEB and professional practitioners from across Canada to develop the first National Occupational Analysis (NOA) for dental assisting in 2001; Dental Assisting Educators of Canada (DAEC) became a sub-committee of the CDA in the same year.

The CDA maintains relationships with other oral healthcare associations, professional organizations and government agencies involved in the support of oral healthcare. CDA's mission is to provide "national leadership for the dental assisting profession furthering the interests of its member organizations and advocating from a dental assisting perspective on oral health issues having national impact" (2020). The CDA mission statement is guided by three core values:

- Advocacy and policy influence;
- Knowledge and research; and
- Capacity building for member organizations.

### **Dental Hygienists**

In 1913, Dr. Alfred Fones, an American dentist known as the 'father of dental hygiene,' further advanced the concept of preventative oral health specialists as an occupation by opening the first school of dental hygiene in Bridgeport, Connecticut (Canadian Dental Hygienists' Association, 2009).

### **Development of the profession in Canada**

Fones' influence is often cited by the Canadian Dental Association (CDA) as instrumental to the profession's development in Canada. Dentists in Canada knew of Fones' school and debated expanding dental hygiene; however, this didn't happen until after the Second World War. When the CDA first began developing educational programs for dental hygienists, they took into consideration a combination of resources that included Fone's model.

In the 1940s, public health campaigns were prompted by the increasing prevalence of dental disease, especially among children (Adams & Bourgeault, 2003). Dentists believed that employing women to perform duties ascribed to preventive treatment (e.g., cleaning teeth) and patient education would both reduce their workloads and increase their revenues (Adams & Bourgeault, 2003). Dental leaders worked to normalize the dental hygienist's role as an inexpensive way to provide important preventative treatment while also teaching patients about oral health care, allowing the dentist to focus on providing the 'more important' dental procedures (Adams & Bourgeault, 2003).

The final push for the institution of a dental hygiene program in Canada came that same decade when a change in legislation recognized oral health and access to dental hygiene services as a public health issue. In 1951, the first class of dental hygienists in Canada entered a program established at the University of Toronto. The field of dental hygiene then grew rapidly, with all provinces and territories having regulations in place by 1968 (Adams & Bourgeault, 2003).

### **The dental hygiene profession today**

Today, the dental hygiene profession continues to focus on oral health promotion and prevention of dental decay and disease. In 2004, in response to public oral health initiatives championed by dental hygienists since the 1940s and in recognition of the importance of oral health on a person's wellbeing, the federal government established the Office of the Chief Dental Officer of Canada. The government followed this with the establishment of the first national oral health strategy in 2005 (CDHA, 2009).

Despite the improvement in oral health throughout the world and in Canada since the inception of the dental hygiene profession, a 2006 World Health Organization (WHO) report ranks Canada poorly with respect to incidence of decayed, missing or filled teeth (DMFT). In fact, the Organisation for Economic Co-operation and Development (OECD) ranks Canada 21<sup>st</sup> among 23 countries with respect to the prevalence of DMFT (CDHA, 2009).

### **The Canadian Dental Hygienists Association**

The Canadian Dental Hygienists Association (CDHA) was established in 1963 when several alumnae of the University of Toronto's School of Dental Hygiene reached out to other dental hygienists across the nation to associate as a common voice for the profession. Today, the CDHA is the collective national voice of dental hygienists in Canada, directly representing more than 20,000 members, including practising professionals and students of dental hygiene.

The CDHA exists so that its members "are able to provide quality preventive and therapeutic oral healthcare as well as health promotion for the Canadian public" (2020). Moreover, the CDHA's strategic directions take the form of specific measurable outcomes, which the association refers to as "ends". Most recently, the CDHA released five policy ends that outline how and by what means it will ensure its mission statement is realized. These policy ends include:

- *Public Policy Environment:* Members play a key role in influencing the public policy environment to improve not only their ability to practise as primary health care providers, but also the overall health of Canadians.

- *Professional practice:* Members have the resources to work as an integral part of a health care team.
- *Healthy and Respectful Workplace:* Members have the resources to ensure a healthy and respectful workplace.
- *Pandemic Response:* Members have the resources to support themselves through the pandemic and to take appropriate actions to minimize risk to themselves and the public upon return to work.
- *Public Recognition:* The Canadian Public understands and values the dental hygiene profession.
- *Professional Knowledge:* Members create, contribute to, and utilize a growing body of professional knowledge and research.
- *Leadership:* Members' potential for professional leadership is developed.

### **Dental Therapists**

Inequality between most Canadians and those from Inuit and First Nations communities, in terms of both access to oral healthcare services and related health outcomes, has been an ongoing challenge for both policymakers and the affected communities (Leck & Randall, 2017). The dental therapy profession arose from this pronounced need for preventative and primary dental care in rural and underserved areas in Canada, particularly in the North among Indigenous communities. Indeed, efforts to close the equity gap in terms of access to oral health services for Northern, Inuit, and First Nations communities led to the creation of dental therapy training programs. Inuit and First Nations communities have dental coverage through Non-Insured Health Benefits, a federal program.

### **Meeting the dental care needs of Indigenous Peoples in Canada**

The profession of dental therapy largely developed as part of the federal government's solution to the pressing need of providing oral health care to specific populations. It was also cultivated in response to a pronounced need for primary dental care on reserves and in rural communities with recognized Indigenous status. Dental therapy programs were designed to produce graduates who would provide services in rural and northern communities (Leck & Randall, 2017).

In fact, the first dental therapy education program arose out of the Canadian government's legal obligation to provide health care to remote Indigenous communities.

Dental therapists were soon considered valuable resources to provinces with rural, remote and under-served populations, with British Columbia, Alberta and Saskatchewan recruiting dental therapists to serve First Nation communities and other isolated populations.

Today, Health Canada's First Nations and Inuit Health Branch (FNIHB) and the Non-Insured Health Benefits (NIHB) program provides coverage for a limited range of goods and services to First Nations and Inuit communities that are not covered through other social programs, private insurance plans, or provincial or territorial health insurance, such as dental care. Dental therapy has continued to evolve in line with the needs of rural, remote and Indigenous communities.

### **The Canadian Dental Therapists Association**

The Canadian Dental Therapists Association (CDTA)—formerly known as the Canadian Dental Therapists Society—was established in 1983. Created to give a voice to the relatively small number of dental therapist practitioners, the CDTA acts as a liaison between dental therapists and the federal government while also facilitating communication between dental therapists themselves, who are often isolated while practicing in rural and remote communities.

Today, the CDTA collaborates with its members and other community stakeholders to achieve its goals, which are outlined in its mission statement:

- To promote the improvement of dental health for all Canadians through primary and preventive care and healthy lifestyle choices;
- To promote the dental therapy profession to governments, dental organizations and others;
- To help dental therapists communicate with each other and exchange information;
- To promote education, training and opportunities for career development for dental therapists; and
- To promote the improvement of dental health in First Nation and Northern communities.

## **Education**

### **Dental Assistants**

Canada is home to more than 90 training programs for dental assistants, with 39 of these being accredited by the Commission on Dental Accreditation of Canada (CDAC, 2023). The majority of the programs are offered in Ontario and Quebec although less than half of the programs at Ontario colleges are accredited and none of the Quebec programs are accredited. Entrance requirements for these programs include successful completion of high school with an emphasis on sciences, including biology, chemistry and physics. Dental assisting curricula include training in subjects such as microbiology, infection control, preventive dentistry, dental radiography, clinical assisting procedures and community dental health (CDAA, 2018).

Graduates of accredited programs are eligible to write the NDAEB national certification exam which is required in the 8 provinces where dental assistants are regulated. Dental assistant graduates of non-accredited programs, including internationally trained professionals, are required to succeed in the NDAEB Clinical Practice Exam (CPE) in addition to the theory exam in order to become certified.

### **Dental Hygienists**

Dental hygiene education is widely diverse. The Commission on Dental Accreditation of Canada (CDAC) currently recognizes 35 dental hygiene education programs across the country (CDAC, 2023). Following is a table illustrating the different dental hygiene programs by type and province.

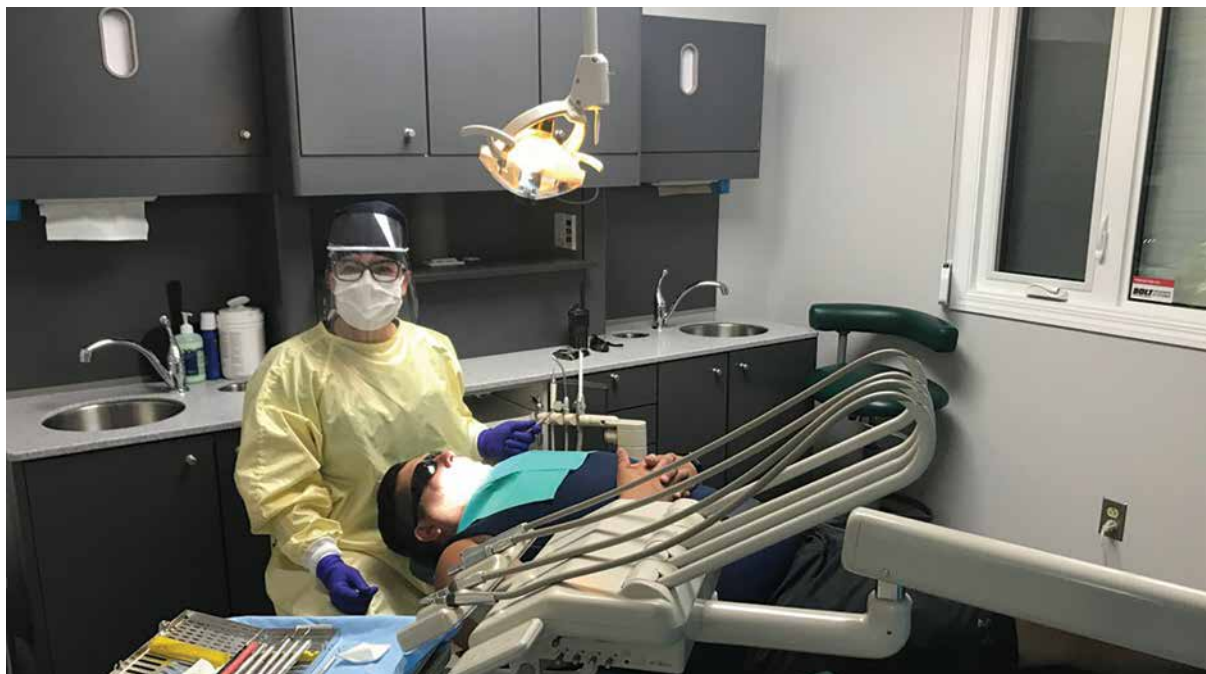
Most dental hygiene programs require applicants to submit transcripts for all pre-professional studies (including both completed high school and university-level courses) and in some cases for applicants to complete one year of pre-professional course work at the university level. Pre-professional course requirements can include credits in English, organic chemistry, general chemistry, biology, sociology, psychology and statistics. While the specific courses required vary widely depending on the school or institution, there is a strong emphasis on coursework in the sciences.



**TABLE 1: Dental hygiene programs in Canada**

Degree & Degree Completion Options		
	<ul style="list-style-type: none"> <li>• University of Alberta</li> <li>• University of British Columbia</li> </ul>	<ul style="list-style-type: none"> <li>• University of Manitoba</li> <li>• Dalhousie University</li> </ul>
Diploma Options		
<b>British Columbia</b>	<ul style="list-style-type: none"> <li>• Camosun College</li> <li>• College of New Caledonia</li> <li>• Vancouver College of Dental Hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Vancouver Community College</li> <li>• Vancouver Island University</li> </ul>
<b>Saskatchewan</b>	<ul style="list-style-type: none"> <li>• Saskatchewan Polytechnic</li> </ul>	
<b>Manitoba</b>	<ul style="list-style-type: none"> <li>• University of Manitoba</li> </ul>	
<b>Ontario</b>	<ul style="list-style-type: none"> <li>• Algonquin College</li> <li>• APLUS Institute</li> <li>• Cambrian College</li> <li>• Canadian Academy of Dental Health and Community Sciences</li> <li>• Canadian National Institute of Health</li> <li>• Canadore College</li> <li>• Collège Boréal</li> <li>• Confederation College</li> <li>• Durham College</li> </ul>	<ul style="list-style-type: none"> <li>• Fanshawe College of Applied Arts and Technology</li> <li>• George Brown College</li> <li>• Georgian College</li> <li>• La Cité Collégiale</li> <li>• Niagara College Canada</li> <li>• Oxford College of Arts Business and Technology</li> <li>• Southern Ontario Dental College</li> <li>• St. Clair College of Applied Arts and Technology</li> <li>• Toronto College of Dental Hygiene</li> </ul>
<b>Québec</b>	<ul style="list-style-type: none"> <li>• Cégep de Chicoutimi</li> <li>• Cégep François Xavier-Garneau</li> <li>• Cégep de l'Outaouais</li> </ul>	<ul style="list-style-type: none"> <li>• Collège de Maisonneuve</li> <li>• Collège Edouard-Montpetit</li> <li>• John Abbott College</li> </ul>
<b>New Brunswick</b>	<ul style="list-style-type: none"> <li>• Oulton College</li> </ul>	
<b>Nova Scotia</b>	<ul style="list-style-type: none"> <li>• Dalhousie University</li> </ul>	

Source: [https://www.cdha.ca/cdha/Education/Students/Dental\\_Hygiene\\_Schools\\_Programs/CDHA/Education/Students/Dental\\_Hygiene\\_Schools\\_Programs.aspx](https://www.cdha.ca/cdha/Education/Students/Dental_Hygiene_Schools_Programs/CDHA/Education/Students/Dental_Hygiene_Schools_Programs.aspx)



In Canada, dental hygienists must obtain a dental hygiene diploma or bachelor's degree. The curriculum focuses on oral and clinical science, with an emphasis on health promotion and preventive, motivational and communication strategies. Programs range from six semesters (most are minimum of three years) to four years at the college or university level or in private educational settings. The entry-to-practice credential in all provinces is currently at the diploma level. Dental hygienists must be registered or licensed by the dental hygiene regulatory authority in their provincial or territorial jurisdiction in order to practise (CDHA, 2014).

### **Certification of dental hygiene education**

In the 1970s, the federal government moved the education of allied health professionals into the community college system. Since then, the majority of dental hygienists in Canada have graduated from two-year diploma programs at the community college level. Before this point, however, dental hygienists were regulated by and educated under dentists (Adams & Bourgeault, 2003). While moving dental hygiene education into the college system reduced dentists' control over hygienists, it did not eliminate it entirely as dentists still regulated the profession. In Ontario, dental hygiene was regulated by the dental regulatory authority until the passing of the *Regulated Health Professions Act, 1991*<sup>2</sup> (Adams, 2003).

### **Dental hygiene education in the university system**

As dental hygienists' scope of practice broadened, educational programs began to develop within the university system alongside the college system. Today, dental hygienists can obtain a bachelor's degree from the University of Alberta and the University of British Columbia; Dalhousie University and the University of Manitoba offer both diploma and degree programs.

There are many ways for diploma-educated dental hygienists to obtain a baccalaureate degree through existing articulation agreements.

### **Bachelor's degrees**

Dental hygienists who hold a bachelor's degree are able to work beyond traditional private dental practice as government and national research institutes seek dental hygienists with this educational qualification.

### **Master's degrees**

At the University of Alberta, the dental hygiene program housed by the School of Dentistry offers a Master's in Medical Sciences (Dental Hygiene) degree. The ability to pursue a master's degree in dental hygiene is one way in which dental hygiene professionals are expanding their scope of influence and creating a robust professional presence within the oral healthcare environment.

## **Internationally Trained Dental Hygienists**

To practise in Canada, internationally trained dental hygienists must:

- Contact the relevant regulatory body within the chosen province/territory for assessment and recognition of credentials, including language proficiency for registration and other licensing requirements;
- Register with a provincial/territorial regulatory authority;
- Dental hygiene regulatory authorities in all provinces except Quebec, require the National Dental Hygiene Certification Board examination certificate as one requirement for licensure or registration; and
- Hold a membership with CDHA to practise in Alberta, Saskatchewan and Nova Scotia; membership in CDHA is voluntary in all other provinces and territories.<sup>3</sup>

<sup>2</sup> This is the 'umbrella' health professions legislation for Ontario, which enabled many health professions that had not previously been regulated to become regulated, including dental hygiene.

<sup>3</sup> In provinces/territories where membership in the CDHA is voluntary, dental hygienists may still choose to join the provincial dental hygiene association. In Ontario, for example, regulated health professionals are required to have professional liability (malpractice) insurance coverage, and may obtain it by joining the Ontario Dental Hygienists Association (membership automatically includes professional liability insurance coverage).



Dental hygienists may choose to pursue a master's degree if they aspire to:

- Expand their skills to assume leadership roles in education, community health settings, research and administration;
- Pursue faculty teaching positions in dental hygiene; and
- Contribute to the dental hygiene body of knowledge through research and scholarly activity.

## Dental Therapists

In partnership with the Faculty of Dentistry of the University of Toronto, the Canadian government created the first dental therapy school—the National School of Dental Therapy (NSDT)—in Fort Smith, Northwest Territories in 1974. Its first graduates were employed by the federal government to work in rural and remote communities in the Yukon and Northwest Territories (which at that point also included what is now Nunavut) (CDHA, 2013).

As the need for primary dental care decreased, the NSDT found it difficult to sustain itself; in 1982, the school was relocated to Prince Albert, Saskatchewan, where the urban population could benefit from the increased dental care capacity the school provided.

At the Dental Therapist Transfer Workshop in 1991, stakeholders in the dental therapy community came together with representatives from the federal government to explore the future of dental therapy through health transfer agreements to First Nations governments. After this workshop, First Nations community groups continued to express interest in developing a dental therapy program that would be embedded within their communities to meet the needs of their populations. Two years later, the programming and institutional authority for the NSDT was transferred to the Saskatchewan Indian Federated College (which later became the First Nations University of Canada).

In 2009, the federal government implemented austerity measures and cut funding to the NSDT, ultimately leading to the school's closure in 2011. The majority of practising dental therapists in Canada today graduated from the First Nations University of Canada. During its operation, the NSDT accepted approximately 15 to 20 new students each September,

training them to provide basic dental care including cleanings, fillings and extractions. Students also learned how to teach dental disease prevention and apply the latest techniques in dental care (First Nations University of Canada, 2014).

In the fall of 2023, the University of Saskatchewan (USask) College of Dentistry admitted its first students into the new Bachelor of Science in Dental Therapy program that it offers in partnership with the Northern Inter-Tribal Health Authority (NITHA), Saskatchewan Polytechnic, and Northlands College. The program runs for six consecutive terms at four campus locations (Saskatoon, La Ronge, Prince Albert, and Regina), and offers community-based culturally-appropriate learning environments and supports, including an elder-in-residence, for Indigenous students, whose applications are prioritized in the selection process. The program focuses on the oral health of Canadians and applications are welcome from non-Indigenous candidates; dental hygienists who have completed an accredited dental hygiene program and are licensed to practise dental hygiene in Canada and international dentists who have completed a non-accredited dental degree program can complete the program in one year (University of Saskatchewan, undated). This will create opportunities for dual licensing for dental hygienists.

## ***Internationally trained dental therapists and dental assistants***

There is currently little to no information available on internationally trained dental therapists or dental assistants. In the case of dental assisting, labour mobility within Canada (rather than internationally) has been a primary focus of the CDAA's political agenda, which continues to focus on the alignment of educational requirements and regulation across the country. Currently, the SDTA does not accept applications for registration from internationally trained dental therapists.

## Scope of Practice

### Dental Assistants

Dental assistants enable the provision of 4-handed dentistry and perform many duties in the provision of dental care, including collecting patient information, preparing and reprocessing dental instruments and equipment, preparing all types of dental materials,

performing laboratory tasks and administrative tasks as well. Certified dental assistants can also expose intra-oral and extra-oral radiographs, place sealants and take preliminary impressions. In provinces where they are regulated, DAs routinely perform intra-oral procedures such as the placement and removal of dental dams and matrices. Limited scaling, orthodontic procedures, dental laboratory procedures, and restorative procedures such as placing temporary restorations are also permitted in several provinces upon completion of advanced training modules.

In Canada’s two largest provinces, Quebec and Ontario, where dental assistants are not regulated, dental regulatory authorities permit dentists to employ “uncertified” workers who have not completed a formal dental assisting program to perform chairside dental assisting tasks, prepare treatment areas, and reprocess instruments.

CDA and provincial associations such as the Association des Assistant(e)s Dentaires du Québec and Ontario Dental Assistants Association continue

to advocate for their profession to be regulated in the interest of public health and safety and to allow for increased labour mobility. Dental assisting in Canada continues to evolve as an allied oral healthcare profession, which reflects changing technologies and the growing oral healthcare needs of Canadians.

## Dental hygienists

The scope of dental hygiene practice has expanded from its original functions of oral disease prevention, patient education, exposure of radiographs and topical fluoride application to include expanded functions in the area of orthodontics, restorative dentistry and local anesthesia (CDHA 2020). It has also grown to include a focus on gingival and periodontal conditions and their prevention for all members of the population. It can also include: orofacial myofunctional therapy, radiograph interpretation, use of nitrous oxide, drug prescribing authority, use of lasers for periodontal therapy.

**TABLE 2:** Variations in dental hygiene scopes of practice across Canada, 2018

	Jurisdiction												
	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	YT	NT	NU
Administer local anesthesia	✓*	✓	✓	✓			✓	✓		✓	✓		
Administer nitrous oxide		✓											
Diagnose caries		✓											
Have prescribing authority		✓			✓			✓					
Prescribe radiographs	✓	✓	✓				✓	✓				✓	
Perform orthodontic procedures in conjunction with a dentist	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Perform orofacial myofunctional therapy	✓	✓	✓		✓	✓	✓	✓					
Place permanent restorative materials in conjunction with a dentist		✓	✓	✓	✓	✓	✓	✓		✓			
Place temporary restorative materials independent of a dentist (includes interim stabilization therapy & atraumatic restorative treatment)	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓
Use lasers for periodontal therapy	✓	✓			✓		✓	✓					

\* If certified

Source: CDHA 2020; Dental Hygiene Profession in Canada [https://files.cdha.ca/profession/Regulatory\\_Authority\\_chart\\_0620.pdf](https://files.cdha.ca/profession/Regulatory_Authority_chart_0620.pdf)

## Dental Therapists

Dental therapists provide a full range of dental services within their scope of practice. Their practice—and the extent to which they may practise—varies depending upon healthcare legislation or employment policies that may exist in different jurisdictions in Canada.

Graduates from dental therapy schools in Canada will demonstrate competency in the following categories:

1. *Diagnostic dentistry*: Dental therapists are trained to evaluate patients of all ages, diagnose dental decay and dental abscesses, recognize abnormal pathological conditions, chart patients' dental status, and develop and present treatment plans to patients to obtain informed consent.
2. *Operative dentistry*: Dental therapists are trained to restore teeth to proper form, function and esthetics; perform uncomplicated extractions; recognize and manage dental/medical emergencies and post-extraction complications; and provide local anesthetics for pain management and to restore and maintain their patients' health.
3. *Community and preventive dentistry*: Dental therapists are prepared to initiate appropriate oral health disease prevention strategies at the individual, community and societal levels.
4. *Practice management, principles of professionalism and ethics*: Dental therapists are prepared to manage their practice and provide care using contemporary professional knowledge, judgment and skills to conduct themselves in a professional and ethical manner (National Dental Therapist Working Group, 1997).

A dental therapist's workday varies greatly depending on practice setting; for example, dental therapists working within a community health centre may perform different duties throughout the day compared to dental therapists working independently in a remote community. Some of the duties that a dental therapist may perform routinely can include:

- Perform routine dental check-ups, oral cancer examinations and emergency dental examinations;
- Take dental impressions;
- Take and develop X-rays;

- Perform preventative dental procedures such as teeth cleaning, gum stimulation and fluoride and sealant applications;
- Provide oral care instructions such as oral hygiene procedures, strategies to maintain and improve oral health and on the impact of nutrition on oral health;
- Perform routine teeth restorations and uncomplicated extractions and provide post extraction oral care instructions;
- Refer patients to other dental professionals for care beyond the scope of the dental therapist;
- Provide oral health promotion activities; and
- May supervise dental assistants in their health care functions.

(Employment and Social Development Canada, 2023)

## Regulation Across Canada

### Dental Assistants

Dental assistants must graduate from a CDAC-accredited dental assisting program and successfully complete the National Dental Assisting Examination Board theory exam to be eligible for licensing in the 8 provinces where dental assistants are regulated by the provincial dental assisting regulatory authority. Internationally trained dental professionals must successfully complete both the NDAEB theory exam and the Clinical Practice Exam (CPE) to be eligible for licensure/registration as a dental assistant in Canada (CDAA, 2018). In Ontario and Quebec, where dental assistants are not regulated, the provincial dental assisting associations have made submissions for the regulation of the profession but these have not been successful.

Titles that dental assistants use may differ by province; regulated titles include:

- Certified dental assistant;
- Certified intra-oral dental assistant;
- Registered dental assistant; and
- Licensed dental assistant (HRSDC, 2014).

## Dental Hygienists

Dental hygiene was first recognized as an occupation in Ontario in 1948 followed by all other provinces and territories by the end of 1968 (see Table 3).

Since the 1960s, dental hygiene has grown significantly and evolved into a regulated health profession in all provinces/territories. Dental hygiene became a self-regulating profession in Quebec in 1974, with Alberta, Ontario, British Columbia, Saskatchewan, Manitoba, Nova Scotia and New Brunswick then following suit. Currently, only Prince Edward Island is not self-regulating, but efforts are underway to achieve self-regulation in this province. In the territories, dental hygienists are governed under their territorial governments through a federal agreement (McKeown et al., 2003).

As part of the practice of self-regulation, the regulatory colleges are required to have a code of ethics. In the case of dental hygiene, many colleges adopted or adapted the code developed by the Canadian Dental Hygienists Association (CDHA). The CDHA developed the first code of ethics for dental hygiene in 1991 and revised it in 2012.

Another step toward the professionalization of dental hygiene in Canada came in 1996 with the establishment of the National Dental Hygiene Certification Board (NDHCB) (CDHA, 2009). At present all provinces except Quebec require dental hygienists to pass the NDHCB as a prerequisite for registration.

## Dental Therapists

Health Canada employs dental therapists to work on federal/Crown land as primary dental care providers for First Nations and Inuit populations as part of Indigenous Services Canada (ISC). Dental therapists are permitted to practise in all provinces and territories except for Ontario and Quebec. In those provinces or territories where the profession is recognized, there are regulatory restrictions on where they can practise that determine which groups they can treat. In all three territories, dental therapists must be registered with the professional licensing department of the territorial government. In Nova Scotia, Prince Edward Island, New Brunswick, Newfoundland and Labrador, and Alberta, dental therapists are only permitted to work as employees of Health Canada (Leck and Randall, 2017).

**TABLE 3:** Year of regulation, self-regulation and self-initiation for dental hygienists in Canada

Province	Licensing Body	Year Regulation Became Mandatory	Year Self-regulation was Achieved	Year Self-initiation was Achieved
<b>British Columbia</b>	College of Dental Hygienists of British Columbia	1952	1990	1995
<b>Alberta</b>	College of Registered Dental Hygienists of Alberta	1990	1995	2006
<b>Saskatchewan</b>	Saskatchewan Dental Hygienists Association	1950	1998	2000
<b>Manitoba</b>	College of Dental Hygienists of Manitoba	1952	2005	2008
<b>Ontario</b>	College of Dental Hygienists of Ontario	1951	1994	2007
<b>Québec</b>	Ordre des hygiénistes dentaire du Québec	1975	1975	2020
<b>New Brunswick</b>	New Brunswick College of Dental Hygienists	1950s	2009	–
<b>Nova Scotia</b>	College of Dental Hygienists of Nova Scotia	1973	2009	1990
<b>Prince Edward Island</b>	Dental Council of Prince Edward Island	1974	Regulated by provincial government	–
<b>Newfoundland and Labrador</b>	Newfoundland and Labrador College of Dental Hygienists	1969	2013	In progress
<b>Yukon</b>	Government of Yukon	1958	Regulated by territorial government	–
<b>Northwest Territories</b>	Northwest Territories Professional Licensing, Government of Northwest Territories	1990	Regulated by territorial government	–
<b>Nunavut</b>	Government of Nunavut Department of Health and Social Services	1990	Regulated by territorial government	–

Source: CDHA 2020; Dental Hygiene Profession in Canada [https://files.cdha.ca/profession/Regulatory\\_Authority\\_chart\\_0620.pdf](https://files.cdha.ca/profession/Regulatory_Authority_chart_0620.pdf)

In British Columbia, dental therapists are employed by the First Nations Health Authority (Leck and Randall, 2017) and are licensed and regulated by the British Columbia College of Oral Health Professionals. In Saskatchewan, dental therapists have been a self-regulating profession for more than 30 years. They are licensed by the Saskatchewan Dental Therapists Association (SDTA) after they complete an educational program in dental therapy recognized by the Council of the SDTA and secure professional liability insurance as they are permitted to work in private practice in that province. In Manitoba, dental therapists may either work as employees of Health Canada or in private practice and must register with the Manitoba Dental Association.

## Demographics

### Dental Assistants

According to data gathered by the Canadian Institute of Health Information, there were a total of 23,490 dental assistants in Canada in 2020. The overall number per 100,000 population was 85 but this varied from a high of 145 in Alberta to a low of 51.6 in Ontario (see Figure 1). Dental assistants overwhelmingly identify as women (98-100% depending on jurisdiction). Although the largest proportion of practising dental assistants are in the 30-59 age category, a sizable proportion are under the age of 30 (Figure 2).

### Dental Hygienists

In 2020, there were 30,461 registered dental hygienists in Canada, with the majority registered in Ontario (13,500) and Quebec (6,699). There are slightly fewer dental hygienists per 100,000 population than dental assistants – 81.4 in 2020 with a high of 91.6 in Ontario and low of 58.1 in Manitoba (see Figure 3). Dental hygienists also identify overwhelmingly as women (95-99.3%) and have a similar age profile as dental assistants (Figure 4).

### Dental Therapists

It is difficult to tell how many dental therapists are practising in Canada; these data are not collated by CIHI. There are estimates that approximately 300 dental therapists currently practice in Canada:

202 in Saskatchewan; 37 in the territories; and about 55 distributed throughout the rest of Canada, with the exception of Ontario and Quebec, where dental therapy is not currently regulated (Nash et al., 2008). There are also dental therapists employed in private practice in Manitoba; however, because they are not regulated, it is difficult to account for exactly how many are practising in that province. The territories—in particular, Nunavut and the Northwest Territories—continue to demand dental therapists, with a vacancy rate exceeding 50% in dental therapy positions across the territories (Nash et al., 2008).

## Practice Settings

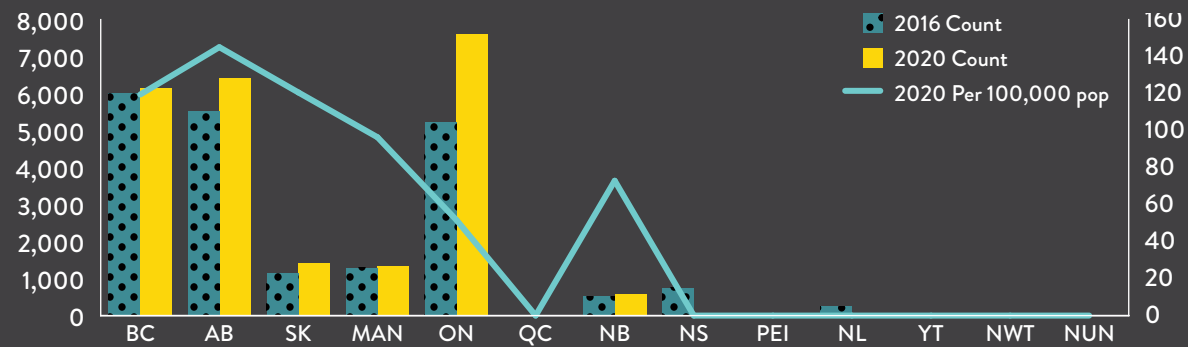
### Dental Assistants

Dental assistants in Canada are part of an integrated healthcare team that provides oral care to patients. While jobs are found mainly in private practices, there are also positions in hospitals, regional health units, and with the Canadian Armed Forces (CAF). In certain provinces dental assistants have their own regulatory authority; in others, dental assistants are regulated by the dental regulatory authorities. In Ontario and Quebec, dental assisting is not a regulated profession.

Possible practice environments for dental assistants include:

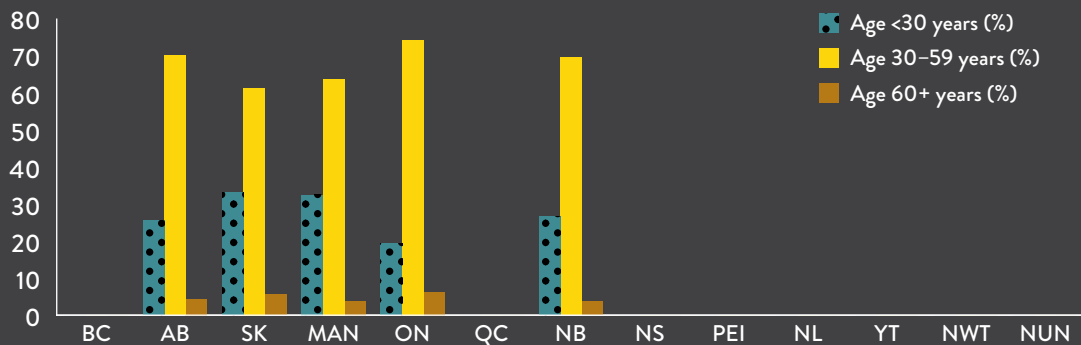
- Private practice – general dentistry;
- Private practice – in the following specialties: endodontics, oral and maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, prosthodontics;
- Educational facilities – teaching and clinical assessment;
- Hospital-based dental clinic;
- Community/public health;
- Insurance companies;
- Military; and
- Dental supply companies (CIHI, 2009).

**Figure 1: Dental assistants—count and per population rates in Canadian provinces and territories, 2016 and 2020**



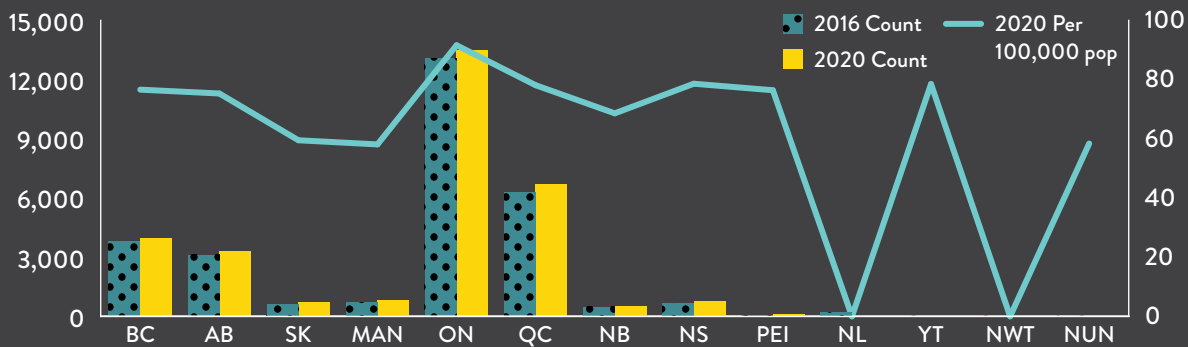
Source: Canadian Institute for Health Information, 2022, Health Workforce Database

**Figure 2: Age distribution of dental assistants, by Canadian provinces and territories, 2016 and 2020**



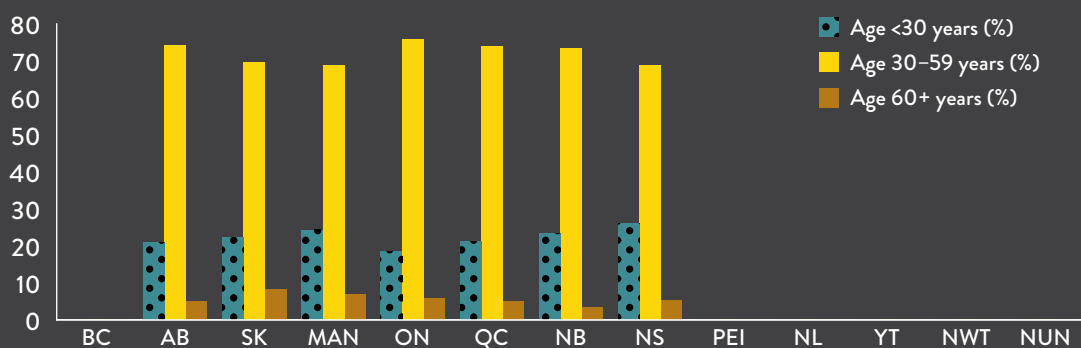
Source: Canadian Institute for Health Information, 2022, Health Workforce Database

**Figure 3: Dental hygienists—count and per population rates in Canadian provinces and territories, 2016 and 2020**



Source: Canadian Institute for Health Information, 2022, Health Workforce Database

**Figure 4: Age distribution of dental hygienists, by Canadian provinces and territories, 2016 and 2020**



Source: Canadian Institute for Health Information, 2022, Health Workforce Database



The Canadian Armed Forces offer a unique practice setting for Canadian dental assistants. Dental technicians, the military equivalent to dental assisting, support Dental Officers in delivering dental services to CAF members and, occasionally, their families and dependents (Government of Canada, 2018). Dental assistants in the CAF may work in the field with an Army unit, in a mobile dental clinic, an Air Transportable Dental System, or on board a ship. Dental assistants in the CAF may be posted to a base within Canada or deployed on operations around the world.

### Dental Hygienists

Registered dental hygienists can provide oral health care in a wide variety of practice settings. These include dental offices, hospitals, clinics, long-term care, dental hygiene offices, educational institutions, government agencies and private industry. Dental hygienists practising in provinces that allow hygienists to 'self-initiate' or practise independent of a dentist may have their own office, mobile practice, contracts with long-term care facilities, or travel to their client's place of residence. A dental hygienist's ability to work independently is determined by their provincial regulatory authority and corresponding legislation governing the profession.

Sometimes dental hygienists work as part of an oral healthcare team; however, other employment arrangements are increasingly common, including self-employment. Possible work environments for dental hygienists include:

- Clinical practices;
- Institutions;
- Public health and community health organizations;
- Long-term care, home care and other outreach programs;
- Primary health care centres, educational institutions;
- Military;
- Research;

- Industry;
- Consulting firms;
- Regulatory authorities and professional associations; and
- Government and forensic laboratories (CIHI, 2009).

### Dental Therapists

Dental therapists practise in both public and private health settings, and may work in a variety of capacities depending on their particular practice setting. Possible capacities for dental therapists include:

- Clinicians;
- Educators;
- Health promoters;
- Administrators; and
- Dental consultants.

In Saskatchewan, for example, 118 of the 202 dental therapists work alongside dentists, dental hygienists and dental assistants in the private sector. Dental therapists also work in satellite clinics in smaller rural and First Nations communities across Saskatchewan, providing care on a fee-for-service basis (Nash et al., 2008). The dental therapists who work in these satellite clinics provide care in communities that would otherwise not have access to these services.

Outside Saskatchewan, dental therapists are directly employed by Health Canada or territorial governments to provide oral health services to Inuit and First Nations people in rural and remote communities. Possible practice environments for dental therapists include:

- Private dental clinics;
- Government health programs;
- Public health agencies;
- Training institutions; and
- First Nations organizations.

## Salaries and Coverage of Services

### Insurance coverage

In Canada, provincial healthcare plans do not cover general oral health care. Most Canadians receive oral health care through privately operated dental clinics and pay for services through insurance or by paying for it out of pocket. Indigenous Services Canada provides coverage for goods and services that are typically uninsured, such as dental care, to members of Inuit and First Nations communities through the Non-Insured Health Benefits (NIHB) program. In this case, coverage for dental services is determined on a case-by-case basis, taking into consideration the current oral health status, recipient history, accumulated scientific research and availability of treatment alternatives (Indigenous Services Canada, 2022). Typically, the NIHB program covers:

- Diagnostic services like examinations or X-rays;
- Preventive services, such as cleanings;
- Restorative services, including fillings;
- Endodontics, such as root canal treatments;
- Periodontics or the treatment of gums;
- Prosthodontics, including removable dentures;
- Oral surgery, including tooth removal;
- Orthodontics to correct irregularities in teeth and jaws; and
- Adjunctive services, which include additional services such as sedation (Indigenous Services Canada, 2022).

In September 2022 the Government of Canada proposed new legislation to deliver targeted support in the form of tax-free payments to enable children from low-income families access to dental care services. The proposal included the provision of services by dental hygienists, along with dentists and denturists.

## Dental Assistants

### Wages

According to the Government of Canada Job Bank website, the median hourly salary of dental assistants was \$24.73 as of November 2022. A dental assistant's salary is also influenced by work setting, years of experience, geographical location and employment position (CDAA, 2013). Conversely, dental technicians in the Canadian Armed Forces are offered a monthly salary from \$3,492 to \$5,123 with signing bonuses for fully trained dental assistants (Government of Canada, 2023).

### Dental Hygienists

According to the CDHA, which conducts salary surveys for the profession, the average hourly rate for dental hygienists across Canada was \$43.40 in 2019. Salaries vary depending on a dental hygienist's experience and location. Consistent with previous years, Alberta has the highest hourly rate at \$55.26; New Brunswick has the lowest hourly rate at \$32.99. The CDHA also found that in 2019, dental hygienists in Canada earned a median salary of \$75,098. (CDHA, 2019).

### Dental Therapists

The current picture of dental therapy in Canada does little to reflect the profession's beginnings, which arose out of the recognition of dental health for Canada's Northern, Inuit, and First Nations communities as a public responsibility.

In 1997 in Saskatchewan, the *Dental Disciplines Act* was passed, providing the authority for each oral health-care profession to self-regulate. Because dental therapists had had this authority since 1974, this Act provided more opportunities for employers to hire dental therapists with more flexibility. Today, dental therapy continues to be characterized by flexibility and evolution. There is very little information on the current status of salaries and coverage of dental therapy services in Canada.

## The impact of the COVID-19 pandemic on the practice of dental assisting, dental hygiene and dental therapy

The dental professions were significantly impacted by the COVID-19 pandemic. Early in the pandemic dental staff were laid off when offices were shut. Support for dental practices from the federal government came through the Canada Emergency Wage Subsidy program, available from March 15th to December 19th, 2020. Protocols for reopening varied widely across jurisdictions and between different regulatory authorities – for example between dentist and dental hygiene regulatory authorities. British Columbia was notable for collaborating early on in a coordinated COVID-19 guidance document. Concerns about their risks coupled with mandated vaccination may have caused some dental assistants and dental hygienists to decide not to return to work. Some also attribute the delays in restart of the dental therapy program to the impact of the pandemic.

In research undertaken in partnership between the Canadian Dental Hygiene Association and the Healthy Professional Worker Partnership (2023), it was found that the pandemic has a notable impact on the mental health of dental hygienists. Self reported mental health went from good in the months before the pandemic to fair during the winter of 2021; distress scores went from 9.5 to 14.3 and burnout scores increased from 2 to 2.6. All of these changes were significant. Exacerbating the concerns about shortages, over 30% of dental hygienists reported having thought about leaving the profession.

## Conclusion

This chapter has provided an overview of three distinct dental healthcare professions in Canada: dental assisting, dental hygiene and dental therapy. The objective of this chapter is to provide a provincially specific yet nationally contextualized understanding of these three professions in Canada, while also highlighting that even though these dental health care professions are distinct, they share a common professional experience as allied oral healthcare providers. Across all of these professions, gender is an important issue to be considered. Through an implicit dialogue regarding the role of gender dynamics at play, both historically and contemporarily, it can be seen how professional projects experience work through this gendered lens.

Each of these three dental professions experiences various challenges and issues. For example, **dental assisting** faces high turnover rates in the profession, with possible causes including poor wages and lack of benefits, difficult working environments, labour mobility impeded by uneven regulation, and lack of

opportunities for advancement. In **dental hygiene**, the educational requirements and scope of practice for this profession have continued to expand simultaneously. The long-term effects of credentialism seen in dental hygiene—climbing upwards from a college diploma to master’s training—should be considered more broadly across the experiences of all health professions. In **dental therapy**, a sustained weakening in educational support and lack of structural funds coupled with strained communication among federal agencies regarding how to employ these professionals to their full scope of practice culminated in the closure of the last dental therapy program in 2011. The re-opening of a new dental therapy program offers new opportunities for this oral health profession.

## Acknowledgements

Parts of this material are based on data and information provided by the Canadian Institute for Health Information. However, the analyses, conclusions, opinions and statements expressed herein are those of the author and not necessarily those of the Canadian Institute for Health Information.



## Acronyms

AADQ	Association des Assistant(e)s Dentaires du Québec	FNIHB	First Nations and Inuit Health Branch
CAF	Canadian Armed Forces	HRSDC	Human Resources and Skills Development Canada
CDA	Canadian Dental Association	HWDB	Health Workforce Data Base
CDAA	Canadian Dental Assistants Association	NDAEB	National Dental Assisting Examining Board
CDAC	Commission on Dental Accreditation of Canada	NDHCB	National Dental Hygiene Certification Board
CDHA	Canadian Dental Hygienists Association	NIHB	Non-Insured Health Benefits
CDNAA	Canadian Dental Nurses and Assistants' Association <sup>4</sup>	NLDAA	Newfoundland and Labrador Dental Assistants Association
CDTA	Canadian Dental Therapists Association (formerly the Canadian Dental Therapists' Society)	NOA	National Occupational Analysis
CIHI	Canadian Institute for Health Information	NOC	National Occupational Classification
CPE	NDAEB Clinical Practice Exam	NSDT	National School of Dental Therapy
DA	Dental Assistant	ODAA	Ontario Dental Assistants Association
DAEC	Dental Assisting Educators of Canada	OECD	Organisation for Economic Co-operation and Development
DMFT	Decay-missing-filled teeth (for primary teeth)	SDTA	Saskatchewan Dental Therapists Association
		WHO	World Health Organization

<sup>4</sup> this is the former name of the CDAA

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