

THE IMPLEMENTATION OF ORAL HEALTH REGULATION IN
LONG-TERM CARE FACILITIES

by

CAROLINE YUEH WEN JIANG

B.Sc., The University of British Columbia, 2003

A.A.S, New York University, 2006

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE

in

THE FACULTY OF GRADUATE STUDIES

(Craniofacial Science)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April 2012

Abstract

Background: Poor oral health in long-term care (LTC) facilities is rampant and currently there is no effective strategy for improving daily oral healthcare in most of them. The government of British Columbia has implemented an oral health regulation for joint responsibility between dental professionals and LTC administrators to maintain the daily oral healthcare of residents in their care; however, it seems that conflicting priorities persist and are a barrier to achieving optimal oral health for residents.

Research Questions: How has the governmental regulation on oral healthcare in LTC been developed, implemented and sustained?

Methods: I conducted a secondary analysis of open-ended interviews with 14 LTC administrators undertaken before the regulation was implemented. Subsequently I conducted similar interviews with five government officials and five administrators to explore how the regulation was developed and implemented. Participants for interviews were selected purposefully to obtain a comprehensive response to my questions. I used a constant comparison technique to analyze relationships between the various perspectives, and I determined the trustworthiness of my findings by triangulating them with published literature on this topic, and by allowing participants to comment on them.

Results: Before the regulation was implemented administrators emphasized a need for constant reminders, continuing education and administrative accountability to maintain the daily oral healthcare in LTC facilities. Government officials developed the regulation so that facility residents would receive a clinical examination annually by a dental professional. However, LTC administrators seemed unaware of this regulation, and when brought to their attention did not expect it to be assessed by government inspectors. This disregard for regulation was confirmed by the inspectors who explained that they do not enquire about daily oral healthcare of residents unless there is a written recommendation from a dental professional for treatment of specific mouth problems.

Conclusions: The regulation to manage oral healthcare in LTC facilities is not being implemented or sustained as intended because of inadequate collaboration between dental professionals, administrators, and government inspectors.

Preface

This study was approved by the Providence Health Care Research Ethics Board. The reference number of the ethics certificate is PHC REB H10-02941.

Table of Contents

Abstract.....	ii
Preface	iii
Table of Contents.....	iv
List of Figures.....	viii
Lists of Abbreviations.....	ix
Acknowledgements.....	x
Dedication.....	xi
Chapter 1: Introduction.....	1
1.1 Priority of Oral Health in Long-term Care	5
1.2 Existing Knowledge.....	8
1.2.1 Barriers to Daily Oral Healthcare.....	8
1.2.2 Quality Assurance and Program Evaluation	12
1.2.3 Educating for Oral Hygiene	13
1.2.4 Conflicting Priorities for Oral Healthcare	14
1.3 Knowledge Gaps.....	15
1.4 Research Rationale	16
1.4.1 Research Question.....	16
Chapter 2: Methods.....	18

2.1 Health Technology Assessment.....	18
2.1.1 Qualitative Health Technology Assessment.....	20
2.1.2 Research Design	20
2.2 Sampling and Recruitment	23
2.3 Information Collection.....	24
2.4 Information Analysis	25
2.5 Credibility of the Interviews	26
2.5.1 Researcher as the Instrument.....	27
2.5.2 Trustworthiness of Findings from the Interviews	27
2.6 Ethical Considerations	28
Chapter 3: Results.....	29
3.1 Case I: Secondary Analysis of Interviews	29
3.1.1 Introduction	29
3.1.2 Sensory cues	29
3.1.3 Education.....	30
3.1.4 Accountability	31
3.2 Case II: Perspective of Developers and Inspectors.....	32
3.2.1 Introduction	32
3.2.2 Development of Regulation.....	33
3.2.3 Requirements of the Oral Health Regulation	34
3.2.4 Inspection of the Oral Health Regulation.....	35

3.2.5 The Dental Hygienist-Inspector as an Educator	39
3.2.6 Lack of Complaints and Other Sensitivities	40
3.3 Case III: Perspective of Administrators.....	41
3.3.1 Introduction	41
3.3.2 Awareness of the Residential Care Regulation’s Oral Health Regulation	41
3.3.3 Other Mouth-Care Policies.....	42
3.3.4 Interpretation of the Oral Health Regulation.....	43
3.3.5 Quality Assurance of Daily Oral Healthcare	44
Chapter 4: Discussion and Conclusion	47
4.1 Introduction.....	47
4.2 Discussion	47
4.3 Strengths and Implications of the Study	51
4.4 Limitation and Future Directions.....	53
4.5 Reflective Comments.....	55
4.6 Conclusions.....	56
References.....	58
Appendices	70
Appendix A: Provincial Legislation referring to Oral Health	70
Appendix B: Letter of Invite.....	73
Appendix C: Consent Forms	74
Appendix D: Sample Interview Guide	80

Appendix E: Memorandum to Administrators from the Ministry of Health, B.C. Government, in 1998.	82
Appendix F: Sample of a Facility’s Oral Care Standard and Audit.	86
Appendix G: An Inspection Report from Health Authority X	87
Appendix H: An Inspection Guide from Health Authority Y	88
Appendix I: Characteristics of the Administrator and the Facilities Interviewed.	89
Appendix J: Sample of a Facility’s Internal Mouth Care Guideline	90
Appendix K: Sample of a Daily Care Checklist for Care-Aids.....	91

List of Figures

Figure 1.	Section 54 (3) of the Residential Care Regulation (B.C. Reg 96/2009)	3
Figure 2.	Introduction of Long-term Care Regulations in B.C.	4
Figure 3.	Aspects in the Health Technology Assessment Framework	18
Figure 4.	A Three-case (embedded) Study Design	21
Figure 5.	Constant Comparison: A) Across Case I, Case II and Case III. B) Interview- subunits within each Case	22
Figure 6.	Health Technology Assessment Framework applied for the Oral Health Regulation in B.C.	52

Lists of Abbreviations

B.C.	British Columbia
CCALA	Community Care and Assisted Living Act
DOH	Daily Oral Healthcare
HTA	Health Technology Assessment
OHR	Oral Health Regulation

Acknowledgements

I am extremely grateful for my supervisor, Dr. Michael MacEntee from the UBC Elders' Link with Dental Education, Research and Service (ELDERS) Group, and my committee members: Dr Arminee Kazanjian from the UBC School of Population and Public Health, Dr. Jean-Francois Kozak from the Department of Family and Community Medicine at Providence Health Care and the UBC School of Population and Public Health.; and Dr Christopher Wyatt, from the UBC Faculty of Dentistry Geriatric Dentistry Program.

To my grandparents and parents

Chapter 1: Introduction

Long-term care (LTC) or residential care facilities offer 24 hours of medical, social and custodial care to people who are unable to care for themselves because of chronic illness or mental/physical disabilities (Chan & Kenny, 2001; McGregor et al., 2010). Oral hygiene, such as daily toothbrushing and denture cleaning, is a component of custodial care that warrants further attention globally because it has generally been found that residents of LTC have poor oral health (Chalmers & Pearson, 2005; Ribeiro Gaião, Leitão de Almeida, Bezerra Filho, Leggat, & Heukelbach, 2009; Hopcraft, Morgan, Satur, Wright, & Darby, 2010; Matthews, et al, 2012). Mouth-care is often inadequately delivered because care-aides are overloaded with other priorities of care (MacEntee, 2006b). Moreover, while care-givers often have insufficient skills to manage LTC residents' resistive behaviour during mouth-care, the administrators in the same LTC facilities often perceived their residents' oral hygiene as satisfactory (MacEntee, 2006b; Rabbo, Mitov, Gebhart & Pospiech, 2011).

The most significant barrier to residents' oral hygiene is the time to provide care, consequently the responsibility for oral care in many facilities is shared by many care-providers (MacEntee, 2006b; Sales, O'Rourke, Draper, Teare, & Maxwell, 2011). Some care-aides do not consider the mouth and teeth as their responsibility or may believe that mandatory examination of the residents' mouths is an invasion of privacy (Andersson, Nordenram, Wardh & Berglund, 2007; Rabbo, Mitov, Gebhart & Pospiech, 2011). Similarly, many physicians believe that the mouth is not within their scope of practice (Andersson, Furhoff, Nordenram, & Wardh, 2007). As a result, in most LTC facilities, there is a gap in the fulfillment of the obligation to provide oral care (de Mello & Padilha, 2009). Professional segregation of dentistry from medicine, especially in geriatrics, appears to preclude the inclusion of oral care as an integral part of

geriatric care (MacEntee et al., 2011). Swedish legislation requires that elders in LTC are screened annually for mouth-problems, yet most elders in Swedish LTC facilities do not receive the care required to maintain good oral hygiene (Forsell, Sjogren, & Johansson, 2009). Wardh, Jonsson, & Wikstrom, (2011) explain that the absence of oral hygiene in Sweden is due to a lack of concern among care-aides for mouth-care. Furthermore, Lau et al., (2010) found that the care-plans for patients in palliative care in Chicago, USA could be compromised due to poor communications between staff, and especially if the staffing-level is composed of multiple disciplines.

In addition to the varieties of staffing-levels, the obligation to provide oral care is often ambiguous due to the different types of funding and licensing for LTC facilities. In Canada, there are broad mixes of publically and privately funded LTC facilities (Chan & Kenny, 2001), and these are classified typically as not-for profit, proprietary, and lay or faith-based operations (Berta, Laporte, Zarnett, Valdmanis, & Anderson, 2006). The not-for-profit LTC facilities in B.C. were found to provide a higher quality of care than the private facilities in B.C. (McGregor et al, 2006). For example, the residents in the not-for-profit facilities had lower rates of hospitalization for pneumonia, anemia, and dehydration (McGregor et al, 2006). Nevertheless, most Canadian jurisdictions, except for the Yukon, the Northwest Territories and Nunavut, have legislation mandating that LTC facilities provide access to dental care (Appendix A).

Health authorities in Nova Scotia pay for the relief of pain and bleeding in the mouth (Abi-Nahed, 2007). In Alberta, New Brunswick, and Quebec, oral healthcare is considered as part of each senior's health-benefit program, which pays for some dental services (Abi-Nahed, 2007 & Appendix A). In the regulations of LTC facilities of B.C., Manitoba, and Ontario, oral care is required in each resident's care plan in (Appendix A). Another part of the B.C.'s

regulation, and in Saskatchewan, an annual oral health examination is mandated (Figure 1, & Appendix A). According to section 54 (3) of the B.C.'s Residential Care Regulation, assistance with daily mouth care and following dental recommendations for residents are also mandated (Figure 1). However, the obligation to maintain good oral hygiene may not be enforced because the regulation in B.C. does not explicitly mention enforcement. Consistent enforcement of regulations during the inspection of LTC facilities is important to ensure that administrators are held accountable to a uniform standard of care (Aka, Deason & Hammond, 2011). Otherwise, care-givers are apt to believe that inconsistencies regarding appropriate standards of care are acceptable (Martz& Gerding, 2011).

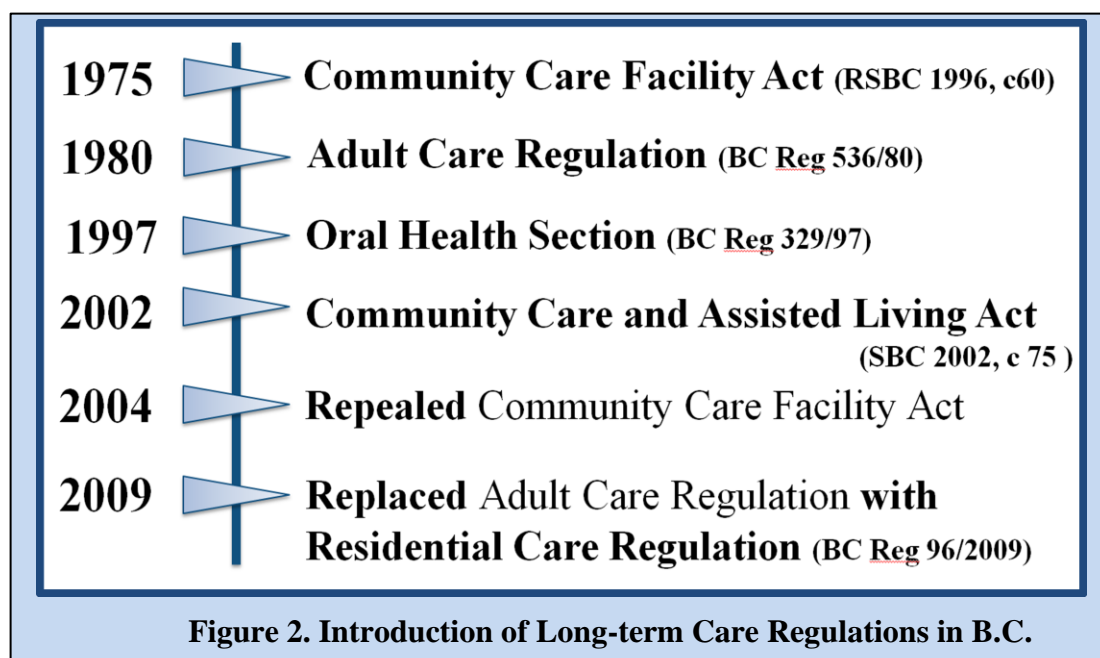
A licensee must:

- a) encourage persons in care to be examined by a dental healthcare professional at least once every year, and**
- b) assist persons in care to**
 - i. maintain daily oral health,**
 - ii. obtain professional dental services as required, and**
 - iii. follow a recommendation or order for dental treatment made by a dental healthcare professional.**

Figure 1. Section 54 (3) of the Residential Care Regulation (B.C. Reg 96/2009)

B.C.'s provincial legislation on some LTC facilities began in 1975 with the Community Care Facility Act (RSBC 1996, c60). In 1980 the Adult Care Regulation (B.C. Reg. 536/80) was added to the Act, but it was not until 1997 that a section was included to regulate oral health (Figure 2). Since 1997, there have been several revisions to the Act, all of them retaining the reference to oral health. However, the oral health regulation (OHR) did not apply to facilities offering extended care in public or private hospitals. A hospital is "*a house in which 2 or more patients, other than the spouse, parent or child of the owner or operator, are living at the same time, and includes a nursing home or convalescent home*" [Hospital Act, RSBC 1996,

c200, part 2, 5(1)]. Following the repeal of the Community Care Facility Act (RSBC 1996, c60) and enactment of the Community Care and Assisted Living Act (CCALA) (SBC 2002, c75) in 2004, the Hospital Act was amended with a declaration that extended care in hospitals is “*subject to the regulations*” of the CCALA [Hospital Act, RSBC 1996, c200, part 1, 4(3)]. As a result, all LTC facilities in the province should comply with the oral health section in the Adult Care Regulation (B.C. Reg. 536/80). Since 2004, LTC facilities with three or more residents are licensed in B.C. by the local health authorities “*to conduct an audit of the operations of a community care facility*” with the authority of the CCALA [SBC 2002, c75, part 2, 4(1)(c)].



In 2009, the Adult Care Regulation (B.C. Reg. 536/80) was replaced by the Residential Care Regulation (B.C. Reg. 96/2009) and retained reference to oral healthcare. Consequently, the six health authorities in B.C. use the Residential Care Regulation (BC Reg 96/2009) as the basis for inspecting all LTC facilities in the province so that health authority inspectors (also known as licensing officers) and facility administrators are responsible for the quality of care

rendered to the residents. Although, despite the regulation, there appears to be a widespread neglect of daily oral healthcare (DOH) as I explained above.

1.1 Priority of Oral Health in Long-term Care

Regulations have been used to assure quality of healthcare (Pruksapong & MacEntee, 2007; Sales et al., 2011; Werner & Konetzka, 2010). The need for quality improvement in LTC facilities is increasing along with the increasing number of elders living in facilities. At the end of 2010, there were approximately 2,216 LTC facilities Canada serving about 205,442 elderly residents. Together they generated approximately \$13.1 billion in revenue (Statistics Canada, 2011). In Canada, 70% of the elderly residents in LTC facilities are over the age of 80 (Statistics Canada, 2005; Statistics Canada, 2011). In B.C. for example, the number of LTC residents above the age of 85 grew 34% from 18,997 people in year 2004 to 25,452 people in year 2010. Consequently, an increasing population of elders with longer lifespans heralds an increase in age-related disorders, which will increase the need for more LTC facilities (Luppa et al., 2010). A study of 22 developed countries specifically demonstrated that escalating costs in LTC facilities are the main driver of growth in health expenditures (Di Matteo, 2010; Palangkaraya & Yong, 2009). Statistics Canada reported recently that the number of LTC facilities offering 24-hour nursing care has increased by about one-third (34%) over the last 10 years (McGregor et al., 2010). Some health economists believe that it will be the large population of frail elders in Canada, not the current baby-boomers, who will bankrupt the Canadian healthcare system unless radical steps, preferably through health promotion and disease prevention, are taken to reduce the utilization of healthcare in an old age (Di Matteo, 2010; Palangkaraya & Yong, 2009).

In the past 15 years, there has been a growth in the literature describing new oral health programs for institutionalized elders (Forsell et al, 2011). A review of this literature suggested that many oral diseases in this population can be prevented by effective oral hygiene, but we do not know how to reliably provide DOH (Chalmers & Pearson, 2005; Forsell, Kullberg, Hoogstraate, Johansson, & Sjogren, 2011; MacEntee et al., 2007). Moreover, effective oral care is warranted not only to maintain oral health but also to prevent systemic health complications such as respiratory diseases (Kuo, Polson, & Kang, 2008; Sjogren, Nilsson, Forsell, Johansson, & Hoogstraate, 2008). Aspiration pneumonia, in particular, accounts for about 40% of deaths in LTC facilities (Bassim, Gibson, Ward, Paphides, & Denucci, 2008; Shay, Scannapieco, Terpenning, Smith, & Taylor, 2005; Sue Eisenstadt, 2010).

A systematic review of the literature on respiratory illness and oral health from the earliest record until July 2005 concluded that enhanced daily mouth-care and regular professional dental care can decrease the occurrence and progression rate of respiratory diseases in LTC residents (Azarpazhooh & Leake, 2006). Another assessment of LTC elders with pneumonia admitted to hospital in Alberta found that 30% of them had aspiration pneumonia¹ (Reza Shariatzadeh, Huang, & Marrie, 2006). Food stagnating in the mouth can harbour bacteria that can cause pneumonia (Pace & McCullough, 2010; Sue Eisenstadt, 2010). LTC residents with visible poor oral hygiene determined by the amount of bacteria on teeth and tongue also have a higher level of salivary bacteria linked to the development of pneumonia (Abe, 2006). Therefore, oral hygiene can decrease the risks of nosocomial pneumonia² (Mori et al., 2006; Scannapieco, 2006; Sjogren et al., 2008; Yoneyama et al., 2002). Yoneyama et al.

¹ Aspiration pneumonia is a lung infection caused by inhaling food and liquid into the lungs (American Thoracic Society, New York, USA).

² Nosocomial pneumonia, also known as hospital-acquired pneumonia, occurs more than 48 hours after admission (American Thoracic Society, New York, USA).

(2002) demonstrated that supervised toothbrushing after every meal reduced the incidence of pneumonia by about 10% over two years for elderly residents of nursing homes in Japan. A similar finding was reported by Mori et al (2006) for ventilator-associated pneumonia when nurses cleaned the mouths of their patients three times per day. Furthermore, a mouth-care program implemented by a multiple professional team, from speech therapists to nurse managers, improved 77% of the lung condition in residents admitted with aspiration pneumonia (Farrell & Petrik, 2009). Consequently, the risk of acute hospitalization and the burden on the healthcare system are reduced (Haumschild & Haumschild, 2009). For example, estimates from the USA suggest that the cost of nosocomial pneumonia could be reduced by 10% (\$800 million) annually by employing a care-aid dedicated to oral hygiene (Terpenning & Shay, 2002). This estimate is based on a cost of \$25,000 at each of the 19,000 nursing homes in the USA, which translates to at least \$300 million savings in addition to the cost (\$500 million) of employing the care-aides in 2002. A similar estimate³ for B.C. for 2009 shows a savings of at least \$50,000 annually, or about \$140 daily, if the 281 nursing homes in the province adopted similar methods and objectives.

The significance of oral hygiene to quality of life is important also, and no less in old age than at any other time (MacEntee, Hole, & Stolar, 1997). Poor oral hygiene can disturb a person's social, physical, emotional, and nutritional state (MacEntee, 2006a). A survey of 8,800 elders identified a positive correlation between concern for oral health and depression (Quine & Morrell, 2009). In the interviews and focus groups conducted by MacEntee et al. (1997) and Brondani et al. (2008), elders living independently continued to be concerned about their appearance as they age, regardless of gender or living arrangements. Kotzer (2011) concluded

³ The estimates from 2002 to 2009 are based on cost of living increase. (Inflation Calculator, Bank of Canada. <http://www.bankofcanada.ca/rates/related/inflation-calculator/>)

from the “14-item Oral Health Impact Profile questionnaire” that residents of LTC facilities when compared to their peers in the community experienced significantly more ‘negative impacts’ from their teeth. McKeown (2003) concluded that the self-confidence of frail elders was frequently disturbed by halitosis caused by oral diseases. Similarly, Donnelly (2011) found that elderly women in residential care preferred to remain socially isolated if they believed that they had halitosis, and refrained from smiling when they had no teeth. Moreover, it is possible that baby boomers when compared to previous generations will be even more conscious about their teeth as they grow old (Mojon, Thomason & Walls, 2004).

1.2 Existing Knowledge

1.2.1 Barriers to Daily Oral Healthcare

The most commonly reported impediment to oral hygiene in LTC is time as the complexity of care increases (MacEntee, Thorne & Kazanjian, 1999; Seblega et al., 2010). Many LTC staff complain of insufficient time to perform mouth-care, in part due to conflicting priorities, and in part due to many residents refuse assistance with mouth-care. Cognitively impaired residents are particularly difficult to manage because LTC staff without dental training often find it difficult to keep residents’ heads still or to rinse their mouths effectively (Chalmers & Pearson, 2005). Other residents may also resist oral care because they value their independence or because they did not access dental care regularly before their admission to a LTC facility (Donnelly, 2011). In effect, many residents felt no need for special oral or dental care before admission, and so they continued as before after they are admitted. Absence of a perceived need for dental care is a strong predictor of low dental service use (Shelley, Russell, Parikh, & Fahs, 2011), and this is exacerbated by a history of ‘*horrendous*’ or ‘*excruciating*’ dental experiences (Slack-Smith et al., 2010).

The resistant behaviour of some residents, especially when demented, raises ethical dilemmas for care-givers (Bryant, MacEntee and Browne, 1995; Willumsen, Karlsen, Naess, & Bjorntvedt, 2011). The conflict between residents' autonomy to refuse care and care-givers' beneficence to prevent harm, according to McNally, Dharamsi, Bryant, and MacEntee, (2011), stems frequently from unclear goals for mouth-care. Bryant, MacEntee and Browne (1995) interviewed dentists who provide care in LTC facilities in B.C. and heard that some of them felt inadequately educated to treat elderly patients who were frail. This inadequacy posed an ethical challenge for them, especially when they believed that the treatment they could offer was less than ideal. Others have identified similar challenges as moral issues of compassion and professional integrity (McNally, 2003; Ozar & Sokol, 2002; Welie & Rule, 2006). McNally (2003) suggested inter-professional cooperation should help to resolve the moral and ethical concerns of dentists by ensuring that dental treatment is not marginalized from general care. There seems to be three central issues that give rise to the ethical and moral challenges posed by dentistry in LTC facilities. Firstly, most dental professionals feel public reimbursement does not adequately cover the cost of emergency dental services provided to LTC residents (Whitman & Whitman, 2006). Secondly, dental hygienists in many jurisdictions cannot treat LTC residents without the approval of a dentist (Glassman & Subar, 2010). Thirdly, dental education students is focused primarily on clinical techniques and give relatively little attention to preventing oral diseases (McNally, 2003).

Apparently, the education of most dental students in dental geriatrics is predominantly didactic, with very little clinical exposure to management of the oral problems of frail patients, at least in North America and Europe (Ettinger, 2010). On the other hand, dental students given positive experiences with older patients in LTC may experience emotions that are both "*enlightening*" and "*saddening*" (MacEntee, Pruksapong, and Wyatt, 2005). Clinical

interactions in LTC facilities offers reciprocal opportunities for the LTC staff and the dental students to interact and this interaction is usually positive if students have realistic expectations of the mouth-care they will be able to provide to the residents (Brondani et al, 2011). Indeed, oral healthcare can enhance a patient's psychological well-being even if the clinical indices of health in the mouth do not show a measurable improvement in oral health status (Donnelly, 2011).

It is interesting to note that nursing staff do not always apply the same standards of oral care to their residents as they apply to themselves (Antoun, Adsett, Goldsmith, & Thomson, 2008; Coleman, 2002; Sumi, Nakamura, Nagaosa, Michiwaki, & Nagaya, 2001; Wardh, Hallberg, Berggren, Andersson, & Sorensen, 2000). Optimal levels of oral health have been associated closely with frequency of visits to the dentist (Unfer et al., 2011). When the utilization of dental care by LTC residents and staff was compared, nearly all of the staff had two or more dental examinations annually whereas only one-third of the residents were seen by a dentist more than once a year (Nitschke et al., 2010). Workers in LTC facilities in the USA come from many countries such as the Philippines, where the older people are highly respected (Browne, Braun, & Arnsberger, 2007; Pittman, Folsom, & Bass, 2010). Nonetheless, foreign care-aides are not well informed about the standard of oral health care expected by elders in the country to which they have emigrated (Thean, Wong, & Koh, 2007). Despite similar acknowledgment of the association between oral health and general health, Thean, Wong and Koh (2007) found that only one third of the care-aides received training in mouth-care in South Asia. Among those trained, while most identified that bacteria cause periodontal diseases, less than 50% of the care-aides acknowledged the association between dental caries and frequent sugar intake. Many foreign-educated nursing staff claim that they received inadequate clinical and cultural orientation upon employment in the USA (Pittman, Folsom, & Bass, 2010). As a

result, immigrant nursing staff draw from previous experiences in their country of origin to establish the standard of care they provide here in North America (Cang-Wong, Murphy, & Adelman, 2009).

The successful attempts made in some Western countries to educate foreign-trained care-staff were not always sustained permanently, and in-house training for mouth-care delivery rarely translates into improved oral health for their patients (MacEntee et al., 2007; De Visschere et al., 2010). In B.C., 14 LTC facilities had nurses conduct one- hour seminars for care-aides with photographs, texts, and educational props on how to clean the mouth (MacEntee et al, 2007). Five out of the 14 nurse-educators were trained by a dental hygienist before they educated the care-aides, and the hygienist was readily available to the nurse-educator for follow-up advice and assistance when requested. However, none of the nurses contacted the dental hygienist for additional guidance, and there was no improvement in the oral health status of the residents in their care. Similar findings have been reported from Flanders, Belgium and Stockholm, Sweden (De Visschere et al, 2010; Kullberg et al, 2010).

The study by MacEntee et al (2007) also challenged the suggestion that poor DOH is caused by LTC staff that were trained outside North America. Therefore, further research on the translation of oral health knowledge into mouth-care delivery is required. Almost all of the LTC staff in B.C. and in the USA were educated in North America (Khatutsky, Wiener, & Anderson, 2010). However, there are problems scheduling continuing education courses for LTC staff because of poor attendance if the courses are scheduled outside regular working hours (MacEntee et al, 2007; Jablonski, Munro, Grap, & Elswick, 2005).

MacEntee, Thorne, & Kazanjian (1999) also heard from a LTC administrator that mouth-care expertise is difficult to sustain because “*staff turnover is high [resulting in] a lot of*

new casual [staff] on the ward.” However, my literature review concluded there was insufficient evidence to support the belief that there is a high turnover rate of staff in LTC facilities in Canada. Hence, the suggestion that care-aides’ turnover rate disturbs the continuity of oral healthcare for residents warrants explanation from the LTC administrators in Canada. Nevertheless, the literature review in the USA concluded that high turnover rate of care-aides, negatively affects the quality of all types of care for residents (Collier & Harrington, 2008). Low-staffing levels caused existing staff to feel over-worked with the end result that they quit (Collier & Harrington, 2008). The Consequences such as poor LTC staff morale and increased hospitalization of the residents in their care were identified and it seems that oral care is one aspect of care affected by this instability. Moreover, as Donoghue and Castle (2009) found, administrators who solicit input from care-aides have a lower turnover of staff; thus the suggestion that interprofessional collaboration between LTC personnel produces a higher quality of oral care is further supported (MacEntee, 2006b). When Jablonski et al (2009) piloted the collaboration of nursing and dental hygiene care for 38 LTC residents from two facilities (one non-profit and one proprietary), the dental hygiene students came away feeling more comfortable examining residents and the nursing students gained hands-on experience in assessing oral health.

1.2.2 Quality Assurance and Program Evaluation

Oral care programs in LTC facilities could be improved by quality assurance and program evaluation (Pruksapong, 2008). Mutual support and communication between all members of staff is a consistent facilitator for assuring quality of care (Pruksapong, 2008). Indeed, the importance of this support relative to DOH has been identified by others (Castle, Ferguson, & Hughes, 2009; Donabedian, 2003). Administrators of a facility can distribute the workload to encourage DOH (Dharamsi, Jivani, Dean, & Wyatt, 2009; Forsell et al., 2011;

Vanobbergen & De Visschere, 2005), and the care-aides or nurse managers can provide formative and summative feedback on the outcome of DOH (Chalmers et al., 2001; de Mello & Padilha, 2009). In addition to the decision-makers, attributes of standard and institutional protocol should be evaluated for quality improvement (Donabedian, 2003). A review of literature on quality assurance in healthcare from 1985 to 2008 stated that quality improvement strategies initiated by policy-makers were less effective than the strategies initiated by the patients and clinicians (Scott, 2009.) Moreover, focusing on an individual group or factor, instead of targeting organizational barriers, cannot solve the problem of inadequate DOH in most facilities (Foy et al., 2005; Pruksapong, 2008). Similarly, the structure of a DOH program can have extremely different outcomes in various LTC facilities; therefore “shared understandings” among LTC staff within a facility may be an effective strategy for DOH (Jablonski et al., 2005; Unfer et al., 2011).

1.2.3 Educating for Oral Hygiene

In Australia, a survey of 97 LTC administrators and 413 dentists concluded that DOH knowledge was low, and the investigators suggested education from a dental hygienist as a possible solution to address the mouth-care needs of the residents (Chalmers et al., 2001). In the USA, the benefit of collaboration between dental professionals and nurses was demonstrated when nursing and dental hygiene students collaborated successfully to manage residents’ resistance to DOH (Jablonski et al., 2009). In Canada (MacEntee et al., 2007), and Belgium ((De Visschere, Schols, Van Der Putten, De Baat, & Vanobbergen, 2010), there were also some indications that DOH might be improved in LTC by an enthusiastic or “champion” employee in each facility committed solely to oral healthcare. However, the supervised implementation of an oral health guideline demonstrated less than presumed benefits (Pronych, Brown, Horsch, & Mercer, 2010). As a result, the practicalities of how such an oral healthcare

specialist would interact effectively with other care givers need further investigation (Pronych, et al., 2010).

1.2.4 Conflicting Priorities for Oral Healthcare

MacEntee et al. (1999) conducted 12 case studies to contrast different human resources and organizational strategies for oral health of residents in LTC prior to the OHR (Figure 1). These included a total of 109 open-ended interviews with residents, family members, dental professionals, care-aides, nurses, and administrators in the 12 facilities. As the impact on residents from various dental services, such as an on-site clinic or an off-site clinic, became clearer, they concluded that no single delivery method was ideal. In fact, a practical oral care program requires much more than a dental clinic on-site to deliver effective access to regular oral assessment, needed dental treatment, and daily oral hygiene. Dental treatment for residents was the least complicated component to deliver because dental professionals operated independently from the staff of LTC facilities. However, it was limited mostly to dental emergencies, and gave little concern to preventing diseases.

MacEntee et al. (1999) found that visibility of dental professionals in a facility increased the priority of oral healthcare among the administrators and care-aides. The effect was particularly strong when dental personnel participated in care-planning conferences. However, the dental professionals usually treated residents without assistance from the nursing staff and they still struggled with resistant residents. Therefore, administrators of several facilities advocated for the selection of a mouth-care specialist from among their care-aides. Also known as “oral champions” or oral health coordinators, they were less disruptive and more suitable to tutor and monitor daily oral hygiene (Pronych et al., 2010). Essentially, the integration of assessments, treatments and daily hygiene depended upon the organizational

culture comprising the physical environment and social attitudes within a facility (De Visschere et al., 2010; Pronych et al., 2010).

1.3 Knowledge Gaps

Oral healthcare legislation for the LTC residents are typically unclear in terms of outlining how DOH can actually be implemented (Abi-Nahed, 2006; Wardh, Jonsson & Wilkstrom, 2011). Strategies based on increasing human resources and continuing education in LTC facilities have not improved the oral health of residents. Healthcare budgets are unlikely to support oral healthcare specialists in the near future, if ever (MacEntee et al., 2011), and continuing education in LTC facilities is fraught with organizational difficulties (Thorne et al., 2001). For example, evaluating and reinforcing strategies as institutional support to facilitate new knowledge translation were usually absent (Unfer et al., 2011). We know that some administrators organized DOH to be an integral part of general health, but the implementation of DOH is not assiduous due to conflicting priorities faced by multiple decision-makers.

Many large facilities provide a multidisciplinary environment where nurses dispense medications from a pharmacist, care-aides help residents with meals designed by dieticians, and everyone works under a “director of care” (Aylward, Stolee, Keat, & Johncox, 2003). Consequently, I was interested in how administrators manage the demand and need for oral healthcare among the residents, and in the standard of care that they strive to achieve (Donoghue & Castle, 2009). While policies on managing the need for care should be simple and direct for easy implementation, inconsistent approaches from different health professionals hinder the improvement of oral care (Pruksapong & MacEntee, 2007).

1.4 Research Rationale

Information on how the OHR was developed and implemented, and about how it is inspected by government regulators, might help to explain why oral healthcare in LTC facilities in B.C. seems to have improved very little, if at all, since the OHR became effective in May, 1998. An assessment of B.C.'s OHR implementation by the LTC administrators and inspectors can also provide evidence to tailor future modifications of oral healthcare in facilities. For example, while the government of B.C. has an action plan to improve the home and community care services for the elderly population, the B.C. Dental Association proposed to create a dental coordinator role (BCDA, 2011; Ministry of Health in BC, 2012).

1.4.1 Research Question

Primary Objective: How was the governmental regulation on oral healthcare in LTC developed, implemented and sustained?

Supplemental Questions:

1. **What were the LTC administrators' perspectives on DOH before the OHR became effective in 1997?** Did the social context and the population at risk (Figure 3) need the regulation? An insight into what administrators perceive as problems in oral healthcare could explain whether the OHR was helpful.
2. **How was the OHR developed, disseminated and implemented?**
 - a. **What evidence guided the establishment of the OHR?**

The professional role and the experience of the developers for the OHR would describe the initiation of the legislation. Insight to the resources considered and utilized should explain whether the health concerns of government and the cost-effective evidence (Figure 3) supported the

development of a regulation. What problems did the OHR hope to solve?
Who did the OHR want to regulate, and how did they plan to regulate them?

b. What are the requirements (standards) of the OHR?

What were the DOH methods that they wanted to *encourage* during the annual dental examination? What impact did they expect in the population (Figure 3)? What was the expected relationship between the policy maker and the policy enforcer, and how is this perceived by the administrators (question 3 and question 4).

3. How has the OHR been inspected for compliance and sustained?

The process of quality assurance for oral health is unclear, and often unknown in different health authorities. Is compliance with OHR supported by effective evidence? How does the health authority in Vancouver support the administrators to implement and sustain the OHR? Although evaluation of in-house training programs for mouth-care in LTC has been implemented, clinical improvement has been insignificant (MacEntee et al, 2007).

4. What are the current perspectives on the OHR among the administrators?

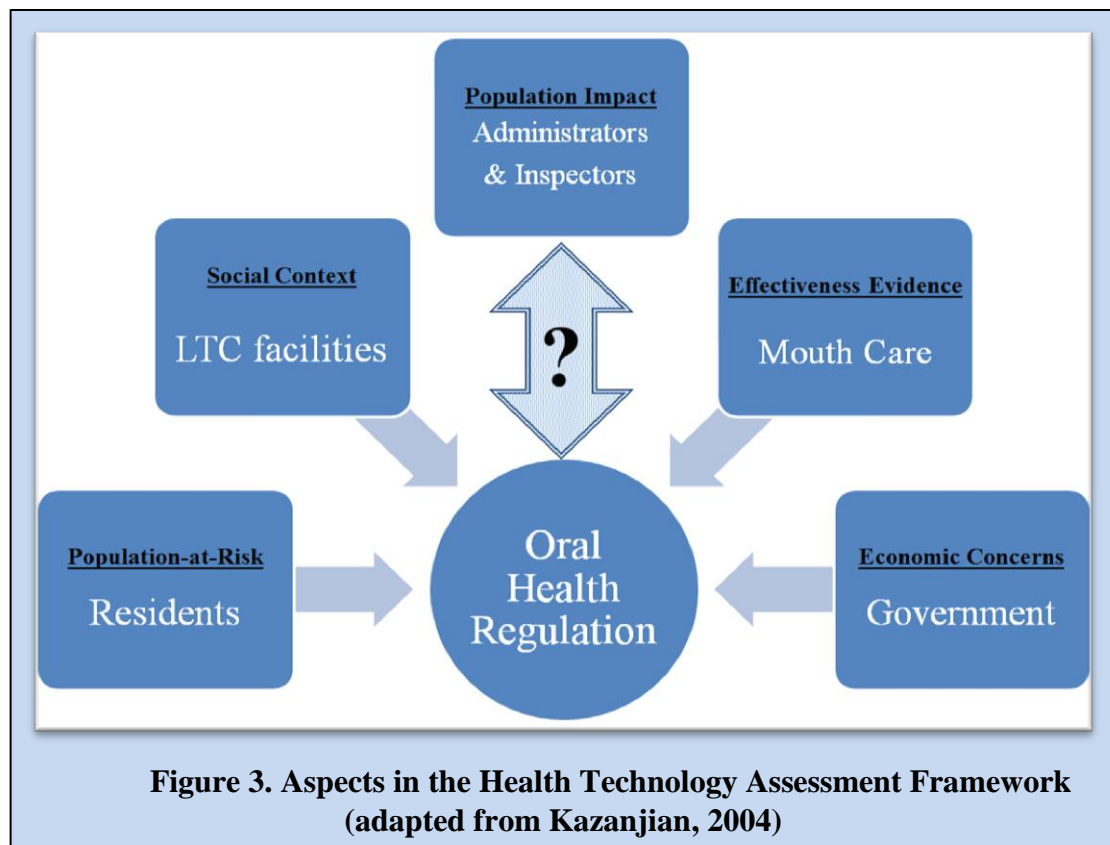
Has the priority of oral care increased since the OHR became effective (question 2B)?

Chapter 2: Methods

2.1 Health Technology Assessment

To assess the impact of the OHR, I utilized a program evaluation framework called the Health Technology Assessment (HTA) (Kazanjian, 2004). The HTA evaluates stages of the development, dissemination and implementation of a health-related technique (Battista, 2006). In HTA, a health-related technique can be a policy implemented by multiple professionals in a realistic context (Gerhardus & Dintsios, 2005). The OHR, therefore, is an example of a policy mandated in the context of LTC facilities. The aspects that a HTA focuses on, served as my conceptual framework to explore and analyze (Figure 3).

The OHR was inspired by the provincial government's concerns about the economics of delivering oral healthcare, and the effectiveness of mouth-care for the residents in LTC



facilities. However, we did not know if the people who implement the OHR had the same outcome expectations as those who developed it. In keeping with the HTA framework, evidence from different perspectives is needed to determine whether the OHR is cost-effective within the general healthcare system. Decision-makers from healthcare-providers to government officials can then be informed about the implications of a health-related policy, such as the OHR, from medical, economical and social perspectives (Gerhardus & Dintsios, 2005). According to HTA, the implementation of the OHR should be studied as a dynamic policy at both operational (administrators) and governmental (health authority) levels. It should be conducted also at multiple stages from the development to the implementation of the policy, so that standards and procedures can be evaluated at each stage (Battista, 2006).

Implementing a new policy can be difficult when it conflicts with existing policies (Goodman, 2004), or attitudes. An HTA with a systematic review of clinical practice policies in general healthcare identified seven barriers to assure the quality of optimal healthcare (Kazanjian, 2004). One barrier was attitudinal where the new expectations of outcome and organizational support were absent in a collaborative context. However, in a recent study by Pronych et al (2010), an oral health coordinator, who was appointed to support the LTC staff to deliver mouth-care by emphasizing on the outcomes expected, barely improved the residents' oral hygiene. The LTC staff had reluctant attitudes to change to the new expectations (Pronych et al, 2010), so the quality of a policy's content should also be assessed (Cochrane et al., 2007). The procedure to apply policy is likely to be effective if it contains specific objectives and responsibilities in a practical context (Green & Seifert, 2005). While LTC personnel such as physicians, nurse-managers and care-aids consider oral health important, most pay little attention to, or take responsibility for, oral care. Standardized assessments, such as the oral

health assessment demanded by the OHR, is particularly challenging when every LTC facility has a different practical context in which oral care is placed.

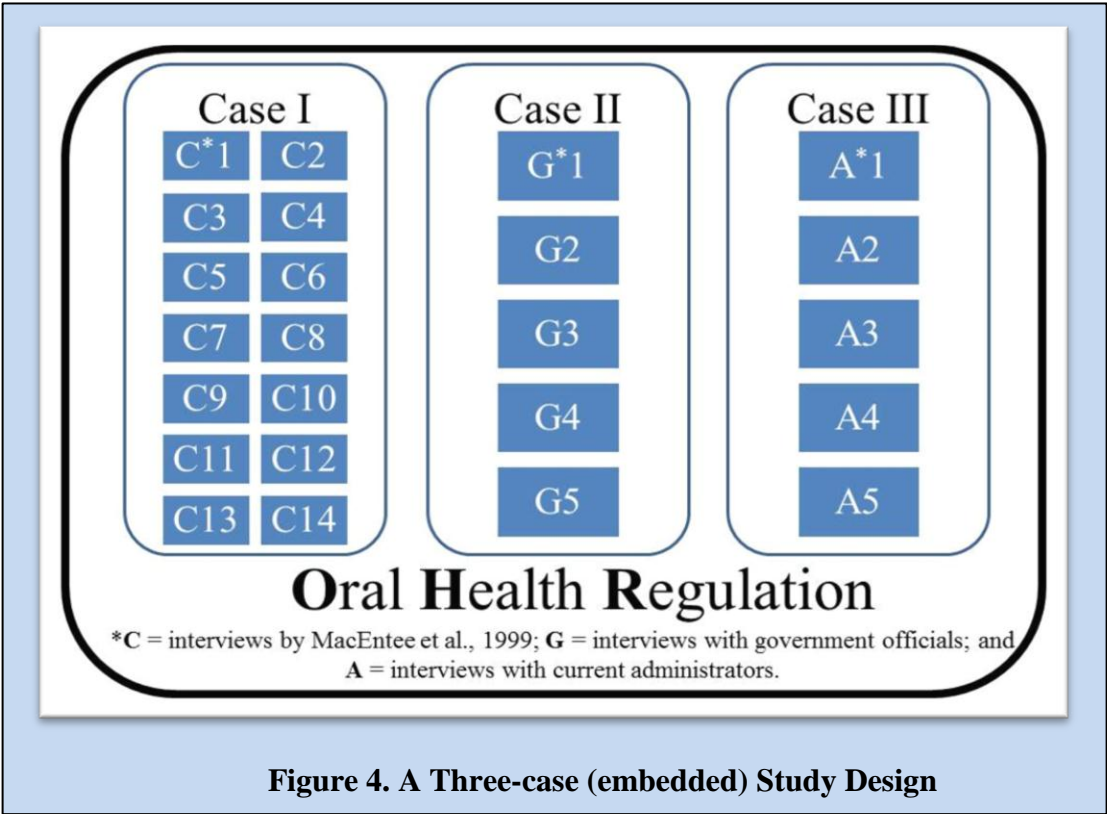
2.1.1 Qualitative Health Technology Assessment

Since HTA can be conducted either quantitatively or qualitatively, I chose to study the application of the OHR qualitatively from the perspective of the LTC administrators who make the decision to implement or ignore it. Poor oral health studied with quantitative data from questionnaires and clinical measures have yet to explain how LTC staff are concerned about oral hygiene (Dharamsi et al., 2009; Paulsson, Nederfors, & Fridlund, 1999; Pyle, Jasinevicius, Sawyer, & Madsen, 2005). Direct interviews and focus groups, in contrast, are better suited for exploring how health policies are implemented (Gagliardi, Brouwers, Palda, Lemieux-Charles, & Grimshaw, 2011). Descriptive studies to collaborate with quantitative studies on oral health in LTC facilities were recommended by De Visschere et al. (2010) and Wyatt (2009). Since the organizational structures and disciplines of LTC facilities are diverse, I sought a flexible method to explore different characteristics and features of the beliefs, experiences and behaviours of the administrator in each facility. Consequently, I selected open-ended interviews and textual analyses of verbatim transcripts to answer my research questions (De Visschere et al., 2010; Cochrane et al., 2007; Creswell, 2007).

2.1.2 Research Design

I evaluated the descriptive conditions before and after the OHR was introduced as part of the Residential Care Regulation in B.C. by enquiring about the expectations of those who produced the regulation, and the perspective of those who implemented the regulation. Therefore, I conducted a three-case study to explore multiple perspectives in the contexts that had different relationships to the OHR. Each case study was embedded with interviews as

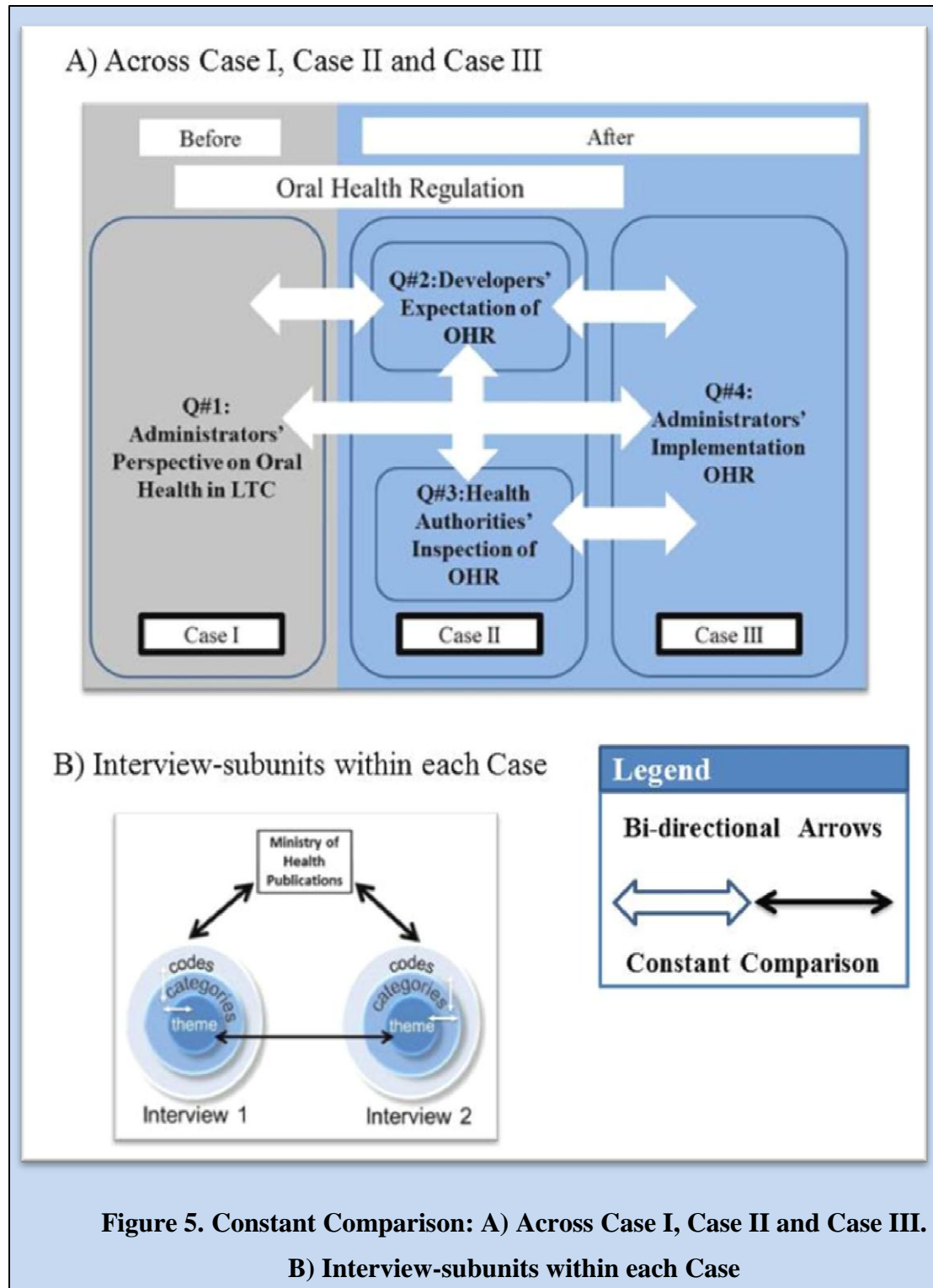
subunits (Figure 4), so variability within one case and across cases was compared constantly with information from each interview (Figure 5) (Yin, 2009).



Case I explored the perceptions of facility administrators about the DOH of residents before the governmental regulation appeared. This information was obtained from a **secondary analysis** of 14 interviews conducted in 1996 with administrators or directors of care in 12 LTC facilities around Vancouver (MacEntee, Kazanjian, and Thorne, 1999). The previous research team conducted interviews to address the question “*How do LTC stakeholders explain the effectiveness or ineffectiveness of their oral/dental health service?*”. The primary transcripts were obtained from semi-structured and open-ended interviews offering information relevant to my own research question.

Case II used five **open-ended interviews** to explore how the regulation was disseminated and enforced by the government. I interviewed three policy-makers who were

also dental professionals employed by the Ministry of Health for B.C. and two policy enforcers (licensing officers) from two different health authorities in the province. I supplemented the interviews by searching for public information posted on the Ministry's



website (Ministry of Health, 2011). Subsequently, I compared the findings from Case I and II before investigating the opinions of facility administrators today about the practical implementation of the regulation.

Case III consisted of another five **open-ended interviews** with LTC administrators who were expected to implement the regulation. Two administrators were from facilities legally regulated by the OHR whereas the other three administrators were from facilities that were only superficially regulated without legal consequences such as revoking a facility's license. Essentially, I asked all five administrators about the positive and negative aspects of the regulation.

2.2 Sampling and Recruitment

In the primary study of Case I, the collection of information from the 12 LTC facilities was guided by the principles of theoretical sampling (MacEntee, Kazanjian & Thorne, 1999). I also used theoretical sampling and a snowball approach for Case II to recruit participants who had helped to develop or disseminate the OHR. I contacted the provincial Dental Consultant, who referred me to the Director of Community Care Licensing, and to a dental hygienist who helped to develop the OHR while working for a health authority. I was unable to contact the Director of Community Care Licensing despite sending one email and leaving messages by two telephone calls; however, the dental hygienist referred me to another dental hygienist in the same health authority who also had helped to develop the OHR. Finally, the dental hygienists directed me to two licensing inspectors involved in assessing how facilities comply with the regulation.

In Case III, I purposefully selected participants who were responsible for implementing the regulations in their facilities. The participants were labelled with different job titles due to

variation in the facility sizes and staffing-levels. In my report, I addressed the participants in Case III as administrators inclusively. I included administrators of facilities either licensed under the Hospital Act (RSBC 1996, c200) or monitored by the OHR. The Director of Research at a national healthcare organization in Canada introduced me to my first and second interviewees; they were called Operation Leaders and were responsible to implement and facilitate improvements in the care process of residents. My third and fourth interviews were with Directors of Care who were introduced to me by dental professionals who worked in their facilities; the Directors of Care managed multiple professionals to deliver care in alignment with regulations. The fifth interviewee was with an administrator, and was introduced to me by a personal friend who cooked for a facility.

2.3 Information Collection

A letter of invitation (Appendix B) to each potential participant described: the purpose of my research; the criteria for participant selection; the expected time commitment; the information sought; and the considerations for confidentiality. Subsequently, each participant received a formal “Consent Form” (Appendix C) approved by Providence Health Care Research Ethics Board (Certificate # H10-02941).

I conducted at the participant’s convenience, nine face-to-face interviews and one interview by telephone, each lasting approximately one hour. Immediately before they gave their consent, I explained again to each participant the purpose of the interview and that it would be audio-recorded. Finally, before they signed the consent, I offered an opportunity for them to raise concerns and to withdraw if they wished (Bryant & Charmaz, 2007; Corbin & Strauss, 2008; Seale, 2004).

The first interview guide was constructed based on my research questions and the analysis of Case I. After each interview, I reflected on my own reactions and feelings about what I heard and saw, and recorded them along with field-notes on other related events in a personal memorandum. I also collected public provincial and institutional documents relevant to the regulations or other pertinent documents identified by the participants (Holloway & Wheeler, 2010; Rycroft-Malone et al., 2004).

I began the analysis as I transcribed each interview by marking the text to locate references to specific themes and ideas as I noticed them. After analyzing the first interview, I modified my interview guide (Appendix D) as a prompt to clarify or expand on particular themes that emerged in the preceding interviews (Kvale & Brinkmann, 2009). Consequently, the guides became more focused as the interviews progressed, and I became more comfortable posing relevant questions and probes (Kvale & Brinkmann, 2009).

2.4 Information Analysis

For Case I, I obtained the electronic version of the 14 transcripts made by MacEntee *et al.* (1999) of interviews with administrators between 1995-6 in 12 LTC facilities in the same region of B.C. I imported the transcripts to *NVivo 9*⁴ for the secondary analysis, read all of them and made notes on my reflections on them. The second time I read the transcripts, I began fracturing each transcript into meaningful units of text as part of a systematic analysis with *open-coding* by labeling words and phrases into individual conceptual *codes* that most aptly described or drew attention to the beliefs and behaviours of the participants (Glaser & Strauss, 1967). I then consolidated the codes into *categories* of perceptions that explained the beliefs and behaviours that answered my research question. I continued to refine each category by

⁴ *NVivo 9* is a text-data analysis software. SR International Inc., Cambridge, MA, USA

identifying similar and different codes from 14 interviews with LTC administrators. After consultations with my supervisor and committee, I arranged the categories in the order of importance in which I felt that they influenced DOH. From this ranking of categories, I identified emerging themes that related to the categories. After a prolonged break (one month), I re-read the transcripts to verify that the codes describing each category explained the relationships between the themes to my research questions (Figure 5B).

For Cases II and III, I transcribed the interviews *verbatim* without editing to become familiar with the information and to import the transcripts into NVivo 9. I began analyzing them systematically as I had with the transcripts in Case I by coding the texts one interview at a time. Information collected from my first interview was compared to information from Case I, and the analysis of my first interview influenced all subsequent interviews in a process of constant comparison (Kvale & Brinkmann, 2009). In each transcript, I focused on conditions and actions that influenced the OHR. I continued to refine each category into themes with explanations from subsequent transcripts and public documentation (Figure 5B). Finally, I selected specific sections of text as representative examples of each theme, which allowed me to compare and contrast perspectives within each case and across the three cases (Figure 5A).

2.5 Credibility of the Interviews

The credibility of the interviews was based on the accuracy and consistency of information I collected from all the participants, and this was influenced in part by my skills as an interviewer (Corbin & Strauss, 2008; Pope & Mays, 2006). I also wrote my study in the first person pronoun as a strategy suggested by Hyland (2002) to emphasize the strong confidence and deep commitment to my results. The first person pronoun can firmly assert my

authoritative claim as an expert, minimize misinterpretation by readers, and clarify my methodology as a competent professional integrating my scholarly skills (Hyland, 2002).

2.5.1 Researcher as the Instrument

I developed my interview skills when training and practising clinically as a dental hygienist, and I honed them along with the appropriateness of my questions with the manager of a geriatric dental program who interacts regularly with LTC administrators. This helped me to create a relaxed and secure atmosphere for the participant, and allowed me to seek elaboration and clarification on themes as they arose during the interview (Corbin & Strauss, 2008; Golafshani, 2003). I also maintained a reflective journal to record and review my experiences and bias (Kvale & Brinkmann, 2009). After noting my initial reflection, I took a restful break from the analysis before proceeding. This obviated the novelty and initial excitement of the interview and enabled me to conduct the analyses with less bias (Seale, 2004).

2.5.2 Trustworthiness of Findings from the Interviews

I checked the accuracy and confirmed the consistency of my findings using several techniques (Seale, 2004). Initially, at the beginning of the interview, I briefed participants about the aims of my research and gave assurance of the anonymity of their perspectives. I did not disclose my other profession as a dental hygienist lest it influence their responses.

In Case II, my preliminary findings were clarified with two more short (less than five minutes) follow-up phone conversations with the dental consultant and the dental inspector. The dental consultant and two dental hygienists collectively briefed the situational context of how the OHP came about in 1998. Then, the two inspectors separately described how the inspection of compliance with an OHP has been carried out in two different local health

authorities since 1998. I also triangulated each participant's information with other sources, such as the web-posting of the result of a facility's inspection by the regional health authority. I also compared information on the same facility such as the inspection of DOH by administrators and health authority inspectors. During the comparisons, I looked particularly for discrepant evidence conflicting with my own past experiences as a dental hygienist and recent insights as a researcher. Lastly, I asked the participants to check the accuracy of the summary I made of their interviews (Maxwell, 2005). After I drafted the properties of the categories in an interview, I sent the participant a short summary of my interpretations of the interview, and asked the participant to confirm or correct them (Creswell, 2007; Yin, 2009).

2.6 Ethical Considerations

Ethical approval to conduct this research was obtained from Providence Health Care Research Ethics Board (Certificate #H10-02941). I assigned numbers to a list of names to maintain the confidentiality of the participants. All information, such as name, address or contact number that could be used to identify a participant was excluded from the research reports, and the transcribed audio tapes were stored in a password-protected computer accessible only to myself and my supervisor and his staff. Upon the completion of my research, I will store the audio recordings and transcripts on the Faculty of Dentistry's server as a mp3 file and a Word document where they will remain accessible to my research committee for at least five years.

Chapter 3: Results

3.1 Case I: Secondary Analysis of Interviews

3.1.1 Introduction

Secondary analysis of the interviews conducted from 1995 to 1996 with the administrators of LTC facilities before the OHR became effective revealed three dominant themes: 1) sensory cues; 2) education; and 3) accountability.

3.1.2 Sensory Cues

Many administrators stated that oral hygiene was less important than “*making sure that [residents’] bottoms were clean and dry*” (C9)⁵. This explained that LTC residents would receive care prioritized (or encouraged) by the level of visibility of a need. For example, wet pajamas are more visible and hence easier to see than a dirty mouth. When food was visible on the plate, one administrator explained, care-aides are “*visually aware of whether the resident is eating*” (C4). Another explained how “*the mouth is less visible ... [and] less important*” (C11). Compared to teeth, the skin receives a higher priority for bathing or dressing because teeth are:

“not as high a priority as ... basic care, but [the mouth] is part of basic care, I'm saying it's a priority but I'm saying I would wash them and make sure that they don't have any odours or get their peri area done if they're incontinent ... before I get to their mouth.” - C11

Besides visible prompts, other sensory cues prompted staff to offer help with oral hygiene. Bad breath, for example, “*and [other] odour problems ... [provoked] the staff to get in there to do something about it*” (C12). Administrators provided toothbrushes and other mouth-

⁵ C identifies information from the Case I interviews. C1 represents the first administrator interviewed, C2 the second administrator, and so on.

care supplies for residents so that care-aides *“cannot say we don’t have the supplies.”* Moreover, the administrators encouraged role modelling to motivate the care-aides to help the residents.

3.1.3 Education

Continuing education was used to motivate and sustain interest in DOH among the staff, although a high turnover of care staff can make education difficult and ineffective. On the other hand, five of the 14 administrators claimed their facilities had a stable workforce but, as one explained, *“[There is not a lot of turnover as staff leaving, but turnover on the floor base [occurs] to avoid burn-out [from] complex caring”*(C7).

Continuing education was used to reinforce and calibrate standards of care, and most of the administrators to this end sought help from dentists and dental hygienists. In particular, they wanted their staff to receive information *“not on the things that they’ve never heard before, but just refocusing ... on the things they know”* (C1).

Some administrators saw *“ongoing education”* as a way to maintain standards, but others were not so optimistic, especially for long-time members of staff, who say, as one administrator explained, *“we’ve been doing it for 20 years, and why should we want to do it differently”*(C6).

Apparently, the lack of motivation among care-aides to consider new approaches for DOH was due to a labour agreement between employers and staff that decreased working hours at the time when the interviews were conducted in the mid-1990s. Time-constraints led to neglect of services, such as oral hygiene, that were considered relatively unimportant. Such consideration was derived from a belief among administrators that *“we have to prioritize things [that] keep you alive such as your basic needs of food and nutrition”* (C11).

In my field observations in 2011, LTC staff were absent when dental professionals were treating the residents. Moreover, even when a separate continuing education session was provided, administrators were often not involved.

3.1.4 Accountability

Perceived lack of time led to absence of accountability. Quality assurance for DOH was missing in all of the LTC facilities in which interviews were conducted, as one administrator admitted:

“I do know that the dentures are cared for and I do know that people who have their own teeth are encouraged to brush their teeth and, if need be, assistance is given. Now whether that's enough encouragement to do it well and [to check it] every day ... I don't know.” - C1

Another acknowledged that *“oral hygiene is included, but, we believe, [not] on a consistent basis”* (C3), and yet another administrator admitted that dentures were not cleaned at all. She explained that delays and dependence on the *“next time”* for mouth-care often led to no hygiene at all. For example:

“the staff are busy with other work so they miss out on one time, after breakfast they don't clean the dentures because ... if you're ... insisting that you do it four times a day, you know it doesn't get done four times a day.” - C2

There was a general idea that oral health would be acknowledged only when dental professionals attended a facility because *“the dental hygienist ... coming in every three months ... will keep the staff on board”* (C2). Moreover, I heard that administrators preferred to have a contract with a dental professional who would be accountable for the oral healthcare, including daily oral hygiene, of all of the residents. The staff felt they had insufficient education to assume the responsibility of evaluating the outcome of mouth-care. A dental hygienist could provide: *“training to our staff which would ... give staff some knowledge and understanding of why [mouth-care] was important ... in the whole aspect of care for residents”* (C5).

In summary, Case I of my investigation revealed that before there were governmental regulations about oral healthcare in LTC facilities, administrators hoped that visual cues, continuing education, and the accountability provided by dental professionals would maintain the oral health of the residents in their care. They admitted readily that the cues, education and accountability were largely ineffective because of other priorities of care. None of the administrators interviewed in 1996 identified a need for government involvement to regulate oral healthcare in the facilities but they were seeking greater involvement of dental professionals in their facilities.

3.2 Case II: Perspective of Developers and Inspectors

3.2.1 Introduction

In 1998, the government of B.C. enacted regulations on the oral healthcare of residents in LTC facilities throughout the province. I interviewed some of the developers and health authority inspectors of the regulations to clarify the intent of the regulations and the process used to implement them and to monitor compliance. I conducted one phone interview with the provincial government's Dental Consultant and face-to-face interviews with each of two dental hygienists employed in public health, and with two licensing inspectors. One licensing inspector was a nurse while the other was a dental hygienist. Although the regulations only apply legally to facilities licensed under the Community Care and Assisted Living Act, the LTC inspectors in all of the health authorities use them as a guide for their inspections even when empowered under legislation, such as the Hospital Act, that do not have similar regulations.

According to B.C.'s Ministry of Health, *policies* are rules, and *protocols* and *guidelines* are procedures (Ministry of Health, 2009). Consequently facilities operate from protocol

manuals derived from policies. Therefore, the OHR can be documented in facilities as a policy, protocol or guideline.

3.2.2 Development of Regulation

In 1997, the Ministry of Health reviewed the effectiveness of the Adult Care Regulation (B.C. Reg. 536/80) in meeting the needs of LTC facilities around the province. At the same time, the provincial Dental Consultant along with two dental hygienists from one health authority were developing an oral health improvement program for LTC facilities in the province, and saw the government review as an opportunity to raise the awareness of DOH in the LTC facilities *“in order to make any changes ... we had to get involved in legislation ... [which] is how you got changes made”* (G3⁶).

The provincial Dental Consultant said he was receiving requests from newly established LTC facilities for guidance on how to develop their oral care programs. He believed that *“Accreditation Canada intended to require oral care as an integral part of general healthcare”* (G1). Furthermore, the dental hygienists took guidance from experiences in the USA where care-aides were more effective when they felt accountable to someone for their activities. They believed that *“there was no reason for anyone to check whether you had done mouth-care because ... [the] director of care [did not] need ... to check ... because they weren’t answerable [to anyone]”* (G2). Another developer rationalized that *“if you didn’t make [oral hygiene] something that licensing officers checked, that people were held accountable to ... [it] would not be improved”*(G3).

⁶ G represents government officials: G1 is the provincial Dental Consultant; G2 and G3 are dental hygienists employed as public health officials; and, G4 and G5 are inspectors from two health authorities.

Subsequently, the provincial dental consultant and the two dental hygienists proposed successfully to the Minister of Health that regulations were needed to improve DOH in LTC facilities. In keeping with the Ministry's aim of evaluating the Residential Care Regulation, they "*wanted written policies in place to guide staff in all matters of health including oral health*" (G3).

3.2.3 Requirements of the Oral Health Regulation

See Figure 1.

Implementation of the OHR depends on the interpretation of the terms used in the regulation. Officials in the Ministry of Health requested terms in the regulation that would not require financial support to implement and monitor. They were concerned that mandatory requirements would prompt demands for financial support from government for the annual dental examinations. Also, the Ministry wished to respect the autonomy of residents who might not want a clinical examination every year. Therefore, the LTC administrators are required only to "*encourage*" residents to obtain an annual examination.

The dental hygienists involved in developing the regulations wanted a specific reference to hygiene, but the Ministry refused in the belief that the term "*daily oral health*" would be less confusing for care-aides with backgrounds in nursing. Consequently, a memorandum (Appendix E) was sent out to all the administrators of LTC facilities in 1998 to explain the standards, guidelines, and protocols of the OHR. However, this document is only available to the public upon request from the Ministry of Health.

The OHR's first requirement: the annual examination, was meant to identify and inform specific oral hygiene needs. The administrators were required to customize care-plans based on the examinations of each resident. The developers also expected the administrators to fulfill the

second requirement to maintain daily oral health, with guidance from the dental professionals. However, in my field observations, care-aides were absent when dental professionals were treating the residents. Even when a separate continuing education session was provided, administrators were often not involved.

The third requirement of the OHR referred to emergency dental care whereas the fourth requirement referred to maintaining DOH with an obligation to follow a recommendation made by a dental professional while complying with the first requirement, an annual exam. The dental hygiene developers also saw to it that DOH is included in another section where a care-plan is developed initially for residents staying more than 30 days. Section 81 (3) of the Residential Care Regulation (B.C. Reg 96/2009) states: *A care-plan must include all of the following: ... (b) an oral health care-plan.*

3.2.4 Inspection of the Oral Health Regulation

I obtained inspection reports from the health authorities' websites and the policy manual from the Ministry of Health website. The website also contained information on the roles of licensing inspectors. To date, some LTC facilities licensed by the Hospital Act have not been transferred to under license of the Residential Care Regulation. Although the Ministry of Health employed an inspector for the facilities under the Hospital Act, since 2007 the licensing inspectors of each health authority were asked by the Ministry of Health to continue inspection of these LTC facilities. A health authority inspector declared that *"[We] use the existing regulations [such as the Residential Care Regulation] to do the monitoring on extended care units and private hospitals. But we don't have the legal mandate to enforce what we recommend"* (G4).

Inspectors in two different health authorities told me that the assessment process differed with each authority. Likewise, the provincial Dental Consultant explained that the intent of the OHR is to provide each local health authorities with a flexible framework for inspection that is “*customized to each local health authority*” varied by the local population needs, and resource programs. One health authority had established standards and audit form (Appendix F), but its inspectors did not mention its use. For example, health authority X and health authority Y utilized different computer programs (program X and program Y) with different questions to guide and document the inspections. However, neither program used the imperative term: *must*. They all used *encourage* and *assist* (Appendix G and H).

While program X only had one check for “[p]ersons in care are assisted in daily oral healthcare and are encouraged to have a dental exam once a year” (Appendix G), program Y had two checks (Appendix H). In addition to encouraging an annual exam, and assisted daily mouth-care, program Y checked that “*assistance is provided to obtain dental services and to maintain recommended or ordered dental treatments*” (Appendix H). Therefore, health authority X’s inspection guide only addressed the first and second requirements of the OHR, which are the annual exam and daily assistance with mouth-care. But health authority Y’s inspection guide inquired about the third and fourth requirements of the OHR, which are obtaining other dental services, and maintaining ordered dental treatments.

However, both health authorities’ inspectors stated that they inspected the third and fourth requirements of the OHR by seeing if oral care is included in the residents’ individual care-plans. Both inspectors randomly selected specific care-plans for compliance, but they based their assessments on whether or not medical records indicated that recommendations or orders from dental professionals were met.

Furthermore, inspection of oral care for each resident depended on the professional backgrounds of each licensing inspectors. The first licensing inspector I interviewed was from a health authority where all licensing inspectors had to have a nursing background, and he admitted hesitantly that *“Oral care, to be honest with you, is a very small part in our inspection. We don’t get a lot of things [inspected] when we have two hundred [licensing requirements]”* (G4).

He did check that the care-plan satisfied each resident’s perception of his or her own dental needs, that the plan was reviewed annually, and that residents have an effective means to complain about their mouth-problems. He explained further that:

“We don’t check whether they have toothbrushes or not ... we just monitor their [reporting] system ... [and on] how the oral health is being carried out... if somebody makes a complaint about a toothache and its extremely unbearable; then the facility is not meeting their requirements [when] the resident’s need is not met.” - G4

The nurse-inspector (G4) and the dental hygienist who helped to develop the regulation (G2) interpreted *“daily oral health”* differently. Although they both referred specifically to the absence of a dental infection as a quality of health, the nurse-inspector explained that *“dental infection itself is not the outcome of poor care”* (G4), while the dental hygienist remarked that *“gingivitis is [a] dental infection caused by infrequent brushing”* (G2). While both rationales are accurate for the cause of dental infection, their different interpretation leads to different inspection for quality assurance. Consequently, the nurse-inspector paid little attention to the clinical status of the mouth, and focused instead on written reports of dental infections in a resident’s care-record. The other inspector employed by a different health authority was a dental hygienist, and she inspected the inside of the mouth, the cleanliness of dentures, and the present of toothbrushes. She offered her view of how other inspectors who were not dental hygienists operated:

“They are looking at reporting mechanisms [for] someone [who] had a toothache. They’d ask what [LTC staff] do if Mrs. Smith has a toothache. [They would] show the forms where you write it; where the form gets posted; [whether or not] it’s put in the part of the chart that’s supposed to be looked at; [and a] three day follow up written down somewhere.” - G5

The dental hygienist-inspector also reported that other inspectors were aware of her background in dental hygiene, and referred her to facilities requesting help to establish an oral care program. This part of her job she felt was responding to a need when:

“[administrators] were maybe aware that there was some oral care stuff ... but they weren’t quite clear on what it involved... [such as] what an oral care-plan was and where it should be and how it should be structured.” - G5

If a facility already had a mouth-care program, she would monitor the quality of care by inspecting clinical records in several different places *“to see if they had an oral care-plan”* (G5). She also examined the residents clinically to confirm that the written records were accurate, and she looked for evidence that:

“the administrator [was] ‘all in’ on oral care... to [make] it a priority... [with] oral care supplies [and] nursing support... [and] a system for communication where [care-aides] could report to the nurse on the floor... to call in a care-provider.” - G5

Once during the dental hygienist-inspector’s inspection, she heard a care-aide claim that a resident *“got a sore tooth but I don’t know [of] a reporting system.”* She also identified *“two patients [who] kept passing back and forth Staph infections because they were using the same toothbrush”* (G5). But mostly, when toothbrushes etc. were needed, she would help the facility to purchase them directly from dental supply companies, and she would arrange for a dentist or dental hygienist to attend the facility if annual dental examinations had not been completed. She believed strongly that the presence of a dental team in a facility made other staff members more alert to the management of oral healthcare.

3.2.5 The Dental Hygienist-Inspector as an Educator

The dental hygienist-inspector was employed part-time from 1998 to 2008 and she was limited to inspecting the oral healthcare programs of the facilities within the health authority's jurisdiction. She believed that her limited role was due to *"the director of our health authority [who] forethought that his licensing [inspectors] needed training on looking for oral problems"* (G5). The dental hygienist-inspector had a half-day training session with the other licensing inspector to teach him about mouth-care and other dental issues. Then, a nurse inspector became more aware of halitosis and a nutritional inspector became more alert to inadequate dentitions and why people cannot eat properly.

The dental hygienist-inspector liked the *"authority"* she had to require that facilities obtain oral care-supplies for the residents. She felt that her authority complemented the influence and prescriptions of the other dental professionals who usually limited their orders to specific treatments without involving the nursing staff. She even went so far as to mandate that the nursing staff provide residents with a mouth rinse of *"chlorhexidine twice a day, [then] brush or spit"* (G5). On the other hand, she acknowledged that her inspections were not *"quite the same as having a clinical person going in and having a dental person talk to the staff"* (G5). While some administrators resented the exaggerated standard of care they felt that she brought to DOH, some administrators appreciated her dental background. In addition to assessing compliance with the OHR, the dental hygienist-inspector saw her role also as an educator. She explained:

"I didn't go in as an inspector saying oh this is what you're doing and this is what you're not doing. ... I tried to help them get to where they needed to be, ... so it was more of an education-support role." - G5

Administrators of facilities in other health regions envied the special background that the dental hygiene-inspector-educator offered, mainly because her educational role was funded

by the health authority, whereas they had to fund this service without governmental help. The other health authorities had to fund their educational programs in oral healthcare to comply with the OHR. Consequently, the dissatisfaction in educational funding between different health authorities urged the dental hygienist-inspector to delegate her educational role to other dental professionals contracted by each LTC facility. The dental hygienist-inspector said “*I would look in the [resident]’s mouth ... [then say] we have to find a [dental] provider for your facility [because] this [resident] needs some [oral healthcare]*” (G5).

The dental hygienist-inspector began to see accountability for oral care when a facility had a dental provider. During the later years of her employment as an inspector, she spent less time on education and more time inspecting for annual dental examinations. However, she felt overstretched as the only inspector with a dental background assigned to inspect 84 facilities while the other inspectors typically inspected 40 facilities per year. On top of budget-cuts, the dental hygienist was reassigned to another position and the oral care inspection was assigned to the other non-dental inspectors. Consequently, every inspector in this health authority was expected to address all aspects of the Residential Care Regulation. Yet despite this aim at comprehensiveness, I was told that “*every [inspector] has [a] focus ... a nurse inspector might be more aware of different things. [An environmental inspector would be] looking more at the stairs than the nurses ... people have their niche*” (G5).

3.2.6 Lack of Complaints and Other Sensitivities

Over one-third (40%) of the inspections in one health authority between February and August 2011 included assessments of oral health, and all of them met the oral healthcare requirement. These public reports correspond to a similar trend described by a nurse inspector (G4) where in the previous seven years no oral health-related violations were documented. Apparently, there were no written complaints about oral healthcare or dental problems, and the

absence of complaints usually leads to an assumption of compliance with the regulation. One inspector told me that dental professionals do not enter formal complaints about facilities lest they might “*not [be] welcomed back*” (G5). Although administrators identified lack of funds as a reason for neglecting oral care, one inspector affirmed that:

“The regulations are quite clear...we don’t deal with money, we don’t give them more money if they say they don’t have enough. So that would not be our problem... and we don’t let them use that as an excuse, but they don’t stop using it. They use it all the time.” - G4

The inspectors were sensitive also to the likelihood that residents who had not seen a dentist regularly before were unlikely to seek one in the facility. They were aware also that “*some residents may only want to receive care from one specific care-aide who may only work part-time*” (G5), and that this dependency can make it difficult to provide adequate oral hygiene.

3.3 Case III: Perspective of Administrators

3.3.1 Introduction

In Case III, I explored the administrators’ perspectives on implementing the dental regulations. The educational background, the experience of the administrators, and the type of regulation for each facility varied the administrators’ perceptions of the OHR slightly (Appendix I).

3.3.2 Awareness of the Residential Care Regulation’s Oral Health Regulation

Only the administrator with an education in business (A5) was aware of the OHR because his facility received funds from the provincial dental association to provide a DOH program for the residents.

However, I was informed by two administrators who were regulated by the Hospital Act, that their “*regulations go back in under the Community [Care and Assisted living] Act and even though we’re not under that, they just expect us to also [comply]*” (A3). As with the facilities directly regulated by the *Residential Care Regulation*, all administrators said their facilities are inspected by inspectors who “*have final authority on everything*” (A5). Yet, I was told that the inspectors “*look at the residents, they talk to them, [they check the] environmental situation [and] nursing-related issues ... but nothing to do with oral care*” (A3). As a result, there is little motivation for administrators to pay particular attention to the oral health of their residents.

3.3.3 Other Mouth-Care Policies

One administrator had been responsible for developing a mouth-care guideline (Appendix J) for her facility. In addition to twice-a-day mouth care, the standards of her facility specified daily screening items, such as teeth and plaque. The standards also named multiple LTC staff to conduct these daily screenings, whereas the other four administrators all explained that their facilities had oral care programs but they were not familiar with the details of how they operated. These administrators had difficulty locating either a hard copy, or an electronic copy of their policy for me because, as one of them explained:

“I have my resources and my support people and they tell me what I need to know as I need to know it. So I wouldn’t be [familiar with] mouth-care policy [which] is one policy out of thousands of nursing policies.” - A2

The others described the contracts they had with dental professionals allowing them to delegate the responsibility because “*we wouldn’t be able to really... do it as well as [the professional]*” (A4). Indeed, their approach to oral care, as one administrator described, was a protocol or guideline whereby:

“When things happen and you look at the protocol and if it’s not there ... we need to put a guideline out ... [we] don’t really have a policy, so to speak, on oral care ... but I mean it’s handled with our systems. ... It’s included like in a ‘completion of care-plan’. If a person needs anything out of the ordinary with oral care it would be expected to be put on the care-plan.” - A4

Another administrator operated with guidelines when he was unable to enforce the governmental regulation. He believed that “nothing works better than when people develop [a guideline] themselves and understand it ... and they can work with it” (A5). However, after implementing a mouth-care guideline which instructed a new and effective protocol, one administrator experienced resistance from her staff (A1). She said:

“It was a big battle to get the little toothettes that had sponges on the ends of them...they just thought those things were the best ... because you didn’t have to have the mouth open...[the care-aides] were ordering them all the time to try to get them back.” - A1

In summary, when administrators could not provide documentation of a mouth-care guideline they usually identified mouth-care as part of the general care-plan for each resident. Nevertheless, one administrator did not consider the value of mouth-care “as high up there as perhaps bathing... because [mouth-care] is a more difficult job to do” (A1).

3.3.4 Interpretation of the Oral Health Regulation

Near the end of the interview, I showed each administrator the OHR and asked them to explain how they interpret it. All administrators referred to the care-plans that describe the help residents receive with toothbrushing or cleaning dentures, and the connections to dental professionals for dental treatment as needed. However, one administrator pointedly exclaimed that “we’ll encourage people to go see the dentist... [but] we can’t fund things we don’t have the money for” (A5). The “normal protocol” of DOH, one administrator told me:

“[We are] meeting the standards, although it’s not written [as] the policy at the moment. We do have the nurses ... look[ing] at their assessments, [and] ensuring that everyday [the residents are] brushing their teeth ... They need to

brush their teeth in the morning, before they go to bed, [and] that's the normal protocol.” - A4

I was told also that the nurse-manager in another facility was responsible for assessing “*how [residents have] been eating and ... if they need mouth-care, denture care*” (A3) following appropriate documentation and work experience to complete the assessments. Some administrators (A1, A3, and A5) were not informed of any of the residents’ dental examination results. Consequently, any dental examinations completed as an audit became insignificant. Due to lack of documentation, the licensing inspectors were not able to enforce the OHR with the administrators. Likewise, it is possible that when administrators regularly reviewed the residents’ care-plans, they were not able to evaluate the effectiveness of the recommendations if the practical solutions instructed by the dental professionals were not documented.

But, in general, the quality of oral care was seen by the administrators as mainly the responsibility of the contracted dental professional. The administrators also seem to consider their residents’ oral health satisfactory as long as their facilities were involved with contracted dental professionals. Although an administrator (A4) interviewed in March described an unmet need in DOH in her facility, according to the licensing reports published from the health authority’s website, between January and August 2011, poor DOH was never reported.

3.3.5 Quality Assurance of Daily Oral Healthcare

Compliance with care-plans was monitored through audits, and if a resident chose not to see a dental professional, a nurse-manager and nurse-educator would see if there were concerns about mouth-care. Rarely, family members of the resident would complain about the lack of mouth-care (A1, A2). Essentially, the DOH in all five facilities was assessed either within the general assessment of care or as part of a random audit of mouth-care supplies by nurses who

had *“responsibility to check if there are any chewing problems, mouth-pain or swallowing problems ... [or] debris present in mouth prior to going to bed at night”* (A3).

Two of the administrators (A3 and A4) used a computer program called *“Point of Care”*⁷ along with the Minimum Data Set⁸ as part of a quarterly audit to review care-plans at each resident’s care conference. Daily mouth-care was usually recorded in a facility’s daily record of events, signed by a care-aide when care was rendered (Appendix K) and checked by a nurse-manager when the working shift changed. This protocol for quality assurance was, according to one administrator, an attempt to compensate for the fact that *“what’s in the notes does not always mean that it’s exactly what you see in [the resident’s] mouth. ... It’s not as accurate as you would like it to be, so it’s better to actually see them”* (A4).

Another administrator indicated that this protocol was in place also because health authorities:

“come and they look at all the utility rooms; how we sterilize all our equipment, and how we handle the residents’ personal products like their toothbrush, their toothpaste and combs etc. Each individual resident has to have their own [supplies] labeled in a drawer next to their bed.”- A3

On the other hand, the president of this auditing service informed me that they *“do not audit toothbrushes or any oral care”*.

Another administrator (A5) elaborated on the details of the quality assurance program by which problems were brought to the attention of the board of directors of the facility so that unacceptable trends could be addressed. The other two administrators (A1 and A2) admitted that audits of oral care are rare events, because they did not have a system where a correction plan can be made nor a person who takes responsibility for a mouth-care audit. Nevertheless,

⁷ *Point Of Care* is a computer program that populates assessments and expedites documentation so the LTC staff can collectively monitor the care of residents. PointClickCare, Ontario, Canada

⁸ *Minimum Data Set* is an assessment of a resident’s problems and strengths, and is utilized to produce a customized care-plan for each resident. Center for Medicare and Medicaid Service, Maryland, USA.

one administrator stated a need to repeat education for DOH was requested at an interdisciplinary retreat, attended by nurse educators, occupational therapists, physiotherpists, pharmacists, dieticians, and pastoral carer. Both administrators (A1 and A2) also stated that they do little more than improve the availability of mouth-care supplies. One administrator (A1) believed that although “we maybe spending a little more money on [mouth-care] supplies, there is some cost benefit.” The other administrator (A2) said she didn’t notice the benefit because she was often in meetings, and not personally evaluating the quality of mouth-care.

Chapter 4: Discussion and Conclusion

4.1 Introduction

This chapter summarizes and explains my findings. Generally, the requirements specified in the OHR were intended to apply to all LTC facilities in the province, but the varying operational infrastructures among the facilities means that location-specific solutions are actually needed. I will explain the strength and weakness of my thesis and suggest future research directions. I will make connections between the three cases of my research and compare them against each other. Through this comparison of findings, misunderstandings in the implementation of the OHR are clarified and gaps in knowledge about the poor oral health found in the residents of LTC facilities are further eliminated.

4.2 Discussion

Oral health in LTC facilities does not appear to be influenced by the OHR. Before the regulations were in place, facility administrators often monitored the oral care of the residents by taking inventory of supplies used (toothbrushes etc.) by the care-aides. However, the OHR does not make any mention of oral care supplies because of the possible liability of the government to finance these supplies. This economic concern misled the OHR's aim to improve oral health as an approach to reduce the overall cost of healthcare for LTC residents. Without government's support to finance time for practical education in the preventive mouth-care for residents, the administrators and inspectors did not implement the OHR. Instead of enhancing the standard of general care, mouth care remained a conflicting priority because of the belief that providing it comes at the cost of disrupting the physical well-being and autonomy of resisting residents. Although the OHR was meant to hold oral health as an accountable priority, ambiguous recommendations provided justification for LTC

administrators to neglect the cost-effective goal of providing mouth-care to prevent respiratory diseases (Azarpazhooh & Leake, 2006). Consequently, in Case III, administrators today continue to ensure optimal oral health on their site by monitoring the use of oral care supplies. However, there is no regulation on the oral supplies, and in accordance with the report from Senior's Oral Health Secretariat, oral supplies should be accounted for (British Columbia Dental Association, 2011).

It appears also that the lack of effective continuing education for LTC staff and the lack of follow-up on recommended dental treatment for the residents both attest to the unsuccessful implementation of the regulations. The population at risk for not meeting the standard of optimal oral health seems to be the care-aides in addition to the residents. In Case I, the administrators turned to the dental professionals for continuing education for care-aides to *"refocus on oral health."* In Case II, the developers of the OHR expected that continuing education for the LTC staff would come from the dental professional as an integral part of the annual dental examination, but the integration has neither been effectively or efficiently executed. This absence of knowledge transfer is similar to findings from a questionnaire study in Sweden, where a law required oral care training of the LTC staff (Wardh et al., 2011). The Swedish investigators identified the need to have LTC staff present during dental examinations (Wardh et al., 2011). I found that using dental examinations as an opportunity to practice and exchange information concerning how to cope with residents' resistance was not perceived by the administrators to be helpful or important. In the knowledge transfer study by Zwarenstein and Reeves (2006), implementing interventional practices for one profession, such as the care-aides, requires accommodation and active encouragement by other professionals, such as the administrators and the government. Although the government and the administrators both acknowledged the need to enhance training for mouth-care, the training method was neither

described explicitly in the OHR of 1998 or in the more recent action plan (Ministry of Health, 2012).

Although the value of a dental examination was further emphasized in all three cases, it is problematic to place all the accountability for DOH on the dental examination. It is impossible to do so in the case of residents who decline a dental examination. The government officials and the administrators expected the dental examinations to serve as an audit of the quality of DOH to supplement the monitoring protocol undertaken daily by the nurse-managers. However, this expectation fell short since the nurse-managers and the administrators did not place a high priority on oral healthcare. Despite the administrators' acknowledgement of the importance of DOH, the administrators did not seem to be convinced of the alarming association of poor oral health with aspiration pneumonia in LTC facilities. This is possibly why residents' neglected oral health was considered by LTC administrators to be satisfactory, which is a consistent perspective with survey findings from USA and Germany (Pyle et al., 2005; Rabbo et al., 2011).

Moreover, the OHR was not implemented by the administrators because awareness of the OHR and its interpretation were not facilitated by the inspectors. Since the OHR (Figure 1) did not describe how residents' mouth-care would be inspected, and who should provide DOH, the administrators considered their contract for care with dental professionals as adequate compliance with the regulation. The evaluation framework of the quality of DOH by Pruksapong and MacEntee (2007) stated that *engagement* of multiple professionals, such as administrators and inspectors, with multiple *aspects of quality*, such as optimal oral condition, leads to effective action. McNally (2003) also recommended society engagement, as moral justice, to support initiatives that make mouth-care a priority in elders. However, the administrators and the inspectors did not examine residents clinically except in one health

authority where a dental-hygienist was employed as an inspector. While some health authorities have additional standards for the inspection of oral care, the inspectors and the administrators shared the belief that oral health should be delegated entirely to the dental professionals. Therefore, my findings support the need to consistently motivate one nursing staff in each LTC dedicated to keeping all other care providers accountable for residents' DOH (Pronych, 2010).

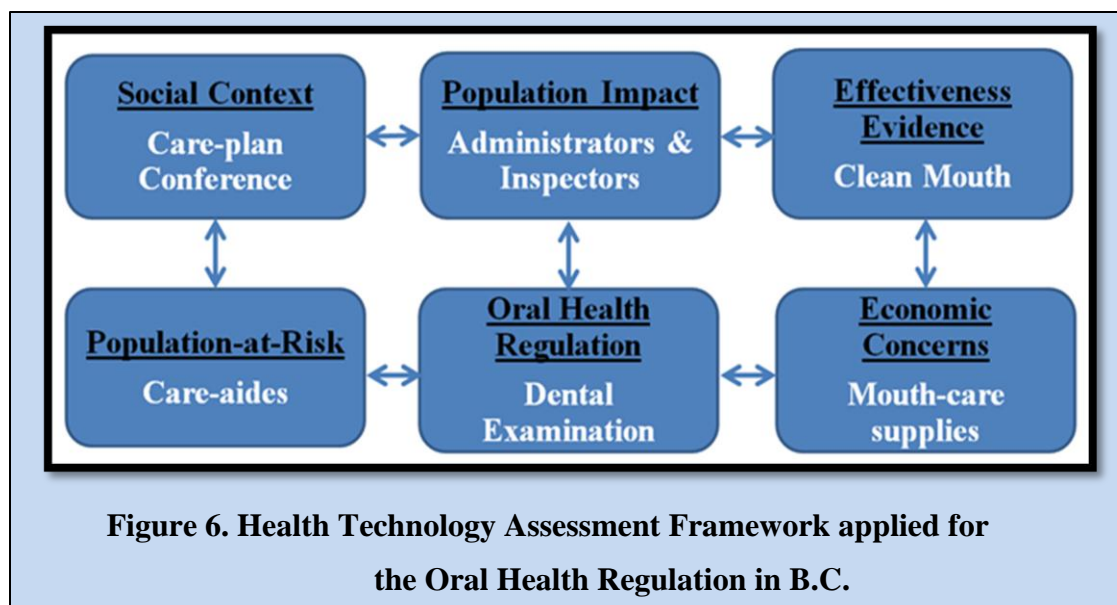
Although my findings illuminated the variation between the non-dental background of inspectors and also showed that the differences in inspections by different health authorities impeded the quality assurance of oral healthcare, Georg (2006) found the auditing of documentation by nurses increased compliance with DOH. When the LTC staff knew that the specific documentation of daily and nightly denture cleaning was being audited in their facility, the LTC staff began to consider the residents' oral health at the care-plan meetings, and denture cleaning was increased after the audit (Georg, 2006). I discovered that there were no specific audits by the health authorities or evidence presented to the health authorities regarding the OHR. Intra-oral photographs have been used effectively to educate staff about oral healthcare and to document the effectiveness of oral healthcare (Finkleman, Lawrence, & Glogauer, 2010). After reviewing the OHR, B.C.'s action plan to improve seniors' health should prescribe regular mouth-care inspection in addition to the regular medication review by health authority's inspectors (Ministry of Health, 2012). Public accountability of mouth-care should design relevant intervention within the mainstream healthcare system so that oral healthcare does not remain peripheral to other medical concerns (McNally, 2005; Pruksapong, 2007). Without a formalized communication structure for dental input from any quality improvement program, the effectiveness of the OHR remains ambiguous, and so meaningless. The population of LTC administrators and residents that the OHR aimed to influence remains unimproved.

4.3 Strengths and Implications of the Study

The first strength of my study is its novelty and the target of oral health regulation, which provides rich insight. Other than the study in Sweden (Wardh et al., 2011), this is the first study that has evaluated the provision, process and outcome of a regulation for oral health in LTC facilities. My study found that compliance to the regulation manifested in the inclusion of oral health in the facility's general health care-plan, which is in accordance with the current advocacy that optimal oral health decelerates frailty in elders (Pyle et al., 2005; Rabbo et al., 2011). However, I also found descriptive evidence of the lack of monitoring using detailed communication to assure quality between dental professionals, facility administrators and healthcare inspectors. In addition to raising awareness about the regulation of oral healthcare, my study identifies specific aspects of the OHR, such as the role of dental professionals in care-plan conferences, which policy-makers should address when revising existing regulations or action plans. Similarly, Farrell and Petrik (2009) believed refusals to mouth-care were decreased in one facility after a staff meeting of multiple professionals from speech therapists to care-aides resulted in a decision to move mouth-care to half an hour later in the daily care schedule of the residents. Inter-professionals' awareness of oral health can decrease the marginalization of oral health from general health (McNally, 2003). Since the care-plans of residents were a default reference for both administrators and inspectors, the presence of an oral care representative at each resident's care-plan conference could strengthen prompts for DOH while reducing conflicting priorities (Wardh et al., 2011). With observations and interviews, Lingard et al. (2007) learned that regular interprofessional meetings are social opportunities to transfer knowledge, negotiate and emphasize written goals in patients' records, and achieve treatment and healthcare goals (Khatami & MacEntee, 2011; MacEntee, 2011).

During the care-plan conferences, dental professionals may interpret the OHR to clear and simple processes, and LTC staff may inform challenges that breach the OHR.

Based on my findings, my application of the HTA framework focuses on the dental examination as a way to enhance implementation of the OHR (Figure 6). I was able to elaborate on each part of the HTA by taking themes from my analysis of the interviews to explain how the six parts are connected. I believe this could have useful applications for LTC administrators and inspectors in other jurisdictions. For example, the administrators and the inspectors (i.e. Population Impact) should connect to the care-plan conferences (i.e. Social Context). Martz & Gerding (2011) made a similar suggestion that administrators should address the communication patterns to achieve the outcomes expected from the inspectors during care-plan conferences. Improvement initiatives need to describe explicitly the clinical goals and the role of dental professionals in care-plan conferences. For example, an initiative should describe a daily examination inside the mouth looking for absence of food residue, or prescribe toothbrushing before or after breakfast. As a result, during the care-plan conferences, the LTC staff could assess their own compliance with the OHR when a specific outcome is



expected. In the current OHR, the definition of an acceptable condition for the mouth is absent. Consequently, poor oral health does not trigger an inspector's citation for violating the OHR. Indeed, improvement in this inspection process would be a useful suggestion to the Ministry of Health in B.C. in response to the invitation from the Ministry for input from the public on ways to improve the health of seniors (Ministry of Health, 2012). It might be helpful to identify visible breaches of the OHR when care-plans are inspected, and a dental coordinator may then facilitate a solution for the breaches (British Columbia Dental Association, 2011).

My interviews expanded the width and depth of information by using explanations and inferences from and to other sources of evidence (MacEntee et al., 1999; MacEntee, 2006b). For example, I did not know there was a dental hygienist-inspector. Then, triangulation with other varieties of evidence, such as archival records and contemporary sources, corroborated the trustworthiness of information from the interviews (Lingard et al., 2007). I was able to refute much of what one administrator said about auditing for toothbrushes from the process of triangulation. Moreover, triangulation between multiple informants was advantageous in completing information to develop common themes (Yin, 2009; Breitmayer, Ayres, & Knafl, 1993).

4.4 Limitation and Future Directions

As with all analyses of purposeful selections of participants for interviews, the generalizability of my findings is limited. My findings cannot be translated into statistically significant coordinates and I do not know whether or not my findings represent circumstances in other jurisdictions, or even within other LTC facilities. However, the interviewing method provided opportunities to corroborate false positive findings, which could have occurred if all LTC administrators in B.C. were surveyed for their implementation of a regulation.

Nevertheless, with my descriptive findings, a statistical study with a significantly larger sample size could specifically assess the validity of mouth-care documentation in residents' care-plans as a way of exploring accountability in residents' oral hygiene.

To some extent, I am unable to attest to the truthfulness of my participants. In Case I, since DOH was not audited, the administrators' comments in the transcripts were not supported by evidence of action or accountability. In Case II, the inspectors' claims regarding the absence of dental professionals' recommendations in the care-plan were not supported. I am unable to verify this missing evidence because I could not access medical records without a more elaborate process of consent and ethical approval, which was beyond the scope, budget and time-constraints of my study. In my clinical experience as a dental hygienist, I occasionally see insufficient documentation of medical records, and frequently with reasonable justification. Dental professionals, for example, do not always document treatment needs in a manner that is easily understood by other disciplines. Verbal recommendations occur more frequently and easily. Future research is needed to explore the pathway of communication for monitoring compliance with OHR between multiple professionals in LTC facilities.

The inspectors stated that they made their judgements based, when possible, on written recommendations for care from dental professionals. The significance of this statement remains uncertain since the inspectors and administrators all mentioned that there were few if any written recommendations from dental professionals. There seems to be a disconnect in knowledge transfer as evidenced by the widespread poor oral health in LTC facilities. A future study evaluating the process of updating oral health in general care-plan of each resident may be valuable.

Another potential study derived from my findings is to assess the computer software that some of my participants claimed to use when performing audits. The manufacture of *PointClickCare*, for example, claims that their easy access of information enhances communication between providers of various health care services. Since allocating a portion of a budget for a specific position to monitor DOH may interfere with other care needs, studying the accountability of DOH in the LTC computer programs currently in use may be more efficient. The use of 12 features, such as a care-plan template, associated with the electronic version of the Minimum Data Set, has shown significant quality improvement in the survey of (Liu, 2010).

4.5 Reflective Comments

By writing a qualitative study in the first person pronoun, I was able to clarify and distinguish the similarities and differences between the perspectives of multiple professionals (Harwood, 2005). As a dental hygienist, I was biased towards details that might promote daily mouth-care. I assumed the poor oral health of elderly people in LTC was due in large part because of the conflicting priorities for care in LTC facilities. However, now from my interviews, I understand why and how administrators of nursing care have different perspectives and how these conflict with the recommendations of dental professionals as identified by MacEntee et al. (1999). While being empathetic to organizational barriers that hinder mouth-care, I was discouraged by the weakness of the OHR stemming from the administrators' reluctance to interpret it. From the snowball sampling approach, I also learned that awareness of the OHR is not prevalent among dental professionals despite the likelihood of a dental professional knowing at least one LTC resident personally. Even among the dental professionals who worked in LTC facilities, their acknowledgement of the OHR does not seem to be influential.

While interprofessional collaboration seems empowering for raising awareness of a regulation to improve the quality of life of institutionalized elders, I have learned that translating awareness into compliance is extremely time-consuming and frustrating. The operational knowledge for how to apply a regulation was difficult to access without a formalized communication structure between multiple professionals. However, informal communication, such as interprofessional social networking, often facilitated communication pathways. The oral health regulation, mandated nearly 14 years ago, has yet to achieve the expected outcomes. We, as a society, should examine how to respond to the disconnections between the decision-makers.

4.6 Conclusions

The LTC administrators' perspectives before the OHR came in effect led to the absence of OHR implementation. The absence of cues to prompt and education to overcome mouth-care challenges were not addressed in the OHR, which was developed by dental professionals who wanted to hold LTC administrators accountable. The government had a limited time and thus limited resources to build a cost-effective regulation. Since the outcomes were unspecific in the OHR, they were interpreted as insignificant. Thus, the accountability in the dental professionals' concern did not resolve. Consequently, any collaboration between contracted dental professionals for continuing education and monitoring oral status was temporary. The LTC administrators were not assessed for compliance by the health authorities' inspectors because expected outcomes were limited to the dental professionals' knowledge and not communicated formally for quality assurance. After examining the beliefs and commitment of administrators and inspectors of LTC facilities, unsuccessful and repetitive pathways of the OHR's implementation are as follows:

1. Without explicit description of how to inspect mouth-care, different health authorities inspect the implementation of the OHR inconsistently.
2. The administrators were not aware of the OHR because the health authorities were not seen to inspect mouth-care.
3. The health authorities did not inspect oral care because they did not receive complaints, which could have come from the contracted dental professionals.

References

- Abi-Nahed, J. (2006). *Legislative review of oral health in Canada: In particular long-term care facilities*. Ottawa: Health Canada.
- Adami, M. F., & Kiger, A. (2005). The use of triangulation for completeness purposes. *Nurse Researcher*, 12(4), 19-29.
- Aka, P.C., Deason, L.M., & Hammond, A. (2011) Political Factors and Enforcement of the Nursing Home Regulatory Regime. *Journal of Law and Health*, 24 (1), 1-44.
- Andersson, K., Furhoff, A. K., Nordenram, G., & Wardh, I. (2007). 'Oral health is not my department'. perceptions of elderly patients' oral health by general medical practitioners in primary health care centres: A qualitative interview study. *Scandinavian Journal of Caring Sciences*, 21(1), 126-133. doi:10.1111/j.1471-6712.2007.00446.x
- Antoun, J. S., Adsett, L. A., Goldsmith, S. M., & Thomson, W. M. (2008). The oral health of older people: General dental practitioners' beliefs and treatment experience. *Special Care in Dentistry*, 28(1), 2-7. doi:10.1111/j.1754-4505.2008.00002.x
- Aylward, S., Stolee, P., Keat, N., & Johncox, V. (2003). Effectiveness of continuing education in long-term care: A literature review. *The Gerontologist*, 43(2), 259.
- Azarpazhooh, A., & Leake, J. L. (2006). Systematic review of the association between respiratory diseases and oral health. *Journal of Periodontology*, 77(9), 1465-1482. doi:10.1902/jop.2006.060010
- Bassim, C. W., Gibson, G., Ward, T., Paphides, B. M., & Denucci, D. J. (2008). Modification of the risk of mortality from pneumonia with oral hygiene care. *Journal of the American Geriatrics Society*, 56(9), 1601-1607. doi:10.1111/j.1532-5415.2008.01825.x
- Battista, R. N. (2006). Expanding the scientific basis of health technology assessment: A research agenda for the next decade. *International Journal of Technology Assessment in Health Care*, 22(3), 275-279.
- Berta, W., Laporte, A., Zarnett, D., Valdmanis, V., & Anderson, G. (2006). A pan-Canadian perspective on institutional long-term care. *Health Policy (Amsterdam, Netherlands)*, 79(2-3), 175-194. doi:10.1016/j.healthpol.2005.12.006
- Breitmayer, B. J., Ayres, L., & Knafl, K. A. (1993). Triangulation in qualitative research: Evaluation of completeness and confirmation purposes. *Image--the Journal of Nursing Scholarship*, 25(3), 237-243.
- British Columbia Dental Association (2011). Oral Health Care Delivery in Residential Care Facilities: A Report of the Seniors' Oral Health Secretariat. Retrieved from: http://www.bcdental.org/Dental_Health/Default.aspx?id=6202

- British Columbia Dental Association (2008). Report on Seniors' Oral Health. Retrieved from: http://www.bcdental.org/Dental_Health/Default.aspx?id=6202
- Brondani, M. A., Chen, A., Chiu, A., Gooch, S., Ko, K., Lee, K., Maskan, A. and Steed, B. (2011), Undergraduate geriatric education through community service learning. *Gerodontology*. doi: 10.1111/j.1741-2358.2010.00444.x
- Browne, C. V., Braun, K. L., & Arnsberger, P. (2007). Filipinas as residential long-term care-provider s: Influence of cultural values, structural inequity, and immigrant status on choosing this work. *Journal of Gerontological Social Work*, 48(3-4), 439-455.
- Bryant, A., & Charmaz, K. (2007). *The SAGE handbook of grounded theory*. Los Angeles: Sage.
- Bryant,S.R., MacEntee,M.I., & Browne,A. (1995). Ethical issues encountered by dentists in the care of institutionalized elders. *Special Care Dentistry*.15(2), 79-82.
- Canadian Institute for Health Information's Nursing Database. (2010). *Regulated nurses: Canadian trends, 2005 to 2009*.Canadian Insitute for Health Information.
- Cang-Wong, C., Murphy, S., & Adelman, T. (2009) Nursing Responses to Transcultural Encounters: What Nurses Draw on When Faced with a Patient from Another Culture. *The Permanente Journal*, Summer, 13(3): 31–37.
- Castle, N. G., Ferguson, J. C., & Hughes, K. (2009). Humanism in nursing homes: The impact of top management. *Journal of Health and Human Services Administration*, 31(4), 483-516.
- Chalmers, J., Hodge, C., Fuss, J. M., Spencer, A. J., Carter, K. D., & Mathew, R. (2001). Opinions of dentists and directors of nursing concerning dental care provision for Adelaide nursing homes. *Australian Dental Journal*, 46(4), 277-283.
- Chalmers, J., & Pearson, A. (2005). Oral hygiene care for residents with dementia: A literature review. *Journal of Advanced Nursing*, 52(4), 410-419. doi:10.1111/j.1365-2648.2005.03605.x
- Chan, P., & Kenny, S. R. (2001). National consistency and provincial diversity in delivery of long-term care in Canada. *Journal of Aging & Social Policy*, 13(2-3), 83-99.
- Cochrane, L. J., Olson, C. A., Murray, S., Dupuis, M., Tooman, T., & Hayes, S. (2007). Gaps between knowing and doing: Understanding and assessing the barriers to optimal health care. *Journal of Continuing Education in the Health Professions*, 27(2), 94-102. doi:10.1002/chp.106
- Coleman, P. (2002). Improving oral health care for the frail elderly: A review of widespread problems and best practices. *Geriatric Nursing (New York, N.Y.)*, 23(4), 189-199.

- Coleman, P. & Watson, N.M. (2006) Oral care provided by certified nursing assistants in nursing homes. *Journal of American Geriatric Society*, 54(1), 138-43.
- Collier, E., & Harrington, C. (2008). Staffing characteristics, turnover rates, and quality of resident care in nursing facilities. *Research in Gerontological Nursing*, 1(3), 157-170. doi:10.3928/00220124-20091301-03
- Corbin, J. M. & Strauss, A. L. (2008). *Basics of qualitative research : Techniques and procedures for developing grounded theory* (3rd ed.). Los Angeles, Calif.: Sage Publications.
- Creswell, J. W. (2007). *Qualitative inquiry & research design : Choosing among five approaches* (2nd ed.). Thousand Oaks: Sage Publications.
- de Mello, A. L., & Padilha, D. M. (2009). Oral health care in private and small long-term care facilities: A qualitative study. *Gerodontology*, 26(1), 53-57. doi:10.1111/j.1741-2358.2008.00238.x
- De Visschere, L., Schols, J., Van Der Putten, G. J., De Baat, C., & Vanobbergen, J. (2010). Effect evaluation of a supervised versus non-supervised implementation of an oral health care guideline in nursing homes: A cluster randomised controlled clinical trial. *Gerodontology*, doi:10.1111/j.1741-2358.2010.00418.x;
- De Visschere, L. M., van der Putten, G. J., Vanobbergen, J. N., Schols, J. M., & de Baat, C. (2011). An oral health care guideline for institutionalised older people. *Gerodontology*, 28(4), 307-310. doi:10.1111/j.1741-2358.2010.00406.x;
- Dharamsi, S., Jivani, K., Dean, C., & Wyatt, C. (2009). Oral care for frail elders: Knowledge, attitudes, and practices of long-term care staff. *Journal of Dental Education*, 73(5), 581-588.
- Di Matteo, L. (2010). The sustainability of public health expenditures: Evidence from the Canadian federation. *The European Journal of Health Economics : HEPAC : Health Economics in Prevention and Care*, 11(6), 569-584. doi:10.1007/s10198-009-0214-x
- Donabedian, A. (2003). *An introduction to quality assurance in health care*. Oxford ; New York: Oxford University Press.
- Donnelly, L. R. (2011). *The relationship of perceived oral health, body image and social interactions among institutionalized elders*. (Doctoral dissertation). Retrieved from <https://circle.ubc.ca/handle/2429/39862>
- Donoghue, C., & Castle, N. G. (2009). Leadership styles of nursing home administrators and their association with staff turnover. *The Gerontologist*, 49(2), 166-174. doi:10.1093/geront/gnp021
- Ettinger, R (2010) The Development of Geriatric Dental Education Programs in Canada: An Update. *Journal of Canadian Dental Association*.76, a1

- Farrell, J. J., & Petrik, S. C. (2009). Hydration and nosocomial pneumonia: Killing two birds with one stone (a toothbrush). *Rehabilitation Nursing : The Official Journal of the Association of Rehabilitation Nurses*, 34(2), 47-50, 83.
- Ferro, R., Besostri, A., Strohmenger, L., Mazzucchelli, L., Paoletti, G., Senna, A., Mazzoleni, S. (2008). Oral health problems and needs in nursing home residents in northern Italy. *Community Dental Health*, 25(4), 231-236.
- Finkleman, G. I., Lawrence, H. P. and Glogauer, M. (2010). The impact of integration of dental services on oral health in long-term care: qualitative analysis. *Gerodontology*. doi: 10.1111/j.1741-2358.2010.00413.x
- Forsell, M., Kullberg, E., Hoogstraate, J., Johansson, O., & Sjogren, P. (2011). An evidence-based oral hygiene education program for nursing staff. *Nurse Education in Practice*, 11(4), 256-259. doi:10.1016/j.nepr.2010.11.017
- Forsell, M., Sjogren, P., & Johansson, O. (2009). Need of assistance with daily oral hygiene measures among nursing home resident elderly versus the actual assistance received from the staff. *The Open Dentistry Journal*, 3, 241-244. doi:10.2174/1874210600903010241
- Foy, R., Walker, A., Ramsay, C., Penney, G., Grimshaw, J., & Francis, J. (2005). Theory-based identification of barriers to quality improvement: Induced abortion care. *International Journal for Quality in Health Care : Journal of the International Society for Quality in Health Care / ISQua*, 17(2), 147-155. doi:10.1093/intqhc/mzi017
- Frenkel, H. F. (1999). Behind the screens: Care staff observations on delivery of oral health care in nursing homes. *Gerodontology*, 16(2), 75-80.
- Gagliardi, A. R., Brouwers, M. C., Palda, V. A., Lemieux-Charles, L., & Grimshaw, J. M. (2011). How can we improve guideline use? A conceptual framework of implementability. *Implementation Science*, 6 doi:10.1186/1748-5908-6-26 ER
- Gammack, J. K., & Pulisetty, S. (2009). Nursing education and improvement in oral care delivery in long-term care. *Journal of the American Medical Directors Association*, 10(9), 658-661. doi:10.1016/j.jamda.2009.09.001
- Gerhardus, A., & Dintsios, C. M. (2005). The impact of HTA reports on health policy: A systematic review. *GMS Health Technology Assessment*, 1, Doc02.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory : Strategies for qualitative research*. Chicago: Aldine Pub. Co.
- Glassman, P. & Subar, P. (2010). Creating and maintaining oral health for dependent people in institutional settings. *Journal of Public Health Dentistry*, 70: S40–S48. doi: 10.1111/j.1752-7325.2010.00174.x
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. 8(4), 597-607.

- Goodman, C. S. (2004). *HTA 101: Introduction to health technology assessment*. (NIH Publication Virginia, USA: The Lewin Group.
- Green, L. A., & Seifert, C. M. (2005). Translation of research into practice: Why we can't "just do it". *The Journal of the American Board of Family Practice / American Board of Family Practice*, 18(6), 541-545.
- Harwood, N. (2005). 'We Do Not Seem to Have a Theory ... The Theory I Present Here Attempts to Fill This Gap': Inclusive and Exclusive Pronouns in Academic Writing. *Applied Linguistics*, 26 (3): 343-375. doi: 10.1093/applin/ami012
- Haumschild, M. S., & Haumschild, R. J. (2009). The importance of oral health in long-term care. *Journal of the American Medical Directors Association*, 10(9), 667-671. doi:10.1016/j.jamda.2009.01.002
- Holloway, I., & Wheeler, S. (2010). *Qualitative research in nursing and healthcare* (3rd ed.). UK: Wiley-Blackwell.
- Hopcraft, M. S., Morgan, M. V., Satur, J. G., Wright, F. A. C., & Darby, I. B. (2010) Oral hygiene and periodontal disease in Victorian nursing homes. *Gerodontology*. doi: 10.1111/j.1741-2358.2010.00448.x
- Hyand, K. (2002) Authority and invisibility: authorial identity in academic writing. *Journal of Pragmatics*, 34, 1091–1112. doi: 10.1016/S0378-2166(02)00035-8
- Jablonski, R. A., Munro, C. L., Grap, M. J., & Elswick, R. K. (2005). The role of biobehavioral, environmental, and social forces on oral health disparities in frail and functionally dependent nursing home elders. *Biological Research for Nursing*, 7(1), 75-82. doi:10.1177/1099800405275726
- Jablonski, R. A., Swecker, T., Munro, C., Grap, M. J., & Ligon, M. (2009). Measuring the oral health of nursing home elders. *Clinical Nursing Research*, 18(3), 200-217. doi:10.1177/1054773809335306
- Kazanjian, A. (2004). Reflections on the social epidemiologic dimension of health technology assessment. *International Journal of Technology Assessment in Health Care*, 20(2), 167-173.
- Khatami, S., & Macentee, M. I. (2011). Evolution of clinical reasoning in dental education. *Journal of Dental Education*, 75(3), 321-328.
- Khatutsky, G., Wiener, J. M., & Anderson, W. L. (2010). Immigrant and non-immigrant certified nursing assistants in nursing homes: How do they differ? *Journal of Aging & Social Policy*, 22(3), 267-287. doi:10.1080/08959420.2010.485526
- Kiyak, H. A., Grayston, M. N., & Crinean, C. L. (1993). Oral health problems and needs of nursing home residents. *Community Dentistry and Oral Epidemiology*, 21(1), 49-52.

- Kotzer, R. (2011) *Oral Health-related Quality of Life in an Aging Canadian Population*. (Master's thesis). Retrieved from <http://hdl.handle.net/1807/31287>
- Kullberg, E., Sjögren, P., Forsell, M., Hoogstraate, J., Herbst, B., & Johansson, O. (2010) Dental hygiene education for nursing staff in a nursing home for older people. *Journal of Advanced Nursing*. 66(6):1273-9. doi: 10.1111/j.1365-2648.2010.05298.x
- Kuo, L. C., Polson, A. M., & Kang, T. (2008). Associations between periodontal diseases and systemic diseases: A review of the inter-relationships and interactions with diabetes, respiratory diseases, cardiovascular diseases and osteoporosis. *Public Health*, 122(4), 417-433. doi:10.1016/j.puhe.2007.07.004
- Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing* (2nd ed.). Los Angeles: Sage.
- Lau, D. T., Masin-Peters, J., Berdes, C., & Ong, M. (2010). Perceived barriers that impede provider relations and medication delivery: hospice providers' experiences in nursing homes and private homes. *Journal of Palliative Medicine*, 13(3), 305-310. doi:10.1089/jpm.2009.0283
- Lingard, L., Conn, L. G., Russell, A., Reeves, S., Miller, K. L., Kenaszchuk, C., & Zwarenstein, M. (2007). Interprofessional information work: Innovations in the use of the chart on internal medicine teams. *Journal of Interprofessional Care*, 21(6), 657-667. doi:10.1080/13561820701731817
- Luppa, M., Luck, T., Weyerer, S., König, H. H., Brahler, E., & Riedel-Heller, S. G. (2010). Prediction of institutionalization in the elderly. A systematic review. *Age and Ageing*, 39(1), 31-38. doi:10.1093/ageing/afp202
- MacEntee, M.I., Kazanjian A, Kozak JF, Hornby K, Thorne S, & Kettrattad, M. (2011). A scoping review and research synthesis on financing and regulating oral care in long-term care facilities. *Gerodontology*, doi:10.1111/j.1741-2358.2011.00575.x
- MacEntee, M.I. (2011). Muted dental voices on interprofessional healthcare teams. *Journal of Dentistry*, 39 Suppl 2, S34-40. doi:10.1016/j.jdent.2011.10.017
- MacEntee, M.I. (2006a). An existential model of oral health from evolving views on health, function and disability. *Community Dental Health*, 23(1), 5-14.
- MacEntee, M.I. (2006b). Missing links in oral health care for frail elderly people. *Journal (Canadian Dental Association)*, 72(5), 421-425.
- MacEntee, M.I., Hole, R., & Stolar, E. (1997). The significance of the mouth in old age. *Social Science & Medicine* (1982), 45(9), 1449-1458.
- MacEntee, M.I., Pruksapong, M., Wyatt, C.C. (2005) Insights from students following an educational rotation through dental geriatrics. *Journal of Dental Education* 69: 1368–1376.

- MacEntee, M.I, Thorne, S., & Kazanjian, A. (1999). Conflicting priorities: Oral health in long-term care. *Special Care in Dentistry : Official Publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry*, 19(4), 164-172.
- MacEntee, M.I, Wyatt, C.C., Beattie, B.L., Paterson, B., Levy-Milne, R., McCandless, L., & Kazanjian, A. (2007). Provision of mouth-care in long-term care facilities: An educational trial. *Community Dentistry and Oral Epidemiology*, 35(1), 25-34. doi:10.1111/j.1600-
- Martz, K. & Gerding, A. (2011) Perceptions of Coordination of Care Between Hospice and Skilled Nursing Facility Care Providers. *Journal of Hospice & Palliative Nursing* 13(4), 210-219. doi: 10.1097/NJH.0b013e3182135ddd
- Matthews, D.C., Clovis, J.B., Brilliant, M., Filiaggi, M., McNally, M.E., Kotzer, R.D., Lawrence, H.P. (2012) Oral Health Status of Long-Term Care Residents - A Vulnerable Population. *Journal of Canadian Dental Association*, 78:c3
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- McGregor, M., Tate, R., McGrail, K., Ronald, L., Broemeling, A., & Cohen, M. (2006) Care Outcomes in Long-Term Care Facilities in British Columbia, Canada: Does Ownership Matter? *Medical Care*, 44(10), 929-935. doi: 10.1097/01.mlr.0000223477.98594.97
- McGregor, M. J., Tate, R. B., Ronald, L. A., McGrail, K. M., Cox, M. B., Berta, W., & Broemeling, A. M. (2010). Trends in long-term care staffing by facility ownership in british columbia, 1996 to 2006. *Health Reports / Statistics Canada*, 21(4), 27-33.
- McKeown, L. (2003). Social relations and breath odour. *International Journal of Dental Hygiene*, 1(4), 213-217. doi:10.1034/j.1601-5037.2003.00056.x
- McNally, M., Dharamsi, S., Bryant, S., & MacEntee, M. (2010). Ethical considerations for the oral healthcare of frail elders. In (pp. 13) Wiley-Blackwell.
- McNally, M. (2005). Oral health matters: what will it take to leave no senior behind? *Journal of Canadian Dental Association*, 71(7), 465-7.
- McNally, M. (2003) Rights access and justice in oral health care: justice toward underserved patient populations--the elderly. *The Journal of the American College of Dentists*, 70(4), 56-60.
- Ministry of Health, B.C. (2004). *Community Care and Assisted Living Act*. Retrieved from <http://www.health.gov.bc.ca/ccf/legislation/ccala.html>
- Ministry of Health, B.C. (2008). *FACT SHEET: Role of the licensing officer*. Retrieved from http://www.health.gov.bc.ca/library/publications/year/2008/Fact_sheet_licensing_officer_v3.pdf

- Ministry of Health, B.C. (2011). *Facility inspection reports*. Retrieved from <http://www.health.gov.bc.ca/ccf/facility-inspection-reports.html>
- Ministry of Health, B.C. (2012) *Improving Care for B.C. Seniors: An Action Plan*. Retrieved February 14th 2012, from <http://www.seniorshc.ca/documents/pdf/SeniorsActionPlan.pdf>
- Mojon, P., Thomason, J.M., & Walls, A.W. (2004). The impact of falling rates of Edentulism. *International Journal of Prosthodontist*, 17(4):434-40.
- Mori, H., Hirasawa, H., Oda, S., Shiga, H., Matsuda, K., & Nakamura, M. (2006). Oral care reduces incidence of ventilator-associated pneumonia in ICU populations. *Intensive Care Medicine*, 32(2), 230-236. doi:10.1007/s00134-005-0014-4
- Nitschke, I., Majdani, M., Sobotta, B. A., Reiber, T., & Hopfenmuller, W. (2010). Dental care of frail older people and those caring for them. *Journal of Clinical Nursing*, 19(13-14), 1882-1890. doi:10.1111/j.1365-2702.2009.02996.x
- Ombudsperson, B.C. (2012). The Best of Care: Getting It Right for Seniors in British Columbia (Part 2). *Ombudsperson's Report* 47. Retrieved from http://www.ombudsman.bc.ca/images/pdf/seniors/Seniors_Report_Volume_2.pdf
- Ozar, D. T., & Sokol, D. J. (2002). *Dental ethics at chairside: Professional principles and practical applications* Georgetown Univ Pr.
- Pace, C. C., & McCullough, G. H. (2010). The association between oral microorganisms and aspiration pneumonia in the institutionalized elderly: Review and recommendations. *Dysphagia*, 25(4), 307-322. doi:10.1007/s00455-010-9298-9
- Palangkaraya, A., & Yong, J. (2009). Population ageing and its implications on aggregate health care demand: Empirical evidence from 22 OECD countries. *International Journal of Health Care Finance and Economics*, 9(4), 391-402. doi:10.1007/s10754-009-9057-3
- Paley, G. A., Slack-Smith, L., & O'Grady, M. (2009). Oral health care issues in aged care facilities in western australia: Resident and family caregiver views. *Gerodontology*, 26(2), 97-104. doi:10.1111/j.1741-2358.2008.00230.x
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, Calif.: Sage Publications.
- Paulsson, G., Nederfors, T., & Fridlund, B. (1999). Conceptions of oral health among nurse managers. A qualitative analysis. *Journal of Nursing Management*, 7(5), 299-306.
- Philip, P., Rogers, C., Kruger, E., & Tennant, M. (2011). Oral hygiene care status of elderly with dementia and in residential aged care facilities. *Gerodontology*, doi:10.1111/j.1741-2358.2011.00472.x

- Pino, A., Moser, M., & Nathe, C. (2003). Status of oral healthcare in long-term care facilities. *International Journal of Dental Hygiene*, 1(3), 169-173. doi:10.1034/j.1601-5037.2003.00036.x
- Pittman, P. M., Folsom, A. J., & Bass, E. (2010). U.S.-based recruitment of foreign-educated nurses: Implications of an emerging industry. *The American Journal of Nursing*, 110(6), 38-48. doi:10.1097/01.NAJ.0000377689.49232.06
- Pope, C., & Mays, N. (2006). *Qualitative research in health care* (3rd ed.). Malden, Mass.: Blackwell Pub.
- Preshaw, P. M. (2005) Geriatric dentistry education in European dental schools. *European Journal of Dental Education*, 9(2), 73-77. doi:10.1111/j.1600-0579.2004.00357.x
- Pronych, G. J., Brown, E. J., Horsch, K., & Mercer, K. (2010). Oral health coordinators in long-term care--a pilot study. *Special Care in Dentistry : Official Publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry*, 30(2), 59-65. doi:10.1111/j.1754-4505.2010.00123.x
- Pruksapong, M. (2008). *Development of a model for assessing the quality of an oral health program in long-term care facilities*. (Doctoral dissertation). Retrieved from <https://circle.ubc.ca/handle/2429/1529>
- Pruksapong, M. & MacEntee, M. I. (2007). Quality of oral health services in residential care: Towards an evaluation framework. *Gerodontology*, 24(4), 224-230. doi:10.1111/j.1741-2358.2007.00187.x
- Pyle, M. A., Jasinevicius, T. R., Sawyer, D. R., & Madsen, J. (2005). Nursing home executive directors' perception of oral care in long-term care facilities. *Special Care in Dentistry*, 25(2), 111-117.
- Rabbo, M. A., Mitov, G., Gebhart, F., & Pospiech, P. (2011). Dental care and treatment needs of elderly in nursing homes in Saarland: Perceptions of the homes managers. *Gerodontology*, doi:10.1111/j.1741-2358.2010.00409.x
- Ribeiro Gaião, L., Leitão de Almeida, M.E, Bezerra Filho, J.G., Leggat, P., & Heukelbach, J. (2009) Poor dental status and oral hygiene practices in institutionalized older people in northeast Brazil. *International Journal of Dentistry*. doi: 10.1155/2009/846081
- Reza Shariatzadeh, M., Huang, J. Q., & Marrie, T. J. (2006). Differences in the features of aspiration pneumonia according to site of acquisition: Community or continuing care facility. *Journal of the American Geriatrics Society*, 54(2), 296-302.
- Rycroft-Malone, J., Harvey, G., Seers, K., Kitson, A., McCormack, B., & Titchen, A. (2004). An exploration of the factors that influence the implementation of evidence into practice. *Journal of Clinical Nursing*, 13(8), 913-924. doi:10.1111/j.1365-2702.2004.01007.x

- Sales, A., O'Rourke, H., Draper, K., Teare, G., & Maxwell, C. (2011). Prioritizing information for quality improvement using resident assessment instrument data: Experiences in one canadian province. *Healthcare Policy*, 6(3), 55-67.
- Scannapieco, F. A. (2006). Pneumonia in nonambulatory patients. the role of oral bacteria and oral hygiene. *Journal of the American Dental Association (1939)*, 137 Suppl, 21S-25S.
- Scott, I. (2009), What are the most effective strategies for improving quality and safety of health care? *Internal Medicine Journal*, 39: 389-400. doi: 10.1111/j.1445-5994.2008.01798.x
- Seale, C. (2004). *Qualitative research practice*. London ; Thousand Oaks, Calif.: Sage.
- Seblega, B. K., Zhang, N. J., Unruh, L. Y., Breen, G. M., Seung Chun, P., & Wan, T. T. (2010). Changes in nursing home staffing levels, 1997 to 2007. *Medical Care Research and Review : MCRR*, 67(2), 232-246. doi:10.1177/1077558709342253
- Shay, K., Scannapieco, F. A., Terpenning, M. S., Smith, B. J., & Taylor, G. W. (2005). Nosocomial pneumonia and oral health. *Special Care in Dentistry : Official Publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry*, 25(4), 179-187.
- Shelley, D., Russell, S., Parikh, N., & Fahs, M. (2011). Ethnic disparities in self-reported oral health status and access to care among older adults in NYC. *Journal of Urban Health*, , 1-12. doi:10.1007/s11524-011-9555-8
- Sjogren, P., Nilsson, E., Forsell, M., Johansson, O., & Hoogstraate, J. (2008). A systematic review of the preventive effect of oral hygiene on pneumonia and respiratory tract infection in elderly people in hospitals and nursing homes: Effect estimates and methodological quality of randomized controlled trials. *Journal of the American Geriatrics Society*, 56(11), 2124-2130. doi:10.1111/j.1532-5415.2008.01926.x
- Slack-Smith, L., Lange, A., Paley, G., O'Grady, M., French, D., & Short, L. (2010). Oral health and access to dental care: A qualitative investigation among older people in the community. *Gerodontology*, 27(2), 104-113. doi:10.1111/j.1741-2358.2009.00320.x
- Smith, B. J., Ghezzi, E. M., Manz, M. C., & Markova, C. P. (2008). Perceptions of oral health adequacy and access in michigan nursing facilities. *Gerodontology*, 25(2), 89-98. doi:10.1111/j.1741-2358.2007.00202.x
- Statistics Canada. (2005). Residential care facilities 2003 / 2004. *Statistics Canada Catalogue no. 83-237-XWE*, Retrieved from <http://www.statcan.gc.ca/pub/83-237-x/83-237-x2006001-eng.htm>
- Statistics Canada. (2011). Residential care facilities 2009 / 2010., Retrieved from <http://www.statcan.gc.ca/pub/83-237-x/83-237-x2012001-eng.htm>

- Stein, P.S. & Henry, R.G. (2009) Poor Oral Hygiene in Long-Term Care. *The American Journal of Nursing*, 109(6), 44-50.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, Calif.: Sage Publications.
- Sue Eisenstadt, E. (2010). Dysphagia and aspiration pneumonia in older adults. *Journal of the American Academy of Nurse Practitioners*, 22(1), 17-22. doi:10.1111/j.1745-7599.2009.00470.x
- Sumi, Y., Nakamura, Y., Nagaosa, S., Michiwaki, Y., & Nagaya, M. (2001). Attitudes to oral care among caregivers in Japanese nursing homes. *Gerodontology*, 18(1), 2-6.
- Terpenning, M., & Shay, K. (2002). Oral health is cost-effective to maintain but costly to ignore. *Journal of the American Geriatrics Society*, 50(3), 584-585.
- Thean, H., Wong, M. L., & Koh, H. (2007). The dental awareness of nursing home staff in Singapore - a pilot study. *Gerodontology*, 24(1), 58-63. doi:10.1111/j.1741-2358.2007.00138.x
- Thorne, S. E. (2008). *Interpretive description*. Walnut Creek, CA: Left Coast Press.
- Thorne, S. E., Kazanjian, A., & MacEntee, M. I. (2001). Oral health in long-term care: The implications of organizational culture. *Journal of Aging Studies*, 15(3), 271-283. doi: 10.1016/S0890-4065(01)00023-8
- Unfer, B., Braun, K. O., de Oliveira Ferreira, A. C., Ruat, G. R., & Batista, A. K. (2011). Challenges and barriers to quality oral care as perceived by caregivers in long-stay institutions in Brazil. *Gerodontology*,
- Vanobbergen, J. N., & De Visschere, L. M. (2005). Factors contributing to the variation in oral hygiene practices and facilities in long-term care institutions for the elderly. *Community Dental Health*, 22(4), 260-265.
- Wardh, I., Hallberg, L. R., Berggren, U., Andersson, L., & Sorensen, S. (2000). Oral health care--a low priority in nursing. in-depth interviews with nursing staff. *Scandinavian Journal of Caring Sciences*, 14(2), 137-142.
- Wardh, I., Jonsson, M., & Wikstrom, M. (2011). Attitudes to and knowledge about oral health care among nursing home personnel - an area in need of improvement. *Gerodontology*, doi:10.1111/j.1741-2358.2011.00562.x
- Welie, J., & Rule, J. (2006). Overcoming isolationism. moral competencies, virtues and the importance of connectedness. *Justice in Oral Health Care. Ethical and Educational Perspectives*, , 97-125.

- Werner, R. M., & Konetzka, R. T. (2010). Advancing nursing home quality through quality improvement itself. *Health Affairs (Project Hope)*, 29(1), 81-86. doi:10.1377/hlthaff.2009.0555
- Whitman, L.A. & Whitman J. (2006) Improving dental and oral care services for nursing facility residents. *Targeting Revolutionary Elder Care Solutions Institute Report*. Retrieved from <http://www.thetreccsinstitute.org/downloads/DentalCare.pdf>
- Willumsen, T., Karlsen, L., Naess, R., & Bjorntvedt, S. (2011). Are the barriers to good oral hygiene in nursing homes within the nurses or the patients? *Gerodontology*, doi:10.1111/j.1741-2358.2011.00554.x
- Wyatt, C.C. (2002). Elderly Canadians residing in long-term care hospitals: Part II. Dental caries status. *Journal of Canadian Dental Association*, 68(6):359-63.
- Wyatt, C. C. (2009). A 5-year follow-up of older adults residing in long-term care facilities: Utilisation of a comprehensive dental programme. *Gerodontology*, 26(4), 282-290. doi:10.1111/j.1741-2358.2009.00305.x
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Los Angeles: Sage.
- Yoneyama, T., Yoshida, M., Ohrui, T., Mukaiyama, H., Okamoto, H., Hoshiba, K., . . . Oral Care Working Group. (2002). Oral care reduces pneumonia in older patients in nursing homes. *Journal of the American Geriatrics Society*, 50(3), 430-433.

Appendices

Appendix A: Provincial Legislation referring to Oral Health

Alberta

Facilities, Institutions, Health Benefits Regulation, Alta Reg 209/1999

1 (2) Health benefits means optical, dental and ambulance services and prescribed drugs provided.

British Columbia

Residential Care Regulation, BC Reg 96/2009

81 (3) A care plan must include all of the following: ... (b) an oral health care plan;

Manitoba

Personal Care Homes Standards Regulation, Man Reg 30/2005

12(2) The integrated care plan must include the following information: (a) the type of assistance required with bathing, dressing, mouth and denture care, ...

New Brunswick

Nursing Homes Act, SNB 1982, c N-11

14 (1) An operator shall keep ... (d):physician's, pharmacist's, nurse practitioner's and dentist's notes and orders;

Newfoundland and Labrador

Department of Health and Community Services Notice, 2003, NLR 82/03

4. The powers, duties and functions of the minister include the supervision, control and direction of all matters relating to ... (c) the administration of hospitals, long term care facilities and personal care facilities; ... (e) contracts, payments and remunerations for medical, dental, pharmaceutical, scientific, technical or other health and community services;

Ontario

Long-Term Care Homes Act, 2007 - General, O Reg 79/10

26. (1) Every licensee of a long-term care home shall ensure that the requirements of this section are met with respect to every plan of care: ... 12. Dental and oral status, including oral hygiene.

Saskatchewan

Personal Care Homes Regulations, 1996, RRS c P-6.01 Reg 2

23 With the consent of each resident, a licensee shall ensure that: ... (b) each resident receives dental, optical and other examinations as necessary;

Quebec

Organization and Management of Institutions Regulation, RRQ, c S-5, r 5

84.4. The part of the organization plan ... shall contain ... (2): the number of physicians and dentists required to operate the hospital centre and each clinical department and clinical

service of the centre, with an indication, for physicians, of the number of general practitioners and specialist with their specialization, and for dentists, of the number of general dentists and specialists with their specialization.

Appendix B: Letter of Invite



PROVIDENCE HEALTH CARE
Research Institute

11th Floor – 1190 Hornby Street
Vancouver, BC V6Z 2K5
Tel: (604) 806-8567 Fax: (604) 806-8568
www.providencehealthcare.org/research/



Faculty of Dentistry
Department of Oral Health Sciences
2199 Wesbrook Mall

Vancouver, B.C., Canada V6T 1Z3

Tel: (604) 822-5064 Fax: (604) 827-4448

www.dentistry.ubc.ca

Title: Exploring the Influence of a Regulation on Daily Oral Health in Long-term Care Facilities

February 1st 2011

Dear Administrator,

I am a graduate (MSc) student under the supervision of Dr. Michael MacEntee in the Faculty of Dentistry at UBC. We are studying how governmental regulations in BC influence daily oral healthcare in our long-term care (LTC) facilities. As you know, oral healthcare is regulated in BC as part of the Residential Care Regulation, section 54 (3b – i) of the Community Care and Assisted Living Act (B.C. Reg. 96/2009).

As part of my graduate studies, I want to speak to administrators of facilities around Vancouver to understand how this regulation is implemented practically in LTC facilities. Consequently, I will be very grateful if I could impose on your time for about 30 minutes to obtain information about your experiences with this regulation. The interview will be at your convenience – preferably directly but by telephone if that suits you better. With your permission, the interview will be audio-recorded and transcribed for analysis.

Our interpretation of the interview will be given to you for your approval before we include it as a basis for my thesis, or for reports and scholarly papers.

The confidentiality of the interview will be protected so that it will be impossible to identify you in any publication. While there are no obvious direct benefits of this research to you, we hope that your input and advice will help to enhance the health and well-being of residents in our LTC facilities. A research summary will also be prepared and will be provided to you on request.

This research has received ethical approval from the Providence Health Care Research Ethics Board, and of course your participation is completely voluntary. If you agree to participate, please review the consent form enclosed with this letter.

Please contact me at [REDACTED] or [REDACTED] for further information or to participate, or you can contact Michael MacEntee at [REDACTED].

Sincerely,
Caroline Jiang, BSc

Appendix C: Consent Forms



PROVIDENCE HEALTH CARE
Research Institute
11th Floor – 1190 Hornby Street
Vancouver, BC V6Z 2K5
Tel: (604) 806-8567 Fax: (604) 806-8568
www.providencehealthcare.org/research/



Faculty of Dentistry
Department of Oral Health Sciences
2199 Wesbrook Mall
Vancouver, B.C., Canada V6T 1Z3
Tel: (604) 822-5064 Fax: (604) 827-4448
www.dentistry.ubc.ca

Developer Consent Form

Title: Exploring the Influence of a Regulation on Daily Oral Health in Long-term Care Facilities

Principal Investigator: Dr. Michael MacEntee (Professor, UBC Faculty of Dentistry)

[Redacted contact information for Dr. Michael MacEntee]

Co-Investigators: Dr. Arminée Kazanjian (Professor, UBC Faculty of Medicine)

[Redacted contact information for Dr. Arminée Kazanjian]

Dr. Chris Wyatt (Associate Professor, UBC Faculty of Dentistry)

[Redacted contact information for Dr. Chris Wyatt]

Dr. Jean Kozak (Assistant Professor, UBC Faculty of Medicine;
Director of Research, Centre for Healthy Aging at
Providence)

[Redacted contact information for Dr. Jean Kozak]

Caroline Jiang (Master Student, UBC Faculty of Dentistry)

[Redacted contact information for Caroline Jiang]

Introduction

We are studying how governmental regulations in BC influence daily oral healthcare in our long-term care (LTC) facilities with the aim of enhancing the health and quality of life of older people in LTC facilities. We invite you to take part in this research study because of your role in developing and disseminating the Residential Care Regulation, section 54 (3b – i) of the Community Care and Assisted Living Act (B.C. Reg. 96/2009). As you know, this regulation relates to oral healthcare.

Purpose

We will explore how this regulation was developed and distributed, and we will seek information from administrators of LTC facilities, including 4 administrators from Providence Health Care, on how it is being implemented.

Study procedures

Your participation will include an interview of approximately 15 minutes either by phone or face-to-face at your convenience, to obtain information about the development and implementation of the regulation. You do not have to answer any questions that make you feel uncomfortable. With your permission the interview will be audio-taped and transcribed for analysis, and our interpretation of the interview will be given to you for your approval before we include it as a basis for our theses, reports or scholarly papers.

Risks

There are no known or anticipated risks to you in this research.

Confidentiality

Your confidentiality will be respected. Information that discloses your identity will not be released without your consent unless required by law or regulation. However, research records and medical records identifying you may be inspected in the presence of the investigator or his or her designate, by representatives of Health Canada, and the UBC-PHC Research Ethics Board for the purposes of monitoring the research. No records that identify you by name or initials will be allowed to leave the investigator's office. You will be identified on reports and audio recordings only by a unique code known to the Principal Investigator and Co-Investigators.

Disposal of Data

The data, such as the audio recordings and transcripts, will be kept for at least five years. Only the principal investigator may use the anonymized transcripts of the audio recording for future research in the same field of dentistry.

Dissemination of Results

The results of this study will be used as part of graduate studies, which includes dissertation, academic articles and possible presentations at conferences and forums. No personal information will be used in publications that could identify you personally in anyway.

Rights and Compensation

By signing this form, you do not give up any of your legal rights and you do not release the investigators from their legal and professional duties. There will be no costs to you for participating in this study.

Voluntary Participation

Your participation is entirely voluntary. You have the right to refuse to participate in this study. If you decide to participate, your decision is not binding and you may choose to withdraw from the study at any time without any negative consequences.

Contact Information

Please contact us if you have any questions regarding this study: Caroline Jiang or Dr. Michael MacEntee at the contact information provided at the beginning of this Consent Form.

If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, contact the Research Subject Information Line in the University of British Columbia Office of Research Services at 604-822-8598 or the Chair of the UBC-PHC Research Ethics Board at 604-682-2344 ext 63496."

Title: Exploring the Influence of a Regulation on Daily Oral Health in Long-term Care Facilities

CONSENT

- ☐ I have read and understood the subject information and consent form.
- ☐ I have had sufficient time to consider the information provided and to ask for advice if necessary.
- ☐ I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- ☐ I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.
- ☐ I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without changing in any way the quality of care that I receive.
- ☐ I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- ☐ I have read this form and I freely consent to participate in this study.
- ☐ I have been told that I will receive a dated and signed copy of this form.
- ☐ I would like my data to be used for future research. Initial _____

SIGNATURES

Printed Name of Subject _____

Signature _____ Date _____

Printed Name of Co-Investigator _____

Signature _____ Date _____

Printed Name of Translator _____

Signature _____ Date _____

Language of translation _____



PROVIDENCE HEALTH CARE
Research Institute

11th Floor – 1190 Hornby Street
Vancouver, BC V6Z 2K5
Tel: (604) 806-8567 Fax: (604) 806-8568
www.providencehealthcare.org/research/



Faculty of Dentistry
Department of Oral Health Sciences
2199 Wesbrook Mall

Vancouver, B.C., Canada V6T 1Z3

Tel: (604) 822-5064 Fax: (604) 827-4448

www.dentistry.ubc.ca

Administrator Consent Form

Title: Exploring the Influence of a Regulation on Daily Oral Health in Long-term Care Facilities

Principal Investigator: Dr. Michael MacEntee (Professor, UBC Faculty of Dentistry)

[REDACTED]

Co-Investigators: Dr. Arminée Kazanjian (Professor, UBC Faculty of Medicine)

[REDACTED]

Dr. Chris Wyatt (Associate Professor, UBC Faculty of Dentistry)

[REDACTED]

Dr. Jean Kozak (Assistant Professor, UBC Faculty of Medicine;
Director of Research, Centre for Healthy Aging at
Providence)

[REDACTED]

Caroline Jiang (Master Student, UBC Faculty of Dentistry)

[REDACTED]

Introduction

We are studying how governmental regulations in BC influence daily oral healthcare in our long-term care (LTC) facilities with the aim of enhancing the health and quality of life of older people in LTC facilities. As you know, oral healthcare is regulated in BC as part of the Residential Care Regulation, section 54 (3b – i) of the Community Care and Assisted Living Act (B.C. Reg. 96/2009). We would like to explore how LTC administrators try to provide oral health care to residents within such a regulation.

Purpose

We would like to speak to administrators of facilities around Vancouver – including 4 sites of Providence Health Care, to understand how this regulation is implemented practically in LTC facilities.

Study procedures

Your participation will include an interview lasting about one-half hour either by phone or face-to-face at your convenience to obtain information about the implementation of the regulation. You do not have to answer any questions that make you feel uncomfortable. With your permission the interview will be audio-taped and transcribed for analysis, and our

interpretation of the interview will be given to you for your approval before we include it as a basis for our theses, reports or scholarly papers.

Risks

There are no known or anticipated risks to you by participating in this research.

Confidentiality

Your confidentiality will be respected. Information that discloses your identity will not be released without your consent unless required by law or regulation. However, research records and medical records identifying you may be inspected in the presence of the investigator or his or her designate, by representatives of Health Canada, and the UBC-PHC Research Ethics Board for the purposes of monitoring the research. No records that identify you by name or initials will be allowed to leave the investigator's office. You will be identified on reports and audio recordings only by a unique code known to the Principal Investigator and Co-Investigators.

Disposal of Data

The data such as the audio recordings and transcripts will be kept for at least five years. Only the principal investigator may use the anonymized transcripts of the audio recording for future research in the same field of dentistry.

Dissemination of Results

The results of this study will be used as part of graduate studies, which includes dissertation, academic articles and possible presentations at conferences and forums. No personal information will be used in publications that could identify you personally in anyway.

Rights and Compensation

By signing this form, you do not give up any of your legal rights and you do not release the investigators from their legal and professional duties. There will be no costs to you for participating in this study.

Voluntary Participation

Your participation is entirely voluntary. You have the right to refuse to participate in this study. If you decide to participate, your decision is not binding and you may choose to withdraw from the study at any time without any negative consequences.

Contact Information

Please contact us if you have any questions regarding this study: Caroline Jiang or Dr. Michael MacEntee at the contact information provided at the beginning of this Consent Form.

If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, contact the Research Subject Information Line in the University of British Columbia Office of Research Services at 604-822-8598 or the Chair of the UBC-PHC Research Ethics Board at 604-682-2344 ext 63496."

Title: Exploring the Influence of a Regulation on Daily Oral Health in Long-term Care Facilities

CONSENT

- ☐ I have read and understood the subject information and consent form.
- ☐ I have had sufficient time to consider the information provided and to ask for advice if necessary.
- ☐ I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- ☐ I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.
- ☐ I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without changing in any way the quality of care that I receive.
- ☐ I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- ☐ I have read this form and I freely consent to participate in this study.
- ☐ I have been told that I will receive a dated and signed copy of this form.
- ☐ I would like my data to be used for future research. Initial _____

SIGNATURES

Printed Name of Subject _____

Signature _____ Date _____

Printed Name of Co-Investigator _____

Signature _____ Date _____

Printed Name of Translator _____

Signature _____ Date _____

Language of translation _____

Appendix D: Sample Interview Guide

Thank you for your willingness to participate. .

As you know, oral healthcare is regulated in BC as part of the Residential Care Regulation. As researchers, we noticed in some situations, there are needs to improve daily mouth care for LTC residents. We are particularly interested in how the policy influences daily mouth care and we would like to explore how LTC administrators influence their staff to provide daily mouth care to residents?

Do you have any questions before we start?

Is it okay with you that I audio record the interview?

I may look down and jog down notes to follow up if that's okay with you.

I have a number of questions I want to cover IF we have time.

We can stop at anytime, and please feel free to respond with whatever that comes to your mind. If you think of something later you'd like to share, you are welcome to add on to your response at the end of the interview.

How is daily mouth-care program currently administrated?

- ☐ Introduced ☐ your roles related to DOH ☐ Standards
- ☐ Training period ☐ Evaluated ☐ Quality Assurance

What operational policies / guidelines do you use?

- ☐ how was it established ☐ where does oral health fit in (general/contract)
- ☐ Is that how you see the best fit?

What do you know of the Residential Care Regulation?

- ☐ Aware ☐ interpretation ☐ compliance means ☐ helpful / hindering
- ☐ Can you think of any area the policy could be improved after implemented?
- ☐ What does your facility do with the regulation upon receiving it?
- ☐ How are the staffs informed of any new policies?
- ☐ How do you check that is complied?

What results have you seen after the implementation?

- ☐ How do you know if a procedure is effect?
- ☐ Outcome / consequences / benefits / limitations

Have you been involved in with licensing inspection?

- ☐ How do you see health authorities inspect?
- ☐ How do the various staff **prioritize mouth care**?
 - ☐ How do you prioritize the importance of mouth care?
 - ☐ What sort of actions do you take to demonstrate the importance of DOH?

I have no further questions. Is there anything else you would like to bring up or ask about before we finish the interview?

May I just get some background information:

- ☐ Years as Director of Care ☐ Same Facility ☐ Different position
☐ Professional background

(That's a new and interesting topic. Do you mind if I include that in my report? Because I didn't get to record.)

Appendix E: Memorandum to Administrators from the Ministry of Health, B.C. Government, in 1998.

SECTION 10: APPENDIX

Subsection B: Appendix 12 - Sample Daily Oral Health Care Policies

10.B

The following are policies and procedures regarding daily oral health care created by Simon Fraser Health Region, Continuing Care, 1998. These are provided as a sample to assist licensees in writing their own policies and procedures for daily oral health care for their residents.

ORAL HYGIENE CARE MOUTH, TEETH AND DENTURE

1.0 STANDARD

- Residents who are able or unable to care for or clean their own teeth or dentures will be provided mouth care twice daily, once on day shift and once on evening shift.
- Residents are assisted and supported in maintaining their own oral hygiene, whenever possible.
- Resident's oral hygiene supplies are to be purchased by the resident, and if not possible, by the facility and replaced, as required (minimum every 3 - 4 months).

2.0 ORAL HYGIENE PROTOCOLS

2.1 Mouthcare Protocol

2.1.1 Residents with natural teeth:

- Natural teeth will be brushed two times a day - once on day shift and once on evening shift.
- Permit resident to brush own teeth if able, assist as required.
- Brush teeth for resident who is unable to do own.

2.1.2 Residents with complete or partial dentures:

- Dentures should be labeled with resident's name (on admission to facility).
- Dentures will be brushed twice daily and soaked in water nightly and in commercial cleaner weekly.
- With resident agreement, remove dentures, brush and soak in water nightly (or 1/2 hour daily if resident requests to wear dentures overnight).
- Soak in commercial denture cleaner (Polident, Efferdent) every Friday night.
- Brush and disinfect in Chlorhexidine solution if being treated for oral infections.
- Brush and rinse well before returning to mouth.

SECTION 10: APPENDIX
Subsection B: Appendix 12 - Sample Daily Oral Health Care Policies

16

2.1.3 Residents without teeth:

- Residents will have their mouths cleansed, as required.
- Gently brush gums with soft toothbrush as required for resident comfort and cleanliness.
- Brush coated tongue in a forward direction.

2.1.4 Residents with dry mouth:

- Residents will receive relief from a dry mouth and prevention of oral infections.
- Brush teeth as indicated above.
- Avoid acidic solutions (i.e., lemon glycerine) or solutions containing alcohol (i.e., mouthwashes).
- To relieve dryness, soft tissues (i.e., gums, palate) may be sprayed or swabbed with saliva substitute (i.e., Moi-stir, Oral balance, Sage) or water.
- Use non-petroleum based lip lubricants (i.e., hydrous lanolin, Sage lubricant).

2.1.5 Residents who take nothing by mouth / choking risk:

- Natural teeth will be brushed two times a day.
- Brush teeth or clean mouth as indicated above, dabbing moisture off brush frequently.
- To avoid aspiration, do not use toothpaste and position resident as if eating.
- Diluted alcohol free mouthwash or fluoride gel are acceptable substitutes for toothpaste.

Note:

Report oral concerns to Team Leader/Supervisor.

SECTION 5: ADULT RESIDENTIAL CARE
Subsection 4: Essential Care Requirements -- Care Plans

5.4.13

- an outline of the continuum of care for providing services (i.e., from prevention directed towards the maintenance of health, to emergency procedures, to advance directives if applicable);
- any self-medication plans for the resident, authorized under section 8.6 (1) and (2), Adult Care Regulations. (Refer to section 5, subsection 3 of this manual for policy and guidelines relating to self-medication plans).
- the use of a restraint and the reasons for using it;
- requirement for trained and qualified health care professionals;
- equipment requirements; and
- reassessment/review schedules.

B. Plan for Oral Health Care

The oral health care plan should assist residents, licensees and care staff in the management of residents' daily oral health care. The plan should include the resident's general dental status and concerns and recommendations for maintaining his or her daily oral health.

The following information should be gathered and documented in the development of the oral health care plan:

- presence or absence of natural teeth in upper and lower arches;
- presence or absence of dentures (complete or partial) in upper and lower arches;
- current cleaning routine for resident's mouth, teeth and/or dentures including: frequency, time of day, products and procedures used, and ability to perform the task without assistance;
- general concerns expressed by the resident regarding his or her mouth such as pain or an inability to eat comfortably with existing teeth and/or dentures;
- contact information for resident's dental health care professional if available and date of last appointment;
- dental coverage or other sources of funding for dental care; and
- date information gathered.

The following recommendations should be included in the oral health care plan:

- level of assistance required with daily oral health procedures;
- products and supplies required;
- cleaning procedures to be followed (for a sample set of procedures refer to Section 10.B, Appendix 13);

SECTION 5: ADULT RESIDENTIAL CARE
Subsection 4: Essential Care Requirements -- Care Plans

5.4.14

- special considerations including: communication and behavioural challenges, dry mouth, dysphagia, and specific concerns identified by the resident.

Note: Some or all of these special considerations may need to be addressed by the multi-disciplinary care team for decisions regarding appropriate management and referral as required for professional dental consultation and/or treatment.

- date of plan development and review schedule.

The licensee may find it useful to provide care staff with in-service training that enables them to carry out individualized oral health care plans.

General information and resource material may be available by consulting with health authority Dental Health staff and/or local dental health care professionals. For additional references and detailed information on oral health care requirements under section 9.2 of the Adult Care Regulations, please refer to the policy on oral health care included in this section of the manual.

C. Plan for Nutrition

Please refer to Section 5, Subsection 3 of this manual for detailed policy and guidelines regarding nutrition care plans for facilities with 24 or fewer residents and nutrition care plans for facilities with 25 or more residents.

D. Plan for Recreation and Leisure Activities

It is recommended that a recreation/leisure questionnaire be completed when assessing new residents. This is an evaluative tool to help identify the resident's interests, strengths and needs. Assessment information should also be obtained through interviews, observation and existing reports and records.

It is recommended that the following information be obtained and documented:

- resident background information (including ethnic, religious, educational, vocational, daily living before admission, family involvement, etc.)
- health status
- activity pursuit patterns (e.g., time awake, preferred activity settings, activity preferences, recreation/leisure preferences)
- former interests (prior to admission to facility)

Appendix F: Sample of a Facility's Oral Care Standard and Audit.

to promote best practice for the maintenance of oral health.

2.0 Definitions

- **Client:** All-inclusive term referring to resident, patient or client. This also includes the person's family and significant others.
- **Client Care Review:** Term referring to Resident Care Conferences, Service Planning, Rounds and Case Conferences.
- **Edentulous:** Without teeth or dentures.

3.0 STANDARD

3.1 Each client's mouth and anticipated oral care needs will be assessed by a health professional: on admission, when there is a change or potential change in health or treatment, or prior to an annual Client Care Review. (eg; client to receive radiation treatment)

3.2 A health care provider will observe and assess the mouth daily or during each home visit as appropriate.

3.3 Oral health care and comfort needs will be documented as appropriate.

3.4 Appropriate oral care will be provided or encouraged BID (am and pm) and PRN.

3.5 The client and/or their families will be encouraged to participate in their oral care.

3.6 Clients in facilities will have their dentures and oral care supplies labelled.

3.7 Each client will have a soft toothbrush and recommended oral care supplies. These supplies are to be clean and in good working condition.

3.8 Toothbrushes will be replaced, as needed, at least every three months, and after an infectious process.

Standard Audit												
Agency/site:						Location:						
Signature of Evaluator:						Reporting Period:						
Review 5% of clients:						Key: Met = M, Not met = N, Not Applicable = N/A						

Expected Outcome												%M	%N	% N/A
Assessment														
Oral health was assessed by professional on admission														
Care														
Care was provided BID														
Appropriate supplies available														
In facilities: dentures & supplies labelled														
Progress Record														
Oral health care concern/issue documented														
Oral health needs identified on ADL / care plan / Kardex														

Total Compliance = $\frac{\text{(Total Number Met)}}{\text{(Total Number Met + Not Met)}} \times 100\% =$

Appendix G: An Inspection Report from Health Authority X

Adverse reactions are immediately documented and notification to the medical practitioner or nurse practitioner and pharmacy is made [RCR Sec 70(5)]	In Compliance
MEDICATION / Return of medication to pharmacy	
Medication is returned to the dispensing pharmacy as required [RCR Sec 72]	In Compliance
HYGIENE AND COMMUNICABLE DISEASE CONTROL	
GENERAL CARE REQUIREMENTS / General health and hygiene	
There is a program to instruct, if necessary, and assist persons in care in maintaining health and hygiene [RCR Sec 54(1)]	In Compliance
Persons in care are assisted in obtaining health services and a medical practitioner or nurse practitioner can be contacted in an emergency [RCR Sec 54(2)]	In Compliance
Persons in care are assisted in daily oral health care and are encouraged to have a dental exam once a year [RCR Sec 54(3)]	In Compliance
RECORDS AND REPORTING	
MATTERS THAT MUST BE REPORTED / Notification of illness or injury	
If a person in care becomes ill or is injured the parent or representative, or contact person, of the person in care is notified immediately [RCR Sec 76(1)]	In Compliance

Appendix H: An Inspection Guide from Health Authority Y

Residential Care Regulation (RCR) Checklist

Code	Content	Applicable RCR Section (*) denotes CCALA	Date	
502 ♦	Pre-admission, the person, parent or representative are appropriately advised of all charges, fees or payments for accommodation/services; refund agreement; the policy & procedure for expressing concerns/complaints (includes Licensing & if applicable, the Patient Care Quality Review Board) & resolving disputes.	48, *19		
603	Compliance with Tb screening & immunizations is on file.	49 (1)		
603	Height & weight on admission is recorded.	49 (2)		
603	Risk of leaving without notification / wandering is assessed on admission.	49 (3)		
502	Health & safety are regularly monitored to ensure PIC's needs can continue to be met.	50 (1)		
601	PIC sent to hospital only as an emergency or under order by a Dr. or nurse practitioner.	50 (2)(a)(3)		
601	PIC transferred to another CCF only in an emergency, or on leave under the Mental Health Act, or with consent of the PIC, parent or representative.	50 (2)(b)(3)		
General Care Requirements				
502	Emergency plan is current, prominently displayed, & includes procedures for preparation, mitigation, response, evacuation & recovery from an emergency.	51(1)(a)(2)(4)		
502	Emergency plan provides for the continuous delivery of care during an emergency.	51 (1)(b)		
502/ 301	Staff is trained & practice implementing the emergency plan & equipment.	51 (3)		
201/ 502	Communication equipment is accessible & reliable in an emergency.	51 (5)		
502 ♦	No PIC is subject to any type of abuse or neglect, & food or fluids is not used as a punishment, or reward.	52		
601 ♦	Personal privacy, bedroom, belongings & storage area are respected while health & safety is maintained.	53		
401/402/ 601	A health & hygiene program is implemented, instruction & assistance is provided as necessary.	54(1), *7(1)(b)(i)		
601	Assistance is provided to obtain health services & a medical/nurse practitioner is accessible in an emergency.	54(2)		
601	Professional dental exams are encouraged annually & assistance is provided to obtain dental services.	54(3)(b)(i)(ii)(4)		
601	Assistance is provided with maintaining daily oral health & recommended or ordered dental treatments.	54(3)(b)(iii)		
601 ♦	Excluding Hospice: An ongoing & planned activity program: <ul style="list-style-type: none"> is provided at no charge that meets the care plan & needs of the PICs. may provide events beyond the regular program, with or without charge (e.g. dinners out, trips). encourages PICs to participate & takes advantage of community opportunities. provides at no charge sufficient quantity & variety of safe, accessible supplies/materials & equip. 	55		
603/ 502	Excludes PIC in CYR if able to identify self - written documentation/identification accompanies PIC who temporarily leave the facility.	56 (1)(2)		
602/ 502	Known wanderers & elopement risk (who cannot identify themselves) carry appropriate identification.	56 (3)		
601	Reasonable access is provided to parent or representative.	57 (1)		
601 ♦	Visitation at any time if safe & appropriate, privacy is provided.	57 (2)		
601/ 602	Court orders/orders under another enactment to prohibit or restrict access are complied with.	57 (3)		
601/ 502	No release or removal of a PIC unless indicated in care plan or by written authorization.	58		
601 ♦	Opportunities for family or resident councils, to meet with the licensee is provided.	59		
502 ♦	Dispute resolution process in place that is prompt & effective, fair & ensures no retaliation.	60		
601	Physical environment, care & services are regularly monitored for compliance with the legislation.	61		
Nutrition				
802	4 week menu used, weekly menu may be if accommodation is for ≤ 6 weeks.	62 (1)		
802	The menu provides for each day: <ul style="list-style-type: none"> 3 nutritious meals with min. 3 food groups from the Canada Food Guide (CFG) & snacks with min. 2 food groups from the CFG. a variety, that considers nutritional care plans, age, gender, & activity level; food preferences, cultural background; seasonal variation; texture, color, food safety, taste & visual appeal. for substitution from the same food group & similar nutritional value. 	62 (2)		

Revised: Oct1'09; Apr 21'10; May4'10
CCFL RES 202

Community Care Facilities Licensing, Health Protection
Page 4

Appendix I: Characteristics of the Administrator and the Facilities

Interviewed.

Administrators			Facilities	
Identification	Education	Years of Experience	Regulated by	Number of residents
A1	Nursing	0.5	Hospital Act	100
A2	Social work	1.5	Hospital Act	150
A3	Nursing	10	Hospital Act	80
A4	Nursing	3	RCR	117
A5	Business	8	RCR	90

Appendix J: Sample of a Facility's Internal Mouth Care Guideline

RESIDENTIAL CARE STANDARDS

PROTOCOL

Mouth Care

Dental Health Care Professional (DHCP): (as per the BC reg 329/97 section 9.2)

A person who is a member of

- (a) The College of Dental Surgeons of British Columbia
- (b) The College of Dental Hygienists of British Columbia or
- (c) The College of Denturists of British Columbia

Screening: Done by a RN/RPN, LPN or Care Aide on a daily basis prior to mouth care as outlined in "Mouth Care for Persons in Residential Care" in-service manual.

Screening involves checking teeth, gums, tongue, cheeks, palate and lips for:

- Sores, abnormal coloration, dryness, swelling, plaque and bleeding

STANDARDS

- Every resident will have an individualized mouth care plan
- The resident's mouth will be assessed by a Registered Nurse (RN), a Licensed Practical Nurse (LPN), a Medical Doctor (MD) or a Dental Health Care Professional (DHCP) on moving in, annually and as needed.
- On moving in, the designated person will ensure that the resident's dentures are labeled if not, this will be done as soon as possible. ([Appendix 1](#))
- On moving in, the resident will be given a K - basin and depending on the presence of teeth and/or dentures, the appropriate mouth-care supplies. Toothbrush, toothpaste, mouth-rinse, denture brush, and denture cup will be labeled.
- Dental examinations by a dentist will be facilitated, within 1 month of moving in and annually.
- The resident's mouth will be screened on a daily basis
- Each resident will receive mouth care twice daily, in the morning and at bedtime, or more often as needed
- The resident and/or support person will be encouraged to perform/assist with the resident's routine mouth care
- Disposable, single use vinyl gloves will be worn when performing mouth care.
- Toothbrushes will be changed every 4 months and after an upper respiratory infection, or as required.
- Denture brushes will be changed yearly and as required.
- Denture cups will be changed as required.

RESIDENT/FAMILY EDUCATION

- Provide pamphlet entitled "Mouth Care for Persons in Residential Care" available through the Dental Program.
- Discuss how they can participate/assist in the individualized mouth care plan.

Appendix K: Sample of a Daily Care Checklist for Care-Aids

		RESIDENT CARE RECORD (DAILY)																														
		NAME: _____															ROOM: _____															
		DOCTOR: _____																														
LAST BM: _____		MONTH: _____															YEAR: _____															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
DIET	BR																															
G - GOOD (FULL)																																
F - FAIR (3/4)	LU																															
P - POOR (1/4)																																
R - REFUSED	DN																															
HYGIENE																																
B - BED	night																															
T - TUB																																
S - SHOWER																																
PC - PERICARE																																
R - REFUSED	day																															
AM - AM CARE																																
HS - HS CARE																																
M - MOUTH CARE																																
D - DENTURE CARE	evening																															
SH - SHAVE																																
BOWEL																																
P - PRUNES	N																															
PJ - PRUNE JUICE																																
S - SMALL																																
M - MEDIUM																																
LG - LARGE	D																															
Q - NO BM																																
N - NORMAL																																
C - CONSTIPATED																																
L - LOOSE	E																															
O - OOZING																																
Supp - SUPPOSITORY																																
RX UNG																																
As per orders																																
SKIN TEAR,	N																															
RASH, BRUISE	D																															
REPORTED	E																															
W - WALKED	D																															
S - STAND	E																															
	N																															
CARE GIVEN	D																															
PER CARE PLAN	E																															
	N																															
STAFF																																
INITIALS	D																															
	E																															