

**The Administration of the Non-Insured Health Benefits
Dental Care Program and Its Impacts on Nunavut's Inuit Population**

Michael James Moeller

A thesis submitted to the Faculty of Graduate and Post Doctoral Affairs
in partial fulfillment of the requirements for the degree of

Master of Arts

Carleton University
Ottawa, Ontario

© Michael James Moeller
August 2013

TABLE OF CONTENTS

Abstract	3
Acknowledgements	4
Introduction	5
<i>The Non-Insured Health Benefits</i>	5
<i>The Oral Health of Nunavut's Inuit Population</i>	8
<i>Research Objective</i>	10
<i>Research Question, Methodology, and Argument</i>	10
<i>Structure of the Argument</i>	11
Materials and Methodology	12
NIHB History and Current Governance Landscape in Nunavut	18
<i>History of the Non-Insured Health Benefits Program</i>	18
<i>Governance in Nunavut</i>	23
<i>Dental Care in Nunavut</i>	33
NIHB Program Expenditures	39
Provider Remuneration	57
Claims Processing	70
Pre-Determination	85
Administrative Organization	96
Territorial Government Responsibilities	107
Conclusions and Recommendations	128
Appendix A: Interview Documents	136
Works Cited	141

Abstract

Despite the fact that state-recognized Indigenous persons in Canada are eligible for dental care benefits through the federally-funded Non-Insured Health Benefits (NIHB) program, Nunavut's Inuit suffer significant oral health disparities relative to the general Canadian population. This thesis explores how the administration of the NIHB program may contribute to the poor oral health outcomes for Nunavut's Inuit. It proposes that the program as it exists today is financially unsustainable, and is not conducive to public health objectives, identifying three possible areas of reform: the fee-for-service remuneration model, which creates financial incentives for providers to over-treat patients and is not well-suited for Nunavut's unique environment; the centralized administrative organization, which does not produce policies reflective of Inuit needs; and the provision of service days to communities, which does not follow any discernible formula. I conclude that increased devolution to an Inuit organization may offer solutions to each of these problems.

Acknowledgements

There are a number of individuals who have contributed to the success of this project through their advice and encouragement. These include Dr. Frances Abele, who was a mentor, teacher, and friend; Dr. Allan Maslove, who endured many office visits from me and too many emails to count in my seemingly never-ending quest for advice; my family, who sacrificed many phone calls during the last year; and, Devanne, who never allowed me to stray from my principles.

Chapter 1

Introduction

The Non-Insured Health Benefits

The Inuit population in the territory of Nunavut today suffers significant oral health disparities relative to the general Canadian population. This, despite the fact that Inuit and First Nations in Canada receive comprehensive dental care benefits, largely free at the point of access, through the federally-funded Non-Insured Health Benefits (NIHB) program. Although the NIHB program undeniably helps to improve the oral health status of its beneficiaries, no academic study to date has satisfactorily explored the administration of the NIHB program as a factor in the oral health among Inuit in Nunavut. This thesis therefore explores how the administrative arrangement of the NIHB program may contribute to the poor oral health outcomes observed for Inuit in Nunavut.

In Canada, health care – which refers to a wide variety of services, including medicine, nursing, pharmacy, dentistry, and optometry, among others^[1] – is considered the responsibility of provincial governments based upon the division of powers outlined in Section 92 of the Constitution Act of 1867.^[2] The federal government, however, remains partly responsible for the provision of some health services to Royal Canadian Mounted Police officers, federal prisoners, members of the Armed Forces, new immigrants and refugees, and veterans of the Canadian Armed Forces,^[3] and is exclusively responsible for the provision of health services to state-recognized First Nations and Inuit people in Canada.^[4]

This responsibility arises from Section 91 of the 1867 British North America Act, in which jurisdiction over “Indians, and Lands reserved for the Indians” is assigned to the federal

¹ Hodgson and Cohen, 1999: 120.

² British North America Act, 1867: Sections 92(7) and 92(16).

³ Tiedemann, 2008: 3.

⁴ Madore, 2005: 3. It should be noted that arrangements vary where comprehensive claims agreements exist.

government.^[5] Although originally interpreted by the federal government to entail responsibility for First Nations only, the definition of Indians was expanded by the Supreme Court of Canada in 1939 to include Inuit.^[6] Non-registered First Nations people and Métis receive health services from provincial and territorial governments, as part of the general population.

In Canada, services provided within hospitals, or by physicians in personal practices, are largely free at the point of access to provincial residents seeking services in their own province. The Hospital Insurance and Diagnostic Services Act of 1956 and the Medical Care Act of 1967 created the foundation for publicly-insured hospital services and physician care in Canada. These Acts also officially characterized health resources as either publicly insured or uninsured services.^[7]

Dental care is a component of the latter group of services – that is, it is considered a publicly-uninsured service in Canada, although emergency surgical dental services performed in hospitals are financed by provincial governments under the Canada Health Act.^[8] Today, dental care is primarily financed through private insurance plans and out-of-pocket payments by patients, though to a lesser extent, public insurance plans targeted at key demographics also exist.^[9] The federal government publicly finances dental care – in addition to pharmaceutical drugs, optometry and vision care, and travel costs – for First Nations and Inuit by way of the Non-Insured Health Benefits (NIHB) program.

The Non-Insured Health Benefits program funds relatively comprehensive dental care services for Nunavut's Inuit population. Notably, unlike most private insurance plans, access to care at the point of service is free for beneficiaries – that is, no co-payment fees are required. In Nunavut, an individual is eligible for the NIHBs if they are a Canadian resident, and are either an

⁵ British North America Act, 1867: Section 91(24).

⁶ Bonesteel and Anderson, 2006: 6-7.

⁷ Quiñonez and Lavoie, 2009: 43.

⁸ Canada Health Act, 1985: 3-4.

⁹ Birch and Anderson, 2005: 243.

Inuk recognized by one of the Inuit Land Claim organizations, a registered Indian according to the Indian Act, or an infant less than one year of age whose parent is an eligible recipient.^[10]

As of 2011, the number of eligible clients for the program in Nunavut is 30,120. Interestingly, only four per cent of Nunavut's Inuit population reported that they avoided a dental care provider or recommended care due to costs. In contrast, non-Indigenous Canadians are roughly four times as likely to avoid a dentist or decline recommended care because of costs, suggesting that the NIHB program has been successful in its efforts to eliminate financial barriers to dental care.^[11]

Despite the absence of financial barriers for dental care offered to Inuit through the NIHBs, the utilization rate – defined as the proportion of eligible clients who receive at least one dental service paid by the NIHB in a given year – was only 45 per cent in 2011,^[12] is consistent with utilization rates from previous years.^[13] The utilization rate is parabolic across age groups, with the highest utilization rates exhibited by young adults between the ages of 15 and 35.^[14] The fact that the utilization rates for children increase with age is highly disconcerting, given that preventive care is most effectively delivered at younger ages.^[15] The utilization rates for seniors raise concerns as well, as demands for oral health services tend to increase with age,^[16] suggesting that other barriers to care may be in play for the oldest in Nunavut's Inuit population.

The low overall utilization rate indicates that less than half of all eligible Inuit beneficiaries use the service regularly, a rate which is more than 50 per cent lower than the general population in Canada,^[17] again highlighting that other barriers exist in accessing care. Notably, however, the

¹⁰ Nunavut Department of Health and Social Services, 2010.

¹¹ Health Canada, 2011: 25.

¹² First Nations and Inuit Health Branch, 2012: 49-51

¹³ First Nations and Inuit Health Branch, 2011: 53-55; First Nations and Inuit Health Branch, 2010: 53-55; First Nations and Inuit Health Branch, 2009: 57; First Nations and Inuit Health Branch, 2008: 55; First Nations and Inuit Health Branch, 2007: 53; First Nations and Inuit Health Branch, 2006: 69; First Nations and Inuit Health Branch, 2005: 69

¹⁴ First Nations and Inuit Health Branch, 2012: 51

¹⁵ Yalnizyan and Aslanyan, 2011: 9.

¹⁶ Center for Health Workforce Studies, 2006: 6-7.

¹⁷ Health Canada, 2011: 25.

utilization rate in Nunavut is amongst the highest in Canada for NIHB clients, second only to Québec. Significantly, the utilization rate for services obtained during the previous *two* years is 61 per cent, the highest two-year rate for NIHB beneficiaries in any Canadian province or territory.^[18]

The Oral Health of Nunavut's Inuit Population

The oral health of Nunavut's Inuit lies well below that of the non-Indigenous Canadian. Although there is evidence that residents of circumpolar regions experienced pathologic diseases prior to European contact, there is little evidence to suggest that their oral health was poor. Their diets and lifestyles produced minimal dental decay, caries, or tooth loss. Even into the later contact period (until 1940), most Inuit in the Nunaat region (Nunavut, Nunavik, Inuvialuit, and Nunatsiavut) showed minimal sign of caries or tooth loss.^[19]

Today, however, Inuit children in Nunavut suffer from a dental decay rate that is two to five times higher than that of non-Indigenous children in Canada.^[20] Inuit children are also significantly less likely to be decay-free than other Canadians.^[21] Over 85 per cent of pre-school Inuit children experience some degree of dental decay, and this figure rises to over 95 per cent for school children and young adults. For pre-schoolers, an average of eight baby teeth are affected by dental caries, and the average adolescent experiences between seven and nine caries (cavities). Among the oldest adults, periodontal disease has affected everyone.^[22]

Much of the disease remains untreated. Instead, Inuit in northern Canada tend to have high rates of extraction. Adolescents receive 20 extractions for every 100 teeth that are filled, a rate which is more than twenty times that of their non-Indigenous southern counterparts. Young adults receive

¹⁸ First Nations and Inuit Health Branch, 2012: 49-51

¹⁹ Health Canada, 2011: 9; Quiñonez, 2006: 103.

²⁰ Persinni et al., 2004; Lawrence and Leake, 2001: 587.

²¹ Quiñonez and Lavoie, 2009: 40-41.

²² Health Canada, 2011: 29.

almost 60 extractions for every 100 teeth filled, and for the oldest Inuit group, dentists extracted over 200 teeth for every 100 teeth restored.^[23] As a result, more than 20 per cent of Inuit who are older than 40 are edentulous (lacking teeth), largely the result of periodontal disease. This proportion is significantly higher than the rate observed for the non-Indigenous Canadian population; only about ten per cent of the general Canadian population is edentulous.^[24] Thus, the evidence produced through epidemiological studies, in addition to government discourse, newspaper articles, and simple observation, confirms that the oral health of Nunavut's Inuit population remains unacceptably poor.^[25] Some researchers have even suggested that the oral health of Nunavut's Inuit is approaching epidemic levels.^[26]

The poor oral health of Nunavut's Inuit population has been attributed to several factors. These factors include geographic isolation; sparsely-populated communities that preclude access to full-time dentists; philosophical differences in dental practice (treatment vs. prevention); relations between the state and Indigenous persons; the absence of discernible population-based prevention strategies;^[27] and, Inuit self-determination^[28] – that is, social and economic development policies in Nunavut recognize the need to employ and train local individuals, and support territorial and Inuit business interests. These policies have created the opportunity for Inuit interests to produce their own proposals for contracted services, which has in turn had a definite impact on how dental care is delivered in Nunavut.^[29]

²³ *Ibid*, Pg. 27.

²⁴ *Ibid*, Pg. 29.

²⁵ Quiñonez, 2004: 324.

²⁶ Schroth, 2006: 98.

²⁷ Inuit Tapiriit Kanatami, 2013: 14-16.

²⁸ Schroth, 2006: 98.

²⁹ Quiñonez, 2004: 6-7.

Research Objective

Thus, despite the absence of financial barriers for accessing dental care, Nunavut's Inuit population continues to suffer from significant disparities in their oral health relative to that of the non-Indigenous Canadian population. Although the NIHB program undeniably helps to improve the oral health status of its beneficiaries, no academic study to date has satisfactorily explored the administration of the NIHB program as a factor in the oral health among Inuit in Nunavut. This thesis therefore provides a comprehensive analysis of how the administration of the NIHB dental care program contributes to the poor oral health of Nunavut's Inuit population.

Research Question, Methodology, and Argument

The study asked, "Do current administrative arrangements of the NIHB program contribute to the poor oral health outcomes of Nunavut's Inuit?" Using a variety of stakeholder interviews, government texts, and document reviews, this study argues that three principle factors of the NIHB program contribute to the poor oral health observed for Nunavut's Inuit population. These factors include the order of government which currently maintains – but more importantly, which order of government should maintain – responsibility and decision-making authority for a particular aspect of the NIHB program; the inability or unwillingness of decision-makers to consider the unique differences which exist among and between First Nations and Inuit beneficiaries; and, the several features which run contrary to the objectives of public health – that is, how it contributes to prevention and management of oral health disease. These factors are manifested in several ways throughout the program, including the remuneration model, the administrative organization, and the provision of service days and dental care delivery in Nunavut.

Structure of the Argument

Expanding upon the brief explanation offered in the previous section of this chapter, Chapter 2 outlines the materials and methodology used to effectively achieve the stated objective of the research. Chapter 3 follows with a brief but thorough overview of the history of the Non-Insured Health Benefits as it pertains to Nunavut's and Canada's Indigenous populations, while providing a description of regional governance as it exists in Nunavut today, particularly with respect to dental care.

The next chapters focus on financial aspects of the NIHB program. Chapter 4 examines trends in NIHB expenditures, both nationally and territorially, and assesses the program's sustainability over the long-term, as well as the implications for the effective delivery of dental care in Nunavut. Chapter 5 then examines the remuneration system used by the NIHB program for compensating providers, and proposes that the fee-for-service model currently in use is not well-suited to the unique environment in Nunavut.

Chapters 6 and 7 then explore two of the necessary features used by third party insurers who remunerate dentists using a fee-for-service model: claims processing and pre-determination. It is argued that each of these features offer their own distinct limitations to effective service delivery, and proposes that the adoption of an alternative remuneration system may be more effective in delivering dental care in Nunavut.

Chapter 8 examines the administrative organization of the program, and Chapter 9 looks at how effectively the territorial government's has administered the NIHB services for which it is responsible. Using conclusions drawn from each of the preceding chapters, the final chapter offers my recommendations and final remarks about the NIHB program in Nunavut.

Chapter 2

Materials and Methodology

This chapter details the materials and methods used during the completion of this research, including the development of the research question and hypothesis; the sampling method used for identifying prospective participants for interviews; the interview process and the questionnaire package; the collection of data and information; and, the analysis of data and information. This research employed a case study methodology,^[30] defining the administration of Canada's Non-Insured Health Benefits dental care program within the context of Nunavut as the unit of analysis.

The research began with a research question which identified the phenomenon to be studied^[31] – in this case, possible factors contributing to the oral health of Nunavut's Inuit. Although many factors have been identified by previous researchers,^[32] no academic research to date has exclusively studied how the NIHB is administered in Nunavut, and the possible impacts on the oral health of the territory's Inuit population. My research objective was, therefore, to analyze various dimensions of how dental care is administered by the NIHB program, and assess how these elements contribute to the enhancement, preservation, or deterioration of the oral health status for Nunavut's Inuit. By exploring government documents and academic publications, several potential contributing factors were identified.

However, no definitive hypothesis was established. The analysis was inductively derived from the study of the phenomenon it represented.^[33] Theory, concepts, and hypotheses were discovered directly from the data and information obtained from documentation or through interviews, rather than from priori assumptions. Given that other academic research or existing

³⁰ Berg, 2009: 319-20

³¹ Glaser, 1992: 86.

³² Quiñonez, 2004; Schroth, 2006: 98; Health Canada, 2011: 5.

³³ Berg, 2009: 360; Glaser, 1992: 88.

theoretical frameworks^[34] for this subject are largely absent in the literature to date, data and information were instrumental in guiding evidence-based conclusions. Stakeholder interviews were identified as the most appropriate means by which to begin understanding how these factors might contribute to the oral health of Inuit in Nunavut. Given that the research intended to interview various groups or stakeholders, an ethics proposal was submitted to, and approved by, the Carleton Ethics Board, and interviews were conducted for seven weeks between late January and mid-March of 2013.

The sampling method used for identifying possible participants was essential to ensuring that a comprehensive overview of the NIHB program was provided for the research, and that perspectives from all stakeholder groups were represented.^[35] Therefore, academic researchers familiar with dental care or social issues in Nunavut were selected, as well as dental providers, dental organizations, Inuit organizations, territorial government officials, and individuals employed at either Health Canada or the NIHB directorate who are familiar with key aspects of the NIHB dental care system. Individuals were identified through government directories, requests to organizations, academic literature, and referrals from other participants. It was also essential that individuals familiar with delivery in both remote and more urban areas of Nunavut were interviewed.^[36]

Requests were sent out to individuals who were identified as having unique perspectives or a high degree of knowledge with respect to the NIHB program, and approximately one in ten potential participants agreed to an interview. Fortunately, many of the people who did agree to interviews were senior government officials, current and former dental providers in Nunavut, and academics familiar with Nunavut's dental care system, providing a strong representation of various perspectives. In total, nineteen interviews were conducted.

³⁴ Neuman, 2011: 85-86.

³⁵ Fry, 1995: 51.

³⁶ Neuman, 2011: 258-60.

With one exception, all interviews were conducted in a one-on-one setting in order to offer privacy to participants, and to ensure that a personal relationship was established between myself and the participants.^[37] Interviewees were asked a consistent set of questions, but some questions were eliminated or altered after a number of responses confirmed factual claims, and some questions were added after new information about the program's administration came to light.

All participants were provided with a copy of the questionnaire package prior to the interview, which was intended to give them time to familiarize themselves with the scope, style, and themes of the questions.^[38] On this basis, eight individuals declined the interview, as they considered themselves to be inadequately informed about the areas of interest.^[39] The interviews were semi-structured, which provided flexibility to garner additional information.^[40] Although the list of questions acted as a guide or a framework throughout the interview, there were many interviews which required follow-up or clarifying questions to particular issues.^[41] The interviews were far less conversational in nature than they were an opportunity for me to listen.

Interviews were primarily conducted via telephone or Skype, although two in-person interviews occurred, and two individuals responded to questions through email. Interviews never exceeded more than two per day. Before the interviews began, all individuals were asked if they had any objections to being audio recorded during the interview; only three out of the nineteen objected. One participant was not recorded as I was only looking for general information and guidance (all recordings were digital recordings, so they will accordingly be deleted from the device and the computer after the successful completion of the thesis). Notes, however, were taken throughout the interviews in the event that a problem should arise with the recording.^[42] After the interview was

³⁷ Neuman, 2011: 337-39.

³⁸ Appendix A – Questionnaire Package.

³⁹ Appendix A – Informed Consent Form.

⁴⁰ Berg, 2009: 107-09.

⁴¹ *Ibid*, Pg. 113-14.

⁴² Fry, 1995:

complete, each participant was asked if there were any questions which they would like to return to, areas which needed clarifying, or issues which may not have been addressed but they thought would be important. For many people, this appeared to act as a “debriefing” exercise,^[43] as many people used it as an opportunity to inquire about the project’s objectives or expectations, or offer suggestions for possible directions in the research.

All individuals were interviewed in their professional roles – that is, participants spoke about the program as a government employee, a dental provider, an academic researcher, or a representative from an Inuit organization. Accordingly, almost every interview occurred during working hours at their places of employment, although two dental providers requested that I contact them during the weekend at their homes for convenience. The actual length of the interviews varied from ten minutes to two hours, though the vast majority were between thirty and forty-five minutes. Every participant was permitted to not answer a question if he or she felt uncomfortable or unfamiliar with the topic. Allowing participants to choose the place in which they were interviewed (often their offices or homes), as well as offering them the ability to not answer particular questions, ensured that individuals remained comfortable and uninterrupted throughout the interview.^[44]

Each interview was given a file number. To ensure confidentiality for the participants, a master list of the interviewees was generated, and the participant’s file number was attached and saved on a spreadsheet. As all the interviews were transcribed, only the file numbers would appear on the saved or printed documents, so as to ensure that the personal information of participants remained secure. Given the small size of communities in Nunavut, and the professional risk to which some participants may be exposed if information deviated from their employer’s position, confidentiality was a priority of this research.^[45]

⁴³ Neuman, 2011: 351.

⁴⁴ *Ibid*, Pg. 348.

⁴⁵ Berg, 2009: 91-92.

The questionnaire package was effectively broken into five themes: introduction; finances; provider relationship with the program; client relationship with the program; and, state relations. No individual was presented with all five themes in an interview. Instead, most participants were given questions from some combination of the five themes. Some interviews consisted of only two categories of questions, while others consisted of four categories. In this sense, the questions were largely tailored to specific people in their unique professional capacities. The order in which the questions were asked was flexible, depending upon the answers offered by participants to particular questions.^[46] The questions were reviewed after each interview was finished to ensure that they were arranged in an order which flowed well during the interview, and that they were suitable for participants. I also assessed whether or not further explanations were required for particular questions. The interviews were generally transcribed within two to four days after the interview was completed.

Although some questions were intended to elicit opinions about aspects of the NIHB dental care program, in large part, the interviews were an exercise to gain information about the program. In this sense, the qualitative information from interviews was often used as a platform to uncover material in government documents, Access-to-Information and Privacy (ATIP) requests, and academic research. Furthermore, key elements of the NIHB administration were identified as possible strengths and weaknesses in the context of oral health for Inuit in Nunavut, and supplemental studies were used to support or dispute the decisions.

In addition to qualitative interviews, quantitative research was also conducted throughout this research. The first use of quantitative data was for analyzing population trends and growth rates in Nunavut and Canada for both Indigenous and non-Indigenous Canadians, essential for assessing the sustainability and pressures currently placed on the NIHB program, as well as its component

⁴⁶ Lofland and Lofland, 1995: 56-57.

parts. The second use of quantitative data was to explore expenditures in the NIHB program generally, as well as for its dental care program. This assessment surveyed trends over the past decade and more recently, trends at a national level and a local level, and investigated a breakdown of costs to determine which procedures are growing most rapidly and placing the most pressure on the program. These trends were also compared with private insurance trends in Canada, and trends within the NIHB dental care program in other regions of the country. Finally, data for particular dental procedures obtained through Access-to-Information and Privacy (ATIP) requests to Health Canada were used to analyze the potential impacts that decisions made by the NIHB program have had on the oral health of Inuit in Nunavut.

There are several benefits to conducting research which employs both qualitative and quantitative research methods. Quantitative research is a formal, objective, and deductive approach to problem-solving, whereas problem-solving remains a highly informal, subjective, and inductive exercise for qualitative research.^[47] Given that this research is intended to generalize findings from the larger target population, but also intends to understand the subjective experiences of providers and clients from the same target population, this approach likely lends itself to being the most appropriate method.^[48] Furthermore, the weaknesses or limitations for each approach may be supported from the results obtained from the other approach. The following chapters of this thesis will detail the results of the research.

⁴⁷ Keele, 2011: 35.

⁴⁸ *Ibid*, Pg. 51.

Chapter 3

NIHB History and Current Governance Landscape in Nunavut

History of the Non-Insured Health Benefits Program

In his 1993 report, the Auditor General of Canada accurately described the NIHBs as “evolving gradually.”^[49] Many health services now associated with the NIHB program were initially provided for Indigenous populations by traders, religious missionaries, and mining companies acting on behalf of the federal Crown. For much of their existence, these services were considered as activities within larger programs. Transportation, supplies, and pharmaceuticals required by physicians and nurses were inherently necessary for medical procedures in most First Nations and Inuit communities, while travelling dental clinics and vision clinics were considered discrete activities in and of themselves. In this sense, it becomes evident that the delivery of NIHBs developed largely out of historical custom, meeting the medical requirements for Aboriginals arising out of need.^[50]

Nevertheless, the NIHB program remains a hotly contested policy. Indigenous groups insist that services are lacking, poorly developed, and inadequately funded, and that NIHBs are a fiduciary right associated with their status as Indigenous Canadians.^[51] In turn, federal authorities counter that the NIHBs are not part of a fiduciary right, but are delivered out of policy in an effort to support Inuit in reaching an overall health status that is comparable with other Canadians.^[52] The context in which the NIHB program developed, and in which the federal government assumed responsibility for its provision, provides a better understanding for this debate.

Beginning in 1946 the Indian and Northern Health Service was established by the federal government’s newly created Department of National Health and Welfare (now referred to as Health

⁴⁹ Auditor General of Canada, 1993: Section 19.15.

⁵⁰ Quiñonez and Lavoie, 2009: 42.

⁵¹ Assembly of First Nations, 2005: 1. According to Quiñonez, the inherent rights of some Indigenous populations and their governments are recognised under Section 35 of the Canadian Constitution. These rights constitute a ‘special fiduciary relationship’ between some Indigenous populations and the Canadian State (Quiñonez, 2004: 329).

⁵² Nunavut Tunngavik Incorporated, 2008: 21.

Canada),^[53] absolving health responsibilities from the federal Department of Mines and Resources.^[54]

At the time of its inception, the provision of dental services was provided entirely by salaried dentists in fixed and mobile dental facilities.^[55] As the Department of Health and Wellness made significant commitments to provide increased resources to improve the overall health – including oral health^[56] – of First Nations Treaty and Inuit communities, the Indian and Northern Health Service was eliminated, and integrated instead into the newly formed Medical Services Branch (MSB) in 1962,^[57] which described the NIHBs as “medically necessary uninsured medical and dental benefits.”^[58]

As the Canadian welfare state was slowly developing in the 1960s, the Medical Services Branch was simultaneously creating a distinct Indigenous health care system. Around the same time that the Medical Care Act was tabled, the Hawthorn Commission released its final report which is credited with giving impetus to the idea that Indigenous peoples should be considered “citizens plus” in the Canadian polity,^[59] helping to set the stage for a new relationship between the federal government and Indigenous communities in Canada in subsequent years. Specifically, after the federal government tabled its infamous 1969 “White Paper,” proposing to eliminate the Indian Act and dismantle the established legal relationship between Indigenous peoples and the state of Canada, First Nations and Inuit peoples responded in a coordinated, united and adversarial manner. This response also laid the foundation for the establishment of Indigenous organizations such as the Assembly of First Nations (AFN) and the Inuit Tapirisat of Canada (ITC).^[60]

⁵³ Cooney, 1997: 13.

⁵⁴ Quiñonez and Lavoie, 2009: 42.

⁵⁵ Cooney, 1997: 13.

⁵⁶ *Ibid*, Pg. 13.

⁵⁷ Quiñonez and Lavoie, 2009: 42.

⁵⁸ Medical Services Branch, 1989: 3.

⁵⁹ Hawthorn Report, 1966: 13.

⁶⁰ Légaré, 2008: 342.

These collective representatives became particularly important with respect to health services. Throughout much of the 1960s and 1970s, Canadian provinces and municipalities had begun to finance uninsured health services – pharmaceutical drugs and dental care, for instance – for vulnerable segments of the Canadian population, such as low-income families, children, and seniors.^[61] Since large segments of the Indigenous population met the criteria need, but jurisdictional dynamics often precluded provincial intervention, the federal government began to provide similar socially uninsured services to First Nations and Inuit in Canada in a more programmatic manner.^[62]

Although the federal government reiterated in 1975 that the provision of uninsured health services was “a matter of policy rather than statutory or treaty obligation,”^[63] the recently formed Indigenous organizations placed intense pressure on federal authorities to continue providing health services which they considered a fiduciary responsibility of the federal government based on existing treaty rights and historical customs. Indeed, when the federal government introduced its “Guidelines for Uninsured Medical and Dental Benefits” in 1978, proposing to restrict eligibility for the NIHBs to those who lived on reservations and who met the criteria of a financial means-test in an effort to control finances, confirm existing practices, and ensure uniformity in all regions,^[64] the active opposition from the well-organized Indigenous community forced the federal government to place a six-month moratorium on the proposed guidelines.^[65]

In its place, the federal government tabled the 1979 Indian Health Policy, which authorized the Minister of National Health and Welfare to withdraw the Guidelines for Uninsured Medical and Dental Benefits. Under the policy, benefits would be provided in accordance with “professional medical or dental judgement, or by other fair and comparable Canadian Standards.”^[66] However, as

⁶¹ Marchildon, 2011: 21.

⁶² Medical Services Branch, 1989: 5

⁶³ Auditor General of Canada, 1993: Section 19-15.

⁶⁴ *Ibid* at Section 19-16.

⁶⁵ *Ibid* at Section 19-16.

⁶⁶ Castellano, 1980: 114.

no such standards existed nationally or provincially outside of the hospital setting, the Branch had difficulty in establishing national norms.^[67] The 1979 Indian Health Policy re-established the NIHBs as open-ended, dropping the criteria for means-testing and on-reserve residency as previously proposed. Most importantly, the policy established a framework within which an NIHB program would operate.

The Indian Health Policy stated that the Medical Services Branch would assume the financial burden for the provision of health services should the provinces or municipalities refuse to accept responsibility for services to off-reserve Indians.^[68] As a result of this provision, as well as demographic changes in the Indigenous population, the NIHB program experienced a rapid growth in expenditures, seeing almost a twelvefold increase in expenses between 1979 and 1990.^[69] By this time, numerous federal committees were now considering “passing control” of health services from federal to Indigenous authority, particularly as Indigenous communities pushed for greater control over health services and self-government became increasingly pronounced.

However, as Quiñonez and Lavoie argue, with a focus on cost-control, the federal government was hesitant to “pass control” of the NIHB program components to a more local level due to concerns that expenditures would continue to balloon:

“...the transfer of health programs [to date had] resulted in a local and regional administration largely staffed by Aboriginal persons, public employees that were more sympathetic to the realities of those receiving care than at any other time in the history of Aboriginal health services. Authorising the provision and payment of a wide variety of services under the NIHBs became routine.”^[70]

⁶⁷ Quiñonez and Lavoie, 2009: 43-44.

⁶⁸ Auditor General of Canada, 1982: Section 12-75.

⁶⁹ Waldram, Herring, and Young, 2006: 217.

⁷⁰ Quiñonez and Lavoie, 2009: 44.

As a result, centralized federal authorities began to develop “national program directives and administrative procedures” to control costs in the early 1990s. Irrespective of regional and local customs, strict adherence to status clauses was demanded by Health Canada. Regardless of past definitions of care, only eligible benefits were provided to clients. Cost-containment measures ushered in the “envelope environment,” in which no new money could flow beyond a fixed financial ceiling.^[71]

In 1993, the Auditor General suggested that because the NIHBs operated without any enabling legislation, First Nations and Inuit organization, government officials, and dental practitioners had conflicting interpretations of its purpose, its expectations, and its desired outcomes.^[72] Indeed, the very nature of the program was called into question by the Auditor General:

“Whereas a health program might have objectives defined in terms of improving health status, a health insurance plan would have as its objective to provide coverage, up to pre-determined limits, for specified medically required services and products. The auditors concluded that in practice, the program is managed more as an insurance plan...[a]lthough the premiums, deductibles and co-payment provisions commonly found in health insurance plans are absent in this program.”^[73]

The Auditor General suggested that the transfer program be suspended until clear objectives, outcomes, and operational procedures were established and enforced. In the case of the Northwest Territories, dental care and pharmaceutical drug coverage remained centralized, although medical travel and vision care continued to be administered by the territorial government through contribution agreements with the federal government, having been transferred control for these

⁷¹ *Ibid*, Pg. 44-45.

⁷² Auditor General of Canada, 1993: Sections 19-19.

⁷³ *Ibid* at Sections 19-21, 19-22.

NIHB services in previous years. The Nunavut government assumed responsibility for the same services upon Nunavut's creation in 1999.

The history of the NIHB program is essential for understanding government decisions regarding the delivery of NIHBs since 1993 – the primary focus of this paper – and the relationships between providers, Indigenous peoples, and the NIHB directorate. The analysis at hand will now turn to providing a general idea of the current governance structure in Nunavut, and an overview of how dental care is currently organized and delivered in Nunavut.

Governance in Nunavut

On April 1, 1999, the territory of Nunavut was introduced to the Canadian federation, representing the former region of the Northwest Territories (NWT) known as the Eastern Arctic. Although Nunavut was officially created in 1999, it was first proposed in 1976 by Inuit Tapirisat of Canada (ITC), an organization expressly dedicated to securing Inuit cultural, social, and political rights in Canada.^[74] After the federal government developed guidelines for land claims negotiations in response to the 1973 Supreme Court decision for *Calder vs. Attorney General of British Columbia*, ITC released three separate documents advocating for the creation of an Inuit territory.^[75]

ITC argued that an independent territory's governing institutions would better reflect Inuit values and would be more responsive to Inuit demands than the current arrangement in the Northwest Territories (NWT). ITC cited the Government of Northwest Territories' (GNWT) reliance on the federal government for financial support, an administrative model rooted in southern governance techniques, and the long-established pattern of non-Inuit representation as principal deficiencies in the current governance arrangement.^[76]

⁷⁴ Légaré, 2008: 342.

⁷⁵ Henderson, 2009: 10.

⁷⁶ Légaré, 1996: 288; Timpson, 2006: 518-19.

In 1982, negotiations commenced between the federal government, the Government of the Northwest Territories (GNWT), and Tungavik Federation of Nunavut (TFN), the organization tasked with representing Inuit interests during negotiations. The Nunavut Land Claims Agreement (NLCA) was signed in 1993, and was later approved in a referendum by 69 per cent of Inuit living in the Eastern and Central Arctic.^[77] The NLCA creates the framework for regional governance in Nunavut, and divides responsibility for, and authority over, the development of lands and resources between Inuit and the Crown.

The NLCA gives Inuit ownership to roughly 18 per cent of Nunavut's 2,121,102 km², and subsurface rights to about ten per cent of Inuit-owned lands, while the Crown owns everything else.^[78] In exchange for Inuit relinquishing their title to the land, the federal government provided \$1.17 billion to a common trust between 1993 and 2007, and the federal government continues to provide a share of royalties received each year for mining and energy extraction conducted on Crown land.^[79] Nunavut Tunngavik Incorporated (NTI) is responsible for developing Inuit-owned lands, negotiating contracts with prospective developers, and managing the common trust on behalf of Inuit beneficiaries.^[80] NTI, however, is not *legally* responsible for delivering any programs or social services to its beneficiaries.^[81] In this sense, NTI maintains a high degree of autonomy in its ability to select and finance programs or services for Inuit beneficiaries, a point which is particularly important for later discussions.

In addition to NTI, the Government of Nunavut (GN) assumes a major role in regional governance for the territory. The GN has many of the institutions familiar to Westminster systems, such as a legislative assembly, a public service, and a commissioner,^[82] but relies upon consensus

⁷⁷ Légaré, 1996: 295.

⁷⁸ Légaré, 2008: 348.

⁷⁹ Nunavut Land Claims Agreement, 1993: Articles 25 and 29.

⁸⁰ *Ibid* at Articles 19, 26, and 31.

⁸¹ Mifflin, 2009: 92.

⁸² Légaré, 2008: 347.

from independent MLAs to develop and approve legislation, rather than partisan party politics observed in most Westminster governments.^[83] The GN follows a public form of government, rather than an Inuit self-government system (although as Inuit constitute a majority of the population, many observers suggest that the GN effectively operates as a *de facto* self-government).^[84] As a public government, the GN is responsible for providing a myriad of social programs similar to other provinces and territories in Canada, such as education, transportation, and health care.

However, the social and economic challenges which the GN is attempting to address cannot be underestimated. Nunavut has exceedingly high levels of domestic abuse,^[85] sexual assaults,^[86] substance abuse,^[87] suicide,^[88] and crime.^[89] Due to geographic and demographic pressures, health care costs are almost twice as high as the Canadian average,^[90] and shortages of medical personnel loom large.^[91] Over half of Inuit live in overcrowded housing conditions,^[92] and over two-thirds of eligible students do not graduate from high school each year.^[93]

Addressing these challenges is further complicated by Nunavut's unique geographic and demographic constraints. Nunavut has a population of approximately 33,000 people living in twenty-seven communities. As illustrated in *Table 1*, only three communities have populations which exceed 2,000 people; Iqaluit has just over 6,500 residents, and Rankin Inlet and Arviat have about 2,200 and 2,300 people, respectively. Most of the remaining communities have between 500 and

⁸³ Hicks and White, 2000: 76; White, 2009: 63.

⁸⁴ Légaré, 1996: 290.

⁸⁵ George, 2011.

⁸⁶ McGill, 2010.

⁸⁷ George, 2012.

⁸⁸ Hicks, 2012: 17.

⁸⁹ White, 2011.

⁹⁰ Young and Marchildon, 2012: 22.

⁹¹ Nunavut Tunngavik Incorporated, 2012: 8.

⁹² *Ibid.*, Pg. 21.

⁹³ Auditor General of Canada, 2010: 8.

1,500 residents. No communities are accessible by roads, and air transit remains the most common form of transportation.^[94]

Approximately 85 per cent of the population is Inuit, which makes Nunavut the only province or territory in Canada in which Indigenous people constitute a majority of its population.^[95] The demographics in Nunavut are particularly striking. In contrast to Canada's population, in which almost 15 per cent of the population are over the age of 65, and only 30 per cent are younger than 25 years, Nunavut's population is markedly younger. Over 50 per cent of residents are younger than 25 years, and only 3 per cent of the population are older than 65 years. The demographics are summarized in *Tables 2 and 3*, and *Figures 1 and 2* illustrate the inverse relationship between Nunavut's population and the general Canadian population in terms of its aging demographics.

Due to an under-developed economy, high unemployment, and a young population, as well as its inability to use funds in the common trust or share in royalties from mining or energy extraction, the GN is heavily dependent upon the federal government for between 90 and 95 per cent of its annual budget.^[96] In addition to the challenges of delivering public services in Nunavut created by financial constraints, the GN has also struggled to recruit well-qualified and culturally-sensitive employees, as better-funded federal departments and Inuit organizations in Nunavut are often able to attract the most-qualified Inuit through more competitive employee packages.^[97] In this context, the GN often operates below capacity, and is unable to finance the social programs that are fundamental to addressing the social crises that exist in Nunavut.

Prior to its separation from the Northwest Territories (NWT), Nunavut was divided into three administrative regions, which were intended to enable the territorial government at the time to

⁹⁴ Kunuk and Stevens, 2003: 4-5.

⁹⁵ Légaré, 2008: 339.

⁹⁶ White, 2009: 69.

⁹⁷ *Ibid*, Pg. 77.

<i>Baffin</i>	<i>Population</i>	<i>Kivalliq</i>	<i>Population</i>	<i>Kitikmeot</i>	<i>Population</i>
Arctic Bay/Nanisivik	823	Arviat	2,318	Cambridge Bay	1,608
Qikiqtarjuak	520	Baker Lake	1,872	Kugluktuk	1,450
Cape Dorset	1,363	Chesterfield Inlet	313	Gjoa Haven	1,279
Clyde River	934	Coral Harbour	834	Kugaaruk	771
Grise Fiord	130	Rankin Inlet	2,226	Taloyoak	899
Hall Beach	546	Repulse Bay	945	---	
Igloodik	1,454	Sanikiluaq	812	---	
Iqaluit	6,699	Whale Cove	407	---	
Kimmirut	455	---		---	
Pangnirtung	1,425	---		---	
Pond Inlet	1,549	---		---	

Table 1. Total resident population by community and region. All figures reflect both Inuit and non-Inuit populations.
Source: Uswak, 2013(b) provided by the Government of Nunavut.

Age Group	Indigenous Population Only		Total Population
	Nunavut	National	National
0-4	3,361	63,669	1,921,203
5-9	3,576	77,160	1,823,983
10-14	3,377	78,467	1,899,661
15-19	3,277	83,937	2,196,437
20-24	3,111	78,161	2,402,234
25-29	2,408	66,691	2,419,280
30-34	2,044	59,259	2,348,086
35-39	1,815	57,822	2,290,396
40-44	1,912	59,134	2,396,726
45-49	1,557	57,341	2,750,685
50-54	1,062	47,803	2,668,169
55-59	762	35,466	2,354,191
60-64	701	26,638	2,038,290
65+	1,157	54,476	4,973,438
TOTAL	30,120	846,024	34,482,779

Table 2. Annual eligible client population in Nunavut and nationally by age group, compared with the average Canadian demography in 2011. *Source: First Nations and Inuit Health Branch, 2012: 13; Statistics Canada, 2011: 5 (Table 4).*

	<i>Indigenous Population Only</i>		<i>Total Population</i>
Age Group	Nunavut	National	National
0-4	11.2%	7.5%	5.6%
5-9	11.9%	9.1%	5.3%
10-14	11.2%	9.3%	5.5%
15-19	10.9%	9.9%	6.4%
20-24	10.3%	9.2%	7.0%
25-29	8.0%	7.9%	7.0%
30-34	6.8%	7.0%	6.8%
35-39	6.0%	6.8%	6.6%
40-44	6.3%	7.0%	7.0%
45-49	5.2%	6.8%	8.0%
50-54	3.5%	5.7%	7.7%
55-59	2.5%	4.2%	6.8%
60-64	2.3%	3.1%	5.9%
65+	3.8%	6.4%	14.4%

Table 3. Proportion of eligible clients by age group, as a percentage of the total population for Nunavut and Canada, compared with the average Canadian demography in 2011. *Source: First Nations and Inuit Health Branch, 2012: 13; Statistics Canada, 2013: 5 (Table 4).*

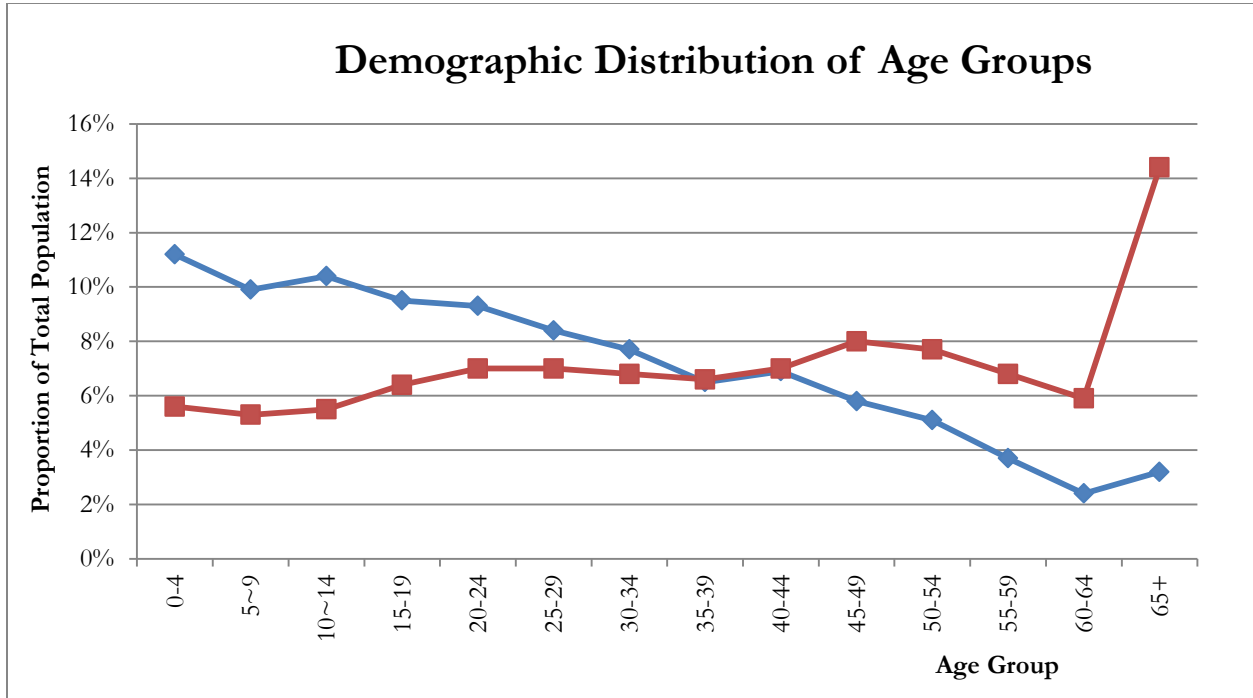


Figure 1. Breakdown of the total populations for Nunavut (Blue) and Canada (Red) by age group. The demographic trends are effectively inverted between Nunavut's Inuit and the general Canadian population. This trend is exaggerated for Inuit in Nunavut, relative to the general Indigenous population in Canada. *Source: Government of Nunavut, 2011; Statistics Canada, 2013: 5 (Table 4).*

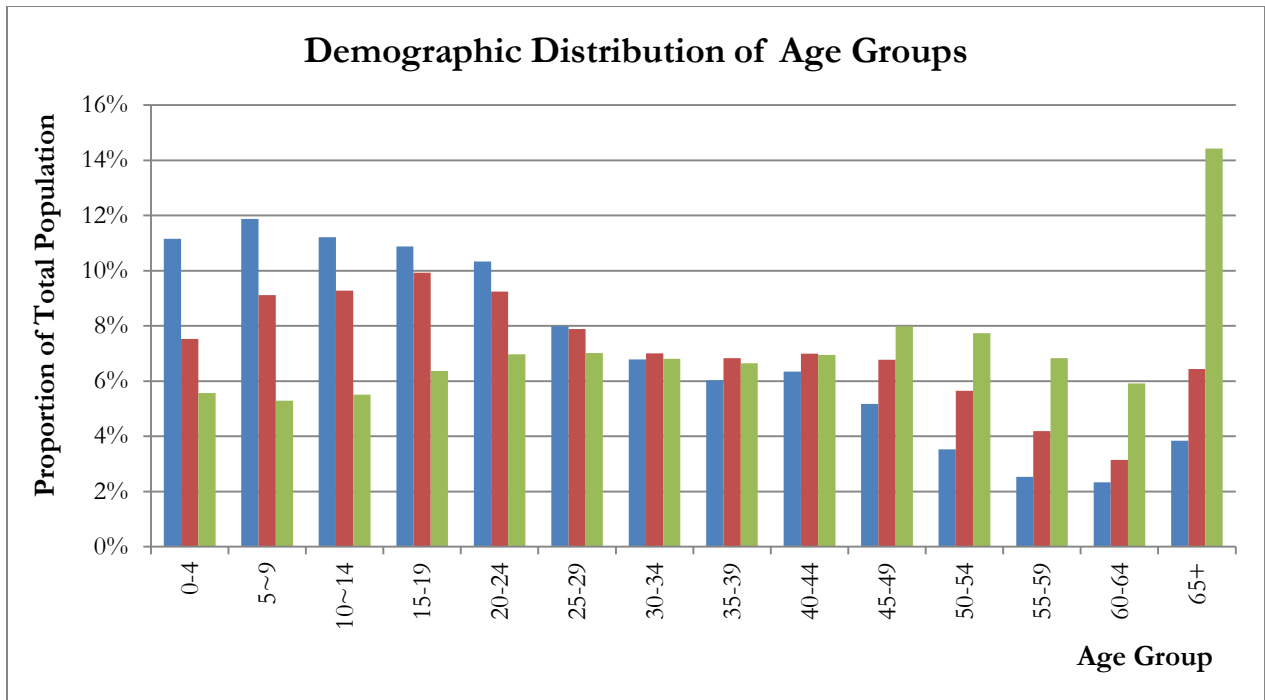


Figure 2. Breakdown of eligible clients by age group as a proportion of the total population for Nunavut (Blue) and Canada (Red), relative to the general Canadian population (Green). The demographic trends are effectively inverted between Indigenous Canadians and the general Canadian population. This trend is exaggerated for Inuit in Nunavut, relative to the general Indigenous population in Canada. *Source: First Nations and Inuit Health Branch, 2012: 13; Statistics Canada, 2013: 5 (Table 4).*

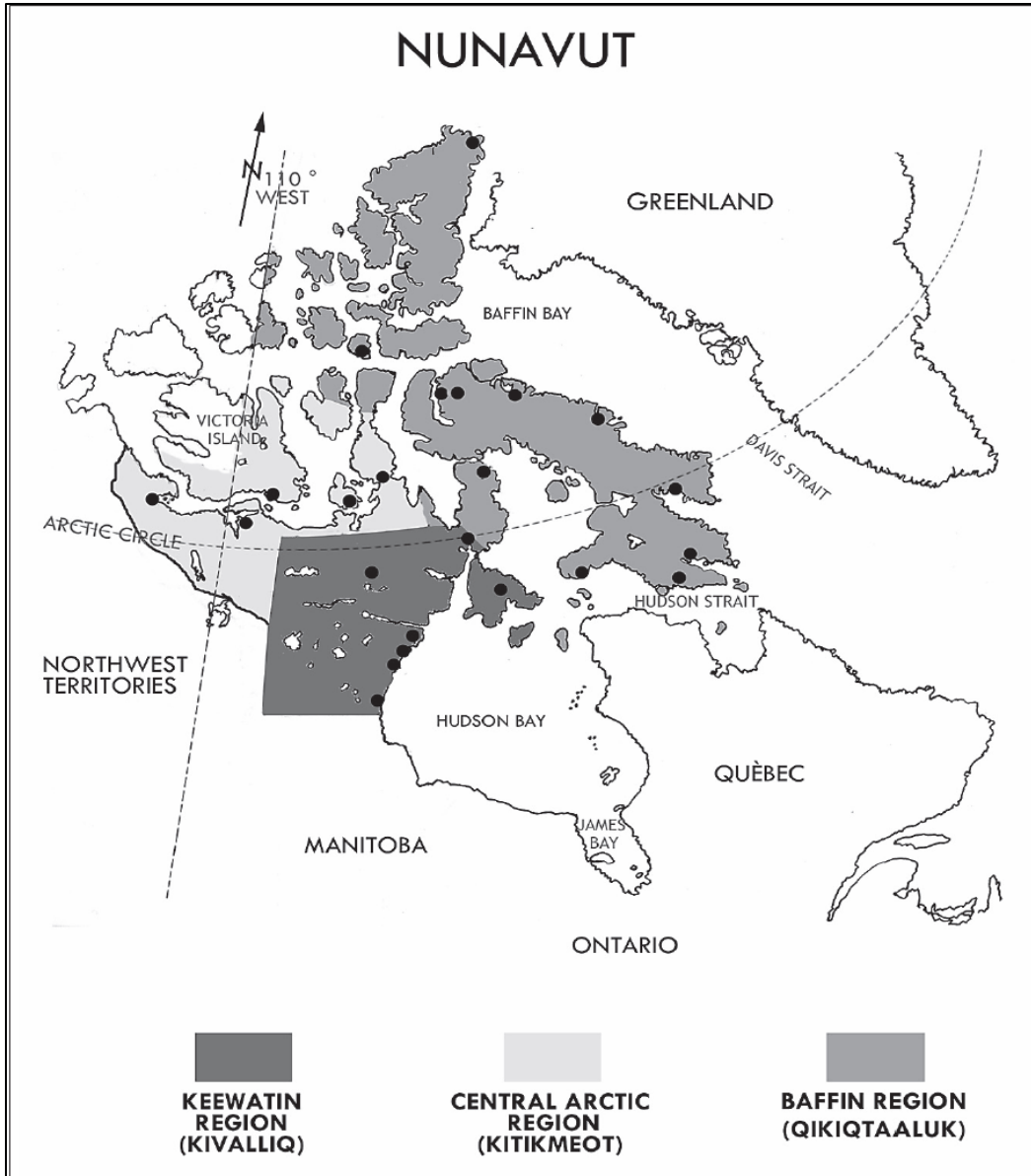


Figure 3. Map detailing the territory of Nunavut in northern Canada. *Source:* Quiñonez, 2006: 102.

better respond to local concerns. Today, the boundaries have been modified slightly, but Nunavut continues to use the regional system of government due to the vast distances between the territory's communities. The Kivalliq region (the communities off northern Hudson Bay, as well as Sanikiluaq in eastern Hudson Bay), the Qikiqtaaluk region (Baffin Island and the far north), and the Kitikmeot region (the western-most part of the territory) largely resemble the Keewatin, Baffin, and Central Arctic regions which existed prior to the division of the NWT.^[98] The territory of Nunavut, as well as its three regions and their associated communities, are shown in *Figure 3*.

Although these regions still exist, the regional health boards that existed in NWT were disbanded soon after Nunavut was created, and Nunavut's Department of Health and Social Services (DHSS) became responsible for the organization and delivery of the health system in Nunavut. The three regions, however, continue to have responsibility for administering health services. Each region also has a central hospital or regional health facility capable of providing in-patient services and extended primary care to its residents.^[99]

Dental Care in Nunavut

Much like its counterparts in provincial or territorial governments, the DHSS spends a small proportion of its overall budget on dental care, which is largely a result of historical circumstances. Prior to the Second World War, the Inuit of the Eastern Arctic primarily relied upon traditional methods of care, although the Eastern Arctic Patrol ship – which provided transportation for Hudson's Bay Company personnel and other traders – provided physician, dental, and nursing services to community members in each port of call.^[100] After the Second World War, which had seen American health providers deliver basic medical services to relocated Inuit during the war, the

⁹⁸ Marchildon and Torgerson, 2013: 19.

⁹⁹ *Ibid*, Pg. 18-19.

¹⁰⁰ Duffy, 1988: 12.

federal Department of National Health and Welfare assumed responsibility for physician, dental, pharmaceutical, and vision care.^[101]

Health care continued to be dominated by the federal government, and was largely provided and administered by Qallunaat (non-Inuit). Given that they were providing a service intended to accomplish objectives that were entirely outside the traditional and cultural experience of Inuit, there was a high degree of deference and even fear among the Inuit for the Qallunaat authority figures.^[102] Due to the increased dependency on the Qallunaat by Inuit that was created following the collapse of the traditional economy in the post-War period, and the general perception of Qallunaat authorities by Inuit communities, the Inuit began to develop organizations which resisted Qallunaat authorities and lobbied for Inuit rights in Ottawa.^[103]

This pressure produced two notable outcomes pertinent to this thesis. First, northern Indigenous leaders demanded an increased presence of professionals in their communities who better understood the unique environments of Indigenous populations. In response to these demands, and in an effort to provide more comprehensive care to geographically-isolated and sparsely-populated communities in northern Canada, federal authorities established the National School of Dental Therapy (NSDT) in Fort Smith, Northwest Territories in 1972, sponsored by the University of Toronto's Faculty of Dentistry.^[104]

The NSDT was funded entirely by the federal government; twenty students were accepted each year, and importantly, they did not pay tuition fees.^[105] These students were predominantly from Inuit or First Nations communities in the northern territories, which greatly increased the likelihood that graduates would settle in their home communities or regions. Moreover, the school's position in the Northwest Territories ensured that the curriculum had a strong focus on remote care

¹⁰¹ Quiñonez, 2004: 38-40.

¹⁰² Tester, 2002: 201. The category of authority figures extended from administrators to include professionals as well, such as doctors, police officers, nurses, and social workers.

¹⁰³ *Ibid*, Pg. 202.

¹⁰⁴ Nash et al., 2008: 65.

¹⁰⁵ Uswak and Keller-Kurysh, 2012: 1098.

and northern oral health concerns.^[106] As no provinces or territories permitted therapists to practice privately,^[107] Health Canada was the sole employer of NSDT graduates, and accordingly, had significant leverage in directing therapists to underserved communities.^[108]

The second major development occurred between 1981 and 1988 when the federal government devolved control of health care responsibility, including the responsibility over dental therapists, to the NWT government.^[109] Although ITC remained opposed to devolution in principle due to the belief that transferring power to the GNWT would threaten land claims negotiations and self-government objectives, ITC representatives nevertheless lobbied for the transfer of health care services to the territorial government in order to “...[resolve] some of the pressing health policy and program concerns inherent in a colonial medical system,”^[110] believing that the GNWT would offer a more efficient and responsive health care system in the Northwest Territories.^[111]

The Non-Insured Health Benefits program, however, was the one exemption in the devolution of responsibility from the federal government.^[112] Instead, the GNWT would be responsible only for the administration of the NIHBs – that is, services would be coordinated by GNWT under the terms of a Contribution Agreement, but services would continue to be paid for by the federal government.^[113] In this regard, the GNWT assumed administrative control for medical travel for patients, vision care services, and contracting dental care providers to communities throughout the territory.

Upon assuming responsibility for the delivery of health care, the GNWT established three regional health boards in the Eastern Arctic in an effort to provide equitable care and service

¹⁰⁶ Uswak, 2007: 27.

¹⁰⁷ Quiñonez and Locker, 2008: 54.

¹⁰⁸ Uswak and Keller-Kurysh, 2012: 1094.

¹⁰⁹ Tester, 2002: 204; First Nations and Inuit Health Branch, 1999: Section – Transfers North of the 60th Border.

¹¹⁰ O’Neil, 1990: 164.

¹¹¹ Weller, 1990: 133-34.

¹¹² First Nations and Inuit Health Branch, 1999: Section – Transfers North of the 60th Border.

¹¹³ Weller, 1990: 145.

standards across the region. The Keewatin Regional Health Board contracted the services of a private consortium, Kiguti Dental Services, in 1992. For the previous twelve years, the region had been served by four salaried dental therapists and visits from dentists working for the University of Manitoba. As Frank Tester suggests, the difference that these two approaches made to the Medical Services Branch (MSB) in terms of expenditures was significant:

“Dental therapists were salaried. The cost of their services was recoverable through the non-insured benefits plan of the Medical Services Branch of Health Canada. This cost the plan considerably less than would be the case if dentists provided all, or even most of the services. Kiguti dentists would bill the plan, but for the services of dentists who, in the case of the NWT, received 25 per cent more than their counterparts serving First Nations in the southern provinces. Furthermore, dentists working in remote communities for the [Northwest Territories Government] were eligible for additional premiums ... While the [dental therapists] were on salaries of about \$40,000 a year, the fee-for-service billing by dentists, who would now be providing most of the dental care, could be at least \$250,000.”^[114]

In the ensuing years, the Medical Services Branch experienced enormous cost challenges because of this new arrangement. Health Canada announced that it would not pay the extra dental service costs created by the terms and conditions agreed to in the contract, and realigned the fee schedule of dentists in the Canadian north. By 1998, fees were cut by as much as 40 per cent, and the 20 per cent premium to dentists who provided services in the Kivalliq region was eliminated.^[115]

Within a year of these changes, the territory of Nunavut was established. Dental care in Nunavut today is delivered through three major channels: resident clinicians in regional centers, itinerant care in smaller communities by contracted dentists, and direct service delivery by dental

¹¹⁴ Tester, 2002: 212.

¹¹⁵ *Ibid*, Pg. 215.

therapists.^[116] There are currently four private-practice dentists working in two independent private practices in Iqaluit – Arctic Circle Dental Services and Iqaluit Dental Services.

For smaller communities, Inuit rely upon contracted dentists to provide a defined number of days to each region. For the Kivalliq region, the dental workforce is contracted through Kivalliq Smiles, while the Qikiqtaaluk and Kitikmeot regions are serviced by Aqsaqniit Dental Services and Jorsyn Dental Services, respectively.^[117] The contract holders with the Nunavut government are responsible for recruiting sufficient numbers of dentists, hygienists, and specialists for their region in order to meet the required number of service days as outlined in their contract.^[118] Dentists and specialists, in turn, bill the NIHB program directly for services.

Dental therapists, on the other hand, are salaried by the territorial government, and under the supervision of a dentist, are permitted to perform uncomplicated dental restorations, uncomplicated extractions, dental prophylaxes, fluoride treatments, and the administering and developing of dental radiographs (x-rays). They are also responsible for providing school-based educational seminars and delivering community-wide information sessions.^[119]

Despite the demonstrated high quality of care and the cost-effectiveness of services offered by dental therapists,^[120] the federal government closed the National School of Dental Therapy in June 2011.^[121] Even prior to the school's closure, however, attracting dental therapists from southern Canada had proven to be extremely challenging for the territorial government given their limited budgets and market-based pressures created by Saskatchewan's allowance for dental therapists to practice privately. Indeed, two-thirds of the dental therapist position in Nunavut remained vacant,

¹¹⁶ Quiñonez, 2006: 109-10.

¹¹⁷ Marchildon and Torgerson, 2013: 69.

¹¹⁸ *Ibid*, Pg. 69.

¹¹⁹ *Ibid*, Pg. 69.

¹²⁰ Trueblood, 1992; Ambrose, Hord, and Simpson, 1976; Rees and Jutai, 1979.

¹²¹ Uswak and Keller-Kurysh, 2012: 1098-99.

despite the overwhelming need for services.^[122] This issue will be explored in greater detail in Chapter 9. However, with an understanding of the history of the NIHB program, and an appreciation for regional governance in Nunavut – particularly as it relates to dental care – the focus of this study turns to program expenditures and the implications for the program’s sustainability in the coming years.

¹²² Uswak, 2007: 28; Marchildon and Torgerson, 2013: 70.

Chapter 4

NIHB Program Expenditures

Despite the cost-control measures introduced in the mid-1990s, dental care benefits offered to eligible clients through the NIHB program today remain quite comprehensive. However, as I will argue in this chapter, the continued growth in NIHB expenditures suggests that the program is not sustainable in the long-run, and additional reforms should be introduced. The shape that these reforms take in the coming years will be the determining question for how effective the NIHB program remains in delivering services for its beneficiaries.

The Non-Insured Health Benefits program is composed of five benefits offered to First Nations and Inuit clients: pharmaceutical drug coverage, dental care, vision care, medical transportation, and mental health. After the significant growth in expenditures that NIHB experienced during the 1980s, the Auditor General identified administrative concerns as the principal causes:

“...NIHB program expenditures are not well managed and, in most areas, not properly controlled. Benefits are subject to abuse by users and providers, and systems and controls, including verification of claims and audits of providers, are inadequate. In particular, the Department needs to deal with the serious implications for First Nations health and the consequences of not having a properly controlled system in place.”^[123]

In response, federal authorities began to enforce a predetermination process for many procedures and services, while targeting fraudulent claims submitted by providers and pharmacists.^[124]

As shown in *Table 4*, the changes achieved significant savings in the first year alone: expenditures fell by 3.2 per cent, the only time in the program’s history that expenditures decreased year-over-year. For the next five years, expenditures grew by an average of just 2.5 per cent annually,

¹²³ Auditor General of Canada, 1993: Section 13.164.

¹²⁴ Quiñonez and Lavoie, 2009: 45.

	Total Expenditures (\$ millions)	
	National	
Fiscal Year	Expenditures	Growth Rate
1993/94	\$449.0	---
1994/95	\$478.6	6.6%
1995/96	\$505.3	5.6%
1996/97	\$489.3	-3.2%
1997/98	\$507.7	3.8%
1998/99	\$515.6	1.6%
1999/00	\$544.9	5.7%
2000/01	\$575.9	5.7%
2001/02	\$627.8	9.0%
2002/03	\$688.1	9.6%
2003/04	\$736.9	7.1%
2004/05	\$767.7	4.2%
2005/06	\$817.7	6.5%
2006/07	\$856.2	4.7%
2007/08	\$898.2	4.9%
2008/09	\$940.2	4.7%
2009/10	\$989.1	5.2%
2010/11	\$1,028.1	3.9%
1993-2011	---	4.7%
1993-2000	---	2.3%
2001-11	---	5.9%

Table 4. Annual NIHB program expenditures and eligible population counts, and associated annual growth rates between fiscal years 1993/94 and 2010/11 in Canada. *Source: First Nations and Inuit Health Branch, 2012: 10, 22; First Nations and Inuit Health Branch, 2004: 7, 20.*

a major achievement in terms of controlling costs compared with earlier years. Although no administrative changes have occurred to the same extent since that time, the changes which occurred in the mid-1990s are critical to the current design of the NIHB program, particularly as it relates to dental care. Importantly, the changes also underscore the measures that federal authorities may enforce in an effort to control costs.

Since the cost-control measures have been firmly established, dental care has generally accounted for about 20 per cent of total program expenditures nation-wide, while medical transportation and pharmaceuticals account for 30 per cent and 45 per cent, respectively. The remaining five per cent of program expenditures are spent on vision care and mental health services. Expenditures on each of the component programs and their respective contributions to overall expenditures in the NIHB program are summarized in *Table 5(a)*.

The composition of NIHB expenditures in Nunavut highlights its unique health care environment. As illustrated in *Table 5(b)*, transportation for medical services accounts for roughly half of total NIHB expenditures in Nunavut, reflecting the geographic challenges to accessing care in Nunavut. In addition, dental care represents a greater proportion of total expenditures than pharmaceutical drugs, unlike the other regions of Canada. This difference can be attributed primarily to the high rates of compensation for dentists in Nunavut necessary to reflect the higher cost-of-living, as well as the high utilization rates by eligible clients relative to other regions in Canada.

In addition to the larger proportion of expenditures spent on dental care than other benefits in Nunavut, NIHB dental care expenditures tend to be much higher in Nunavut relative to other regions of Canada. As summarized in *Table 6*, expenditures for dental care in Nunavut in 2010/11 were \$12.3 million, an increase of 40 per cent from five years earlier, and an astonishing increase of almost 20 per cent from the previous year. Per capita NIHB expenditures in Nunavut were \$409, more than 25 per cent higher than the per capita cost in the next highest province or territory

Nunavut Expenditures					
	Fiscal Year Expenditures (\$ thousands)				Proportion
Program	2007/08	2008/09	2009/10	2010/11	2010/11
Pharmacy	\$6,579	\$7,084	\$8,237	\$10,399	21.4%
Dental	\$9,002	\$8,349	\$10,289	\$12,306	25.4%
Transportation	\$16,171	\$20,053	\$22,302	\$23,869	49.2%
Vision	\$1,139	\$1,387	\$1,646	\$1,908	3.9%
Other	\$0	\$0	\$0	\$0	0.0%
Total	\$32,890	\$36,873	\$42,474	\$48,482	100%

Table 5(a). Annual NIHB expenditures in Nunavut by health component by fiscal year, and relative proportion of each as a percentage of total expenditures. *Source: First Nations and Inuit Health Branch, 2012: 19, 22; First Nations and Inuit Health Branch, 2011: 7, 92.*

National Expenditures					
	Fiscal Year Expenditures (\$ thousands)				Proportion
Program	2007/08	2008/09	2009/10	2010/11	2010/11
Pharmacy	\$403,248	\$418,968	\$435,097	\$440,768	42.9%
Dental	\$165,576	\$176,382	\$194,918	\$215,796	21.0%
Transportation	\$262,294	\$280,446	\$301,673	\$311,760	30.3%
Vision	\$25,621	\$26,557	\$27,779	\$29,219	2.8%
Other	\$41,500	\$37,810	\$29,626	\$30,511	3.0%
Total	\$898,239	\$940,182	\$989,094	\$1,028,053	100%

Table 5(b). Annual national NIHB expenditures by health component by fiscal year, and relative proportion of each as a percentage of total expenditures. *Source: First Nations and Inuit Health Branch, 2012: 19, 18; First Nations and Inuit Health Branch, 2011: 7, 24.*

	Total Annual Dental Expenditures (\$ thousands)			
	Nunavut		National	
Fiscal Year	Expenditures	Growth Rate	Expenditures	Growth Rate
2001/02	\$4.895**	---	\$124,468	---
2002/03	\$5,633**	15.1%	\$131,021	5.3%
2003/04	\$6,932	23.1%	\$134,504	2.7%
2004/05	\$8,556	23.4%	\$142,956	6.3%
2005/06	\$8.137	-4.9%	\$153,900	7.7%
2006/07	\$8,740	7.4%	\$158,584	3.0%
2007/08	\$9,002	3.0%	\$165,576	4.4%
2008/09	\$8,349	-7.3%	\$176,382	6.5%
2009/10	\$10,289	23.2%	\$194,918	10.5%
2010/11	\$12,306	19.6%	\$215,796	10.7%
2001-11	---	9.7%	---	5.7%

Table 6. Annual NIHB dental care expenditures and associated annual expenditures growth rates between fiscal years 2001/02 and 2010/11 in Nunavut and Canada. *Source: First Nations and Inuit Health Branch, 2012: 46; First Nations and Inuit Health Branch, 2007: 47; First Nations and Inuit Health Branch, 2006: 46; First Nations and Inuit Health Branch, 2005: 46; First Nations and Inuit Health Branch, 2003: 41.*

**Estimates for 2001/02 and 2002/03 are based on 2003/04 proportions of 41% total dental care expenditures in N.W.T. and 59% of total dental care expenditures in Nunavut.

(Yukon), and over 60 per cent higher than the national average for the NIHB dental care program.^[125] Per capita expenditure growth rates in Nunavut have consistently eclipsed the per capita growth rates nationally, as illustrated in *Table 7*.

NIHB dental care expenditures also tend to grow much faster in Nunavut than in other regions. Shown again in *Table 6*, total dental care expenditures during the past decade in Nunavut have grown by almost ten per cent annually, although the year-to-year growth rates have been highly variable. This, despite an average annual population growth rate of only 2.4 per cent during the same period as seen in *Table 8* (though notably, Nunavut's population is amongst the fastest growing in Canada). In this sense, population growth has accounted for roughly one-quarter of NIHB dental care expenditure growth in Nunavut during the past decade. The remaining growth in dental care expenditures has been largely driven by increases to providers' fees.^[126]

To compound the demographic pressures that Nunavut's Inuit population growth is placing on the program, Nunavut's eligible beneficiaries are more likely to access services each year than beneficiaries in other regions of Canada, generating additional stresses to the NIHB budget. The utilization rates in Nunavut – defined by the proportion of eligible patients who receive at least one dental procedure paid through the NIHB program in the previous twelve months – has not fallen below 40 per cent, but has also not exceeded 46 per cent each year; in general, it has hovered between 43 and 45 per cent, as detailed in *Table 9*. Although this rate is well below the general Canadian population's use of oral health services (approximately 75 per cent each year),^[127] it is second only to Québec among NIHB regions.^[128]

The utilization rates are different for each age group as well. *Figure 4* shows that utilization rates are highest for young adults between the ages of 20 and 29, and lowest for individuals over the

¹²⁵ *Ibid*, Pg. 47.

¹²⁶ Jones, 2013: Personal Interview.

¹²⁷ Health Canada, 2010: 25.

¹²⁸ First Nations and Inuit Health Branch, 2012: 49.

	Nunavut Costs		National Costs	
Year	Per Capita	Annual Growth Rate	Per Capita	Annual Growth Rate
2004	\$273	---	\$172	---
2005	\$327	19.8%	\$180	4.7%
2006	\$303	-7.3%	\$192	6.7%
2007	\$313	3.3%	\$193	0.5%
2008	\$316	1.0%	\$199	3.1%
2009	\$287**	-9.2%**	\$211	6.0%
2010	\$347	20.9%	\$230	9.0%
2011	\$409***	17.9%	\$252	9.6%
2004-11	---	5.9%	---	5.6%

Table 7. Annual per capita dental care costs in Nunavut compared to the annual national per capita expenditures. Per capita values reflect total NIHB dental expenditures as divided by total eligible NIHB client population. *Source: First Nations and Inuit Health Branch, 2012: 47; First Nations and Inuit Health Branch, 2011: 51; First Nations and Inuit Health Branch, 2010: 51; First Nations and Inuit Health Branch, 2009: 53; First Nations and Inuit Health Branch, 2008: 51; First Nations and Inuit Health Branch, 2007: 49; First Nations and Inuit Health Branch, 2006: 56; First Nations and Inuit Health Branch, 2005: 56.*

**Operating costs for fiscal year 2008/09 differ from other years as Nunavut employed contract dentists to provide services, totalling \$412,000 for the fiscal year.

***The sharp increase in per capita expenditures in Nunavut in 2010/11 can be primarily attributed to a new financial coding methodology whereby expenditures for Inuit clients are coded to their specific region of registration as opposed to the previous convention where expenditures for Inuit clients were recorded in the region where their pharmacy and dental claims were transacted (First Nations and Inuit Health Branch, 2012: 24).

	Eligible Client Populations			
Year	Nunavut	Growth Rate	Canada	Growth Rate
2000	23,308**	---	690,151	---
2001	23,793**	2.08%	706,338	2.35%
2002	24,380**	2.47%	721,086	2.09%
2003	24,835	1.87%	735,343	1.98%
2004	25,435	2.42%	749,825	1.97%
2005	26,155	2.83%	764,523	1.96%
2006	26,862	2.70%	779,943	2.02%
2007	27,919	3.93%	792,619	1.63%
2008	28,469	1.97%	799,213	0.83%
2009	29,140	2.36%	815,800	2.08%
2010	29,668	1.81%	831,090	1.87%
2011	30,120	1.52%	846,024	1.80%
2000-2011	---	2.36%	---	1.87%

Table 8. Eligible client population growth rate comparisons between the region of Nunavut relative to the National figures. All figures reflect First Nations and Inuit populations. *Source: First Nations and Inuit Health Branch, 2012: 10; First Nations and Inuit Health Branch, 2007: 8; First Nations and Inuit Health Branch, 2004: 8.*

**Estimates for 2000 through 2002 are based on 2003 proportions of 22% Inuit in N.W.T. and 78% Inuit in Nunavut.

Year	Nunavut Utilization Rate		National Utilization Rate
	12 Months	24 Months	12 Months
2004	46%	---	35%
2005	42%	---	36%
2006	45%	---	37%
2007	40%	---	36%
2008	43%	---	36%
2009	41%	56%	36%
2010	43%	58%	36%
2011	45%	61%	37%

Table 9. Annual NIHB dental care utilization rates for Nunavut's eligible population. *12 Months* refers to the proportion of individuals who received at least one dental procedure paid through the Health Information and Claims Processing System (HICPS) in the past 12 months; *24 Months* refers to the proportion of individuals who received at least one dental procedure paid through the Health Information and Claims Processing System (HICPS) in the past 24 months. Each of these figures is compared to the national average in Canada for utilizing dental care through the NIHB program in the previous 12 months. *Source: First Nations and Inuit Health Branch, 2012: 49-51; First Nations and Inuit Health Branch, 2011: 53-55; First Nations and Inuit Health Branch, 2010: 53-55; First Nations and Inuit Health Branch, 2009: 57; First Nations and Inuit Health Branch, 2008: 55; First Nations and Inuit Health Branch, 2007: 53; First Nations and Inuit Health Branch, 2006: 69; First Nations and Inuit Health Branch, 2005: 69.*

age of 60. Meanwhile, *Figure 5* shows that the average per claimant cost is highest for those individuals who use the service the most. More importantly, the figures illustrate two basic characteristics of dental services in Nunavut: the intensity of care generally decreases through the life span, whereas the cost of care increases. This trend is significant as it relates to NIHB finances: the period of time in which clients in Nunavut most frequently access dental care through the NIHBs generally correlates to the age at which expenditures are greatest.

The pressures created by Nunavut's unique geography, demographics, and fee structures, however, must be placed in its context within the NIHB program at a national level. Given the small size of the Inuit population in Nunavut as a share of the total First Nations and Inuit populations in Canada, NIHB expenditures in Nunavut have traditionally represented only four or five per cent of NIHB expenditures nation-wide. Although this figure is disproportionately larger than its population share of eligible beneficiaries in Canada, which has traditionally been around 3.5 per cent of the total First Nations and Inuit populations, the financial pressures observed in Nunavut generally do not alter the overall national expenditure trends to a significant extent. The focus of this chapter will therefore turn to an analysis of aggregated NIHB trends nation-wide, considering that decisions related to dental care policies happen at a national level, largely in response to nation-wide trends.

During the last decade, total NIHB expenditures have grown at an average annual rate of about six per cent, while the population of eligible beneficiaries grew at a rate of just two per cent, as shown in *Table 10*. In this sense, roughly one-third of total expenditure growth in the past decade was driven by population growth. Dental care expenditures have experienced similar growth rates since 2000/01. Dental care expenditures grew, on average, at just under six per cent each year, while the population of eligible beneficiaries grew at a rate of just two per cent, again driving one-third of expenditure growth.

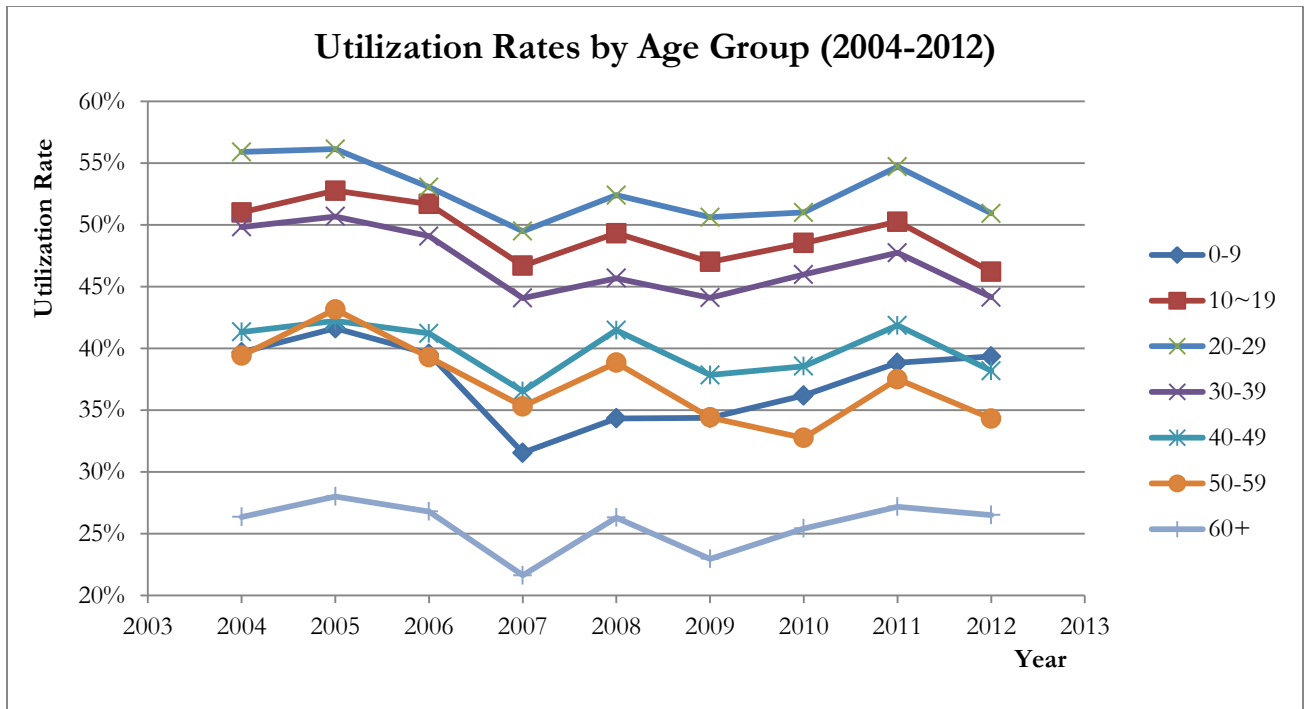


Figure 4. Number of eligible clients as a proportion of total eligible clients in Nunavut who access at least one service in a given year, divided by age group decile for the fiscal years 2003/04 to 2011/12. *Source: Non-Insured Health Benefits Access to Information Request, 2013.*

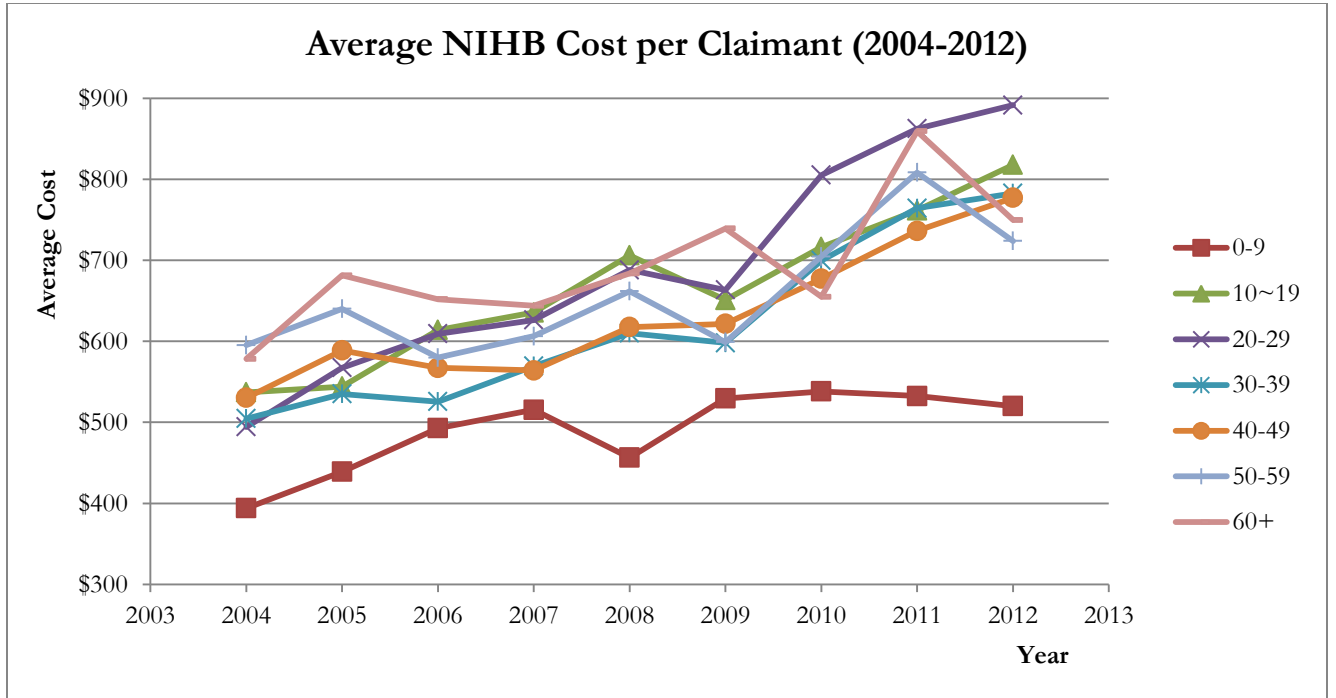


Figure 5. Average amount spent in a given year by eligible beneficiaries in Nunavut by age group decile for the fiscal years 2003/04 to 2011/12. *Source: Non-Insured Health Benefits Access to Information Request, 2013.*

	Total Eligible Population		Total Expenditures (\$ millions)	
	National		National	
Fiscal Year	Population	Growth Rate	Expenditures	Growth Rate
1993/94	584,326	---	\$449.0	---
1994/95	604,429	3.4%	\$478.6	6.6%
1995/96	621,864	2.9%	\$505.3	5.6%
1996/97	640,326	3.0%	\$489.3	-3.2%
1997/98	656,377	2.5%	\$507.7	3.8%
1998/99	672,176	2.4%	\$515.6	1.6%
1999/00	690,151	2.7%	\$544.9	5.7%
2000/01	706,338	2.3%	\$575.9	5.7%
2001/02	721,086	2.1%	\$627.8	9.0%
2002/03	735,343	2.0%	\$688.1	9.6%
2003/04	744,431	1.2%	\$736.9	7.1%
2004/05	759,084	2.0%	\$767.7	4.2%
2005/06	774,449	2.0%	\$817.7	6.5%
2006/07	792,619	2.3%	\$856.2	4.7%
2007/08	799,213	0.8%	\$898.2	4.9%
2008/09	815,800	2.1%	\$940.2	4.7%
2009/10	831,090	1.9%	\$989.1	5.2%
2010/11	846,024	1.8%	\$1,028.1	3.9%
1993-2011	---	2.1%	---	4.7%
1993-2000	---	2.4%	---	2.3%
2001-11	---	1.9%	---	5.9%

Table 10. Annual NIHB program expenditures and eligible population counts, and associated annual growth rates between fiscal years 1993/94 and 2010/11 in Canada. *Source: First Nations and Inuit Health Branch, 2012: 10, 22; First Nations and Inuit Health Branch, 2004: 7, 20.*

Since 2005/06, dental care expenditures grew by almost 40 per cent; in the most recent year alone, the growth rate was ten per cent. By 2010/11, NIHB expenditures for dental care in Canada stood at \$216 million. Per capita costs have likewise increased in recent years, from \$172 in 2004 to \$252 in 2011 – roughly a 50 per cent increase. Per claimant costs have increased by almost 45 per cent during the same period, from \$417 in 2004 to \$601 in 2011. Predictably, Nunavut has consistently remained above the national average in both measures, as demonstrated in *Figures 6 and 7*. Interestingly, as shown in *Table 9*, the national utilization rates have remained remarkably consistent, hovering between 35 per cent and 37 per cent each year, offering some predictability to the budgeting process each year within the NIHB directorate.

Despite the notable growth in both expenditures and eligible client population during the NIHB program's existence, no real health care rationing mechanisms exist to allocate scarce resources within for dental care services. Although the program is managed as an insurance plan, premiums, deductible, and co-payment provisions commonly found in health insurance plans are absent.^[129] Triage, a process of determining the priority of patients' treatments based on the severity of their condition, and which is the principal mechanism used to deliver treatment efficiently when resources are insufficient for all to be treated immediately,^[130] is entirely absent from the NIHB model. Instead, the NIHB dental care program has historically been “open-ended” in terms of financial resources available for its clients.

Traditionally, the annual budget was decided by federal authorities using the provincial and territorial fee guides as a determinant. However, if expenditures eclipsed the budgeted allocation, shortfalls would be balanced through appropriated funds from the Treasury Board Secretariat of Canada (TBS). Indeed, in 2012/13, an additional \$226.4 million was transferred to the NIHB

¹²⁹ Auditor General of Canada, 1993: Sections 19-21 and 19-22.

¹³⁰ Iserson and Moskop, 2007: 275-76.

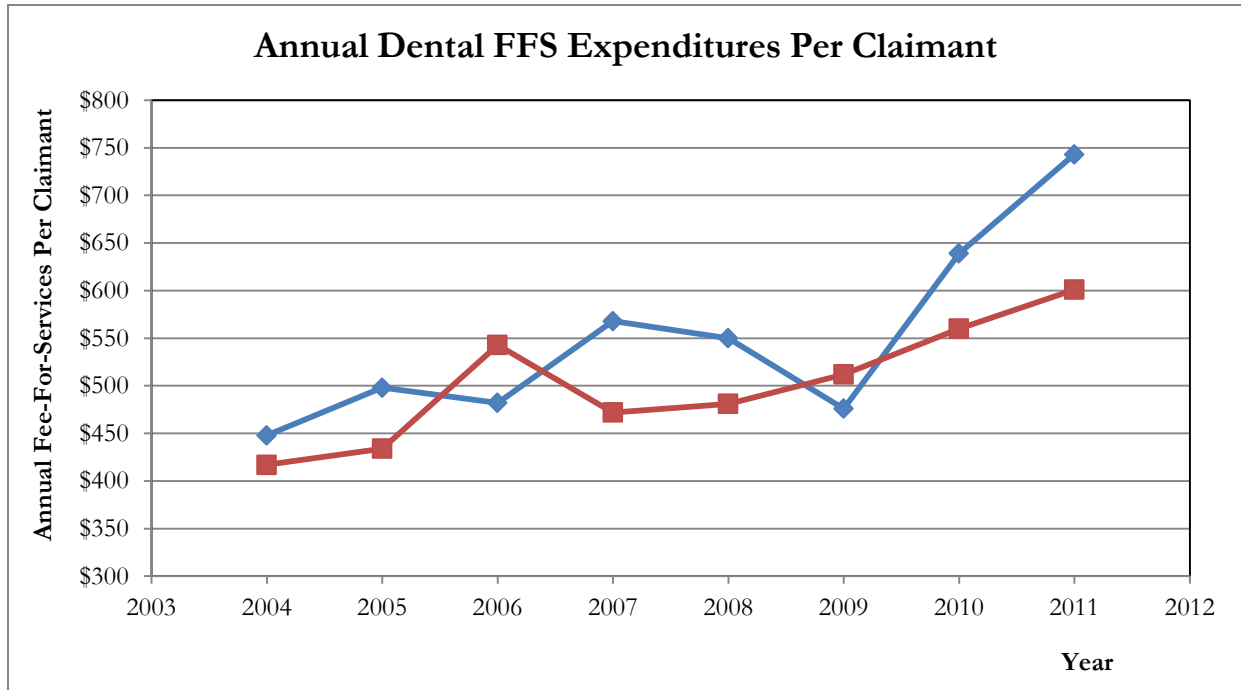


Figure 6. Annual dental care expenditures per claimant in Nunavut compared to the annual national per claimant expenditures. Per claimant values reflect the total NIHB dental expenditures as divided by the total number of clients who received at least one dental procedure throughout the fiscal year. *Source: First Nations and Inuit Health Branch, 2012: 48; First Nations and Inuit Health Branch, 2011: 52; First Nations and Inuit Health Branch, 2010: 52; First Nations and Inuit Health Branch, 2009: 54; First Nations and Inuit Health Branch, 2008: 52; First Nations and Inuit Health Branch, 2007: 50; First Nations and Inuit Health Branch, 2006: 84; First Nations and Inuit Health Branch, 2005: 84.*

**Operating costs for fiscal year 2008/09 differ from other years as Nunavut employed contract dentists to provide services, totalling \$412,000 for the fiscal year.

*** The sharp increase in per capita expenditures in Nunavut in 2010/11 can be primarily attributed to a new financial coding methodology whereby expenditures for Inuit clients are coded to their specific region of registration as opposed to the previous convention where expenditures for Inuit clients were recorded in the region where their pharmacy and dental claims were transacted (First Nations and Inuit Health Branch, 2012: 24).

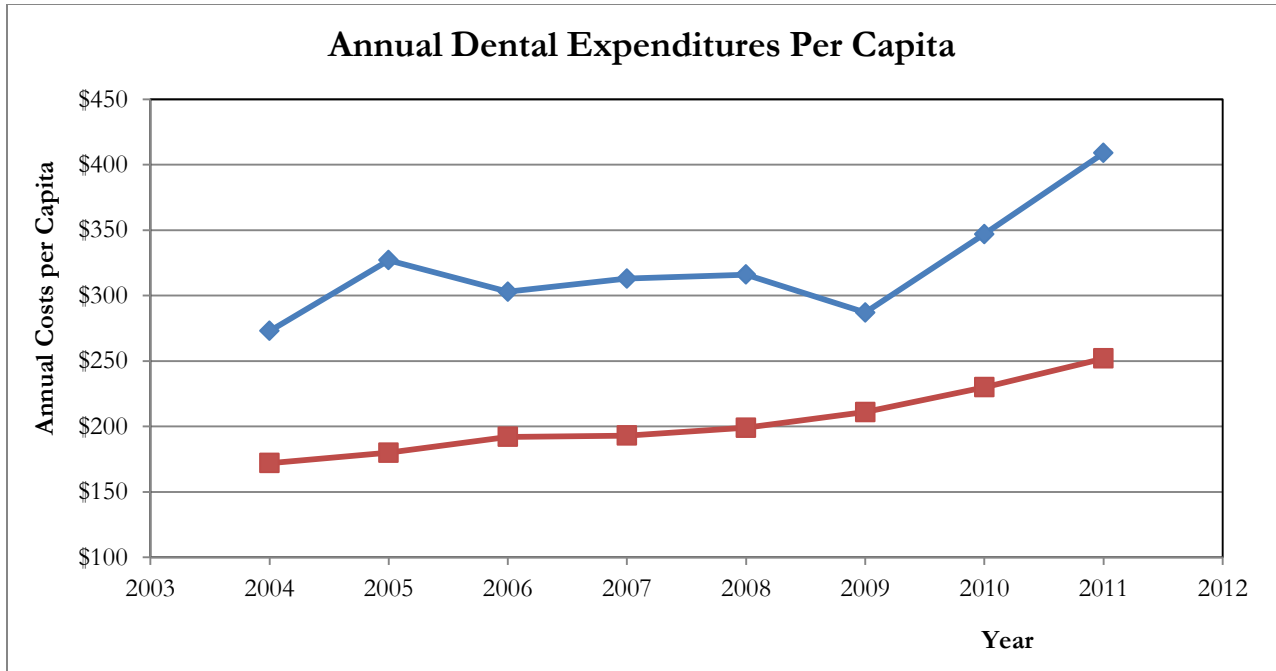


Figure 7. Annual per capita dental care costs in Nunavut compared to the annual national per capita expenditures. Per capita values reflect total NIHB dental expenditures as divided by total eligible NIHB client population. *Source: First Nations and Inuit Health Branch, 2012: 47; First Nations and Inuit Health Branch, 2011: 51; First Nations and Inuit Health Branch, 2010: 51; First Nations and Inuit Health Branch, 2009: 53; First Nations and Inuit Health Branch, 2008: 51; First Nations and Inuit Health Branch, 2007: 49; First Nations and Inuit Health Branch, 2006: 56; First Nations and Inuit Health Branch, 2005: 56.*

**Operating costs for fiscal year 2008/09 differ from other years as Nunavut employed contract dentists to provide services, totalling \$412,000 for the fiscal year.

***The sharp increase in per capita expenditures in Nunavut in 2010/11 can be primarily attributed to a new financial coding methodology whereby expenditures for Inuit clients are coded to their specific region of registration as opposed to the previous convention where expenditures for Inuit clients were recorded in the region where their pharmacy and dental claims were transacted (First Nations and Inuit Health Branch, 2012: 24).

program in response to increased demands from new and existing clients.^[131] The fact that rationing mechanisms have been largely absent from the program reflects well on the program's success in ensuring that eligible clients receive care as required.

On the other hand, rising costs which exceed the rate of growth in government revenues jeopardize the financial sustainability of the program over the long-term. Health Canada defines the sustainability of the Non-Insured Health Benefits program as "...[its] ability to keep expenditures within reference levels." The fact that the NIHB program has sought and obtained funding above its reference levels in order to fund program growth demonstrates that NIHB is not sustainable, unless reforms are made.^[132]

A recent step taken by the NIHB directorate appears to signal that administrators are beginning to enact reforms in response to expenditure pressures on the NIHB budget. In 2009, the NIHB directorate introduced its own formula for determining fee guides, some of which had increased by as much as ten per cent a year in recent years. Fees for the NIHB program today are calculated each year using a "CPI-plus" formula – that is, the base amount in 2009 in a given province or territory is adjusted each year using the Consumer Price Index as dictated by the Treasury Board Secretariat of Canada (TBS), plus 0.5 per cent.^[133] The added 0.5 per cent is intended to allow NIHB fees to remain competitive with private fee scales, which have increased more quickly than the rate of inflation in Canada during the past decade.^[134] This method in turn is used to estimate the budget for dental care services offered by providers. The other component of the dental care budget – the operational budget for each of the NIHB program's regional offices – is

¹³¹ Treasury Board Secretariat of Canada, 2013: 9.

¹³² Health Canada, 2010: 36.

¹³³ Jones, 2013: Personal Interview.

¹³⁴ See Buck Consultants, 2013: 6-7, for a more detailed overview of increasing fee scales in Canada. The increases are mainly driven by the increased utilization of services and an aging population resulting in higher use of restorative (filling replacement) and major restorative services (Pointbreak Consulting Group Ltd., 2013).

fixed by TBS at three per cent annually. Budget increases to NIHB each year reflect a weighted-average of these two components.

Thus, the federal government appears to be making preliminary efforts to control costs in a more predictable manner. The creation of a new formula to compensate providers will appease these concerns to some extent. However, the growth rate of eligible beneficiaries continues to exceed the general Canadian population growth rate each year. As the Dental Officer for the Atlantic Region offered:

“...there was a historical statement many years ago that [the] Non-Insured [Health Benefits Program] would be allowed to hit \$1 billion; then the government would begin to look at some kind of reform. It has hit that \$1 billion, and surpassed it. But right now, there doesn't seem to be a huge appetite for reform. But it is something that the government will have to address, because as the number of First Nations and Inuit people increase across Canada, it's something that simply is not sustainable.”¹³⁵

In short, the principal contributors to growth in NIHB dental care expenditures – continued population growth and fee guides growing slightly faster than the rate of inflation each year – will demand that added reforms to the program are carried out in the coming years. The shape that these reforms take will be the determining question for how effective the NIHB program remains in delivering services for its beneficiaries.

¹³⁵ Jones, 2013: Personal Interview.

Chapter 5

Provider Remuneration

As discussed in the previous chapter, expenditure growth in the NIHB program is largely driven by two factors: population growth and the growth in remuneration of providers. I argue in this chapter that the current remuneration model is not particularly effective in the context of Nunavut for three primary reasons: it jeopardizes the long-run sustainability of the program; it provides perverse incentives which are adverse to the goals of public health; and, it does not reflect the health care landscape in the territory. The chapter concludes by exploring an alternative model which I propose may offer solutions to each of these deficiencies in the current system.

Dental care in Nunavut today is provided through one of three channels. First, resident clinicians in regional centers provide dental care to individuals – a model mirroring the delivery of dental care for much of southern Canada. Today, Iqaluit is the only regional center in Nunavut which offers services through this model, reflecting its larger population base than other communities in Nunavut, and its higher concentration of employment within the territory.^[136] Arctic Circle Dental Services and Iqaluit Dental Services are served by four private-practice dentists, and are largely responsible for serving Iqaluit residents.

The second channel for delivering dental care in Nunavut is through contracted dentists providing itinerant dental care to smaller communities. The contracts establish the number of days the contractor is required to provide services to particular communities, and these services are generally provided through “dental teams” – groups of professionals who travel to communities together, including dentists, dental hygienists, and administrators.^[137] Today, Nunavut offers contracts for each of the three regions in Nunavut. Kivalliq Smiles, Aqsaqniit Dental Services, and

¹³⁶ Hicks and White, 2011: 27.

¹³⁷ Uswak, 2013: Personal Interview.

Jorsyn Dental Services each provide workforces for communities in the Kivalliq, Qikiqtaaluk, and Kitikmeot regions, respectively.^[138]

The third channel for delivering care to Nunavummiut is through dental therapists – individuals licensed to offer basic dental surgical procedures only in certain communities and only under the supervision of a dentist.^[139] Dental therapists are salaried by the territorial government. Under the terms of their contracts, dental therapists are required to provide educational awareness in schools, in addition to providing basic dental care services.^[140] With the delivery model in mind, attention will now turn to the remuneration model used by NIHB to compensate providers for their services.

The NIHB program exclusively remunerates dental providers in Canada using a fee-for-service (FFS) model. In the fee-for-service model, both residential and itinerant providers are paid commensurate for each unit of service provided to patients. Each service fee is outlined in a provincial or territorial fee schedule (schedule of benefits), and it is unique to each jurisdiction. Prior to Nunavut's division from the Northwest Territories, fees in the Eastern Arctic were generally ten per cent higher than the rest of the territory to reflect the higher cost-of-living in the region's communities. This convention has remained in place since 1999.^[141]

For much of the past decade, the Non-Insured Health Benefits program has relied upon a fee schedule derived from paying a percentage of the corresponding provincial or territorial fee guides for privately-insured services from two years previous, which has been approximately 90 per cent in the past.^[142] More recently, however, NIHB has moved away from this system, and has adopted an alternative approach to assigning fee values. Using 2009 as a base year, fees have

¹³⁸ Marchildon and Torgerson, 2013: 69.

¹³⁹ Consolidation of Dental Auxiliaries Act, 2001.

¹⁴⁰ Department of Health and Social Services, 2013.

¹⁴¹ Non-Insured Health Benefits, 2009.

¹⁴² Ward, 2013: Personal Interview.

increased each year by the rate of inflation as determined by Treasury Board Secretariat of Canada's Consumer Price Index (CPI), plus 0.5 per cent.^[143] This CPI-plus formula was adopted in response to growing concerns about some provincial and territorial fee guides growing at an unsustainable rate.^[144]

The fee-for-service model is an attractive model for several reasons. In terms of services to patients, the model used prior to 2009 likely had a minimal impact on Inuit patients' oral health. Inuit consistently make up a majority of the patients seen by private practice dentists in Iqaluit, and an overwhelming majority by travelling dentists in remote communities. Given that providers rely heavily upon Inuit clients for a stream of income, there is no clear incentive for resident or travelling dentists to favour privately-insured individuals (in Nunavut, these individuals primarily work for either an Inuit organization or one of the two orders of government in Nunavut)^[145] over those patients who remain without private insurance. More to the point, unlike the experiences of dentists in much of southern Canada (and even the territorial hubs), who receive only a small proportion of First Nations or Inuit patients, financial incentives to favour privately-insured individuals over those patients who rely upon NIHB for coverage are largely absent in Nunavut.

It is debatable whether the formula adopted by NIHB in 2009 will facilitate Nunavut's desire to attract and retain resident and travelling dentists, as provincial and territorial fee guides for private insurance may quickly eliminate financial incentives which currently exist to attract itinerant dentists to Nunavut on a short-term basis and retain resident dentists on a full-time basis. Although the new fee scale formula is likely to generate adequate compensation – that is, it increases faster than the rate of inflation – if trends in recent years for private fee guides are any indication, prospective

¹⁴³ Jones, 2013: Personal Interview.

¹⁴⁴ *Ibid.*

¹⁴⁵ Canadian Life and Health Insurance Association Inc., 2013.

dentists may choose the more lucrative southern markets which serve predominantly privately-insured populations.

The FFS system is also an attractive model for administrators. Although it is likely an unintended consequence, the NIHB's adoption of a fee schedule which mirrors the private system creates an incentive for dentists to ensure that patients exhaust all other benefits which are available through all other plans.^[146] Given that private plans offer greater compensation for an identical service, the dentist benefits by ensuring that private insurance plans are billed prior to submitting a claim to NIHB. In this sense, the FFS model offers a mechanism by which to enforce the principle of "payer of last resort," a problem which was identified by the Auditor General in 1997.^[147] This feature of the FFS model has, at least to some degree, provided a mechanism by which NIHB's expenditures are better controlled.

The FFS model also creates incentives for dentists to provide services in a region of Canada which is not attractive to many practitioners. Fee for service payments are generally set above the provider's marginal costs in order to cover the administrative costs and fixed costs associated with dental practice, thereby creating a financial incentive for the dentist to provide more services than would be provided in an otherwise incentive-neutral market.^[148] Empirical evidence largely supports this theory, in which FFS leads to higher utilization rates of services and a higher per capita consultation rate.^[149] Given that Nunavut's Inuit population has manifestly poorer oral health status than most other Canadians, mechanisms which generate a higher use of services are likely welcome.

Finally, any FFS model will generally create an incentive for dentists to work longer hours, as each unit of service which is provided to clients produces a stream of income for the dentist. This feature of the FFS model is particularly attractive in the context of Nunavut's dental care delivery

¹⁴⁶ Pastori, 2013: Personal Interview.

¹⁴⁷ Auditor General of Canada, 1997: 13.157.

¹⁴⁸ McGuire, 2000: 513-15; Evans, 1974: 81.

¹⁴⁹ Gosden et al., 2001: 49-53; Hutchinson and Foley, 1999: 1015-16; Hickson, Altemeier, and Perrin, 1987: 347-49.

model. Most communities continue to rely upon travelling dental teams which are obligated to provide a minimum number of service days to community residents under the terms of the contracts established between the contractor and the territorial government. Given that many of the smaller communities are entitled to less than forty days of services each year, the FFS model creates an incentive for dental teams to provide more services during the short time they are operational in a given community. Most often, the effects of this incentive are demonstrated through dentists' willingness to provide services during evening and weekends in communities.^[150]

There are, however, several limitations of a FFS model. As previously outlined, dentists providing itinerant care to communities outside of Iqaluit often work long hours and provide services on weekends. Long work hours, shift work, and work spanning several days without adequate breaks, however, have been repeatedly linked to fatigue, declining quality in labour productivity, and poorer decision-making capacity for workers.^[151] In this sense, the fee-for-service model may create perverse incentives by which the quality of dental care decreases for each additional client seen during “after-hours” or weekend shifts. In effect, the additional services may be of a lower quality, but NIHB remains responsible for remunerating the providers.

The FFS model also holds implications for the ability to attract providers. Although there is no shortage of services which are needed in Nunavut, there is a high incidence rate of broken appointments in the NIHB program, and publicly-insured dental care programs generally. Although private insurance plans often use a cancellation fee for broken appointments to deter patients from cancelling appointments without prior notice, no such mechanism exists for the NIHB program.^[152] Instead, dentists often absorb the cost associated with a missed appointment. For travelling dentists, this issue is even more problematic, as their time is considerably more valuable in remote

¹⁵⁰ Uswak, 2013: Personal Interview.

¹⁵¹ Akerstadt et al., 2002; Gubian et al., 2004; Kirkcaldy, B., Trimpop, R. & Cooper, C. L., 1997: 86; Lockley et al., 2004: 1834-35; Scott, 1992: 1161-63.

¹⁵² Quiñonez, Figueiredo, and Locker, 2009: 69-71.

communities who receive a limited number of visits from dental teams each year. Thus, the loss in possible revenue stemming from broken appointments is an impediment to recruiting qualified long-term and short-term professionals to the region, which in turn contributes to less-than-optimal levels of qualified professionals.

However, the most evident limitation to the FFS model is its focus on restoration and treatment rather than preventive care. This feature is a commonality of all FFS models, including physician care and pharmaceutical drug coverage. The FFS model does not offer any financial incentive for dentists to provide public awareness or educational services to children, young adults, or pregnant women, individuals who are consistently identified as having the most to gain from preventive services.^[153]

Unfortunately, it is difficult for dentists to balance both prevention and treatment considering that treating disease generates far more revenue.^[154] Indeed, restorative procedures and oral surgeries contributed to more than half of the overall NIHB dental expenditures, reflecting 10 per cent and 15 per cent increases, respectively, relative to the previous fiscal year. Preventive services, on the other hand, account for only 20 per cent of NIHB expenditures on dental care nationally. The composition of dental care expenditures by service category and over time is summarized in *Table 11*.

Granted, other factors also contribute to the need for restorative services. These factors include an individual's environment, her socioeconomic status, or her biological susceptibility to disease,^[155] among other things. However, the FFS model offers no compensating mechanisms to dentists for many aspects essential for successful prevention, and also creates no long-term incentives to reduce disease. In this sense, the adoption and continuation of the FFS model by

¹⁵³ Boggess and Edelstein, 2006: 169; Yalnizyan and Aslanyan, 2011: 41.

¹⁵⁴ Schroth, 2006: 98.

¹⁵⁵ Thomson et al., 2004, 347-51.

	Breakdown of Five Highest Annual Fee-For-Service Costs (\$ millions)				
Year	Restorative Care	Diagnostic Care	Preventive Care	Oral Surgery	Prosthodontics
2004	\$42.8	\$14.0	\$13.5	\$9.4	\$8.9
2005	\$47.4	\$14.6	\$14.2	\$10.3	\$9.0
2006	\$58.1	\$16.0	\$15.5	\$11.7	\$9.2
2007	\$57.0	\$16.1	\$15.2	\$11.9	\$8.8
2008	\$61.0	\$17.0	\$16.0	\$13.0	\$9.1
2009	\$68.7	\$18.4	\$17.2	\$14.6	\$9.5
2010	\$77.2	\$20.1	\$19.1	\$15.9	\$9.7
2011	\$84.9	\$22.4	\$20.9	\$18.4	\$11.0

Table 11. Summary of annual national expenditures for the five highest annual fee-for-service categories in the NIHB program. *Source: First Nations and Inuit Health Branch, 2012: 52; First Nations and Inuit Health Branch, 2011: 57; First Nations and Inuit Health Branch, 2010: 57; First Nations and Inuit Health Branch, 2009: 59; First Nations and Inuit Health Branch, 2008: 57; First Nations and Inuit Health Branch, 2007: 56; First Nations and Inuit Health Branch, 2006: 85; First Nations and Inuit Health Branch, 2005: 85.*

NIHB inhibits one of its primary objectives: its commitment to bringing the health of Inuit and First Nations people to the same standard as the non-Indigenous population.

Recent initiatives taken by the Nunatsiavut government in northern Labrador offer some possible solutions to these limitations. Nunatsiavut is an autonomous area claimed by Inuit in Labrador, consisting of five communities as shown in *Figure 8*. Its residents are governed by its own regional government, which maintains jurisdictional authority over health, education, and justice acquired in the Labrador Inuit Land Claims Agreement (LILCA) with the federal government in 2005.^[156]

Nunatsiavut faces many of the same geographic constraints as Nunavut, with an even smaller population. As a result, each of the five communities in Nunatsiavut rely heavily upon contracted dentists from southern Canada to deliver itinerant care for a defined number of days each year.^[157] Between 2005 and 2008, the federal government gradually transferred responsibility and funding for all components of the the NIHB program to the newly created self-government in Nunatsiavut as outlined in the LILCA.^[158]

Using the expenditures at the time of transfer in 2008 as a base amount, the federal government agreed to provide funding for the NIHB operational costs to the regional government using a three per cent annual escalator to account for inflationary pressures.^[159] In order to ensure that beneficiaries continued to receive the benefits promised by the NIHB program, the Nunasiavut government quickly developed reforms to ensure that the program was sustainable at a local level. One of these reforms was the way in which providers were remunerated. Rather than continue to compensate providers for their services through a fee-for-service model, the Nunatsiavut

¹⁵⁶ Rodon and Grey, 2012: 324, 335-37.

¹⁵⁷ Best, 2013: Personal Interview.

¹⁵⁸ Jones, 2013: Personal Interview.

¹⁵⁹ Aboriginal Affairs and Northern Development Canada, 2012: Nunatsiavut Government: Health and Social Development – Subsection: Non-Insured Health Benefits.

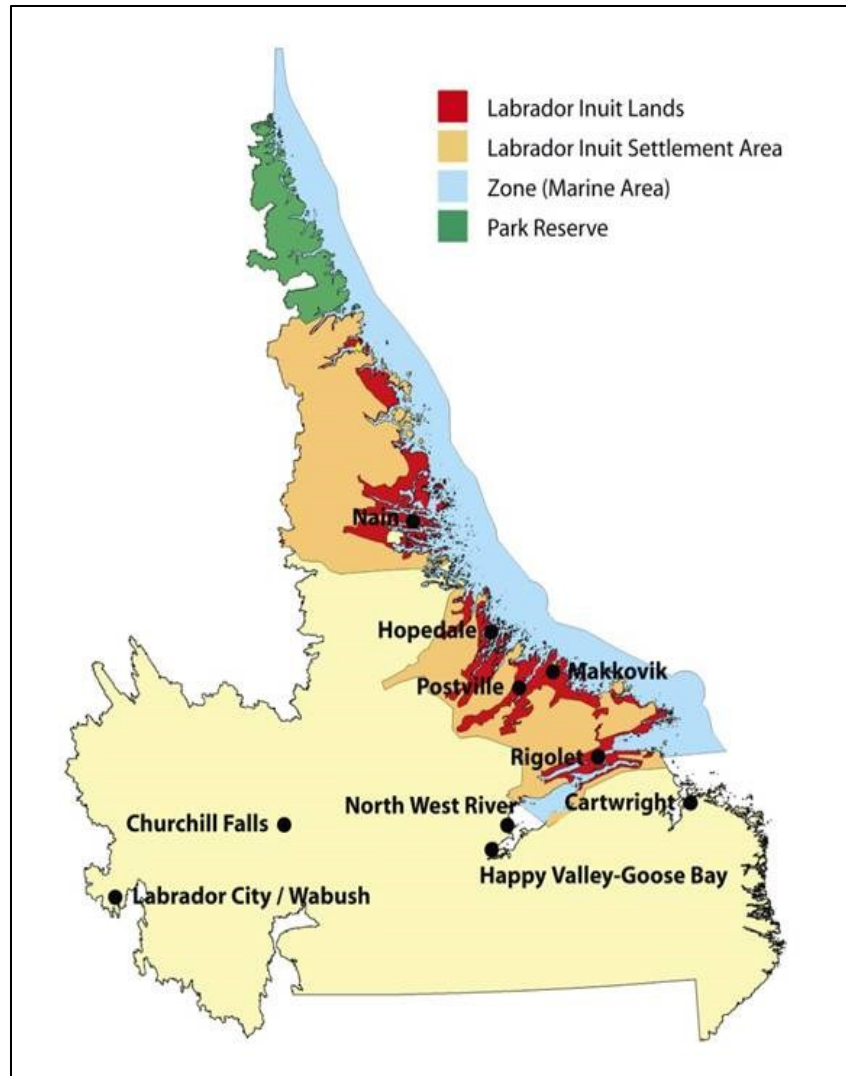


Figure 8. Map detailing the region of Nunatsiavut in northern Labrador. *Source:* Rodon and Grey, 2012: 325.

government adopted a per diem (or partial salary) model for paying providers. The per diem model offers a fixed amount of dollars to the provider for each day that he or she is in a given community. There are clear strengths and weaknesses when compared with the alternative remuneration model used throughout the rest of Canada.

The most attractive feature of the per diem model for the entity responsible for managing its expenditures is that it fixes costs. In this case, the Nunatsiavut government, which is subject to a fixed annual budget, knows exactly how much it will spend on dental care each year. Expenditures are subject to substantial variation under a fee-for-service model, as payments ultimately depend upon a wide range of factors, including the severity of oral health problems which arise, the number of clients who access the services, the necessary treatments required, and the service hours offered to patients, among other things.

Similarly, it offers stability and consistency to providers. In particular, contracted dentists experience broken contracts from patients, which can occur due to personal matters, weather challenges, or absent-mindedness on the parts of the patient. Although fee-for-service can be a lucrative approach for providers if patients are consistent in appointments, the challenges in the north are generally not conducive to this reality. Instead, the per diem model effectively offers an insurance mechanism for providers, who will not receive payments which are as lucrative as they would through the FFS model at its best, but are guaranteed a stable flow of income.

Most importantly for Nunatsiavut, which had, prior to the transfer of the NIHB program, faced the lowest utilization rates of services and the worst oral health of Inuit in the Nunaat region (Nunavut, Nunavik, Inuvialuit, and Nunatsiavut), the per diem can allow for some element of public awareness and oral health education from dentists who are contracted by the government. The fixed amount guaranteed to providers each day can allow the government to request (or indeed, require) increased focus on education and prevention. Furthermore, the per diem model removes the

financial incentives for restorative services characterized by the FFS model, as the provider receives a fixed payment irrespective of the types of services he or she delivers to a patient.

Of course, for all of its strengths, the per diem model encounters noteworthy challenges. In contrast to the FFS model, which creates financial incentives to over-provide services, the per diem model creates financial incentives to under-provide services; in theory, because income is fixed, dentists have reduced incentives to exert effort. Furthermore, as opposed to capitation, which compels dentists to provide a threshold level of care in order to retain patients and ensure a constant flow of income, the per diem model does not have such an incentive built into its structure. However, the arrangement in Nunatsiavut may provide a solution to this dilemma. Providers are responsible to submit a “day sheet” after each service day, detailing the names and contact information for each beneficiary they served, and the procedure or service they delivered. The Nunatsiavut government thus has a mechanism by which to ensure that providers are delivering services efficiently and effectively.

The second concern about the per diem model is that it may create perverse incentives for providers to accept privately-insured patients before those individuals who are entitled to services through the per diem. In effect, individuals who are privately insured (either beneficiaries or non-Inuit) offer an additional source of revenue for providers, while the per diem covers all services necessary for beneficiaries from the Nunatsiavut land claims settlement. Again, the Nunatsiavut payment model offers a potential remedy. As a current provider in Nunatsiavut explained:

“...beneficiaries who are treated in their respective communities receive all eligible benefits at 100 per cent coverage. When treatment is provided for Inuit patients in their own community, there is no cost to the patient. No money transfers hands. For non-beneficiaries with private insurance, they complete a standard dental claim which they send to their insurance company. Nunatsiavut bills them for the full amount. For beneficiaries with private insurance as well, it is submitted by Nunatsiavut on behalf of

the patient, and the difference is covered by Nunatsiavut. For non-beneficiaries without insurance, they are billed by Nunatsiavut.»^[160]

In this sense, the Nunatsiavut government is responsible for administering and funding the program, and dentists are responsible only for the delivery of dental care. The administrative burden is effectively removed from the dental providers under this system.

The Nunatsiavut payment model is uniquely promising in two other respects. The first promising development is that due to the elimination of financial incentives for dentists to pursue costly and expensive treatment plans, pre-determination for procedures in Nunatsiavut is not required. As will be discussed in subsequent sections, pre-determination was introduced for several procedures due to identification of providers who had abused the system by providing unnecessary services which were financially lucrative to deliver. As there is no incentive for providers in Nunatsiavut to perform unnecessary services, pre-determination, a step which is administratively burdensome for providers and costly for administrators, and can require a relatively long time for approval, pre-determination is absent from this system. The dentist is ultimately responsible to decide which services are necessary using his or her professional judgement.^[161]

The second promising result which has arisen from Nunatsiavut's remuneration model is the impact it has had on attracting and retaining human resources. In an effort to create a uniform and competitive dental care system in Labrador, the Labrador-Grenfell Regional Health Authority joined with the Nunatsiavut Department of Health and Social Services (DHSS) to provide dentistry for the general population, and adopted Nunatsiavut's per diem remuneration model. The results have been astounding. Since adopting the per diem model, the Labrador region - for the first time in its history – has been able to recruit and maintain their desired level of human resources for oral health care.^[162]

¹⁶⁰ Tompkins, 2013: Personal Interview.

¹⁶¹ *Ibid.*

¹⁶² Jones, 2013: Personal Interview.

The fee-for-service model offers several strengths in its ability to attract and retain dentists in Nunavut in an effort to improve the oral health of the territory's Inuit population, and is considered by the NIHB program as the optimal remuneration model for service providers. However, this rationale reflects systems rooted in southern dental care models, in which a public FFS model competes effectively with private FFS models. In Nunavut, a majority of expenditures are provided publicly, and the majority of communities in Nunavut are predominantly composed of eligible clients for the non-insured benefits. Indeed, the remuneration model demonstrates the limitations to uniform approaches to policies in the NIHB program.

The FFS remuneration model also suffers from severe deficiencies, namely its design which creates financial incentives to over-service patients, to offer treatment rather than prevention, and its significant impact on expenditure growth within the program. Indeed, the remuneration of providers, has accounted for roughly 75 per cent of annual expenditure growth in dental care expenditures during the past decade.

The proposed alternative of a per diem model currently employed by the Nunatsiavut government in Labrador offers remedies to all of these concerns. As expenditures continue to grow, and reforms become increasingly necessary in the coming years, alternative remuneration models must be explored by NIHB administrators. The significance of the FFS model will become increasingly prominent as the analysis next turns to administrative practices; in particular, claims processing and pre-determination – two essential elements stemming from the adoption of the fee-for-service remuneration model.

Chapter 6

Claims Processing

Dentists in Canada who provide care on a fee-for-service basis are required to submit a claim in order to be compensated for the service unit delivered. Claims processing is a necessary feature for third party insurers who compensate dentists using a fee-for-service remuneration model. In the case of the Non-Insured Health Benefits directorate, claims for medical supplies and equipment, pharmaceutical drugs, and dental services for all eligible First Nations and Inuit in Canada are processed through the national Health Information and Claims Processing System (HICPS).^[163]

The first part of this chapter provides a brief overview of the recent history of the NIHB program's claims processing system. For the remaining part of the chapter, I explore the system as it exists today. I argue that, while the current system offers useful checks and balances for ensuring that patients are not over-treated by dentists and that inappropriate claims submitted by providers are identified and recovered, the claims processing system nevertheless presents barriers for delivering the most effective care to patients, particularly in Nunavut's case. The administrative costs associated with operating HICPS divert scarce NIHB resources away from program benefits, while the auditing program may create conditions which preclude the attraction and retention of dentists in Nunavut.

Health Canada, in conjunction with Public Works and Government Services Canada,^[164] contracts out the responsibility to process any claims associated with these NIHB components to a private claims processor. Health Canada awarded the first contract for claims processing to Blue Cross in 1990, who maintained the contract until 1998. The federal government launched the Procurement Strategy for Aboriginal Businesses (PSAB) in the Spring of 1996, an initiative which required that companies bidding on any federal contract worth more than \$5,000 that serves a

¹⁶³ First Nations and Inuit Health Branch, 2003: 96.

¹⁶⁴ First Nations and Inuit Health Branch, 2009: 97.

primarily (80%) Indigenous population must have at least 51% Indigenous ownership and one-third Indigenous employees to qualify for the “set-aside program.”^[165] Accordingly, Blue Cross lost its advantage in the bidding process, and in 1997, Health Canada awarded a five-year contract for NIHB claims processing worth \$250 million to First Canadian Health Management Corporation (FCH), a corporation created by Tribal Councils Investment Group of Manitoba Limited and Aetna Health Management Canada.^[166]

Prior to the awarding of this contract to FCH, the Auditor General highlighted that the Non-Insured Health Benefits program expenditures were not well managed, and “in most cases, not properly controlled.”^[167] Notably, as it pertains to this thesis, the Auditor General highlighted that dental care providers tended to provide services up to the established frequencies or limits rather than based on needs,^[168] causing expenditures to increase by 67 per cent between 1990 and 1996.^[169] In response to the Auditor General’s findings, the contract expressly contained provisions to enforce key NIHB policies related to expenditure controls. FCH maintained the contract until 2009, at which point Express Scripts Incorporated (ESI) Canada, a Toronto-based claims processor, assumed responsibility for managing HICPS.^[170] Nevertheless, Health Canada’s requirements and expectations of ESI are primarily the same as for FCH.

Until 2009, the contractor was responsible for subcontracting a third party to operate the HICPS, the system that processes claims.^[171] Given that the contracted firms are also responsible for processing claims for most private insurance companies, Health Canada’s rationale for contracting-

¹⁶⁵ Aboriginal Affairs and Northern Development Canada, 2011: 6, 14.

¹⁶⁶ Quiñonez, 2004: 277; Standing Committee on Public Accounts, 1998: Claims Processing for Pharmacy and Dental Providers.

¹⁶⁷ Auditor General of Canada, 1997: Section 13.164

¹⁶⁸ *Ibid* at Section 13.6.

¹⁶⁹ *Ibid* at Section 13.124.

¹⁷⁰ Health Canada, 2009: First Canadian Health-ESI Transition.

¹⁷¹ Health Canada, 2008: 1.

out these services is that the firms' capital and labour resources can be used more efficiently in the context of claims processing, thereby offering lower administrative costs.^[172]

Claims today are submitted either electronically or manually, depending upon the procedure. The NIHB Regional Dental Benefit Grids divides procedures into two schedules: Schedule A lists services which may be provided without predetermination (although most are subject to annual frequency limits), and Schedule B lists services that require predetermination. Any procedures described under Schedule A may be submitted electronically through the Electronic Data Interchange (EDI) System, and approved or rejected in real time,^[173] allowing dentists to know whether or not remuneration will be provided for the services delivered.

Procedures listed under Schedule B, however, must first receive pre-approval from NIHB Headquarters in Ottawa,^[174] and must be submitted manually using the Canada Post postal system.^[175] Importantly, less than ten per cent of all dental claims require predetermination.^[176] Claims which are over thirty days old also require manual submission, as must any reversals made after the original date of submission.^[177] Thus, roughly 90 per cent of submissions in Canada each year can be submitted (and approved or denied) in real time.

In Nunavut's case, there are several challenges associated with this system. First, for providers serving smaller communities on a scheduled basis, adequate infrastructure necessary for accessing broadband internet is often absent or severely lacking.^[178] As a result, the ability to submit claims online and receive confirmation for approval is sometimes constrained. NIHB administrators have attempted to mitigate these challenges by allowing providers to receive approval over the

¹⁷² Health Canada, 2010: 44.

¹⁷³ Non-Insured Health Benefits, 2011: 17; Pastori, 2013: Personal Interview.

¹⁷⁴ Until 2012, pre-approval was the responsibility of each NIHB Regional Office (Health Canada, 2012: Announcement).

¹⁷⁵ Non-Insured Health Benefits, 2011b: 10-11.

¹⁷⁶ Health Canada, 2010: 43.

¹⁷⁷ Non-Insured Health Benefits, 2011: 17.

¹⁷⁸ The Canadian Press, 2012.

telephone, and submit official claims upon their arrival to more populated regions with internet access. However, if telephone services are interrupted, or delays occur in receiving confirmation over the telephone, providers may proceed with the procedure, later receiving notification that the claim was rejected.^[179] Importantly, under the terms and conditions for the NIHB program, the provider is responsible for absorbing this cost,^[180] a clear barrier to recruiting dentists to remote communities.

In addition, procedures which require predetermination are sent through regular post from Nunavut to Ottawa, and as with many northern communities, regular mail sent to and from Nunavut is notoriously sluggish, creating long delays before services can be provided to clients.^[181] Furthermore, awaiting preapproval for some procedures is not feasible in all communities, considering that some communities receive as few as thirty days of service a year. Providers will consequently submit the predetermination request, but often will proceed with the procedure without prior approval guaranteeing compensation – sometimes receiving rejection after the fact. Several past and current providers voiced frustration with their having to absorb these costs.^[182] This statement also holds true for private practice dentists in Iqaluit, as they are faced with similar turnaround times. Again, these challenges may preclude the recruitment of competent and qualified dentists.

Predetermination and frequency limits are two of the checks and balances used by the NIHB program in an effort to ensure that patients are not treated needlessly and that funds are not spent on unnecessary services fueled by financial incentives created by the FFS remuneration system. As the NIHB is a publicly-funded government program, administrators have an obligation to account for the expenditure of public funds. In addition to predetermination and annual frequency limits, the

¹⁷⁹ Uswak, 2013: Personal Interview.

¹⁸⁰ Non-Insured Health Benefits, 2011: 17.

¹⁸¹ Bell, 2008.

¹⁸² Uswak, 2013: Personal Interview; Pastori, 2013: Personal Interview; Previous Provider, 2013: Personal Interview.

primary mechanisms of accountability for the NIHB dental care program is the Provider Audit Program.

The Auditor General highlighted the auditing program as an effective tool for addressing the program's rising costs in 1997 through its ability to identify over-servicing of dental care which remained unrelated to the needs of patients.^[183] The objectives of the auditing program are multi-faceted. At its most basic level, it seeks to identify billing and claim irregularities. It also attempts to ensure that services paid by the NIHB program are received by clients, and that those clients are eligible for services.

There are five components to the auditing program, most of which are unnoticeable to both clients and providers. Each component is intended to build off of the previous component, and the claims processor is only expected to proceed to the next stage after identifying a problem through its preceding phase.^[184] The first component is the Next Day Claims Verification (NDCV) Program, in which Express Scripts Incorporated (ESI) reviews claims submitted by providers each day following their receipt by ESI. For example, ESI will review routine hygiene treatment associated with a specific examination on the same day that the service is delivered.^[185] The NDCV is a common feature in most third party insurance plans, and is intended to “red flag” any inappropriate or irregular claims and billings received by providers.^[186]

The supplemental program to the NDCV is the Client Confirmation Program (CCP), which consists of a monthly mailing to a randomly selected sample of clients to confirm that services which were claimed on their behalf were successfully received.^[187] Selecting the population in a random fashion on a monthly basis serves two purposes. First, a small, randomly-chosen sample is

¹⁸³ Auditor General of Canada, 1997: Section 13.125.

¹⁸⁴ Health Canada, 2011b: 10.

¹⁸⁵ Non-Insured Health Benefits, 2011: 22.

¹⁸⁶ Current Federal Government Official, 2013: Personal Interview.

¹⁸⁷ Non-Insured Health Benefits, 2011: 22.

unlikely to select the same individuals each month, increasing the expected response rate.^[188] Second, selecting a random sample will likely produce a more representative population reflecting the diversity of eligible clients who receive services in terms of their location, age, and oral health status, among other things.^[189] Unlike the NDCV, which is used to identify any irregular billings, the CCP is intended to ensure that services paid for by the NIHB program are indeed being received by clients;^[190] this auditing program is used in many provincial health care systems.

These two programs have been reasonably successful in identifying anomalies and recovering public funds. Since the 2003/04 fiscal year, the NDCV and CCP have saved in excess of \$2 million nationwide, as illustrated in *Table 12*. In Nunavut alone, the two auditing components have saved a combined \$75,000. Notably, as shown in *Table 13*, the amount of savings nationwide appears to have plateaued to some degree; the savings has ranged between \$300,000 and \$400,000 for the past five fiscal years. The savings generated by the two programs in Nunavut alone has grown from roughly \$7,000 to over \$18,000 during the same time period. This is noteworthy considering that expenditures in Nunavut have grown far less rapidly in comparison – from \$8.7 million in 2006/07 to \$12.3 million in 2010/11. In this sense, the rate at which compensation is rescinded by the claims processor is greater than the rate at which financial compensation has grown.

The next component of the auditing program is the Provider Profiling Program, which reviews the billings of all providers against selected criteria, including whether or not they have been red-flagged through the NDCV or Client Confirmation programs.^[191] All claims are considered

¹⁸⁸ Dannie, 2012: 128-29.

¹⁸⁹ *Ibid*, Pg. 128-29.

¹⁹⁰ Nova Scotia Government Official, 2013: Personal Interview.

¹⁹¹ First Nations and Inuit Health Branch, 2012: 91.

reviewable from the NIHB program’s perspective.^[192] One public official offered an example of the Provider Profiling Program’s intent and process:

“...if [a provider] is taking ten x-rays on every patient, that’s a problem for the program to be paying for a x-rays for each patient, because in all likelihood, they don’t need them. It’s an even greater problem for the patient who’s been irradiated ten times. So that would flag as a red light, and that provider would then be looked at in terms of the x-rays they take on every patient.”^[193]

Thus, although the primary purpose of the auditing program as it exists today is to provide a mechanism to control costs, in some cases, it also ensures the health and safety of the patient is respected, as well.

If providers are identified through the Provider Profiling Program as requiring further investigation, two direct auditing programs are used by the claims processor: the Desk Audit Program and the On-Site Audit Program. Since 2003/04, there have been almost 300 of these audits have been conducted, with a savings of almost \$2 million. The numbers of On-Site Audits varies by year and the amount recovered through the two processes is highly unpredictable, both at the regional (Nunavut) and national levels. As *Table 14* illustrates, total recoveries reached almost \$300,000 in 2004/05, but fell to less than \$100,000 in 2010/11. The variability of the number of audits and the total recoveries confirms that quotas are not used, and that the program operates on a case-by-case basis.

Of the two techniques, the Desk Audit Program is considerably less intrusive, consisting of a review of a defined sample of claims focusing on a particular issue evident in a provider’s billings, such as an excessive number of irradiations for patients. The provider is required to submit any

¹⁹² Non-Insured Health Benefits, 2011: 22.

¹⁹³ Current Federal Government Official, 2013: Personal Interview.

	Next Day Claims Verification and Client Confirmation Program Savings							
Region	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
<i>Atlantic</i>	\$4,612	\$4,608	\$5,275	\$11,564	\$13,943	\$13,187	\$9,047	\$14,172
<i>Quebec</i>	\$255	\$1,174	\$8,646	\$15,846	\$16,570	\$15,956	\$14,859	\$21,283
<i>Ontario</i>	\$27,860	\$45,991	\$68,218	\$96,796	\$85,689	\$94,434	\$86,550	\$71,423
<i>Manitoba</i>	\$6,444	\$12,162	\$22,362	\$25,933	\$29,749	\$37,298	\$30,446	\$24,132
<i>Saskatchewan</i>	\$8,245	\$10,742	\$21,211	\$30,538	\$35,736	\$36,802	\$32,101	\$45,268
<i>Alberta</i>	\$12,149	\$21,477	\$47,732	\$62,850	\$79,867	\$80,095	\$78,162	\$38,680
<i>Pacific</i>	\$13,803	\$23,788	\$46,550	\$57,907	\$60,385	\$75,919	\$79,831	\$73,982
<i>Yukon</i>	\$270	\$452	\$721	\$5,160	\$1,496	\$2,296	\$3,233	\$2,569
<i>N.W.T.</i>	\$1,984	\$4,242	\$19,375	\$8,970	\$8,252	\$8,020	\$7,646	\$8,381
<i>Nunavut</i>	\$7,935	\$7,972	\$0	\$7,363	\$9,242	\$11,425	\$11,562	\$18,584
Total	\$83,557	\$132,608	\$240,090	\$322,927	\$340,929	\$375,432	\$353,437	\$318,474

Table 12. Savings generated by the Next Day Claims Verification (NDCV) and the Client Confirmation Program (CCP) between 2003/04 and 2010/11 for each region of Canada. Figures for Nunavut prior to 2003/04 fiscal year exist in tandem with Northwest Territories. *Source: First Nations and Inuit Health Branch, 2012: 92; First Nations and Inuit Health Branch, 2011: 98; First Nations and Inuit Health Branch, 2010: 98; First Nations and Inuit Health Branch, 2009: 100; First Nations and Inuit Health Branch, 2008: 92; First Nations and Inuit Health Branch, 2007: 91; First Nations and Inuit Health Branch, 2006: 95; First Nations and Inuit Health Branch, 2005: 94.*

	Audit Recoveries and Savings					
	Nunavut			National		
Year	Savings	Recoveries	Total	Savings	Recoveries	Total
2003/04	\$7,935	\$1,625	\$9,560	\$83,557	\$37,122	\$120,679
2004/05	\$7,972	\$0	\$7,972	\$132,608	\$293,735	\$426,343
2005/06	\$0	\$62,437	\$62,437	\$240,090	\$264,341	\$504,431
2006/07	\$7,363	\$55,188	\$62,551	\$322,927	\$175,218	\$498,145
2007/08	\$9,242	\$8,605	\$17,847	\$340,929	\$200,869	\$541,798
2008/09	\$11,425	\$7,769	\$19,194	\$375,432	\$206,805	\$582,237
2009/10	\$11,562	\$0	\$11,562	\$353,437	\$267,178	\$620,615
2010/11	\$18,584	\$0	\$18,584	\$318,474	\$99,117	\$417,591
Total	---	---	\$209,707	---	---	\$3,711,839

Table 13. Total savings generated by the Next Day Claims Verification (NDCV) and the Client Confirmation Program (CCP) and recoveries from on-site audits and desk audits between 2003/04 and 2010/11 for Nunavut and Canada.

Figures for Nunavut prior to 2003/04 fiscal year exist in tandem with Northwest Territories. *Source: First Nations and Inuit Health Branch, 2012: 92; First Nations and Inuit Health Branch, 2011: 98; First Nations and Inuit Health Branch, 2010: 98; First Nations and Inuit Health Branch, 2009: 100; First Nations and Inuit Health Branch, 2008: 92; First Nations and Inuit Health Branch, 2007: 91; First Nations and Inuit Health Branch, 2006: 95; First Nations and Inuit Health Branch, 2005: 94.*

	Audit Recoveries			
	Nunavut		National	
Year	On-Site Audits	Recoveries	On-Site Audits	Recoveries
2003/04	1	\$1,625	8	\$37,122
2004/05	0	\$0	31	\$293,735
2005/06	7	\$62,437	28	\$264,341
2006/07	0	\$55,188	52	\$175,218
2007/08	4	\$8,605	51	\$200,869
2008/09	0	\$7,769	46	\$206,805
2009/10	3	\$0	36	\$267,178
2010/11	1	\$0	33	\$99,117
Total	16	\$135,624	285	\$1,544,385

Table 14. Savings generated by the Desk Audit Program and On-Site Audit Program between 2003/04 and 2010/11 for Nunavut and Canada. Similar figures are given for the number of on-site audits conducted per year for each region. Figures for Nunavut prior to 2003/04 fiscal year exist in tandem with Northwest Territories. *Source: First Nations and Inuit Health Branch, 2012: 92; First Nations and Inuit Health Branch, 2011: 98; First Nations and Inuit Health Branch, 2010: 98; First Nations and Inuit Health Branch, 2009: 100; First Nations and Inuit Health Branch, 2008: 92; First Nations and Inuit Health Branch, 2007: 91; First Nations and Inuit Health Branch, 2006: 95; First Nations and Inuit Health Branch, 2005: 94.*

records that are requested by the claims processor for administrative review.^[194] The On-Site Audit, on the other hand, is an audit conducted in a provider's office or clinic, and consists of a targeted selection of submitted claims to be validated with a provider's records. A provider is required to surrender clients' charts and records, documentation of service delivered, evidence of additional coverage, and laboratory invoices upon request.^[195] From the experience of providers interviewed during the course of this research, the on-site audit generally lasts two or three days, and is conducted only during business hours.^[196]

This aspect of the auditing program has been particularly contentious for several reasons. First, it is a significant inconvenience for providers, as many dentists believe that its intrusive nature goes beyond the scope of "normal auditing."^[197] Upon enrolling with the NIHB program, however, providers are obligated to cooperate with the contracted claims processor in all audit activities, and they must grant full office or clinic access to the claims processor if requested.^[198] A provider who fails to comply with the demands of the auditors can have their billing privileges removed unilaterally by NIHB administrators.^[199] The implications of this will be discussed shortly.

As the claims processor began to audit claims in earnest in the mid-2000s, national and regional dental organizations reacted by suggesting that claims should be reviewed by dental regulatory bodies and organizations, and not by a third party insurer. As one public official noted, however, this suggestions was "like the fox looking after the chicken-coop...and was completely unacceptable in terms of public accountability and probity."^[200] The proposal was quickly rejected.^[201]

¹⁹⁴ First Nations and Inuit Health Branch, 2012: 91.

¹⁹⁵ Non-Insured Health Benefits, 2011: 22.

¹⁹⁶ Pastori, 2013: Personal Interview; Canadian Dental Association Representative, 2013: Personal Interview.

¹⁹⁷ Canadian Dental Association Representative, 2013: Personal Interview.

¹⁹⁸ Non-Insured Health Benefits, 2011: 13.

¹⁹⁹ *Ibid*, Pg. 14; Canadian Dental Association Representative, 2013: Personal Interview.

²⁰⁰ Current Federal Government Official, 2013: Personal Interview.

²⁰¹ *Ibid*.

The second concern is that the auditing program breaches patient-provider confidentiality. According to the Canadian Dental Association, there are three bodies which have the legal authority to view patients' records without direct consent: provincial and territorial dental regulatory boards; organizations which are granted a subpoena by a federal court; and the Canada Revenue Agency.^[202] When a patient signs the NIHB claims form prior to or after a procedure is completed, however, they agree that *all* of their information is available for the purposes of auditing.^[203]

Thus, NIHB retains the authority to conduct audits with full access to patients' charts. Every provider that was interviewed, however, believed that the majority of their patients are likely to be completely unaware of this fact, given that, like most Canadians, they remain unfamiliar with their legal rights and the program's code of conduct. This issue is exacerbated for those patients who are experiencing pain, discomfort, or anxiety due to an impairment which can be quickly remedied by consenting to the terms and conditions necessary to receive treatment.

For providers who may have ethical concerns about divulging patients' information without them having knowingly consented, as well as concerns about breaching their patient-provider confidentiality, however, their bargaining power is limited. By signing on as a provider with the Program's claims processor (ESI Canada), dentists are subject to the terms and conditions of the twenty page Dental Claims Submission Kit which contains legal wording.^[204] Several dentists who were interviewed for this thesis confirmed that no other insurance plan in Canada requires this extent of a contractual commitment.^[205]

Under the terms and conditions of the Dental Provider Enrolment Form required for claims to be processed by ESI, the provider must "submit to and assist in any audit conducted by Express

²⁰² Canadian Dental Association Representative, 2013: Personal Interview.

²⁰³ Non-Insured Health Benefits, 2012: Claims Submission Form; Pastori, 2013: Personal Interview.

²⁰⁴ Non-Insured Health Benefits, 2011.

²⁰⁵ Lemchuk-Favel, 2010: 20.

Scripts Canada of claims submitted through the NIHB program.” The impacts of this obligation are compounded for providers in Nunavut, as one individual suggests:

“...if you [the provider] do not cooperate with [the auditor], they [NIHB] can remove your billing privileges for that segment of the population, which in [the case of Nunavut’s providers] would be a significant portion of somebody’s income. Dentists on an individual basis, or even [regional] dental associations, do not have the financial wherewithal or the political capital to fight the NIHB and the federal government in court.”^[206]

Thus, the contract contains a termination clause that suggests that ESI Canada, in consultation with Health Canada, can unilaterally terminate a dentist from the plan.^[207] In this sense, providers may be hesitant or reluctant to provide services in a region like Nunavut – a territory in which NIHB clients constitute such a large proportion of the population base – if they are unable to address any ethical concerns they have about divulging patients’ personal information.

In addition to ethical and legal concerns about the auditing program, there’s also a financial argument to be made about the effectiveness of the claims processing system. As of 2011, claims processing cost Health Canada \$17.4 million, roughly one-third of administrative costs for the NIHB program. However, NIHB expends a significantly greater proportion of paid claims on claims adjudication than privately funded plans. Specifically, the NIHB program spends roughly five per cent of paid benefits on claims adjudication, 25 per cent more than private insurance companies spend.^[208]

This difference is largely attributable to the higher proportion of claims requiring pre-approval, as well as the greater amount of detail required from providers by NIHB for claims submissions, which is generally due to the higher standards for NIHB administrators to account for

²⁰⁶ Canadian Dental Association Representative, 2013: Personal Interview.

²⁰⁷ Non-Insured Health Benefits, 2011: 14; Canadian Dental Association Representative, 2013: Personal Interview.

²⁰⁸ Health Canada, 2010: 45.

expenditures than for private insurance firms.^[209] Notably, NIHB spends 20 per cent less (as a proportion of paid benefits) than private insurance firms spend on developing policies, suggesting that administrative costs come at the expense of improved policy development.^[210]

Undeniably, the decision to contract-out the claims processing to a private firm in 1990 has resulted in cost-savings in terms of administrative costs for the program.^[211] Although strides have been made in recent years to allow providers to submit claims electronically, or receive approval over the telephone, infrastructural barriers exist in many northern communities, and notably in Nunavut, which detract from these gains.

The Provider Auditing Program was identified by the Auditor General of Canada in 1997 as essential for ensuring that money is effectively spent, and has been readily enforced since the mid-2000s. It has five components aimed at addressing inappropriate and irregular billings by providers. The auditing program is intended to ensure that NIHB expenditures are spent transparently and accountably. However, the desk audit and the on-site audit programs require dentists to provide auditors with patients' personal health information, which may create legal and moral hesitations for dentists. The ability for NIHB authorities to unilaterally terminate the billing privileges for dentists who fail to comply leaves providers relatively powerless to contest this policy. Importantly, these elements create an environment which hampers the attraction and retention of the most-qualified and committed providers for Nunavut's population.

The auditing program and claims processing system is undeniably necessary to control for over-treatment of patients and extra-billing to the NIHB program by providers. However, given that these are symptoms of the fee-for-service remuneration model, further support is offered in favour of an alternative remuneration model which lessens the administrative burdens associated with

²⁰⁹ *Ibid*, Pg. 45.

²¹⁰ *Ibid*, Pg. 45.

²¹¹ *Ibid*, Pg. 45.

claims processing, and the legal and moral issues associated with auditing that providers may face. Although a per diem remuneration model would require some form of auditing to ensure that providers are not under-treating patients, the evidence from Nunatsiavut is that the administrative burden has been significantly reduced, and that the legal and moral issues discussed in this chapter have been eliminated.^[212] The next chapter analyzes how the predetermination process, introduced briefly already in this chapter and also a necessity in the fee-for-service remuneration model, potentially affects the oral health of Nunavut's Inuit.

²¹² Best, 2013: Personal Interview; Tompkins, 2013: Personal Interview.

Chapter 7

Pre-Determination

In Canada, insurance programs for dental care rely heavily upon the professional judgement of the practitioner for most benefits received by patients. The NIHB program is no different. For almost 90 per cent of benefits received by eligible clients each year, the professional judgement of the dentist is considered the main screening test.^[213] However, for the remaining set of benefits received each year, a system known as predetermination is required. After a brief overview of pre-determination within the NIHB program, I will argue that, while predetermination is a necessary check on the financial incentives created by the fee-for-service remuneration model, it nevertheless hinders the oral health of Nunavut's Inuit population. Specifically, directives for predetermination are determined at a national level, prohibiting policies which reflect regional and cultural sensitivities. Furthermore, predetermination policies for some dental care services create a two-tier approach to oral health, observed also for private carriers, as well.

Predetermination (or pre-approval) for services is a common feature in most third party insurance systems and is intended to offer a safeguard against over-servicing derived from the financial incentives created by the fee-for-service remuneration model.^[214] Specifically, dental care providers tend to provide services up to the established frequencies and limits rather than based on needs, resulting in over-servicing of some clients and excessive expenditures by the third party.^[215] Predetermination requires that providers seek approval from an authority prior to proceeding with a particular treatment. Predetermination is a process whereby clinical information and radiographs are sent to the NIHB Headquarters in Ottawa for review prior to proceeding with a treatment plan.^[216]

²¹³ Health Canada, 2010: 35.

²¹⁴ Auditor General of Canada, 1997: Section 13.128.

²¹⁵ *Ibid* at Section 13.125.

²¹⁶ Lemchuk-Favel, 2010: 14.

The rationale for NIHB administrators choosing to implement and enforce a predetermination process in 1997 was threefold. First, a successful pilot project had been completed in Manitoba demonstrating the positive effects that an enforced predetermination process could have on controlling costs. Second, Veteran Affairs had implemented a predetermination process for its dental care program in previous years, achieving substantial savings as a result. Third, the departmental Dental Care Advisory Committee, which included representatives from First Nations and professional bodies, recommended the adoption of a predetermination model at a national level by the end of 1997.^[217]

At this time, NIHB administrators established a policy which entitled any eligible client to receive dental care up to a pre-established amount of \$600 every twelve months, later increased to \$800 in 2002.^[218] For any services provided to patients who had exceeded this threshold, providers were required to submit the appropriate documents to the claims processor in order to receive approval. The policy itself reflected most other market-based insurance programs, although the limit before predetermination was required was lower than most standard rates in the industry.^[219] In the face of intense opposition from Indigenous organizations and professional bodies representing providers, the Non-Insured Health Benefits directorate removed the threshold policy in 2005.^[220] Today, no financial limits exist for clients after which predetermination for services is required.^[221]

Nevertheless, selected procedures continue to require pre-approval from the NIHB Headquarters. As discussed briefly in the previous chapter, dental services are divided into three classes. Schedule A outlines services that may be completed and billed directly to the claims processor for payment. These services include cleanings, exams, simple extractions, fillings,

²¹⁷ Auditor General of Canada, 1997: Section 13.128-13.130.

²¹⁸ Brown, 2004: 3.

²¹⁹ *Ibid*, Pg. 4.

²²⁰ Non-Insured Health Benefits, 2005.

²²¹ Pastori, 2013: Personal Interview; Current Federal Government Official, 2013: Personal Interview.

emergency procedures, preventive services, and root canals for anterior teeth.^[222] They do not require predetermination, but they may experience frequency limits. Schedule B outlines services that require predetermination. These services include crowns, dentures, complicated extractions, orthodontics, root canals for posterior teeth, and sedation. Schedule C outlines services which are not covered through the NIHB program. These services include cosmetics, implants, and ridge augmentation for denture fitting.^[223] In this sense, it is evident that NIHB services are quite comprehensive for eligible clients.

Many of the critical services necessary for improving the oral health of Nunavut's Inuit population exist with no administrative barriers. For instance, preventive services, such as scaling, sealants, and topical fluoride, are available without predetermination, though frequency limits each year exist. Similarly, diagnostic services, such as exams and radiographs, are available without pre-approval. However, select restorative services and endodontic services are available without prior approval, while other services in these categories must be approved by NIHB National Headquarters.

Restorative services are divided into two categories: fillings, which do not require predetermination, and crowns, which must be approved prior to treatment. A crown is often needed when a large cavity threatens the ongoing health of a tooth, and completely caps or encircles a tooth or a dental implant.^[224] Although they have significant long-term durability and are grounded in evidence-based success, they are also considerably more expensive than fillings.^[225] Thus, predetermination is a necessary cost-control measure, with minimal impact on the health of the patient if denied, as alternative restoration services are available through fillings.

²²² Non-Insured Health Benefits, 2012: 12.

²²³ *Ibid*, Pg. 12.

²²⁴ Velvari, 2009: 361.

²²⁵ Randall, Vrijhoef, and Wilson, 2000: 341-42.

Endodontic services are considerably more complicated. Endodontic services include pulpotomies and pulpectomies, which are root therapies performed primarily on baby teeth which do not require pre-determination, but the most common endodontic procedure is root canal therapy. Root canal therapy involves the removal of nerve tissues, blood vessels, and other cellular material from the pulp of the tooth, and the subsequent shaping, cleaning, and decontamination of the hollows with tiny files and irrigating solutions, followed by the obturation of the decontaminated canals with an inert filling.^[226] Successful root therapy results in the elimination of infection and protection of the decontaminated tooth from future microbial invasion.^[227]

The NIHB Program's current policy framework for endodontic care places an emphasis on saving the six anterior teeth (incisors and canines) in each of the upper and lower mouth. All endodontic care for anterior teeth may be performed by dentists according to their own clinical judgment and without the need for pre-approval by the Program.^[228] More recently, a pilot program was introduced by NIHB headquarters which allowed all dental providers in Canada to provide NIHB patients with endodontic treatment for bicuspid and first molars without predetermination. This program concluded in April 2013, and the results of this program are currently being evaluated to assess the merits, feasibility, and the appropriateness of removing the predetermination requirement.^[229] The remaining posterior teeth, the second and third molars, continued to require predetermination during this pilot program.

This division between anterior and posterior teeth^[230] creates notable outcomes. As seen in *Figure 9*, claims for root canals performed on anterior teeth have increased dramatically since 2004/05, the year that predetermination for root canals on anterior teeth was eliminated, and while

²²⁶ Schmalz and Hørsted-Bindslev, 2009: 198.

²²⁷ Bergenholtz, Hørsted-Bindslev, and Reit, 2009: 3.

²²⁸ Lemchuk-Favel, 2010: 14.

²²⁹ Current Federal Government Official, 2013: Personal Interview.

²³⁰ For purposes of clarity, posterior teeth refers to all posterior teeth prior to 2011, and only second and third molars after 2011.

they have exceeded population growth, the growth rate has levelled off in recent years to one slightly higher than one would expect based upon trends in population growth. Claims for root canals performed on the posterior teeth, on the other hand, declined relative to the expected number of root canals for posterior teeth between 2004/05 and 2010/11, but as seen after predetermination was removed for anterior teeth, the numbers increased rapidly during the first year of the pilot project, and declined slightly in its second year. Notably, since predetermination has been removed for several of the posterior teeth, extractions on posterior teeth have declined noticeably, as shown in *Table 15*. These results tend to suggest that dentists are replacing extractions with restorative care in the absence of a predetermination process.

Prior to the pilot project, the NIHB Program stipulated that posterior teeth are not to be covered for endodontic service unless they were deemed to be essential in maintaining a stable occlusion. In addition, second molars are still only considered for endodontic therapy if they are deemed to be essential in maintaining a stable occlusion,^[231] and only if uncontrolled disease (e.g., caries and/or periodontal) is absent.^[232] Thus, individuals with a poor oral health status, often associated with a lower socioeconomic status, inadequate living conditions, and biological susceptibilities, are denied treatment that clients with better health care may be offered. This two-tiered approach for endodontic care raises concerns about equality, though not as much as longevity.

Unlike endodontic and restorative care, for which particular services may not require preapproval from NIHB officials in Ottawa, all orthodontic care for Nunavut's Inuit population requires predetermination. Predetermination for orthodontic care is a centralized process, operated by National headquarters in Ottawa.^[233] Centralization is essential for predetermination of orthodontic care, given that it is a highly specialized field that requires expert review of cases to

²³¹ Non-Insured Health Benefits, 2012: 14-15.

²³² Lemchuk-Favel, 2010: 14.

²³³ Health Canada, 2010: 9.

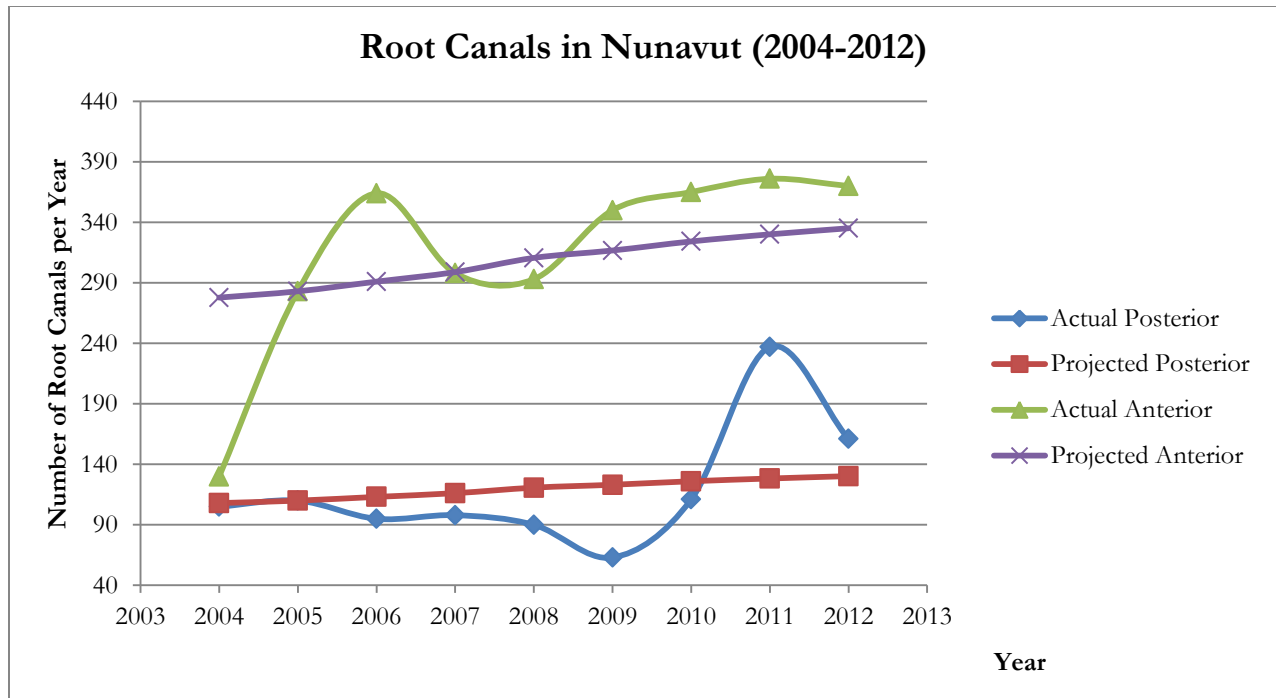


Figure 9. Number of endodontic treatments for posterior (blue) and anterior (green) between 2000/01 and 2008/09, compared with the projected number of treatments based on population growth for posterior (red) and anterior (purple) root canals. *Source: Non-Insured Health Benefits, 2013.*

	Extractions		
<i>Tooth</i>	<i>2009/10</i>	<i>2010/11</i>	<i>2011/12</i>
Anterior	2,163	2,468	2,384
Posterior	4,118	4,539	3,969
Total	6,281	7,007	6,353

Table 15. Number of extractions for anterior teeth for fiscal years between 2009/10 and 2011/12. *Source: Non-Insured Health Benefits, 2013.*

determine coverage.^[234] With respect to malocclusions, the NIHB Program only covers those which are severe and functionally handicapping. If a child is still able to chew, then orthodontic benefits cannot be accessed.^[235] Other NIHB orthodontic benefits are dento-facial anomalies (cleft and palate) and interceptive orthodontics.^[236]

Studies have consistently shown that Inuit in Canada suffer from malocclusion at a much higher rate than the general Canadian population. McPhail et al. (1972) found a high prevalence (18% - 33%) of ‘trapped upper lateral incisors’ and higher occurrence of posterior tooth cross-bite compared to Saskatchewan children. Zammit (1995) found that 18% of Inuit youth in two communities in Labrador, aged between 5 and 22 years, had severely handicapping occlusions.

However, there is an increasing inaccessibility of orthodontic coverage for Inuit patients. Compared to the number of orthodontic clients in 2003/04, in 2008/09, five fewer, or 2.3 per cent less, persons received orthodontic care coverage from the NIHB Program, despite the growth in children under the age of 18 in Nunavut by 7.9 per cent during the same period.^[237] Furthermore, this benefit category is subject to many appeals stemming from unsuccessful requests for coverage of orthodontic treatment. Over 80 per cent (152) of all first level appeals in Nunavut to the NIHB Program between 2006 and 2012, and almost all third level appeals, were related to orthodontic treatment, as shown in *Tables 16(a) and 16(c)*.

Malocclusion is commonly associated with hereditary factors, but among Inuit, it can also be the result of poor oral health and/or poor access to dental care among children leading to the premature extraction of primary teeth which would otherwise provide a guide for the positioning of the permanent teeth to follow.^[238] By treating moderate or severe malocclusion, the teeth are easier

²³⁴ *Ibid*, Pg. 9.

²³⁵ Lemchuk-Favel, 2010: 16.

²³⁶ Non-Insured Health Benefits, 2012: Section 8.8; *Ibid.*, Pg. 16.

²³⁷ Lemchuk-Favel, 2010: 16.

²³⁸ Harrison and Davis, 1996: 217-21.

	First Class Appeals					
Year	Crowns	RCT	Dentures	Other	Orthodontics	Ortho. Appeals as a Proportion of Total Appeals
2005/06	4	0	0	0	46	92%
2006/07	6	2	0	0	39	83%
2007/08	3	0	0	0	26	90%
2008/09	10	0	0	1	14	56%
2009/10	2	0	0	0	5	71%
2010/11	4	0	0	0	7	60%
2011/12	0	0	0	0	16	100%
TOTAL	29	2	0	1	152	83%

Table 16(a). First class appeals by procedure between fiscal years 2005/06 to 2011/12. RCT refers to Root Canal Treatments, and Dentures refers to removable prosthodontics. *Source: Non-Insured Health Benefits, 2013.*

	Second Class Appeals					
Year	Crowns	RCT	Dentures	Other	Orthodontics	Ortho. Appeals as a Proportion of Total Appeals
2005/06	0	0	0	0	24	100%
2006/07	2	0	0	0	22	92%
2007/08	1	0	0	0	18	100%
2008/09	0	0	0	0	16	100%
2009/10	0	0	0	0	3	100%
2010/11	0	0	0	0	6	100%
2011/12	0	0	0	0	4	100%
TOTAL	3	0	0	0	93	97%

Table 16(b). Second class appeals by procedure between fiscal years 2005/06 to 2011/12. RCT refers to Root Canal Treatments, and Dentures refers to removable prosthodontics. *Source: Non-Insured Health Benefits, 2013.*

	Third Class Appeals					
Year	Crowns	RCT	Dentures	Other	Orthodontics	Ortho. Appeals as a Proportion of Total Appeals
2005/06	0	0	0	0	17	100%
2006/07	1	0	0	0	10	83%
2007/08	1	0	0	0	9	90%
2008/09	0	0	0	0	8	100%
2009/10	0	0	0	0	10	100%
2010/11	0	0	0	0	0	---
2011/12	0	0	0	0	2	100%
TOTAL	2	0	0	0	56	97%

Table 16(c). Third class appeals by procedure between fiscal years 2005/06 to 2011/12. RCT refers to Root Canal Treatments, and Dentures refers to removable prosthodontics. *Source: Non-Insured Health Benefits, 2013.*

to clean and there is less risk of tooth decay and periodontal diseases (gingivitis or periodontitis).

The oral health of Inuit may improve with some relaxation on NIHB policy restrictions on orthodontic care, to include not just functional criteria for eligibility, but also psychosocial aspects if a person's self-esteem has been severely affected.^[239] Treatment of non-severe affected malocclusion should not be regarded as a simple cosmetic issue.^[240]

The criteria for predetermination vary between treatments. However, the process itself, particularly in the case of Nunavut is a fairly consistent practice. All predetermination documents are sent to the NIHB National Headquarters in Ottawa, although prior to 2012, national headquarters was responsible only for orthodontic care, while the Northern NIHB Regional Office remained responsible for approving requests for all other treatments.^[241] According to one practitioner familiar with providing dental care as both a resident and itinerant dentist, the waiting time for treatment approval can be up to a month, due largely to the geographic separation and the challenges of postal delivery in remote communities.^[242]

That said, some dentists can get a faster decision if the dental consultant is available immediately by phone within 9-5 working hours.^[243] For resident clinicians in Iqaluit, this time period overlaps conveniently with their own work schedule. However, contracted providers working long hours in fly-in communities, particularly in the Kivalliq and Kitikmeot regions which experience different time zones than Ottawa, do not benefit from this arrangement to the same extent.^[244] Interestingly, the predetermination process for orthodontic treatment is quite compatible with providers' schedules, given that contracted orthodontists in Nunavut generally travel on a

²³⁹ De Baets et al., 2012: 734-35; Lemchuk-Favel, 2010: 17.

²⁴⁰ Lemchuk-Favel, 2010: 17.

²⁴¹ Health Canada, 2012.

²⁴² Pastori, 2013: Personal Interview.

²⁴³ Lemchuk-Favel, 2010: 20.

²⁴⁴ Uswak, 2013: Personal Interview.

rotating schedule for several days every six to eight weeks, and decisions by the approval committee are generally made between rotations.^[245]

The predetermination process is an important mechanism for third party insurers like the Non-Insured Health Benefits program to ensure that money is spent efficiently and effectively in the presence of a remuneration system ground in a fee-for-service model. However, several problems exist with the current predetermination process: uniform policies for Inuit and First Nations people throughout Canada, with no differentiation for genetic differences, local environments, or unique cultural norms and traditions; and, a two-tier approach to oral health.

Again, changes to the remuneration system may allow for the removal or gradual diminution of the predetermination process, and instead allow the professional judgement of dentists to determine the treatment plan for patients on a case-by-case basis. Certainly, the results shown after predetermination was eliminated for root canals on anterior and posterior suggest that dentists are effectively using their professional judgement to deliver care to patients.

Thus, an alternative remuneration model offers the following advantages: a reduced administrative burden for dentists, either through detailed claims submissions or submissions for preapproval; an increased reliance on professional judgement for treatment plans, which can better reflect unique local demands; the ability to encourage providers to promote education and prevention at a more population-wide level; and fixed and predictable costs for federal authorities, which in turn will help to ensure that the program remains sustainable, at least in Nunavut. The analysis will now turn to the administrative organization of the NIHB program and the service delivery of dental care in Nunavut as it relates to the Non-Insured Health Benefits.

²⁴⁵ Clarke, 2013: Personal Interview.

Chapter 8

Administrative Organization

Non-Insured Health Benefits are delivered through either a centralized, shared, or decentralized model. For instance, medical transportation and vision care are highly decentralized in Nunavut. Health Canada transfers funds to the territorial government each year, and they administer and deliver the benefits directly. While benefit policies are determined nationally, the management and delivery of vision care, medical transportation, and mental health services requires regional knowledge of local providers and detailed knowledge of the provincial or territorial health system infrastructure and available health resources. Pharmaceutical drug coverage, on the other hand, remains highly centralized in order to achieve economies of scale and provide flexibility to the NIHB directorate as new drug therapies enter the market each year.^[246]

Dental care has traditionally fallen somewhere in between these two models, and has generally been classified as a shared program between NIHB Headquarters in Ottawa and its regional offices. Recent initiatives by the federal government has seen the transfer of some major responsibilities from regional offices to national headquarters, and the relocation of regional offices to Ottawa.^[247] In this sense, while the program continues to operate as a shared program, it is much more centralized than it has been throughout the NIHB program's existence. According to Health Canada, these changes are intended to "gain efficiencies through the consolidation of administrative functions and improve consistency in the adjudication of dental benefits."^[248]

However, I argue that the current arrangement is ineffective, and indeed, likely unfavourable, to achieving these objectives. Specifically, policies continue to be developed and enforced at the national level, limiting responsiveness to unique local needs and concerns. Moreover, the NIHB

²⁴⁶ Health Canada, 2010: 9-10.

²⁴⁷ Health Canada, 2012.

²⁴⁸ *Ibid.*

Regional Office is located outside of the region it represents, and is responsible for both First Nations and Inuit clients throughout the three territories, despite very clear differences in local environments, cultures, and traditions.

Currently, regional offices exist for Atlantic Canada, Québec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, and Northern Canada. The Northern region is responsible for all beneficiaries in each of the three territories, and it is currently housed in Ottawa.^[249] Having a shared responsibility model with the regions has generally been used for two reasons. First, sharing responsibility of the program with regional offices allows the NIHB program to maintain and foster relationships with dental providers.

As Health Canada suggested in its 2010 Cluster Evaluation for the NIHB program, these local relationships are essential for adapting the delivery model to regional contexts, stating:

“...local relationships are integral to adapting the delivery model to regional contexts and the increasing efforts of NIHB to promote the cost-effective delivery of this benefit area by engaging dentists under contract to go to remote/isolated communities to provide dental care, as opposed to bringing clients to dental practices in urban areas.”^[250]

The Government of Nunavut (GN) has assumed the role of contracting dentists and oral health specialists to deliver care to communities; the effectiveness of this decision is detailed in the following chapter. Nunavut’s government establishes contractors to provide services in each of three region’s communities, and is better positioned to respond to providers’ concerns at a more local level than a federally-administered program. The Northern Regional Office is responsible for negotiating and enforcing the contribution agreements with the GN which provides the necessary resources each year required to carry out its duties.

²⁴⁹ Non-Insured Health Benefits, 2012.

²⁵⁰ Health Canada, 2010: 10.

The second responsibility of regional offices has traditionally been related to claims processing. While most claims for dental care are processed through the centralized HICPS without restriction, procedures which require predetermination were, until 2012, reviewed by the appropriate regional office. Regional offices were responsible for approving or denying these claims;^[251] this responsibility was transferred to the NIHB National Office in November 2012. The absence of a physical office and operational staff from the region itself may undermine the office's ability to effectively execute this task.

Specifically, the primary reason that the regional offices were responsible for pre-approval requests was that their closer proximity to local providers ensured a more timely response for providers and patients. Policies related to pre-approval are set nationally in Ottawa, and treatment requests are approved or denied based upon these guidelines. Given that the vast majority of pre-approvals require manual submission of claims – that is, electronic submission is not possible for radiographs and moulds which are necessary for evaluation – regular post is required for these claims.^[252] A decentralized model is most conducive to allowing for a quicker turnaround time in approvals as less time is required to receive a claim and send a response to the provider. According to one participant in this research, the centralized office in Ottawa is comparatively slower for approval requests from providers.^[253]

Of course, centralizing the pre-determination process, in addition to relocating Nunavut's regional office to Ottawa, affords some benefits to the NIHB program. Nunavut's high cost of living, remote living conditions, and inhospitable weather conditions makes attracting competent and qualified employees both challenging and costly.^[254] Moreover, Article 23 of the Land Claims

²⁵¹ *Ibid*, Pg. 10.

²⁵² Non-Insured Health Benefits, 2011: 17-18.

²⁵³ Pastori, 2013: Personal Interview.

²⁵⁴ Rogan, 2003: 37-38.

Region	Population
Atlantic	35,268
Quebec	59,659
Ontario	182,900
Manitoba	137,212
Saskatchewan	134,633
Alberta	107,839
BC	124,988
Yukon	8,168
Northern Region	55,356
<i>Average</i>	<i>99,625</i>

Table 17. Population of eligible beneficiaries for each region assigned a Regional Office by NIHB in 2012.
Source: First Nations and Inuit Health Branch, 2012: 10.

Agreement requires that the federal government increase Inuit participation in government employment in Nunavut to a representative level.^[255] Indeed, this fact may be a contributing factor in why the Yukon territory maintained its own regional office until 2012, despite its considerably smaller population than either of the other two territories, as shown in *Table 17*.

Given that these staffing positions are highly-specialized in a field for which Inuit have traditionally not pursued formal educational training, a local office would likely be disproportionately staffed by a non-Inuit workforce. Given the legal challenges the federal government is already facing over their commitment to Article 23,^[256] and the challenges and costs associated with attracting a qualified workforce, a regional office located in Nunavut is an unlikely proposition at this time.

In contrast, the establishment of the northern regional office in Ottawa allows for the recruitment of qualified individuals who may otherwise be unwilling to permanently locate in a northern community. Furthermore, compensation packages are comparatively less, living allowances are likely unnecessary,^[257] and their employment outside of Nunavut ensures that the federal government's obligations respect the provisions set out in Article 23 are not compromised any further.

However, the very purpose of the regional office, as outlined by Health Canada, is compromised to some extent. Health Canada suggests that the regional offices help the program to maintain relations with dental providers, ensuring that providers have communication with the program at a more direct and local level.^[258] Under the current model, the local interaction between the NIHB directorate and practitioners is lost. The relationship between federal authorities and

²⁵⁵ Nunavut Land Claims Agreement, 1993: Article 23.2.

²⁵⁶ In 2006, Nunavut Tunngavik Incorporated (NTI) filed a legal challenges against the federal government for several claimed violations of the NLCA, including their unwillingness to meet provisions outlined in Section 23. For more information about the case, see NTI, 2006.

²⁵⁷ National Joint Council, 2007: Sections 2.2-2.9.

²⁵⁸ Health Canada, 2010: 10.

dental providers is increasingly administrative, and the ability to collaborate or discuss local issues is reduced. According to one practitioner, "...[we]’re now dealing with a faceless bureaucracy."^[259]

Interestingly, prior to Nunavut’s creation, the GNWT offered a unique approach that differs markedly from the status quo. For many years, the Baffin Regional Health Board, one of three health boards in the Eastern Arctic, employed a Regional Dental Officer (RDO) directly who resided in Iqaluit. Although the RDO was not employed by the NIHB Directorate, he or she was primarily responsible for coordinating and planning public dental care programs and policy development in the Baffin region, and to a lesser extent the Kivalliq and Kitikmeot regions.^[260] This position was converted to a Dental Public Health Consultant in 1997, but in recent years, this resource has not been utilized due to budget constraints faced by the territorial government.^[261]

This position offered two clear advantages for providing improved oral health care. First, according to a dentist based in Iqaluit, it provided resident practitioners and specialists operating out of Iqaluit with the ability to seek out additional perspectives in developing a viable treatment plan for certain patients.^[262] Given that the dental officer was only responsible for Eastern Arctic residents, and resided in the Baffin region, he or she was aware of, and responsive to, changing policy environments and local concerns.

The absence of this position has also shifted responsibilities for day-to-day management issues of contracted NIHB dental services to the Dental Health Specialist. Long-range territorial program planning and development has suffered as a result.^[263] Although it is unlikely that the federal government would employ a Regional Dental Officer (or Consultant) directly in Nunavut, funding provided to the GN to re-establish this post may improve practitioner-program relations

²⁵⁹ Pastori, 2013: Personal Interview.

²⁶⁰ Uswak, 2013: Personal Interview.

²⁶¹ Uswak, 2007: 22.

²⁶² Pastori, 2013: Personal Interview.

²⁶³ Uswak, 2007: 22.

and facilitate longer-term planning initiatives by the territorial government. Notably, the absence of this position in today's government highlights how financially constrained the GN is today, and how it has shifted resources to areas of higher priority.

It is important to note that the NIHB Northern Region Office in Ottawa employs a Dental Officer responsible for the northern region, which includes the Yukon, the Northwest Territories, and Nunavut. Although the three territories together contain only 63,524 eligible beneficiaries – well below the average of 99,625 for each region – the needs and demands of Inuit and First Nations beneficiaries in the Central and Eastern Arctic are remarkably different from each other. First Nations and Inuit people in the north face different geographical constraints, and have experienced unique institutional, professional, and cultural histories with respect to dental care.^[264] These challenges are further compounded by the dental officer's absence from the region for which he or she is responsible.

Taken together, while the NIHB Regional Dental Officer for northern Canada is responsible for a small number of beneficiaries (relative to his or her regional counterparts in other areas), this model does not adequately respond to the diversity of its small population. Regional offices are responsible for relaying concerns and communications about policy and operational procedures to the centralized headquarters in Ottawa.^[265] The physical absence of the officer from the region, in addition to the diversity of the population for which he or she is responsible for representing at a national level, present clear obstacles for the Regional Officer to effectively carry out his or her duties.

Although the regional offices are responsible for communicating with, and forwarding concerns from, dental practitioners in their respective regions, it is critical to understand that policies related to NIHB dental care are developed and enforced by National Headquarters in Ottawa. These

²⁶⁴ Scroth, 2006: 98.

²⁶⁵ Health Canada, 2010: 10.

policies include defining eligible benefits, setting frequency limits for particular services, approving treatments which require predetermination, and establishing operational guidelines for all benefit areas.^[266] NIHB programming and policy has a strong evidence-base. Benefits are listed or funded on the basis of dental professional judgement.^[267]

The NIHB program relies heavily upon the Federal Dental Care Advisory Committee (FDCAC), an advisory body composed of oral health professionals who together bring advice guided by scientific knowledge and current best practices to Health Canada's Chief Dental Officer and to the six federal departments that directly provide dental care services to clients.^[268] The Secretariat for this committee is appointed by the Office of the Chief Dental Officer,^[269] and the Committee meets up to four times each year, although it may be required to meet for an additional meeting depending upon the needs of the federal departments.^[270]

The FDCAC advises the NIHB directorate on oral health policy, on best practices and evidence-based oral health, and on specific clinical issues, including new technologies and procedures, and complementary issues that will impact on the oral health of clients.^[271] Subsequent policies are developed by administrators within the National HQ in Ottawa. The use of an advisory committee composed of oral health professionals who provide impartial advice to NIHB administrators is one of the strongest elements of the administrative structure of NIHB. Policy-makers remain up-to-date on current best practices and scientific knowledge, and policies can change as technologies emerge, materials evolve, or clinical data changes.

²⁶⁶ *Ibid*, Pg. 7.

²⁶⁷ *Ibid*, Pg. 35.

²⁶⁸ Office of the Chief Dental Officer, 2011: Federal Dental Care Advisory Committee.

²⁶⁹ *Ibid* at Federal Dental Care Advisory Committee.

²⁷⁰ These departments include Citizenship and Immigration Canada (CIC), Correctional Service of Canada (CSC), Department of National Defence (DND), Health Canada (HC), Royal Canadian Mounted Police (RCMP), and Ceteran Affairs Canada (VAC). Together, these departments compose the Federal Healthcare Partnership (Federal Healthcare Partnership Secretariat, 2010: 3).

²⁷¹ Health Canada, 2010: 36.

However, the FDCAC's advice is non-binding; that is, eligible benefits, frequency limits, and operational procedures are still ultimately guided by NIHB officials. Given that NIHB officials are ultimately responsible for money spent in the program, it would be inadvisable from an accountability perspective to offer the advisory committee authority over policy decisions. Nevertheless, this structure highlights the fact that policies can be determined in some cases by cost, and not necessarily by evidence.

Another major concern about the FDCAC's recommendations is that they are supported by evidence of the general population, and not by those of marginalized communities or individuals with an already poor oral health status. One of the most poignant examples is the recent policy change enacted by NIHB officials which changed the time period before which an eligible beneficiary could replace their dental prosthetics from five years to eight years.^[272] To be sure, early studies found that many dentures experience failings after only five or six years,^[273] but studies in recent years have suggested that dentures today last much longer. A systematic review of prosthodontics failure rates found that roughly 95 per cent (95 ± 2.1 per cent) of prosthodontics last more than five years, and approximately 90 per cent (92.8 ± 1.9 per cent) last beyond ten years.^[274]

While this policy change was strongly supported by evidence, the studies were largely representative of the general population in question. Although segments of the population reflecting Indigenous oral health would likely have been included, these individuals would have been exceptions and not the rule. Indeed, many of the factors associated with prosthodontics failure – such as caries, periodontal disease, endodontic problems, and mechanical problems^[275] – are magnified among Indigenous populations.^[276]

²⁷² Lemchuk-Favel, 2010: 22.

²⁷³ Wetherell and Smales, 1980: 339.

²⁷⁴ Pjetursson et al., 2004: 630.

²⁷⁵ Selby, 1994: 151.

²⁷⁶ Health Canada, 2011.

Furthermore, notable differences exist between Indigenous groups. While policies may not be guided by evidence which is reflective of the marginalized status of Indigenous peoples in Canada generally, policies often do not reflect differences among Indigenous groups. For instance, the diets of the Inuit population in Nunavut differ greatly from that of most First Nations people in Canada. Inuit rely heavily upon caribou, walrus, muskox, and whale for much of their diets. The strong presence of meat in the diet places a high degree of strain upon dentures.^[277]

Furthermore, as Inuit in northern Canada shift from traditional diets primarily composed of meats to an increasingly Western diet heavily influenced by sugars, the durability of dentures declines as decay rate of prosthodontics increases. This decay rate is compounded by the fact that Inuit in Nunavut are consuming sugar in much higher quantities than the general population,^[278] and indeed more than many First Nations populations. Thus, policies developed by NIHB HQ in Ottawa may not reflect local realities as illustrated by the time period before which removable prosthodontics can be replaced.

Notably, the current denture policy for most private insurers requires five years before replacement can occur, and even Veterans Affairs Canada's beneficiaries are required to wait only seven years.^[279] This discrepancy may also support the previous concern about the FDCAC; that is, their recommendations are sometimes superseded by particular departmental and branch priorities – in the NIHB program's case, these priorities are primarily reducing expenditures.

Thus, while policies are largely guided by evidence, several concerns about the administrative organization remain. First, the advisory committee has no authority to ensure that policies based upon their recommendations are enacted. Indeed, as costs continue to rise, a growing tension between evidence-based policy and cost-control measures is likely to develop. Second, evidence is

²⁷⁷ Arkan, Al-Mendilawi, and Toufiq, 2006: 31.

²⁷⁸ Kuhnlein et al., 2008: 354.

²⁷⁹ Lemchuk-Favel, 2010: 22.

not necessarily reflective of best practices and scientific knowledge which is uniquely representative of Indigenous lifestyles. The FDCAC presents emerging trends and research to policy-makers in each of the six federal departments responsible for health services based upon the department's area of focus, and NIHB develops policies based upon these broadly-reflective studies.

Finally, and arguably most importantly, the administrative organization of NIHB favours policy-making at a national level in Ottawa. Although regional offices do relay concerns and issues from their regions, the final policies are applicable to all Indigenous groups in Canada. Thus, benefits, frequency limits, and operational procedures remain identical for all Indigenous beneficiaries in Canada, despite the fact that Inuit people have unique traditions, cultures, and lifestyles which require distinct approaches and solutions to adequately and productively address their challenges.^[280]

An administrative structure which facilitates more culturally-sensitive policies and can respond more effectively at a local level may correct some of these problems. The groups best able to fill these roles are either the Government of Nunavut (GN) – a de facto self-government in the territory, given that the majority of its residents are Inuit – or Nunavut Tunngavik Inc. (NTI) and its regional counterparts. As the GN currently maintains a role in administering the NIHBs and dental care in Nunavut, the next chapter considers how effectively it has fulfilled its mandate, and whether further devolution of the NIHBs to the GN should warrant consideration.

²⁸⁰ Simon, 2012.

Chapter 9

Territorial Government Responsibilities

Many of the current responsibilities for dental care held by the territorial government of Nunavut can be traced back to decisions made prior to the creation of Nunavut. Today, these responsibilities include administering medical travel for Inuit residents and establishing contracts for service providers for each of the three regions in Nunavut, as well as recruiting and remunerating dental therapists to provide annual services in various communities throughout the territory. The federal government provides funds through contribution agreements for the former two responsibilities, while the territorial transfer from the federal government each year is expected to cover the costs for dental therapists.

After a brief overview of the evolution of the territorial government's responsibilities during the past three decades, this chapter explores how decisions made by the territorial government (as well as the federal government) have affected the current dental care landscape in Nunavut and the provision of services to Nunavut's Inuit population. As I will argue, although the territorial government is better able to respond to regional concerns and local demands than the federal government, Nunavut's Inuit population nevertheless suffers from the current arrangement. I conclude that any future devolution negotiations as they pertain to the Non-Insured Health Benefits, and particularly the dental care component of the NIHB program, be exclusively conducted by one of Nunavut's Inuit organizations.

Historically, resident dental providers were contracted by federal authorities to deliver services to outlying communities in the Eastern Arctic,^[281] and were remunerated on a fee-for-service basis by the Medical Services Branch.^[282] The federal government also established the National School of Dental Therapy in Fort Smith, NWT in 1972 in an effort to offer a more permanent form

²⁸¹ Quiñonez, 2006: 109.

²⁸² *Ibid*, Pg. 109.

of dental care to many of the communities in the northern territories, many of which today lie within Nunavut's boundaries. The graduates of this program were also remunerated by the Medical Services Branch, but unlike dentists, they were compensated through an annual salary.^[283]

After the Inuit Tapirisat of Canada (ITC) resolved to support devolution talks for health care from the GNWT to the federal government in 1980, citing the likelihood for increased health outcomes and the possibility for local and regional control over key aspects of health care, the federal government initiated the first of three phases of transfer in 1981, transferring control of the Baffin Regional Hospital in Iqaluit to the GNWT.^[284] After evaluating this process, and the second phase – the transfer of the nursing stations in the Baffin region in 1984 – the full devolution of health care to the GNWT was completed in 1988.^[285]

This final phase in the devolution process also saw the transfer of three important components of dental care to the GNWT from the Medical Services Branch, then responsible for the NIHBs. The GNWT assumed responsibility for establishing contracts with service providers, and financing their travel expenses and equipment costs; recruiting and retaining dental therapists to the GNWT;^[286] and, medical transportation costs for patients, necessary for transporting patients to regional centers for many procedures.^[287]

However, the major components of the Non-Insured Health Benefits program remained under the control of the federal government. Notably, as it pertains to this thesis, remuneration for dental care provided by dentists and denturists remained a federal responsibility.^[288] Both the federal government and the territorial government were reluctant to agree to transfer this element. The rapid expansion of costs throughout the 1980s produced hesitancy on the part of the territorial

²⁸³ Nash et al., 2008: 65.

²⁸⁴ Weller, 1990: 133-34.

²⁸⁵ *Ibid*, Pg. 134.

²⁸⁶ *Ibid*, Pg. 145.

²⁸⁷ Quiñonez, 2006: 105.

²⁸⁸ Steck, 1989: 200.

government to accept such a volatile set of expenses.^[289] The federal government was equally reluctant to pass control to the territorial government due to fears that local authorities were more sympathetic to the realities of those receiving care, and transferring control for the program would result in increased expenses necessary to continue financing the program.^[290]

The Nunavut Land Claims Agreement (NLCA) signed in 1993 and subsequent federal legislation related to Nunavut did not assign any new responsibilities for the NIHB program to the Nunavut government, but the GN retained responsibility for the same services that the GNWT had prior to Nunavut's creation. These responsibilities included negotiating contracts for dental care providers to deliver care in each region of Nunavut, and identifying the need for, and paying the salaries of, dental therapists in Nunavut's communities. These responsibilities are financed through contribution agreements with Health Canada and the annual territorial transfer payment, respectively.^[291]

Contribution agreements were established between Health Canada and the Government of Nunavut in 1999 as a way to allow the territorial government to provide some of the services which would typically be provided through a regional NIHB office.^[292] With respect to dental care, the Non-Insured Health Benefits directorate allocates money each year to the DHSS which is used to both finance professionals' travel and accommodations, as well as pay for patients' transport, accommodations, and living expenses incurred while travelling for medical reasons.^[293]

The amount earmarked for dental care providers is intended to cover the costs incurred by the contractor necessary to fulfill the terms of the contract. These costs are primarily travel expenses for providers, accommodation for their sub-contracted dental teams, and freight expenditures.^[294]

²⁸⁹ Quiñonez and Lavoie, 2009: 45.

²⁹⁰ *Ibid.*, Pg. 44.

²⁹¹ Quiñonez, 2004: 87.

²⁹² Hedley, 2013: Personal Interview.

²⁹³ First Nations and Inuit Health Branch, 2012: 58.

²⁹⁴ Hedley, 2013: Personal Interview.

The amount allocated through contribution agreements for dental care contractors increased by 40 per cent between fiscal years 2003/04 and 2004/05, but has not increased substantially since that time. Indeed, as shown in *Table 18*, the amount was frozen during the past two years at \$2.22 million, a drop from the \$2.38 million allocated in 2004/05.

Contracts are negotiated between prospective bidders and the territorial government. The contribution agreement funds are intended to cover the costs that the contract holder is expected to incur while fulfilling the terms and conditions of the contract. According to a former Regional Dental Officer in Nunavut – and current contract holder for two regions in Nunavut – the Nunavut government is primarily motivated by maximizing the number of service days to communities for the lowest cost.^[295] The cost is largely travel expenses and accommodation for the sub-contracted providers, and freight expenditures.^[296]

However, contractors in each of the three regions also receive significant compensation from the services provided by their sub-contracted dental team. Contractors collect approximately 60 per cent of fees received by dental teams for services provided in each community, much like dental professionals in private practices who use these resources to cover administrative and capital costs.^[297] In the context of Nunavut, however, these costs are often absent: many communities offer spaces to dental teams for free, while some dental teams are offered access to community-owned dental equipment.^[298] In this sense, the current arrangement benefits contractors significantly, may hinder the recruitment of qualified providers, and is remarkably inefficient in terms of NIHB expenditures.

Prior to Nunavut's creation, the GNWT was responsible for administering the NIHB contracts with dental providers, having assumed responsibility in 1988 when health services were

²⁹⁵ Uswak, 2013: Personal Interview.

²⁹⁶ Hedley, 2013: Personal Interview.

²⁹⁷ Current Federal Government Official, 2013: Personal Interview.

²⁹⁸ Marchildon and Torgerson, 2013: 70.

transferred.^[299] Upon Nunavut's creation in 1999, Health Canada increased the contribution agreement funding to allow for a greater number of total service days for Nunavut's communities. Since Nunavut's division from the NWT, service days for the Baffin region have increased from 325 to 702, while the Kivalliq and Kitikmeot regions grew from 450 to 671, and 206 to 320, respectively. The allocation of days for each community in 1997 and 2013 are summarized in *Table 19*.

However, there is no discernible formula for determining the number of service days which are provided to particular communities. Today, service days range from a low of 30 per year in Grise Fiord to a high of 200 in Rankin Inlet. Although Grise Fjord has the smallest population among Nunavut's communities, it nevertheless receives substantially more days as a proportion of its Inuit population. Indeed, Nunavut's three smallest communities – Grise Fiord, Resolute Bay, and Chesterfield Inlet – are significant outliers in this category. Each year, they receive the equivalent to 253, 230, and 181 dental service days per 1,000 Inuit residents, respectively. On the other hand, Kimmirut, which is the fifth smallest community, receives only 29 service days per 1,000 Inuit residents. The disparities between all communities are shown in *Table 20*, as is the allocation of new service days as a proportion of each community's Inuit population between 1997 and 2003.

The absence of a discernible formula becomes more pronounced when service days are compared relative to the Indigenous population of each community. As illustrated in *Figure 11*, there is a positive correlation between Indigenous population and the total number of service days allocated to the community, but the correlation is far from uniform. Population size accounts for only half of the allocated service days to a particular community. This trend is particularly disconcerting given that the World Health Organization uses a similar metric – the ratio of dentists to population – as a standard measure of access to oral health care in industrialized countries.^[300] The WHO metric equates one dentist for every 2,000 people in most industrialized countries; as shown

²⁹⁹ First Nations and Inuit Health Branch, 2005.

³⁰⁰ Petersen, 2003: 28.

in *Table 21*, only four of Nunavut's communities achieve such a standard. Indeed, almost two-thirds of Nunavut's communities receive the equivalent of less than 0.5 dentists per 2,000 people.

It is also noteworthy that the correlation between population size of a community and the number of service days it receives has decreased since 1997, two years prior to Nunavut's creation. As summarized in *Table 22*, the R^2 value between the two variables was 0.64 in 1997, notably higher than the current coefficient observed (0.55), suggesting even less significance is placed on population size today than it was sixteen years ago. More importantly, however, the distribution of total service days to communities has not been uniform, and has certainly not followed any discernible formula with respect to population growth.

Although service days to Nunavut's communities were increased in 1999 when the territory was initially created, there has been no apparent connection between population growth and the number of service days provided to communities. As illustrated in *Figure 10*, between 1997 and 2013, every community experienced an increase to their number of service days with the exception of Grise Fiord. However, population growth had a minimal influence on service day increases. The R^2 value between service day increases and population growth between 1997 and 2013 is less than 0.05, suggesting that less than five per cent of service day increases were distributed on the basis of population growth changes. More significantly, there is zero correlation between a community's population growth as a proportion of total population growth in the territory, and the community's service day increase as a proportion of total service day increases in the territory.

The absence of a clearly defined formula for determining service days for each of Nunavut's communities creates clear access-to-care barriers and augments already unacceptably high levels of oral health inequality for Nunavut's Inuit population. Funding through contribution agreements remains inadequate to contract a sufficient number of service providers to reach the standard metric among industrialized countries for a dentist to population ratio. In addition, differences between the

	Annual Operating Costs (\$ thousands)			
Year	Fee-For-Service	Annual Growth Rate	Contribution	Annual Growth Rate
2003/04	\$5,237	---	\$1,695	---
2004/05	\$6,189	18.2%	\$2,376	40.2%
2005/06	\$5,857	-5.4%	\$2,280	-4.0%
2006/07	\$6,347	8.4%	\$2,392	4.9%
2007/08	\$6,712	5.8%	\$2,290	-4.3%
2008/09	\$5,702**	-15.0%**	\$2,235	-2.4%
2009/10	\$8,066	41.5%	\$2,223	-0.5%
2010/11	\$10,083	25.0%	\$2,223	0.0%
2003-11	---	9.8%	---	3.9%

Table 18. Annual NIHB dental care expenditures and corresponding year-to-year growth rates by type in Nunavut.
Source: First Nations and Inuit Health Branch, 2012: 45; First Nations and Inuit Health Branch, 2011: 49; First Nations and Inuit Health Branch, 2010: 49; First Nations and Inuit Health Branch, 2009: 51; First Nations and Inuit Health Branch, 2008: 49; First Nations and Inuit Health Branch, 2007: 47; First Nations and Inuit Health Branch, 2006: 83; First Nations and Inuit Health Branch, 2005: 83.

**Operating costs for fiscal year 2008/09 differ from other years as Nunavut employed contract dentists to provide services, totalling \$412,000 for the fiscal year.

Communities by Region	Total Population		Yearly Visits		Total Dental Service Days	
	1997	2013	1997	2013	1997	2013
<i>Baffin</i>	5,874	16,112	33	61	325	702
Arctic Bay/Nanisivik	916	823	3		40	68
Qikiqtarjuak	538	520	3		30	53
Cape Dorset	1,188	1,363	4		48	80
Clyde River	706	934	4		40	53
Grise Fiord	125	130	3		31	30
Hall Beach	580	546	6		30	65
Igloolik**	---	1,454	---		---	82
Iqaluit*	---	6,699	---		---	40
Kimmirut	404	455	3		27	40
Pangnirtung**	---	1,425	---		---	77
Pond Inlet	1,163	1,549	4		48	82
Resolute Bay	254	214	3		31	32
<i>Kivalliq</i>	7,250	9,727	47	44	450	671
Arviat	1,517	2,318	8	7	75	100
Baker Lake	1,410	1,872	8	7	65	100
Chesterfield Inlet	358	313	6	4	25	53
Coral Harbour	578	834	6	5	40	70
Rankin Inlet	2,006	2,226	6	7	150	200
Repulse Bay	547	945	5	5	35	50
Sanikiluaq	542	812	4	5	40	50
Whale Cove	292	407	4	4	20	48
<i>Kitikmeot</i>	5,428	6,007	24	31	206	320
Bay Chimo/Bathurst Inlet	84	0	1	0	4	0
Cambridge Bay	1,461	1,608	4	7	40	70
Kugluktuk	1,164	1,450	4	7	48	70
Gjoa Haven	995	1,279	4	7	40	70
Holman Island (NWT)	437	---	3	0	21	0
Pelly Bay (Kugaaruk)	471	771	3	5	21	55
Taloyoak	673	899	4	5	32	55

Table 19. Comparison of community population totals, annual visits by contracted dental providers, and total service days available to residents between 1997 and 2013. *Source: Uswak, 2013(b).*

*Iqaluit service days in 2013 are for pediatric dentistry services in operating rooms, and not community-based general practitioner dental services. Iqaluit has four resident clinicians in two private practice clinics, and are accordingly excluded from the contracted service model.

**Igloolik and Pangnirtung were serviced by salaried dentists in 1997 and were not included in the dental service day model at that time.

Community	Days/1000 Indigenous population		
	1997	2013	Percentage Change
Arctic Bay/Nanisivik	60.1	113.6	89.2%
Arviat	53.0	46.2	-12.7%
Baker Lake	52.4	60.7	15.9%
Bay Chimo/Bathurst Inlet	47.6	---	---
Broughton Island	58.8	107.5	82.8%
Cambridge Bay	36.9	58.7	59.0%
Cape Dorset	43.0	62.5	45.3%
Chesterfield Inlet	74.6	181.0	142.5%
Clyde River	61.5	61.6	0.2%
Coral Harbour	72.7	88.2	21.3%
Gjoa Haven	41.9	57.0	36.1%
Grise Fiord	271.9	253.0	-6.9%
Hall Beach	55.4	127.4	130.2%
Holman Island	50.7	---	---
Igloolik	---	61.2	---
Iqaluit	---	13.3	---
Kimmirut	75.0	29.0	-61.3%
Kugluktuk	44.5	52.1	17.1%
Pangnirtung	---	58.8	---
Pelly Bay	46.2	73.8	60.0%
Pond Inlet	44.0	56.5	28.3%
Rankin Inlet	94.1	113.1	20.2%
Repulse Bay	64.1	53.0	-17.3%
Resolute Bay	187.9	230.2	22.5%
Sanikiluaq	78.3	65.3	-16.6%
Taloyoak	50.7	65.3	28.7%
Whale Cove	73.3	126.1	72.2%

Table 20. Comparison of service days per 1,000 Indigenous residents in each community between 1997 and 2013. The proportional change of service days per 1,000 Indigenous residents is also shown. *Source: Uswak, 2013(b).*

Community	Service Days per 1,000 Indigenous Residents	Dentists per 2,000 Residents
Arctic Bay/Nanisivik	113.6	0.62
Arviat	46.2	0.25
Baker Lake	60.7	0.33
Bay Chimo/Bathurst Inlet	---	---
Broughton Island	107.5	0.59
Cambridge Bay	58.7	0.32
Cape Dorset	62.5	0.34
Chesterfield Inlet	181.0	0.99
Clyde River	61.6	0.34
Coral Harbour	88.2	0.48
Gjoa Haven	57.0	0.31
Grise Fiord	253.0	1.39
Hall Beach	127.4	0.70
Holman Island	---	---
Igloolik	61.2	0.34
Iqaluit	13.3	0.07
Kimmirut	29.0	0.16
Kugluktuk	52.1	0.29
Pangnirtung	58.8	0.32
Pelly Bay	73.8	0.40
Pond Inlet	56.5	0.31
Rankin Inlet	113.1	0.62
Repulse Bay	53.0	0.29
Resolute Bay	230.2	1.26
Sanikiluaq	65.3	0.36
Taloyoak	65.3	0.36
Whale Cove	126.1	0.69

Table 21. Service days per 1,000 Indigenous residents, and number of dentists per 2,000 residents necessary to compare against the standard metric offered by the World Health Organization for industrialized countries. *Source: Uswak, 2013(b).*

Predictor Variable	Response Variable	Year	Correlation Coefficient	Comparative Difference
Indigenous Population	Service Days	1997	0.65	7.6%
Total Population			0.70	
Indigenous Population	Service Days	2013	0.55	15.9%
Total Population			0.63	
Total Population Growth	Service Days	1997-2013	0.05	---
Community Population Growth as a Proportion of Total Population Growth	Distribution of Service Day Increases Across Communities	1997-2013	0.00	---

Table 22. Correlation coefficients between a community's population size and the number of service days available. The coefficients are calculated for both the Indigenous populations and the total populations of each community in 1997 and 2013. Correlation coefficients are also provided for population growth and service day distributions across communities. *Source: Uswak, 2013(b).*

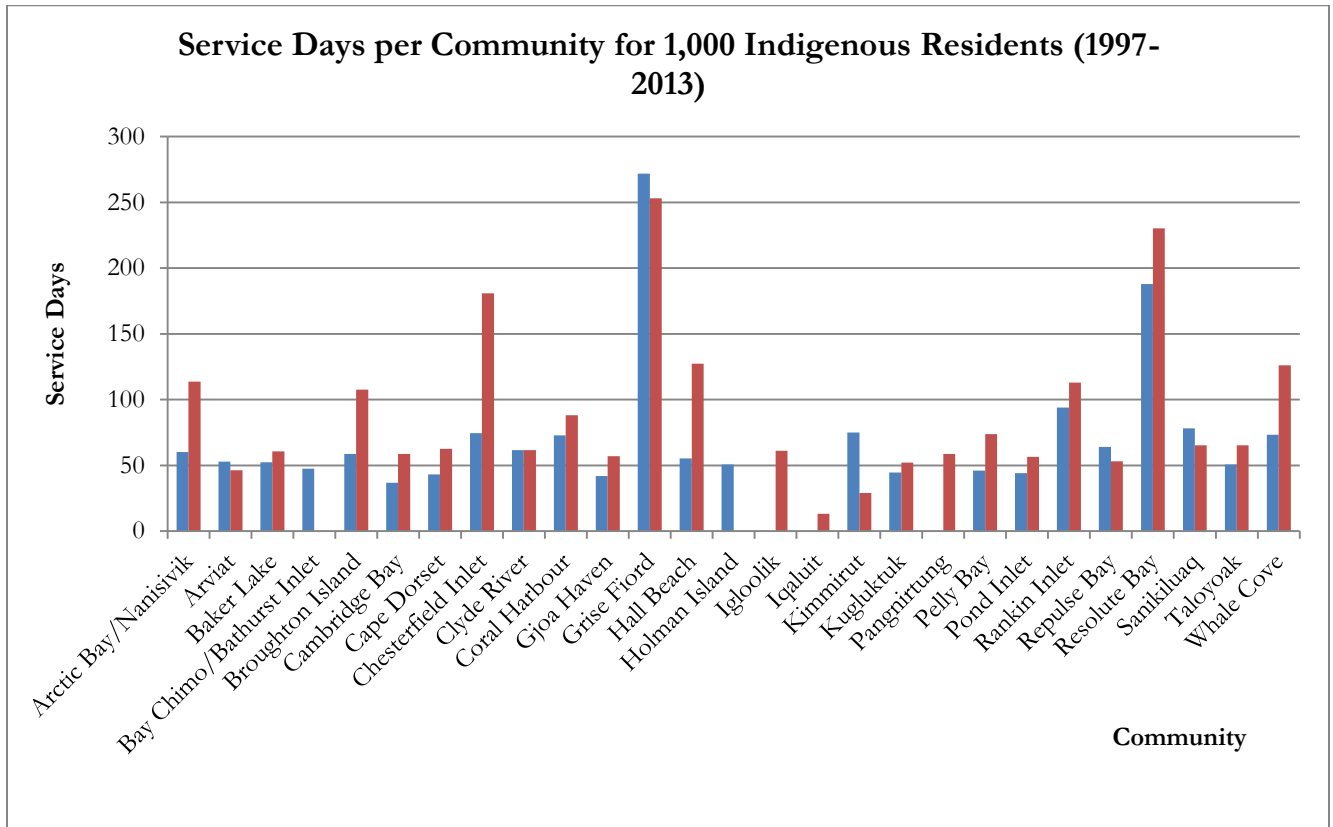


Figure 10. Comparison of Service Days per 1,000 Indigenous residents in Nunavut’s communities between 1997 (Blue) and 2013 (Red). *Source: Uswak, 2013(b).*

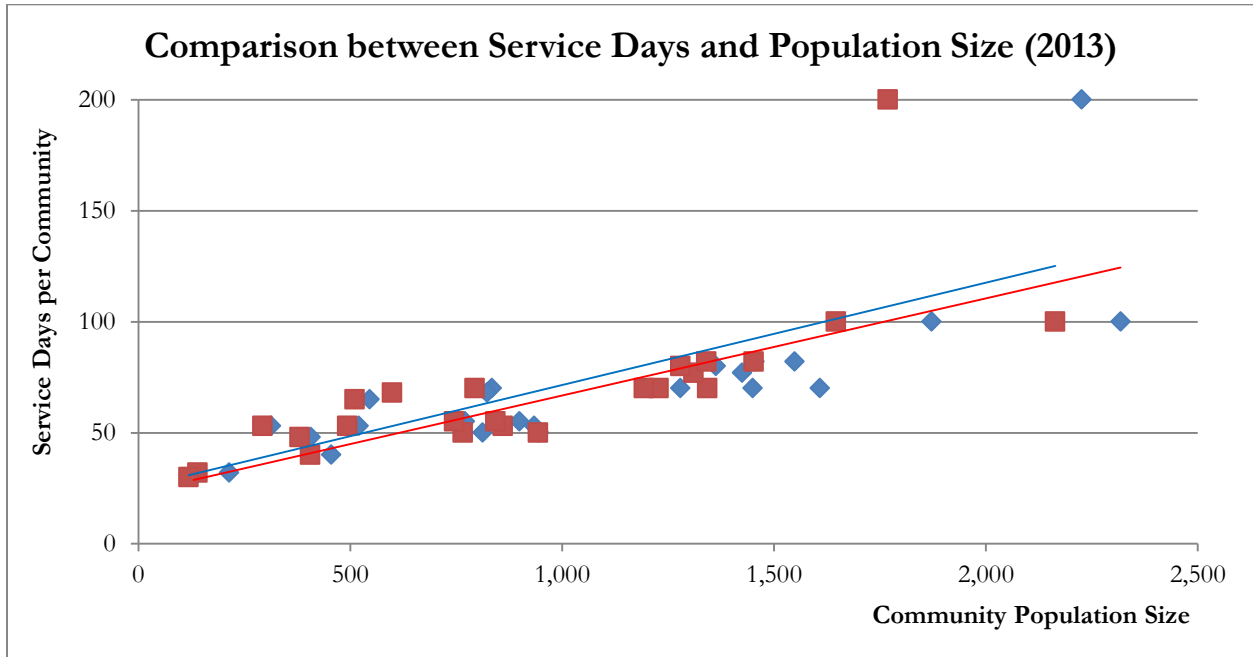


Figure 11. Service days plotted against the population size for each given community in Nunavut in 2013. Total population for each community is displayed in red, while the Indigenous population for each community is shown in blue. *Source: Uswak, 2013(b).*

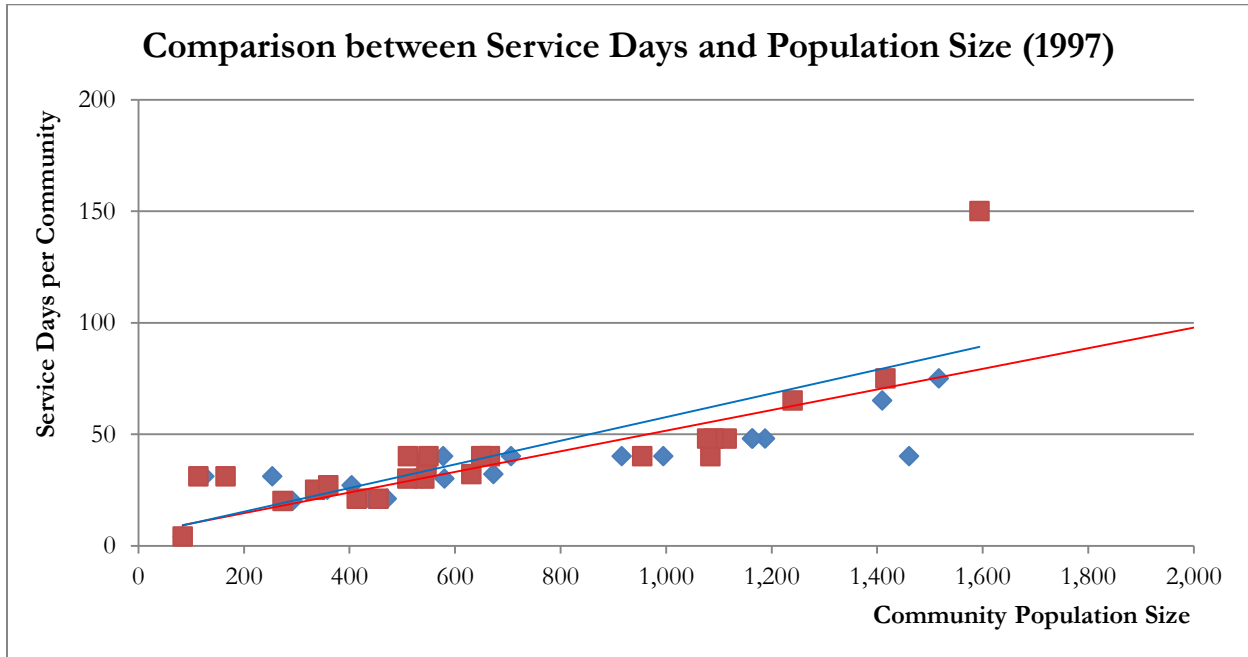


Figure 12. Service days plotted against the population size for each given community in Nunavut in 1997. Total population for each community is displayed in red, while the Indigenous population for each community is shown in blue. *Source: Uswak, 2013(b).*

numbers of days allotted to communities allow some of Nunavut's Inuit population far better access to dental care than Inuit in other communities.

The contribution agreement between Health Canada and Nunavut's Department of Health and Social Services is allocated, in principle, for establishing contracts to ensure that dental care is available to the Inuit population. However, the Government of Nunavut is a *public* government responsible to Nunavut's Inuit and non-Inuit populations alike. Given that the GN establishes only one contract to each of Nunavut's three regions, the contractor is ultimately responsible for providing care to both Inuit and non-Inuit residents in each community they agree to service.

As a result, I argue that the GN ultimately uses resources allocated by Health Canada, not for *Inuit* dental care services as is intended, but for all of Nunavut's residents – both Inuit and non-Inuit. Indeed, it becomes apparent when service days are reassessed in terms of the total populations for each community. Specifically, the correlation coefficient between service days for each community and the community's population increases by 16 per cent when the total population replaces the Inuit population as the independent variable. A similar trend existed in 1997, albeit to a less pronounced degree, prior to Nunavut's creation and the increased allotment for service days available to communities. Given that the GN is a public government, this behaviour is to be expected. However, money allocated by Health Canada is intended for eligible NIHB beneficiaries, and not the general population. The patterns are highlighted in *Figures 11* and *12*, respectively, and underscore that the Government of Nunavut's decisions can be distorted by the composition of its population.

Given that the sparsely-populated nature of Nunavut's communities precludes dentists from practicing full-time in most communities, Nunavut also employs salaried dental therapists on a permanent basis in many of Nunavut's communities, using a model first introduced by the New

Zealand government in the 1960s. The history of the dental therapy program in northern Canada is particularly important to understanding the significance of the NIHB program today.

The federal government established the National School of Dental Therapy (NSDT) in Fort Smith, Northwest Territories in 1972, sponsored by the University of Toronto's Faculty of Dental Dentistry.^[301] The NSDT was specifically introduced to increase access to clinical care in Yukon and the Northwest Territories. It was funded entirely by the federal government; twenty students were accepted each year, and importantly, they did not pay tuition fees.^[302] These students were predominantly from Inuit or First Nations communities in the northern territories, which greatly increased the likelihood that graduates would settle in their home communities or regions. Moreover, the school's position in the Northwest Territories ensured that the curriculum had a strong focus on remote care and northern oral health concerns.^[303] As no provinces or territories permitted therapists to practice privately,^[304] Health Canada was the sole employer of NSDT graduates, and accordingly, had significant leverage in directing therapists to underserved communities.^[305]

Dental therapists were trained to provide preventive, emergency, and restorative care to children, but also provided emergency care to adults. Productivity and quality concerns were raised by regional and national dental organizations,^[306] although these concerns were quickly extinguished by the results of several evaluations in subsequent years.^[307] Indeed, NSDT graduates were found to be competent, often delivering better quality care in a more cost-effective manner than dentists, resulting in significant improvements to the oral health of Inuit in the Eastern Arctic.^[308]

³⁰¹ Nash et al., 2008: 65.

³⁰² Uswak and Keller-Kurysh, 2012: 1098.

³⁰³ Uswak, 2007: 27.

³⁰⁴ Quiñonez and Locker, 2008: 54.

³⁰⁵ Uswak and Keller-Kurysh, 2012: 1094.

³⁰⁶ Quiñonez and Locker, 2008: 54.

³⁰⁷ Rees and Jutai, 1979; Ambrose, Hord, and Simpson, 1976; Lewis, 1980.

³⁰⁸ Trueblood, 1992; Crawford and Holmes, 1989; Rees and Jutai, 1979.

The National School of Dental Therapy continued to produce graduates who predominantly delivered services in remote northern communities. In 1984, however, the School was moved to Prince Albert, Saskatchewan due to an inadequate patient population on whom to practice clinical work.^[309] Shortly thereafter, in 1995, the federal government authorized the transfer of sponsorship for NSDT from the University of Toronto's Faculty of Dentistry to the First Nations University of Canada.^[310]

Over time, the NSDT moved from a secular dental therapist program with a northern focus to an institution that reflected the priorities and culture of Saskatchewan's First Nations.^[311] This shift is demonstrated through changes to NSDT's curriculum during the past twenty years, and the training offered to their students has produced graduates who are increasingly less prepared for remote practice. Moreover, the recruitment of students for the NSDT was increasingly from Saskatchewan's First Nations' communities. Indeed, no Inuit have graduated from the School since sponsorship of the School was transferred to FNUC in 1995, and no Inuit currently practice dental therapy in Nunavut.^[312] Importantly, these developments would not have occurred if the federal government had not moved the NSDT from the Northwest Territories.^[313]

Significantly, as it pertains directly to this thesis, the Medical Services Branch of the federal government had devolved funding and responsibility for employing dental therapists to the Government of Northwest Territories (GNWT) in 1988,^[314] which the Government of Nunavut

³⁰⁹ Nash, 2005: 49.

³¹⁰ Quiñonez and Locker, 2008: 55.

³¹¹ Uswak and Keller-Kurysh, 2012: 1098.

³¹² Uswak, 2007: 27.

³¹³ Uswak and Keller-Kurysh, 2012: 1098.

³¹⁴ Under considerable pressure from the Inuit Tapirisat of Canada (ITC), the federal government actively pursued devolution of programs to the territorial governments as a policy in the 1980s. However, the NIHB program was not transferred. The federal government was hesitant to pass control of a program to governments which had significant Aboriginal presence given the recent cost increases that had occurred during the past decade. At the same time, the territorial government was reluctant to accept control for a program which had such significant cost overruns without guaranteed compensation from the federal authorities (Quiñonez and Lavoie, 2009: 45).

(GN) maintained upon its creation in 1999.^[315] This funding was part of the original \$58 million transfer to the GNWT, and is today part of the Government of Nunavut's annual transfer payment from the federal government. Thus, the federal government does not earmark funds for dental therapists.^[316]

In 2001, just two years after Nunavut was created, the Saskatchewan government authorized dental therapists to practice in private clinics.^[317] This decision by the Saskatchewan government has made it extremely difficult for Nunavut's communities to recruit and retain dental therapists for two reasons. First, Nunavut faces exceedingly high levels of domestic abuse,^[318] sexual assaults,^[319] substance abuse,^[320] suicide,^[321] and crime.^[322] Its health care costs are almost twice as high as the Canadian average.^[323] In short, Nunavut has serious economic and social challenges which are generally regarded as higher priorities for the government to address than recruiting and retaining dental therapists. In particular, since funds from the federal government are not earmarked for dental therapists, this money can be diverted to other programs which may be higher priorities for today's territorial government.

Furthermore, it is far more lucrative for today's existing dental therapists to practice in Saskatchewan in private clinics than to practice publicly and receive compensation from an already cash-strapped territorial government. Specifically, dental therapists earn almost 75 per cent more in private practices in Saskatchewan than through salaries offered by the territorial government when adjusted for cost-of-living factors.^[324] The GN's reluctance to allocate additional resources necessary

³¹⁵ Quiñonez, 2006: 105.

³¹⁶ Quiñonez, 2004: 87.

³¹⁷ Nash, 2005: 50.

³¹⁸ George, 2011.

³¹⁹ McGill, 2010.

³²⁰ George, 2012.

³²¹ Hicks, 2012: 17.

³²² White, 2011.

³²³ Young and Marchildon, 2012: 22.

³²⁴ Uswak and Keller-Kurysh, 2012: 1096-97.

to offer more generous remuneration packages to NSDT graduates, coupled with the federal government's unwillingness to adjust its transfer to account for the new environment, places Nunavut at a severe disadvantage in its ability to recruit competent and qualified therapists.

As a result, Nunavut has the most chronic dental therapist vacancy rates in northern Canada. Out of its 17 positions,^[325] thirteen positions remained vacant in 2008, an increase from eleven just one year earlier. More significantly, six communities were unable to fill vacancies for more than five years, and two communities' positions have been vacant for four years.^[326] These trends are alarming given that the current oral health system in Nunavut is predicated on the dental therapist as the primary care-giver for children's oral health care and emergency treatment for adults.^[327]

In response to their investment in the front-end of dental therapists' education not being returned through service to the underserved, the federal government announced in March 2011 that the National School of Dental Therapy would close.^[328] Given the ability for graduates to practice in more profitable private clinics, this outcome is a perfect example of the Inverse Care Law, which suggests that once the free-market environment was superimposed onto the practice of dental therapy, it streamed providers away from the places they were needed most.^[329] Neither Health Canada nor the NSDT paid attention to the fact that graduates were selecting private practice in Saskatchewan over public health options – particularly in the remote, rural communities of northern Canada.^[330]

³²⁵ Some communities are considered too small to justify a year-round dental therapist in the community. Instead, dental therapists from other communities will travel itinerantly. The seventeen communities in Nunavut which are intended to have a dental therapist are: Arviat, Baker Lake, Coral Harbour, Rankin Inlet, Repulse Bay, Arctic Bay, Cape Dorset, Clyde River, Igloolik, Iqaluit, Pangnirtung, Pond Inlet, Cambridge Bay, Gjoa Haven, Kugluktuk, and Taloyoak. As of 2008, only Arviat, Baker Lake, Rankin Inlet, Arctic Bay, and Iqaluit successfully filled their dental therapist positions. For a more comprehensive analysis, see Uswak, 2007: 28.

³²⁶ Uswak and Keller-Kurysh, 2012: 1095.

³²⁷ Uswak, 2007: 27.

³²⁸ Simon, 2011.

³²⁹ Hart, 1971: 405.

³³⁰ Uswak and Keller-Kurysh, 2012: 1098.

This chapter offers several useful conclusions for the future of the NIHB program, as well as dental care more generally, in Nunavut. First, the decision to move the National School of Dental Therapy from Fort Smith, NWT to Prince Albert, Saskatchewan, and to further transfer sponsorship for the program from the University of Toronto to the First Nations University of Canada was a clear failure of public policy. The decision offers further evidence that the federal government's policies for dental care systemically do not distinguish between the unique cultural and environmental differences between First Nations and Inuit.

Second, the Government of Nunavut is a public government that is responsible for both Inuit and non-Inuit residents alike. Its decisions can therefore be distorted by the composition of its population. Any further transfer of authority for the NIHB program from federal authorities to territorial government officials must consider this fact, particularly if warming effects from climate change, and employment opportunities arising from resource extraction projects, produce an influx of non-Inuit residents and reduce the proportion of Inuit in the territory.^[331]

Finally, the inability for the territorial government to successfully recruit and retain dental therapists in the region underscores its vulnerabilities. Specifically, the GN is financially dependent upon the federal government, and it faces notable staff shortages which limit its ability to create innovative or expansive programs for its residents.^[332] In contrast, Nunavut Tunngavik Inc. (NTI) is expressly responsible for managing and investing capital held in the Nunavut Trust on behalf of Inuit beneficiaries,^[333] as well as Inuit's share of royalties transferred by the federal government for resources extracted from Crown lands.^[334]

In addition to its fiduciary responsibilities, NTI is also responsible for negotiating Inuit Impact and Benefit Agreements (IIBAs) - legal contracts between developers and landowners to

³³¹ Légaré, 1996: 290.

³³² White, 2009: 74.

³³³ *Ibid*, Pg. 60.

³³⁴ NLCA, 1993: Article 25.1.1

provide compensation for the use of their lands^[335] – for any major development projects.^[336] As I will discuss in the next chapter, its legal obligation to Nunavut’s Inuit population, as well as its current financial resources, may offer possible solutions to many of the current problems exhibited by the NIHB program.

³³⁵ Mifflin, 2009: 93

³³⁶ NLCA, 1993: Article 26.2-4

Chapter 10

Conclusions and Recommendations

Dental care in Canada is one of the most privatized aspects of the Canadian health care system. Indeed, less than five per cent of total expenditures are financed by provincial or federal governments, the lowest among all OECD countries.^[337] In general, these public expenditures follow a policy model known as “Denticaid,” targeting subsidies towards the poor and other vulnerable groups, while refraining from offering public programs to the remainder of the population on the presumption that they are economically capable of financing their own dental health.^[338] These subsidies generally materialize through programs for children, seniors, veterans, and people who remain economically-vulnerable.^[339]

State-recognized Indigenous people – First Nations and Inuit – are also eligible for relatively comprehensive benefits through the Non-Insured Health Benefits (NIHB) program. The rationale for the program is highly contentious, with Indigenous organizations suggesting that it is a fiduciary responsibility of the federal government arising from treaty rights and historical practice, while the federal government maintains that the program is delivered as a matter of policy. The NIHB Program operates out of the First Nations and Inuit Health Branch of Health Canada, and is responsible for roughly half of the Health Canada’s expenditures each year.^[340]

Although dental care services for Indigenous peoples are publicly financed to a significant extent – certainly far more than for the non-Indigenous Canadian population – the overall oral health of Canada’s Indigenous population continues to lag behind the general Canadian population. The purpose of this research was to explore how the NIHB program is administered in the context

³³⁷ Quiñonez, 2009: 1.

³³⁸ Yalnizyan and Aslanyan: 2011: 7

³³⁹ Canadian Dental Association Board of Governors, 2010: 3, 6-7.

³⁴⁰ Assembly of First Nations, 2005: 1.

of the territory of Nunavut, and how its administrative organization, hierarchy, decision-making, and priorities affect the oral health of the territory's Inuit population, both positively and negatively.

There were three primary factors to consider during this research. The first factor was which order of government currently maintains – but more importantly, which order of government should maintain – responsibility and decision-making authority for a particular aspect of the NIHB program. The second factor was whether or not consideration for differences between and among First Nations and Inuit beneficiaries is considered by decision-making authorities. The third factor to consider during this research was how a particular aspect of the NIHB program contributes to public health objectives – that is, how it contributes to prevention and management of oral health disease. In turn, there were three key features of the NIHB program that were considered with relation to each of these factors: the financial sustainability of the program, the remuneration system along with its supplemental processes, and the administrative structure and responsibilities of the program.

The remuneration model currently employed by the NIHB program is a fee-for-service system. By and large, it is considered by NIHB administrators to be the most effective remuneration scheme available. However, it is a model which rewards treatment over prevention, as dentists have no financial incentive to prevent oral health diseases, or to provide educational information to clients. While providing clear financial incentives for dental practitioners to treat numerous patients, it nevertheless motivates practitioners to over-treat patients beyond what is necessary and leads to ballooning of costs for the third party financier.

As a result, the NIHB program requires predetermination for several procedures, a necessary feature used to ensure that inappropriate billings and unnecessary treatment for patients do not occur, but a feature that nevertheless creates problems for providers and patients alike.

Predetermination in the NIHB program is not required for preventive or diagnostic services. This

model mirrors requirements from private insurers, and is generally favourable in terms of oral health, as no administrative barriers exist for the delivery of preventive services. Predetermination for endodontic and restorative services varies by the procedure, but has resulted in some undesired outcomes.

Roughly ten per cent of treatment plans require predetermination. For the remaining ninety per cent of services offered to eligible beneficiaries, claims are submitted to a contracted third party – Express Scripts Canada (ESI) since 2009 – who are then responsible for payment and flagging of any irregular bills. The processing of claims generally takes longer than most private insurers, and the auditing process is considered invasive and time-consuming by dentists. Furthermore, the contract which NIHB requires dentists to sign contains a termination clause that allows ESI Canada, in consultation with Health Canada, to unilaterally terminate a dentist from the plan. These administrative conditions may compound the already challenging environment for attracting and retaining dentists in Nunavut.

Predetermination is carried out by NIHB Headquarters, which in turn creates challenges in the case of Nunavut. The Regional Office responsible for Nunavut's population is also responsible for Indigenous clients in the two western territories. The diversity of these populations presents clear obstacles for the Northern Regional Office to effectively carry out its duties. Furthermore, unlike most NIHB regional offices, the regional office responsible for Nunavut's Inuit population is located in Ottawa, outside of the region for which it is responsible.

The physical absence of the regional office in the northern region creates extended turnaround delays in receiving approval for procedures, while time zones in town of Nunavut's regions do not align with Ottawa, contributing to communication barriers in some circumstances. The centralized nature of policy-making results in uniform policies which do not adequately recognize the diversity of Indigenous peoples across Canada. The unique geographic, cultural,

demographic, and historical elements in Nunavut, particularly, result in policies which may not reflect the environment faced by Inuit.

While NIHB dental benefits are financed by the federal government, NIHB dental care is administered by the territorial government. However, a plethora of social and economic issues generally take precedence over oral health in Nunavut, particularly in the context of the financial constraints facing the territorial government. The territory suffers from recruitment and retention troubles related to dental therapists, the responsibility for which was inherited from the GNWT who received control from the Medical Services Branch of Health Canada in 1988. Furthermore, the territory is responsible for establishing contracts for dental service days for each region of the territory, yet the allocation of service days is not guided by any discernible formula, creating accessibility problems for, and inequality between, Inuit beneficiaries.

In addition, the GN, as a public government, is responsible for providing service days to Inuit and non-Inuit alike, yet the funding provided by Health Canada through contribution agreements each year is intended to recruit service providers for Inuit patients only. The distribution of service days offered to various communities suggests that community population sizes, and not Inuit population sizes in communities, dictates how service days are allocated. This pattern does not align with the objectives of the Non-Insured Health Benefits program. More importantly, it suggests that decisions made by the Government of Nunavut can be distorted by the composition of its population.

This fact is worth considering as the federal government has recently shown interest in transferring authority over the Non-Insured Health Benefits program to a more local level. In 2005, as part of the Nunatsiavut Land Claims Agreement, the NIHB program was transferred to the Nunatsiavut government in its entirety. The program was gradually transferred over the course of three years, with the devolution over dental care and pharmacy completing the transfer in 2008. The

federal government transfers a fixed contribution agreement annually, subject to adjustments for inflation and population pressures.^[341] The exclusion of capital costs resulted in a renegotiation of the transfer agreement. Nevertheless, according to a senior Nunatsiavut government official, the transfer has been considered a positive development for both parties.^[342]

Similarly, in 2012, Health Canada successfully negotiated the transfer of all health services, including NIHB benefits, to the BC First Nations Health Authority, who assumed administrative authority for all NIHB services on July 2, 2013.^[343] The block grants are similarly calculated to the Nunatsiavut government's transfer payment, although adjustments have been made for the fixed capital costs necessary to introduce systems required for claims processing and administration. The FNHA is responsible for 127,000 First Nations beneficiaries,^[344] and considerable variation within its population. The FNHA has expressed interest in reforming the service delivery model for NIHB dental care.^[345]

Reforms are evidently necessary and undoubtedly impending in future years. The growth in expenditures nation-wide throughout the past decade is evidence that the program is not sustainable in its current form. The most obvious first step to secure sustainability within the program itself is to continue the program of devolution to regional organizations and local governments following a predictable formula. The transfer of responsibility would also benefit the federal government, ensuring that the program remains sustainable, predictable, and viable over the long-run.^[346]

Although the Nunatsiavut government received control over the program in 2008, the Nunavut government is not as well-suited to accept control for the program. Its already overwhelming social and economic challenges, coupled with its financial constraints and its inability

³⁴¹ Jones, 2013: Personal Interview.

³⁴² Best, 2013: Personal Interview.

³⁴³ BC First Nations Health Authority, 2013.

³⁴⁴ Hutchinson, 2013.

³⁴⁵ *Ibid.*

³⁴⁶ Health Canada, 2010: 36.

to recruit public servants for other departments, suggests that fungible transfers from Health Canada may be reallocated to other programs which are considered higher priorities for the government to address, such as housing, crime, education, or substance abuse.^[347] Moreover, the Nunavut Government is a public government, responsible for both Inuit and non-Inuit, and may feel compelled to offer similar benefits to both populations, jeopardizing the oral health of the territory's Inuit population. Furthermore, if warming effects from climate change, and employment opportunities arising from resource extraction projects, produce an influx of non-Inuit residents and reduce the proportion of Inuit in the territory, the program's future may be further endangered.^[348]

Instead, designated Inuit organizations recognized under the Nunavut Land Claims Agreement may be better suited to deliver the NIHB services. Nunavut Tunngavik Incorporated (NTI), for instance, is well-resourced,^[349] accountable only to Nunavut's Inuit beneficiaries,^[350] and has few legal responsibilities related to public services.^[351] Furthermore, its autonomy from the federal government and its ability to access resources held in the Nunavut Trust provide it with the wherewithal to challenge the federal government legally. Importantly, NTI has expressed direct concern over the oral health of Nunavut's Inuit in recent years, and has criticized some elements of the current system employed by Health Canada.

NTI could establish policies and the administrative organization of the program to better reflect Inuit values and priorities. It could reform the remuneration system to achieve a more effective delivery model in the territory. Specifically, the current fee-for-service remuneration system does not allow for comprehensive care, as it rewards treatment over prevention. The Nunatsiavut government established the per diem remuneration system as an alternative model to control costs,

³⁴⁷ McCleary, 1991: 101-02. Although these social ills should not be dismissed, the oral health of the population is also at epidemic levels.

³⁴⁸ Légaré, 1996: 290.

³⁴⁹ Mifflin, 2009: 92-93.

³⁵⁰ Nunavut Tunngavik Inc., 2013.

³⁵¹ Mifflin, 2009: 95.

although per diems and salary-based remuneration systems are generally fraught with under-service. Furthermore, resident clinicians may prioritize non-Inuit patients who continue to pay on a fee-for-service model over Inuit patients.

Thus, retaining the fee-for-service model for resident clinicians in regional centers should not be altered, though a hybrid system should be considered for itinerant service providers. One such system, for instance, may involve a base per diem remuneration offered to providers, along with percentage thresholds for service provision and performance bonuses.^[352] This model would offer much better cost-control mechanisms to the third party administrator, while providing dentists with clear incentives for service provision.

An alteration of the remuneration system may also eliminate many of the administrative costs associated with claims processing and predetermination, as well as the administrative burdens for providers. NTI is only responsible to its Inuit beneficiaries, and a change in the demographic composition will not influence its ability to conduct its job in this capacity. Importantly, NTI is considerably better-suited than the federal government to respond to Inuit concerns and local demands.^[353]

Finally, the Government of Nunavut (or NTI if it begins to administer the contracts for dental care providers to regional communities) must establish a clear formula which guides the allocation of service days. The current model creates disparities in access to dental care and inequities between communities. Establishing a formula which guarantees a minimum number of service days to smaller communities, but guarantees that service days are allocated on the basis of population and needs, rather than the indiscernible approach currently employed.

Importantly, reforms to the areas of the NIHB program identified in this chapter will not solve the poor oral health of Nunavut's Inuit alone. A variety of other factors, such as geographic

³⁵² Uswak, 2013: Personal Interview.

³⁵³ Mifflin, 2009: 95.

barriers, cultural norms, diets, and social and economic conditions, must also be targeted by Inuit organizations, non-governmental organizations, and different orders of government if the oral health of Nunavut's Inuit is to improve. Innovative solutions are undoubtedly going to be necessary to address the myriad of issues which contribute to the oral health of Nunavut's Inuit.

The creation of the National School of Dental Therapy in Fort Smith in 1972 to pursue alternative models of dental care delivery certainly demonstrates the benefits of such thinking. Given its closure in 2011, the introduction of a similar program, financed in part or completely by Health Canada, at the Nunavut Arctic College may benefit the region. Specifically, the development of a curriculum with a northern focus, and the recruitment of Inuit students may save, and indeed revive, the dental therapy system so dangerously close to extinction in the north.

Recently, Uswak has reported on a Pan-Territorial Oral Health Initiative, exploring the benefits from each of the three territories in developing an oral health strategy for the northern populations, offering another innovative approach to dental care in Nunavut. School-based programs, training parents to provide topical fluoride treatments, and the Children's Oral Health Initiative (COHI) – currently operating in two of Nunavut's communities – offer innovative population-based strategies which promote prevention, fundamental to improving the oral health of Nunavut's Inuit over the long-term. Regardless of what solutions emerge in the coming years, the NIHB program offers a valuable lesson to policy-makers: expenditures alone do not produce the desired outcomes in the case of oral health care.

Appendix A: Interview Documents



School of Public Policy and Administration
 Carleton University
 1125 Colonel By Drive
 Ottawa, ON CANADA K1S 5B6
 Tel. (613) 520-2547
 Fax. (613) 520-2551

PARTICIPANT INFORMED CONSENT

Respondent Name: _____

Interview Date: _____

My research undertakes a qualitative study to investigate the administration of the Non-Insured Health Benefits dental care program and its corresponding impacts on the oral health outcomes of the Nunavut Inuit. The research project is dedicated to producing results which allow for a better understanding of current administrative inefficiencies or areas of administration contributing to less-than-desirable oral health outcomes. In addition, it seeks to offer recommendations for improvements or more effective administrative techniques by analyzing the strengths of similar programs in other circumpolar regions. If results are conclusive, this study may lay the framework for improved government administration surrounding the Non-Insured Health Benefits program.

You have accepted the request from me to participate in this interview. An in-person interview will probably last no more than one hour, and email correspondence will probably require no more than three emails from you. For in-person interviews, I am providing you with the option of being tape recorded, which would provide a more accurate analysis afterwards. You may consent to being audio recorded, *for the purposes of being transcribed only*, in order for me to analyze as much information as possible. If for any reason, you are uncomfortable with being recorded, please do not hesitate to tell me. If you have an objection during the interview, we will remove the tape recorder as part of the interviewing process. Your opinions, perspectives, and understanding of the NIHB program are very important to me, and we are genuinely appreciative of your willingness to participate in this research.

There are several benefits that may be afforded to participants of this research. First, we will provide copies of the final report to all individuals involved in the research, if requested, which may be useful to discuss among family, friends, colleagues, and other community members. Second, information obtained in this research will be provided to government officials, if requested. Third, the final report, depending upon its results, may lay the framework for improving oral health outcomes for Aboriginal peoples in Canada by offering recommendations for areas of administrative improvement.

In terms of possible risk to you, as a participant, I have attempted to minimize them. For individuals who are employed by another organization or another person, however, there may be some professional risk to you should your opinions and comments vary from that of your employer. I would therefore recommend that you discuss your participation in the research with a supervisor or manager prior to accepting. That said, you may refuse to answer any particular question throughout the interview, and you may withdraw from the interview itself at any time, in which case, the information you have provided to that point will be destroyed. Any information that you provide during the interview may be retracted until six weeks after the date that your interview is completed, which will ideally provide you with a

window in which to reflect upon your answers, or to clarify with a superior that the information that you provided is accurate or appropriate.

If you choose to participate, your identity will not be concealed - and thus, may become public - but you will not be quoted directly without prior and specific approval. The research project would benefit, however, if I could use your name as a reference.

Should you have any concerns afterwards about the interview process, my conduct, or the framework which you have been exposed to, I have provided you with the mailing address, phone number, and email address for the Ethics Research Board at Carleton University, as follows:

Research Ethics Board
1325 Dunton Tower
Ottawa, Ontario
1125 Colonel By Drive
Ottawa, Ontario
K1S 5B6
Tel: 613-520-2517
ethics@carleton.ca

Please sign below to indicate your willingness to proceed in the interview. You will be provided with a copy of the Informed Consent Form to keep for your records, as well.

(Respondent Signature) (Date)

- I hereby authorize the interviewer to use an audio recorder during the interview, to be later transcribed for the sole purpose of analyzing information.
- I request that any information I provide remain unidentified, and my name not be presented during the final report.



School of Public Policy and Administration
Carleton University
1125 Colonel By Drive
Ottawa, ON CANADA K1S 5B6
Tel. (613) 520-2547
Fax. (613) 520-2551

PARTICIPANT WITHDRAWAL FORM

Respondent Name: _____

Interview Date: _____

I, _____, am withdrawing from the research project titled: The Administration of the Non-Insured Health Benefits Dental Care Program and its Impacts on Oral Health Outcomes in Nunavut's Inuit Population.

By withdrawing, I declare that no information that I have provided to date may be used in any capacity for the research project in question. Furthermore, any information I have provided to date may not be used for any future research projects, and I will retain full confidentiality by the researcher for having participated in this project.

(Respondent Signature)

(Date)



School of Public Policy and Administration
 Carleton University
 1125 Colonel By Drive
 Ottawa, ON CANADA K1S 5B6
 Tel. (613) 520-2547
 Fax. (613) 520-2551

QUESTIONNAIRE PACKAGE

Respondent Name: _____

Interview Date: _____

Interviewer: _____

INTRODUCTION

I would like to start by thanking you for agreeing to talk to me today. The discussion is one of a select few that will occur in order to gain a better understanding into the current impacts of the NIHB dental care program administration on the oral health outcomes of Nunavut's Inuit population. The interview will likely last no longer than one hour. This is an opportunity for you to share your perspectives, opinions, and stories in an effort to better understand your community. We are interested in hearing your opinions, and there are no right or wrong answers.

Please feel free to express yourself openly, and be assured that all information provided will be kept confidential, if requested. With your consent, we would like to tape record your comments to ensure that they are accurately recorded.

Do you have any questions before we begin?

QUESTIONS

THEME 1: GENERAL OVERVIEW

- 1) What is your role with respect to the NIHB program?
- 2) In your opinion, what are the unique challenges when delivering dental care in remote communities? Northern regions? Aboriginal communities?

THEME 2: FINANCIAL INFORMATION

- 3) Are there fee schedule and salary variations for geographic regions within Canada? Within Nunavut?
- 4) How are these fee schedules and salaries determined/negotiated? Do dentists have an input?
- 5) As of 2003, there was no ability for dental hygienists to independently provide services in Aboriginal communities. Has this changed? If not, do you think this in any way impacts access/quality of services?

- 6) Is there a limit to how much you can bill the NIHB program in a given period of time?

THEME 3: PROVIDER RELATIONSHIP WITH PROGRAM

- 7) What are some differences between private insurance, NIHB, and out-of-pocket payments, from an administrative perspective? Is one more burdensome than another? Do you have examples?
- 8) Are there differences between the NIHB program and other government programs (such as social assistance programs), in terms of coverage, fees, paperwork, requirements?
- 9) Are you able to submit claims or pre-determination files electronically? Have there been improvements in recent years?
- 10) What is the general process for requesting approval for certain procedures? Is it generally a short/easy process?
- 11) Are you involved in Appeal processes?
- 12) Do dentists have any role in the post-determination process?
- 13) Are services ever provided in which payment is rejected?
- 14) Have there been any incidents that you're away of in recent years which have improved/denigrated the relationship between the NIHB dental care program and Inuit (or Aboriginal peoples, more generally)?
- 15) In your opinion, how does the auditing of the NIHB program compare with that of private insurance? Other public programs?
- 16) Are you aware of any examples of dentists being deterred from accepting patients because of the auditing process?

THEME 4: RELATIONSHIP WITH CLIENTS

- 17) Are there communication challenges between Aboriginal peoples and the NIHB program dentists? Northern communities in general?
- 18) Do you ever require Inuit clients to fill out paperwork for the NIHB program? Are there challenges? How does this compare with private insurance?
- 19) Have there been any challenges with respect to Inuit accessing information about the program? How would you describe the impacts that information has on the uptake of services?
- 20) Are privately insured Inuit more likely to accept recommendations than those covered by NIHB?

CONCLUSION

- 21) Are there any questions you'd like to return to? Do you have any additional comments?

Works Cited

- Aboriginal Affairs and Northern Development Canada. *Labrador Inuit Land Claims Agreement Annual Report - 1 April 2007 to 31 March 2008*. Ottawa: Government of Canada, 2012. Print.
- Aboriginal Affairs and Northern Development Canada. *Procurement Strategy for Aboriginal Business*. Ottawa: Government of Canada, 2011. Print.
- Akerstedt, T., A. Knutsson, P. Westerholm, T. Theorell, L. Alfredsson, and G. Kecklund. "Work Organisation and Unintentional Sleep: Results from the WOLF Study." *Occupational and Environmental Medicine* 59.1 (2002): 595-600. Print.
- Ambrose, Ernst R., A. B. Hord, and W. J. Simpson. *A Quality Evaluation of Specific Dental Services Provided by the Saskatchewan Dental Plan*. Regina: Government of Saskatchewan, 1976. Print.
- Arkan, Najat T., Latifa R.B. Al-Mendilawi, and Hayfa I. Toufiq. "Food Consumption by Complete Denture Wearers." *Journal of College of Dentistry of University of Baghdad* 18.1 (2006): 30-32. Print.
- Assembly of First Nations. *First Nations Action Plan for Non-insured Health Benefits*. Ottawa: Assembly of First Nations, 2005. Print.
- Auditor General of Canada. *Report of the Auditor General - Chapter 12: Department of National Health and Welfare, Medical Services Branch*. Ottawa: Auditor General of Canada, 1982. Print.
- Auditor General of Canada. *Report of the Auditor General - Chapter 13: Department of National Health and Welfare, Non-Insured Health Benefits*. Ottawa: Auditor General of Canada, 1997. Print.
- Auditor General of Canada. *Report of the Auditor General - Chapter 15: Health Canada – First Nations Health*. Ottawa: Auditor General of Canada, October 2000. Print.
- Auditor General of Canada. *Report of the Auditor General - Chapter 19: Department of National Health and Welfare, Non-Insured Health Benefits*. Ottawa: Auditor General of Canada, 1993. Print.

Auditor General of Canada. *Report of the Auditor General of Canada to the Legislative Assembly of Nunavut—2010 Human Resource Capacity - Government of Nunavut*. Ottawa: Auditor General of Canada, 2010. Print.

Assembly of First Nations. *First Nations Action Plan for Non-insured Health Benefits*. Ottawa: Assembly of First Nations, 2005. Print.

Bailey, W., K. Duchon, L. Barker, and W. Maas. "Populations Receiving Optimally Fluoridated Public Drinking Water--United States, 1992-2006." *Journal of the American Medical Association* 300.8 (2008): 892-94. Print.

BC First Nations Health Authority. "Health Canada's Non-Insured Health Benefits." *First Nations Health Council*. First Nations Health Council, 13 Mar. 2013. Web. 16 Apr. 2013. <http://www.fnhc.ca/index.php/news/article/ubclc_and_fnha_health_benefits/>.

Berg, Bruce L. *Qualitative Research Methods for the Social Sciences: 8th Edition*. Boston: Allyn and Bacon, 2009. Print.

Bergenholtz, Gunnar, Preben Hørsted-Bindslev, and Claes Reit. "Introduction to Endodontology" in Bergenholtz, Gunnar, Preben Hørsted-Bindslev, and Claes Reit Eds. *Textbook of Endodontology: Second Edition*, Singapore: Wiley-Blackwell, 2009. 1-10. Print.

Bell, Jim. "Canada Post to Probe Mail Delivery Complaints." *Nunatsiaq Online*. Nunatsiaq News, 11 July 2008. Web. 15 Mar. 2013. <http://www.nunatsiaqonline.ca/archives/2008/807/80711/news/iqaluit/80711_1355.html>.

Bernardo, Mario, Henrique Luis, Michael Martin, Brian Leroux, Tessa Rue, Jorge Leitão, and Timothy DeRouen. "Survival and Reasons for Failure of Amalgam versus Composite Posterior Restorations Placed in a Randomized Clinical Trial." *Journal of the American Dental Association* 138.6 (2007): 775-83. Print.

Best, Jennifer. "Interview with Jennifer Best - Non-Insured Health Benefits Manager for Nunatsiavut Government." E-mail Interview. 12 Mar. 2013.

- Birch, Stephen, and Rob Anderson. "Financing and Delivering Oral Health Care: What Can We Learn from Other Countries?" *Journal of the Canadian Dental Association* 71.4 (2005): 243-43d. Print.
- Boggess, Kim A., and Burton L. Edelstein. "Oral Health in Women During Preconception and Pregnancy: Implications for Birth Outcomes and Infant Oral Health." *Maternal and Child Health Journal* 10.S1 (2006): 169-74. Print.
- Bonesteel, Sarah, and Erik Anderson. *Canada's Relationship with Inuit: A History of Policy and Program Development*. Ottawa: Government of Canada, 2006. Print.
- Brown, Bonnie. *First Nations and Inuit Dental Health: Report of the Standing Committee on Health*. Ottawa: Library of Parliament, 2003. Print.
- Buck Consultants. *Canadian Health Care Trend Survey Results 2012*. Rep. Toronto: Buck Consultants, 2013. Print.
- Canada Health Act: Bill C-6, Government of Canada (1985): 1-13. Print.
- Canadian Association of Public Health Dentistry. *Water Fluoridation Position Statement*. Working paper. Ottawa: Canadian Association of Public Health Dentistry, 2012. Print.
- Canadian Dental Association. *CDA Adopts New NIHB Strategy*. Communiqué. Ottawa: Canadian Dental Association, 2001a. Print.
- Canadian Dental Association. *NIHB Dominates Discussion with MPs*. Communiqué. Ottawa: Canadian Dental Association, 2001b. Print.
- Canadian Dental Association Board of Governors. *Position Paper on Access to Oral Health Care for Canadians*. Working Paper. Ottawa: Canadian Dental Association, 2010. 1-8. Print.
- Canadian Dental Association Representative. "Interview with CDA Representative." Telephone Interview. 28 Jan. 2013.

- Canadian Life and Health Insurance Association Inc. "Personal Correspondence." E-mail. 8 Mar. 2013.
- Carney, Robert J. "The Hawthorn Survey (1966-1967), Indians and Oblates and Integrated Schooling." *Canadian Catholic Historical Association* 50.1 (1983): 609-30. Print.
- Castellano, Marlene Brant. "Indian Participation in Health Policy Development: Implications for Adult Education." *Canadian Journal of Native Studies* 1.1 (1980): 113-28. Print.
- CBC Digital Archives. "Creation of Nunavut." *CBC Digital Archives*. Canadian Broadcasting Corporation, 12 May 2012. Web. 21 Jan. 2013.
<<http://www.cbc.ca/archives/categories/politics/provincial-territorial-politics/creation-of-nunavut/topic-creation-of-nunavut.html>>.
- Center for Health Workforce Studies. *The Impact of the Aging Population on the Health Workforce in the United States: Summary of Key Findings*. Rep. Washington, DC: American Public Health Association, 2006. Print.
- Clarke, Christopher. "Interview with Christopher Clarke – Contracted Orthodontist for the Baffin Region." Personal Interview. 18 Mar. 2013.
- Committee of Experts on Public Administration. *Definition of Basic Concepts and Terminologies in Governance and Public Administration*. Publication Number: 06-20194. 5th ed. Vol. 16. New York: United Nations Economic and Social Council, 2006. Print.
- Consolidation of Dental Auxiliaries Act: R.S.N.W.T c.D-3, Government of Nunavut (2001): 1-17. Print.
- Cohen, S., J. Fiske, and J. Newton. "The Impact of Dental Anxiety on Daily Living." *British Dental Journal* 189.7 (2000): 385-90. Print.
- Cooney, Peter. *A Study of Strategies to Address Needs and Service Expenditures in the Non-Insured Health Benefits Program*. Thesis. University of Manitoba, 1997. Winnipeg: University of Manitoba, 1997. Print.

- Cooney, Peter. *Inuit Oral Health Survey 2008-09*. Ottawa: Health Canada, 2009. Print.
- Crawford, Ralph P., and Bradley W. Holmes. *An Assessment and Evaluation of Dental Treatment in the Baffin Region*. Ottawa: Medical Services Branch, 1989. Print.
- Current Federal Government Official. "Interview with Federal Government Official." Telephone Interview. 25 Jan. 2013.
- Current Nova Scotia Provincial Government Official. "Interview with NS Government Official." Telephone Interview. 16 Feb. 2013.
- De Baets, Evelyne, Heleen Lambrechts, Jurgen Lemiere, Luwis Diya, and Guy Willems. "Impact of Self-esteem on the Relationship between Orthodontic Treatment Need and Oral Health-related Quality of Life in 11- to 16-year-old Children." *European Journal of Orthodontics* 34.6 (2012): 731-37. Print.
- Daniel, Johnnie. *Sampling Essentials: Practical Guidelines for Making Sampling Choices*. Los Angeles: Sage Publications, 2012. Print.
- Department of Health and Social Services. "Non-Insured Health Benefits Eligibility." *NIHB Program*. Government of Nunavut, 2010. Web. 19 July 2012.
<<http://www.hss.gov.nu.ca/en/Health%20Insurance%20NIHB.aspx>>.
- Department of Health and Social Services. *Government of Nunavut Employment Opportunity: Dental Therapist*. Iqaluit: Government of Nunavut, 2013. Print.
- Duffy, R. Q. *The Road to Nunavut: The Progress of the Eastern Arctic Inuit since the Second World War*. Kingston: McGill-Queen's UP, 1988. Print.
- Elliot, Ian. "Statistics are Staggering – The fuel of the North is not gas, diesel or kerosene: it's soda pop!" Northern News Service. October 13 1997.

Evans, R.G. "Supplier-Induced Demand: Some Empirical Evidence and Implications," in M. Perlman, eds., *The Economics of Health and Medical Care*, New York: Stockton Press, 1974. Print.

Federal Healthcare Partnership Secretariat. *Federal Healthcare Partnership 2010–2013 Business Plan*. Ottawa: Government of Canada, 2010. Print.

Ferracane, Jack L. . *Materials in Dentistry*. Philadelphia: J.B. Lippincott, 2001. Print.

First Nations and Inuit Health. "Aboriginal Health Initiatives." *Aboriginal Health Initiatives*. Health Canada, 19 Mar. 2012. Web. 2 Apr. 2013.
<<http://www.hc-sc.gc.ca/ahc-asc/activit/strateg/fnih-spni-eng.php>>.

First Nations and Inuit Health Branch. "Ten Years of Health Transfer to First Nation and Inuit Control." *Reports and Publications*. Health Canada, 15 June 2005. Web. 21 Jan. 2013.
<http://www.hc-sc.gc.ca/fnih-spnia/pubs/finance/_agreeaccord/10_years_ans_trans/index-eng.php>.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2000-01*. Ottawa: Health Canada, 2002. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2002-03*. Ottawa: Health Canada, 2004. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2003-04*. Ottawa: Health Canada, 2005. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2004-05*. Ottawa: Health Canada, 2006. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program: Annual Report 2005-06*. Ottawa: Health Canada, 2007. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2006-07*. Ottawa: Health Canada, 2008. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2007-08*. Ottawa: Health Canada, 2009. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program, Annual Report 2008-09*. Ottawa: Health Canada, 2010. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program: Annual Report 2009-10*. Ottawa: Health Canada, 2011. Print.

First Nations and Inuit Health Branch. *Non-Insured Health Benefits Program: Annual Report 2010-11*. Ottawa: Health Canada, 2012. Print.

Fry, Jane. *Health Perspectives According to Yukoners: Qualitative Analysis of Seventy-seven In-depth Interviews*. Thesis. Ottawa: Carleton University, 1995. Print.

George, Jane. "Nunavut Women Fleeing Violence Fill Half the Beds at Yellowknife Shelter." *Nunatsiaq Online*. Nunatsiaq News, 30 Sept. 2011. Web. 19 Feb. 2013. <http://www.nunatsiaqonline.ca/stories/article/65674women_from_nunavut_fleeing_to_yellowknife_shelter/>.

George, Jane. "Southern Inuit Youth Show High Rates of Drug Abuse: Study." *Nunatsiaq Online*. Nunatsiaq News, 2 Aug. 2012. Web. 20 Feb. 2013. <http://www.nunatsiaqonline.ca/stories/article/65674urban_inuit_youth_show_high_rates_of_prescription_drug_abuse_study/>.

Glaser, Barney G. *Basics of Grounded Theory Analysis: Emergence vs. Forcing*. Mill Valley, CA: Sociology, 1992. Print.

Gosden, T., F. Forland, I. S. Kristiansen, M. Sutton, B. Leese, A. Giuffrida, M. Sergison, and L. Pedersen. "Impact of Payment Method on Behaviour of Primary Care Physicians." *Journal of Health Services Research and Policy* 6.1 (2001): 44-55. Print.

- Government of Nunavut. "Government of Nunavut Staff Directory." *Government Staff Directory*. Government of Nunavut, 03 Mar. 2013. Web. 03 Mar. 2013. <<http://www.directory.gov.nu.ca/Search.aspx>>.
- Government of Nunavut. *Nunavut Total Population Estimates by Age Group, Region and Community, 2011*. Iqaluit: Nunavut Bureau of Statistics, 2012. Print.
- Gubian, Alain, Stéphane Jugnot, Frédéric Lerais, and Vladimir Passeron. "Les Effets De La RTT Sur L'emploi: Des Simulations Ex Ante Aux évaluations." *Economie Et Statistique* 376.1 (2004): 25-54. Print.
- Harrison, R. L., and D. W. Davis. "Dental Malocclusion in Native Children of British Columbia, Canada." *Community Dentistry and Oral Epidemiology* 24.3 (1996): 217-21. Print.
- Hart, Julian Tudor. "The Inverse Care Law." *The Lancet* 297.7696 (1971): 405-12. Print.
- Hawthorn, H.B. *A Survey of the Contemporary Indians of Canada: Economic, Political, Educational Needs and Policies*. Ottawa: Indian Affairs Branch, 1966. Print.
- Health Canada. *Final Audit Report: Audit of Data Integrity for the Health Information Claims Processing System (HICPS)*. Ottawa: Government of Canada, 2008. Print.
- Health Canada. *Final Audit Report: Audit of Non-Insured Health Benefits – Pharmacy*. Ottawa: Health Canada Audit and Accountability Bureau, 2011b. Print.
- Health Canada. *Inuit Oral Health Survey Report 2008-09*. Ottawa: Government of Canada, 2011. Print.
- Health Canada. *Non-Insured Health Benefits Cluster Evaluation - Final Report*. Ottawa: Government of Canada, 2010. Print.
- Health Canada. "Centralization of Non-Insured Health Benefits (NIHB) Dental Predetermination Services in Ottawa." *Announcement* (2012). Print.

- Health Canada. "Non-Insured Health Benefits Newsletter for Dental Providers - Summer 2009." *First Canadian Health-ESI Transition* (2009). Print.
- Henderson, Alisa. "Lessons for Social Science in the Study of New Polities: Nunavut at Ten." *Journal of Canadian Studies* 43.2 (2009): 5-22. Print.
- Hicks, Jack, and Graham White. *A Decentralized Government of Nunavut or "A Centralized GN with Jobs Spread All Over the Place"?* Akureyri, Iceland: International Congress of Arctic Social Sciences, 2011. Print.
- Hicks, Jack, and Graham White. "Nunavut: Inuit Self-Determination Through a Land Claim and Public Government" in Jen Dahl, Jack Hocks, and Peter Jull., eds., *Inuit Regain Control of Their Lands and Their Lives*, Copenhagen: International Work Group for Indigenous Affairs, 2000. 30-115. Print.
- Hicks, Jack. "The Painful Transition: Explaining and Preventing Suicide by Inuit Youth." *Naniiliqipita* 1.1 (2012): 16-23. Print.
- Hickson, G. B., W. A. Altemeier, and J. M. Perrin. "Physician Reimbursement by Salary or Fee-for-service: Effect on Physician Practice Behavior in a Randomized Prospective Study." *Pediatrics* 80.3 (1987): 344-50. Print.
- Hodgson, Thomas, and Alan Cohen. "Medical Expenditures for Major Diseases, 1995." *Health Care Financing Review* 21.2 (1999): 119-64. Print.
- Hutchinson, Brian. "As B.C. Readies \$2.5B Transfer to First Nations Health Authority, Questions Arise about Missing \$4M." *Canada*. National Post, 22 Jan. 2013. Web. 14 Apr. 2013. <<http://news.nationalpost.com/2013/01/21/as-b-c-readies-2-5b-transfer-to-first-nations-health-authority-questions-arise-about-unclear-programs-missing-4m/>>.
- Hutchinson, J. M., and R. N. Foley. "Method of Physician Remuneration and Rates of Antibiotic Prescription." *Canadian Medical Association Journal* 160.7 (1999): 1013-017. Print.

- Inuit Tapiriit Kanatami. *Healthy Teeth, Healthy Lives: Inuit Oral Health Action Plan 2013*. Ottawa: Inuit Tapiriit Kanatami, 2013.
- Iseron, K., and J. Moskop. "Triage in Medicine, Part I: Concept, History, and Types." *Annals of Emergency Medicine* 49.3 (2007): 275-81. Print.
- Jones, Gregory. "Interview with Greg Jones - Non-Insured Health Benefits Regional Dental Officer for the Atlantic Region." Telephone Interview. 14 Feb. 2013.
- Keele, Rebecca. *Nursing Research and Evidence-based Practice: Ten Steps to Success*. Sudbury, MA: Jones & Bartlett Learning, 2011. Print.
- Kirkcaldy, Bruce D., Rüdiger Trimpop, and Cary L. Cooper. "Working Hours, Job Stress, Work Satisfaction, and Accident Rates Among Medical Practitioners and Allied Personnel." *International Journal of Stress Management* 4.2 (1997): 79-87. Print.
- Koroluk, L. D., and G. A. Riekman. "Parental Perceptions of the Effects of Maxillary Incisor Extractions in Children with Nursing Caries." *ASDC Journal of Dentistry for Children* 58.3 (1991): 233-36. Print.
- Kuhnlein, Harriet V., Olivier Receveur, Rula Soueida, and Peter R. Berti. "Unique Patterns of Dietary Adequacy in Three Cultures of Canadian Arctic Indigenous Peoples." *Public Health Nutrition* 11.4 (2008): 349-60. Print.
- Kunuk, Methusalah, and Jim Stevens. *The Nunavut Transportation System – Evolving for Nunavummiut and their Economy*. St. John's: Annual Conference of the Transportation Association of Canada, 2003. Print.
- Lawrence, Herenia. "Oral Health Interventions Among Indigenous Populations in Canada." *International Dental Journal* 60.1 (2010): 1-6. Print.
- Lawrence, Herenia, and James Leake. "The U.S. Surgeon General's Report on Oral Health in America: A Canadian Perspective." *Journal of the Canadian Dental Association* 67.10 (2001): 587-89. Print.

- Légaré, André. "An Assessment of Recent Political Development in Nunavut: The Challenges and Dilemmas of Inuit Self-Government." *The Canadian Journal of Native Studies* 18.2 (1996): 271-99. Print.
- Légaré, André. "Canada's Experiment with Aboriginal Self-Determination in Nunavut: From Vision to Illusion." *International Journal on Minority and Group Rights* 15.2 (2008): 335-67. Print.
- Lemchuk-Favel, Laurel. *Teeth for Life: The First Nations Oral Health Strategy*. Ottawa: Assembly of First Nations, 2010. Print.
- Lewis, D. W. *Performance of the Saskatchewan Health Dental Plan, 1974-1980*. Toronto: University of Toronto, 1981. Print.
- Life Science Research Office. *Review and Analysis of the Literature on the Health Effects of Dental Amalgam: Executive Summary*. Bethesda, MD: Life Science Research Office, 2004. Print.
- Lockley, Steven W., John W. Cronin, Erin E. Evans, Brian E. Cade, Clark J. Lee, Christopher P. Landrigan, Jeffrey M. Rothschild, Joel T. Katz, Craig M. Lilly, Peter H. Stone, Daniel Aeschbach, and Charles A. Czeisler. "Effect of Reducing Interns' Weekly Work Hours on Sleep and Attentional Failures." *New England Journal of Medicine* 351.18 (2004): 1829-837. Print.
- Lofland, John. *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*. Belmont, CA: Wadsworth, 1971. Print.
- MacCharles, Tonda. "Métis and Non-status Indians Are 'Indians' under Constitution, Federal Court Rules." *Toronto Star*. 8 Jan. 2013. Web. 20 Jan. 2013.
- Madore, Odette. *The Canada Health Act: Overview and Options*. Publication Number: 94-4-E. Ottawa: Library of Parliament, 2005. Print.
- Marchildon, Gregory. "Access to Basic Dental Care and the Heavy Hand of History in Canada" in Yalnizyan, Armine, and Garry Aslanyan eds. *Putting Our Money Where Our Mouth Is: The Future of Dental Care in Canada*. Ottawa: Canadian Center for Policy Alternatives, 2011. 20-22. Print.

- Marchildon, Greg, and Renée Torgerson. *Nunavut: A Health System Profile*. 2013. MS. McGill-Queen's University Press, Montreal.
- McCleary, William. "The Earmarking of Government Revenue: A Review of Some World Bank Experience." *The World Bank Research Observer* 6.1 (1991): 81-104. Print.
- McGill, D. *RCMP Nunavut V: Internal Statistics*. Iqaluit: Royal Canadian Mounted Police, 2010. Print.
- McGrath, Colman, Hillary Broder, and Maureen Wilson-Genderson. "Assessing the Impact of Oral Health on the Life Quality of Children: Implications for Research and Practice." *Community Dentistry and Oral Epidemiology* 32.2 (2004): 81-85. Print.
- McGuire, T. "Physician Agency," in Anthony Culyer and Joseph Newhouse, eds., *The Handbook of Health Economics*, Amsterdam: Elsevier Science, 2000. Print.
- Medical Services Branch. *Non-Insured Health Benefits Administrative Manual*. Ottawa: Health Canada, 1989. Print.
- Mifflin, Michael. "The Prince and the Pauper: Nunavut Tunngavik Incorporated and the Government of Nunavut." *Policy Options* (2009): 92-96. Print.
- Moffa, J.P. "Comparative Performance of Amalgam and Composite Resin Restorations and Criteria for Their Use" in Kenneth J. Anusavice., ed., *Quality Evaluation of Dental Restorations: Criteria for Placement and Replacement: Proceedings of the International Symposium on Criteria for Placement and Replacement of Dental Restorations, Lake Buena Vista, Florida, October 19–21, 1987*, Carol Stream, Illinois: Quintessence Publishing, 1989. 125-38. Print.
- Moreno, Edgard C., Magda Kresak, and Robert T. Zahradnik. "Fluoridated Hydroxyapatite Solubility and Caries Formation." *Nature* 247.5435 (1974): 64-65. Print.
- Nash, D. A., J. W. Friedman, T. B. Kardos, R. L. Kardos, E. Schwartz, J. Satur, D. G. Berg, J. Nasruddin, E. G. Mumghamba, E. S. Davenport, and R. Nagel. "Dental Therapists: A Global Perspective." *International Dental Journal* 58.2 (2008): 61-70. Print.

- Nash, David A. "Developing and Deploying a New Member of the Dental Team: A Pediatric Oral Health Therapist." *Journal of Public Health Dentistry* 65.1 (2005): 48-55. Print.
- National Joint Council. "Isolated Posts and Government Housing Directive." *Isolated Posts and Government Housing Directive*. Treasury Board of Canada Secretariat, 1 Aug. 2007. Web. 23 Apr. 2013.
<<http://www.njc-cnm.gc.ca/directive/index.php?did=4&lang=eng>>.
- Non-Insured Health Benefits. "Non-Insured Health Benefits Regional Offices." *Contact Information for NIHB Regional Offices*. Health Canada, 26 Mar. 2012. Web. 23 Apr. 2013.
- Non-Insured Health Benefits. *Dental Benefits Guide*. Ottawa: Health Canada, 2009. Print.
- Non-Insured Health Benefits. *Dental Benefits Guide*. Ottawa: Health Canada, 2012. Print.
- Non-Insured Health Benefits. *Dental Bulletin: Announcement of Changes to Dental Benefits*. Ottawa: Health Canada, 2005. Print.
- Non-Insured Health Benefits. *NIHB Dental Claims Submission Kit*. Toronto: Express Scripts Incorporated Canada, 2011. Print.
- Non-Insured Health Benefits. *NIHB Dental Claims Submission Kit: Attachments*. Toronto: Express Scripts Canada, 2011b. Print.
- Non-Insured Health Benefits. Procedure Claims and Associated Costs for NIHB Dental Care in Nunavut. 23 Mar. 2013. *Raw Data*. First Nations and Inuit Health Branch, Ottawa.
- Non-Insured Health Benefits. *Your Health Benefits A Guide for First Nations to Access Non-Insured Health Benefits*. Ottawa: Health Canada, 2012. Print.
- Neuman, William Lawrence. *Social Research Methods: Qualitative and Quantitative Approaches*. 7th ed. Boston: Allyn & Bacon, 2011. Print.

- Nunavut Department of Health and Social Services. "Eligibility." *Non-Insured Health Benefits*. Government of Nunavut, 31 Dec. 2010. Web. 20 Jan. 2013.
<<http://www.hss.gov.nu.ca/en/Health%20Insurance%20NIHB.aspx>>.
- Nunavut Land Claims Agreement: Government of Canada, Government of the Northwest Territories, and Tungavik Federation of Nunavut. *An Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*. Iqaluit: Government of Nunavut, 1993. Print.
- Nunavut Tunngavik Incorporated. "About NTI." Nunavut Tunngavik Incorporated, 2013. Web. 25 Apr. 2013. <<http://www.tunngavik.com/about/>>.
- Nunavut Tunngavik Incorporated. "NTI Launches Lawsuit Against Government of Canada for Breach of Contract." *Media Centre*. Nunavut Tunngavik Incorporated, 6 Dec. 2006. Web. 18 Apr. 2013.
<<http://www.tunngavik.com/blog/2006/12/06/nti-launches-lawsuit-against-government-of-canada-for-breach-of-contract/>>.
- Nunavut Tunngavik Incorporated. *Nunavut's Health System: Annual Report on the State of Inuit Culture and Society*. Iqaluit: Nunavut Tunngavik Incorporated, 2008. Print.
- O'Neil, John D. "The Impact of Devolution on Health Services in the Baffin Region, NWT: A Case Study," in Gurston Dacks., ed., *Devolution and Constitutional Development in the Canadian North*, Ottawa: Carleton University Press Inc., 1990. 157-94. Print.
- Office of the Chief Dental Officer. "Office of the Chief Dental Officer Projects." *Office of the Chief Dental Officer*. Health Canada, 15 June 2011. Web. 23 Apr. 2013.
<<http://www.hc-sc.gc.ca/ahc-asc/branch-dirigen/fnihb-dgspni/ocdo-bdc/project-eng.php>>.
- Parisotto, Thaís, Luciana Maria, Fabíola Galbiatti, Eliete Coelho, Marinês Nobre, Olga Maria, and Sandra Regina. "Dental Caries and Related Factors in Brazilian Children from Fluoridated and Non-Fluoridated Areas." *Revista Odonto Ciência (Online)* 25.4 (2010): 339-43. Print.

- Pastori, Charles. "Interview with Charles Pastori - Private Practice Dentist in Iqaluit." Personal Interview. 2 Feb. 2013.
- Peressini, Sabrina, James L. Leake, John T. Mayhall, Marion Maar, and Ray Trudeau. "Prevalence of Early Childhood Caries among First Nations Children, District of Manitoulin, Ontario." *International Journal of Paediatric Dentistry* 14.2 (2004): 101-10. Print.
- Petersen, Poul Erik. *The World Oral Health Report 2003: Continuous Improvement of Oral Health in the 21st Century - the Approach of the WHO Global Oral Health Programme*. Geneva, Switzerland: World Health Organization, 2003. Print.
- Pjetursson, Bjarni E., Ken Tan, Niklaurs Lang, Urs Brägger, Matthias Egger, and Marcel Zwahlen. "A Systematic Review of the Survival and Complication Rates of fixed Partial Dentures (FPDs) after an Observation Period of at Least 5 Years." *Clinical Oral Implants Research* 15.6 (2004): 625-42. Print.
- Pointbreak Consulting Group Ltd. "Experts Answer Your Questions." *Expert Answers*. Pointbreak Consulting Group Ltd., 1 Jan. 2013. Web. 24 June 2013.
<<http://pointbreakcg.com/experts.html>>.
- Rogan, Alison. *Addressing the Cost of Living in Nunavut Discussion Paper Four*. Working paper. Iqaluit: Nunavut Employees Union, 2003. Print.
- Quiñonez, Carlos. *A Political Economy of Dentistry in Nunavut*. Thesis. University of Manitoba, 2004. Winnipeg: Department of Community Services, 2004. Print.
- Quiñonez, Carlos R. *The Political Economy of Dentistry in Canada*. Thesis. University of Toronto, 2009. Toronto: Graduate Department of Dentistry, 2009. Print.
- Quiñonez, Carlos. "A Political Economic History of Medical and Dental Care in Nunavut, Canada." *International Journal of Circumpolar Health* 65.2 (2006): 101-16. Print.
- Quiñonez, Carlos. "A Political Economy of Oral Health Services in Nunavut." *International Journal of Circumpolar Health* 63.2 (2004): 324-29. Print.

- Quiñonez, Carlos. "Wicked Problems: Policy Contradictions in Publicly financed Dental Care." *Journal of Public Health Dentistry* 72.1 (2012): 261-64. Print.
- Quiñonez, Carlos, and David Locker. "On the Pediatric Oral Health Therapist: Lessons from Canada." *Journal of Public Health Dentistry* 68.1 (2008): 53-56. Print.
- Quiñonez, Carlos, and Josée Lavoie. "Existing on a Boundary: The Delivery of Socially Uninsured Health Services to Aboriginal Groups in Canada." *Humanity and Society* 33.1 (2009): 35-55. Print.
- Quiñonez, Carlos R., Rafael Figueiredo, and David Locker. "Canadian Dentists' Opinions on Publicly Financed Dental Care." *Journal of Public Health Dentistry* 69.2 (2009): 64-73. Print.
- Randall, R. C., M. M. Vrijhoef, and N. H. Wilson. "Efficacy of Preformed Metal Crowns vs. Amalgam Restorations in Primary Molars: A Systematic Review." *Journal of the American Dental Association* 131.3 (2000): 337-43. Print.
- Rees, A. M., and D. K. Jutai. *Management, Productivity and Cost Benefit of Graduate Dental Therapist for Years 1975-1979*. Ottawa: Medical Services Branch, 1979. Print.
- Rodon, Thierry, and Minnie Grey. "The Long and Winding Road to Self-Government: The Nunavik and Nunatsiavut Experiences" in Frances Abele et al., eds., *Northern Exposures: Peoples, Powers, and Prospects in Canada's North*. Montreal: Institute for Research on Public Policy and McGill-Queen's University Press, 2009 (2012). 317-43. Print.
- Schmalz, Gottfried, and Preben Hørsted-Bindslev. "Root Canal Filling Materials" in Bergenholtz, Gunnar, Preben Hørsted-Bindslev, and Claes Reit. Eds. *Textbook of Endodontology: Second Edition*, Singapore: Wiley-Blackwell, 2009. 193-218. Print.
- Schroth, Robert. "The State of Dental Care in the North." *International Journal of Circumpolar Health* 65.2 (2006): 98-100. Print.
- Scott, A. J. "House Staff = Shift Workers?" *Journal of Occupational Medicine* 34.12 (1992): 1161-163. Print.

- Selby, Alex. "Fixed Prosthodontic Failure. A Review and Discussion of Important Aspects." *Australian Dental Journal* 39.3 (1994): 150-56. Print.
- Shimmura, Kazuya. "Effects of Different Remuneration Methods on General Medical Practice: A Comparison of Capitation and Fee-for-service Payment." *International Journal of Health Planning and Management* 3.4 (1988): 245-58. Print.
- Simon, Mary. "Health Canada Terminates Funding To National School of Dental Therapy." *Mary Simon's Blog*. Inuit Tapiriit Kanatami, 18 Mar. 2011. Web. 03 Apr. 2013.
<<https://www.itk.ca/blog/6/mary-simon/2011/mar/health-canada-terminates-funding-national-school-dental-therapy>>.
- Simon, Mary. "Inuit Are Not First Nations." *Mary Simon's Blog*. Inuit Tapiriit Kanatami, 23 Jan. 2011. Web. 05 Apr. 2013.
<<https://www.itk.ca/blog/6/mary-simon/2012/jan/inuit-are-not-first-nations>>.
- Standing Committee on Public Accounts. *Standing Committee Fifth Report*. Ottawa: Government of Canada, 1998. Print.
- Statistics Canada. *Annual Estimates of Population for Canada, Provinces and Territories*. Ottawa: Demography Division, 2012. Print.
- Statistics Canada. *Canada's Population Estimates: Age and Sex*. Ottawa: Daily, 2011. Print.
- Tester, Frank J. "The Evolution of Health and Social Services for Nunavut: Class, Ethnicity and Public Versus Private Provision." *Canadian Review of Social Policy* 49-50.1 (2002): 199-225. Print.
- Tennant, Jim. "Interview with Jim Tennant – Former Dental Provider in Easter Arctic." Telephone Interview. 16 Feb. 2013.

- The Canadian Press. "Telesat to Spend \$40 Million to Expand Broadband in Arctic." *CBC North*. CBC News, 02 Feb. 2012. Web. 15 Mar. 2013.
<<http://www.cbc.ca/news/canada/north/story/2012/02/02/north-telesat-expansion.html>>.
- Thomson, W.M., R. Poulton, B.J. Milne, A. Caspi, J.R. Broughton, and K.M. Avers. "Socioeconomic Inequalities in Oral Health in Childhood and Adulthood in a Birth Cohort." *Community Dentistry and Oral Epidemiology* 32.5 (2004): 345-53. Print.
- Tiedemann, Marlisa. *The Federal Role in Health and Health Care*. Publication Number: 2008-58-E. Ottawa: Library of Parliament, 2008. Print.
- Timpson, Annis M. "Stretching the Concept of Representative Bureaucracy: The Case of Nunavut." *International Review of Administrative Sciences* 72.4 (2006): 517-30. Print.
- Tompkins, Frances. "Interview with Frances Tompkins - Contracted Dentist for the Nunatsiavut Region." E-mail Interview. 24 Jan. 2013.
- Treasury Board Secretariat of Canada. *Supplementary Estimates (B), 2012-13*. Ottawa: Government of Canada, 2013. Print.
- Trueblood, Gordon. *An Analytical Model for Assessing the Costs and Benefits of Training and Utilizing Auxiliary Health Personnel with Application to the Canadian Dental Therapy Program*. Thesis. Concordia University, Montreal: University of Concordia, 1992. Print.
- Uddin, Helai, Ziauddin Ahmed, Nitish Krishna Das, Arup Kumar Saha, Mohammad Rakibul Islam Babu, and Abu Mohammad Shareeful Alam Khan. "Common Malocclusion Problems and Their Management: A Hospital Based Study." *City Dental College Journal* 10.1 (2013): 22-25. Print.
- Uswak, Gerry. "Interview with Gerry Uswak - Dean of the Faculty of Dentistry at the University of Saskatchewan and Former Regional Dental Officer in the Eastern Arctic." Skype Interview. 19 Feb. 2013.

- Uswak, Gerry. *Pan-Territorial Oral Health Initiative*. Yellowknife: Yukon, Northwest Territories and Nunavut Deputy Minister's (ADM) Working Group, 2007. Print.
- Uswak, Gerry, and Emory Keller-Kurysh. "Influence of Private Practice Employment of Dental Therapists in Saskatchewan on the Future Supply of Dental Therapists in Canada." *Journal of Dental Education* 76.8 (2012): 1092-101. Print.
- Velvari, Peter. "Surgical Endodontics" in Bergenholtz, Gunnar, Preben Hørsted-Bindslev, and Claes Reit. Eds. *Textbook of Endodontology: Second Edition*, Singapore: Wiley-Blackwell, 2009. 348-65. Print.
- Walding, James, Ann Herring, and Kue Young. *Aboriginal Health in Canada*. Toronto: University of Toronto, 2006. Print.
- Ward, Lesli. "Interview with Lesli Ward - Manager of Hay River Dental Clinic in NWT." Telephone Interview. 14 Feb. 2013.
- Weller, Geoffrey. "The Devolution of Health Care to Canada's North" in Gurston Dacks., ed., *Devolution and Constitutional Development in the Canadian North*, Ottawa: Carleton University Press Inc., 1990. 121-56. Print.
- Wetherell, J.D., and R.J. Smalls. "Partial Denture Failures: A Long-term Clinical Survey." *Journal of Dentistry* 8.4 (1980): 333-40. Print.
- White, Graham. "Governance in Nunavut: Capacity vs. Culture?" *Journal of Canadian Studies* 43.2 (2009): 57-81. Print.
- White, Graham. "Nunavut and the Inuvialuit Settlement Region: Differing Models of Northern Governance" in Frances Abele et al., eds., *Northern Exposures: Peoples, Powers, and Prospects in Canada's North*. Montreal: Institute for Research on Public Policy and McGill-Queen's University Press, 2009 (2012). 283-316. Print.

White, Patrick. "The Trials of Nunavut: Lament for an Arctic Nation." *The Globe and Mail*. The Globe and Mail, 1 Apr. 2011. Web. 22 Feb. 2013.
<<http://www.theglobeandmail.com/news/national/nunavut/the-trials-of-nunavut-lament-for-an-arctic-nation/article547265/>>.

Whittington, Michael S. *Native Economic Development Corporations: Political and Economic Change in Canada's North*. Ottawa: Canadian Arctic Resources Committee, 1986. Print.

Yalnizyan, Armine, and Garry Aslanyan. *Putting Our Money Where Our Mouth Is: The Future of Dental Care in Canada*. Ottawa: Canadian Center for Policy Alternatives, 2011. Print.

Young, Kue, and Gregory P. Marchildon. *A Comparative Review of Circumpolar Health Systems*. Oulu: International Association of Circumpolar Health, 2012. Print.