

ORAL HEALTH OF SENIORS

a Nova Scotia project

The Silent Epidemic of Oral Disease:
Evaluating Continuity of Care and Policies
for the Oral Health Care of Seniors

2004



More information about the Oral Health of Nova Scotia Seniors project can be found at www.ahprc.dal.ca/oralhealth/ or by contacting the Principal Investigators.

ISBN 0-7703-8056-5

Copyright © Atlantic Health Promotion Research Centre.

Permission for use of this material for educational and research purposes is freely granted. Please credit “Atlantic Health Promotion Research Centre and the Faculty of Dentistry, Dalhousie University.”

Reproduction and distribution of more than 10 copies requires the permission of AHPRC and the Faculty of Dentistry, Dalhousie University.



ORAL HEALTH OF SENIORS

a Nova Scotia project

table of **CONTENTS**

Executive Summary.....	i
Context.....	1
Implications.....	3
Approach	6
Project Results	8
Additional Resources.....	15
Further Research	15
Bibliography	16
Appendices.....	17
Appendix A.....	17
Overview of Project Methodology	
Appendix B.....	18
Knowledge Translation and Dissemination Products and Resources	
Appendix C	19
Oral Health Working Group Action Plans	

Contact principal investigators at:

Dr. Renée Lyons
Atlantic Health Promotion Research Centre
Dalhousie University
City Centre Atlantic, Suite 209
1535 Dresden Row
Halifax, Nova Scotia
B3J 3T1

Telephone: (902) 494-2240
Fax: (902) 494-3594
Email: Renee.Lyons@dal.ca

Dr. Mary McNally
Faculty of Dentistry
Dentistry Building
Dalhousie University
5981 University Avenue
Halifax, Nova Scotia
B3H 3J5

Telephone: (902) 494-1294
Fax: (902) 494-1662
Email: Mary.McNally@dal.ca

Project Team Members

Gail Brown, Nova Scotia Dental Hygienists' Association
Sandra Crowell, Atlantic Health Promotion Research Centre, Dalhousie University
Gerard Ferguson, Manulife Financial
Hernia Lawrence, Faculty of Dentistry, University of Toronto
James Leake, Faculty of Dentistry, University of Toronto
Aileen MacCormick, Senior Representative
William MacInnis, Faculty of Dentistry, Dalhousie University
Debora Matthews, Faculty of Dentistry, Dalhousie University
Terry Mitchell, School of Dental Hygiene, Dalhousie University
Joseph Murphy, Faculty of Dentistry, Dalhousie University
Murray Nixon, Nova Scotia Department of Health
Gael Page, Northwoodcare Incorporated
Don Pamenter, Nova Scotia Dental Association
Valerie White, Nova Scotia Senior Citizens' Secretariat

Project Staff

Elizabeth Tait, Project Coordinator
Pamela Magee, Researcher

Acknowledgements

We are also grateful to the Oral Health of Seniors Forum participants and the Oral Health of Seniors Collaboration working group members for their assistance in the development of Nova Scotia's first Oral Health Action Plan for Seniors. The Forum was supported through funding from the Canadian Institutes of Health Research; the Institute of Musculoskeletal Health and Arthritis and the Institute on Aging.

This project was funded by the Canadian Health Services Research Foundation, Drummond Foundation, Nova Scotia Health Research Foundation, Manulife Financial, Dentistry Canada Fund, and the Nova Scotia Dental Association. We would like to thank the focus group participants, key informants, and program providers for their participation.

EXECUTIVE SUMMARY

Oral health has a substantive effect on health and well-being;¹⁻⁵ however, it is peripheral to general health and public health care delivery systems. The private nature of oral health care service in Canada contributes to profound disparities among many underserved segments of the population, including older adults.^{6,7} A lack of centralized, integrated decision-making about oral health care delivery makes it extremely difficult to improve oral health policy for seniors. A growing need for action on this important issue brought the partners in this project together.

The **purpose** of the research was to determine the key components of a health services model based on continuity of care that will improve the oral health of seniors, using Nova Scotia as the geographic focus. Key questions associated with managing continuity of health care for seniors included *how is oral care for seniors currently managed and funded? How well is it working? How can the system be more effectively restructured to improve the oral health of seniors? And What are the policy implications arising from these findings?* The investigative team was comprised of researchers, clinicians, representatives from the private sector, government decision makers, dentists, and those in fields including health promotion, public policy, economics, dental hygiene, long-term care administration, education, insurance, and a community-based senior.

The project included two main research components (a health services evaluation and a promising practices scan) and two knowledge translation components (a knowledge translation forum and a detailed dissemination strategy).

The **health services evaluation** was conducted to examine the present state of the oral health care delivery system for seniors in Nova Scotia. The perspectives of seniors and direct care providers were gathered using focus groups and informal surveys. Key informant interviews were held with indirect providers. A **promising practices scan** was carried out to determine barriers and facilitators in the use of oral health services for seniors by critical analysis of evidence and lessons learned from leading oral health systems in Canada and other countries.

Following data collection, an **oral health policy forum** brought 80 people from a variety of community, government, service and health care sectors together to engage in an evidence-based oral health strategic planning process. Formal presentations of project findings, informal networking, and small-group discussions were carried out to clarify results, to prioritize areas for action and to identify key implications for stakeholders and decision makers. Following the Forum, seven working groups were established to move the policy and action agendas forward.

Project dissemination activities included formal reports, news releases, PowerPoint presentations, storytelling, and production of a public service announcement for television. Information about this project and key messages about seniors' oral health were also disseminated through printed articles and publications. Copies of tools and materials developed throughout the course of this project, along with links to senior-specific oral health resources, are available on the Oral Health of Seniors project website at (www.ahprc.dal.ca/oralhealth/).



KEY IMPLICATIONS FOR STAKEHOLDERS AND DECISION-MAKERS

- **Health:** Oral health has been overlooked as an essential component of overall health and quality of life.
- **The aging population:** Seniors' oral health care will grow in importance as the number of Canadians over age 65 continues to increase. More than any other age group, baby boomers have had dental insurance and good oral health care throughout their lives. This cohort will age with unprecedented retention of natural teeth. This has enormous implications for oral health care delivery systems.
- **Policy:** Currently there is no infrastructure provincially or federally that is responsible for oral health care for seniors. Health Canada and provincial departments of health must provide leadership to address oral health care needs for Canadian seniors and develop oral health policies to ensure seniors have an adequate level of care, care providers receive proper training, and health care standards are universal across all care-giving sectors.
- **Collaboration:** Governments must collaborate with many sectors (such as seniors, caregivers, dental and health professions, educators, health promoters, and so on) to ensure continuity of oral health care for the aging population.
- **Service delivery:** Many seniors encounter challenges when accessing oral health services. Innovative mechanisms for service delivery to these groups must be developed and implemented.
- **Cost:** The current fee-for-service, private practice delivery of oral health care does not ensure adequate service for all seniors. Many seniors cannot afford dental care and most do not have access to insurance plans. Creative financial solutions must be developed to include public and private mechanisms for payment.
- **Research:** Understanding the current oral health status of seniors and the many factors affecting oral health over the lifespan will support the development of oral health promotion programs and disease prevention strategies.
- **Education:** Seniors, caregivers, students, and health professionals must receive education and training that is specific to the oral health needs of the aging population.

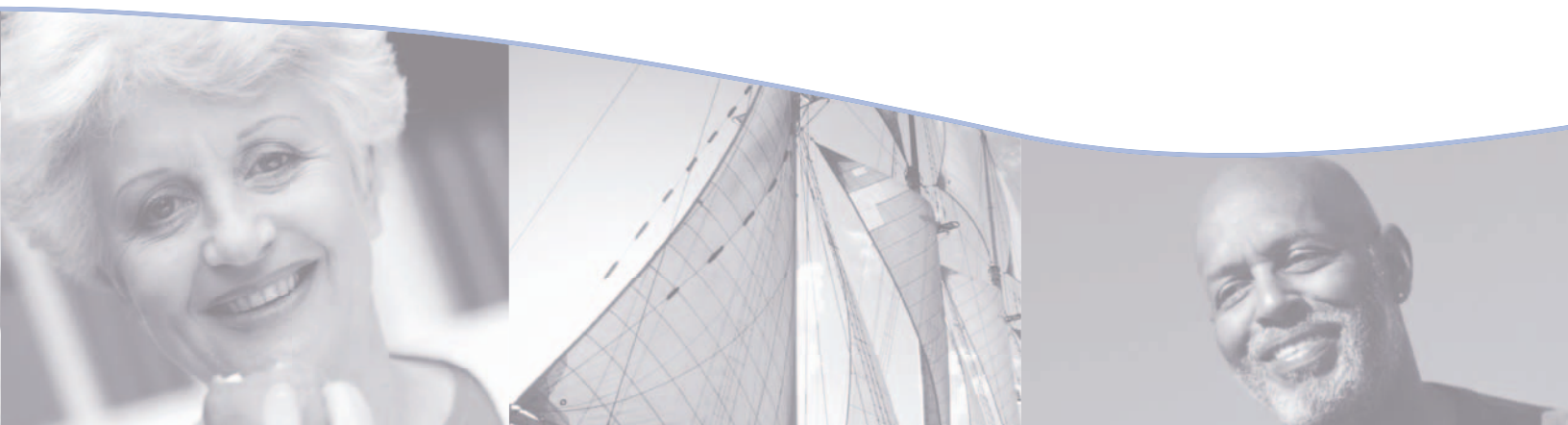
CONTEXT

Finding better ways to deliver health care services is a priority for decision makers in all levels of the Canadian health care system⁸⁻¹¹. Rethinking mechanisms for health care delivery has been driven by the overall increase in health care costs, the perceptions that delivery could be more efficient and effective and the urgent issue of an aging population. Canadians are living much longer than previous generations, so health services must be available over a much longer lifespan than ever before.

The delivery of oral health services is no exception. Oral health has a substantive impact on overall health and well-being. Pain and disability associated with poor oral health can impact our ability to eat properly – affecting nutrition status, body weight and our overall resistance to systemic diseases.¹ Studies have shown links between gum disease and poor glycemic control in diabetes.² Still others have shown a link between gum disease and cardiovascular disease.³⁻⁵ To minimize these impacts on systemic health, it is important that disease and disability originating in the mouth always be included as an important aspect of healthy aging.

Although adequate dental services exist in most parts of Canada, seniors don't always have the access to care that they require. Dental care in Canada is private and does not fall under the rubric of our public health care system. The private nature of oral health care service in Canada contributes to profound disparities among many underserved segments of the population, including older adults.⁶⁻⁷ Canadians are living longer and retaining more of their natural teeth than in previous generations¹² emphasizing a need for continuity of oral health care throughout the lifespan.

Historically, oral health care has been peripheral to general health and public health care delivery systems. Therefore, seniors' oral health care has not garnered meaningful consideration in health care debates in Canada. For example, the Commission on the Future of Health care in Canada¹⁰ highlighted the need to relieve the disproportionate burden of disease assumed by access challenged populations such as seniors. Yet, oral health and oral health care were not even mentioned in its final report. The lack of centralized decision-making about oral health care delivery makes the issue of addressing oral health care for seniors extremely difficult for researchers, oral health care providers and the many sectors that influence oral health policy.¹³ The recognition of this difficulty and a growing need for action to integrate policies and practices was what brought the partners in this project together.



In 2001, our research team set out to evaluate continuity of care and policies for the oral health care of seniors. Within the context of oral health for seniors, it was recognized that there is a “discontinuity” in care because there is no real oral health system on which to rely. We recognized that achieving continuity is complex and must be addressed as a three-dimensional concept.

1. *Continuity as people age* requires an examination of relevant factors that have an impact on oral health and oral health practices over the lifespan.
2. *Public-private sector action* refers to the need to clarify roles in both the private dental service delivery system and public domains.
3. *Client and service provider relations* require an examination of factors directly and indirectly impacting relationships between seniors and their direct and indirect oral health care providers.

2 The overall purpose of our research was to determine the key components of a health services model, based on continuity of care, which will improve the oral health of seniors, using Nova Scotia as the geographic focus.

The questions associated with managing continuity of health care for seniors included: *How is oral care for seniors currently managed and funded, and how well is it working? How can the system be more effectively restructured to improve the oral health of seniors? What are the policy implications arising from these findings?*

It was also recognized that this project would contribute to the development of an integrated set of policies and practices for managing continuity of seniors’ oral health care. Nova Scotia provided an optimal geographical location for studying this issue. In Nova Scotia, 13.7% of the population is over the age of 65, representing the oldest population in Atlantic Canada and the third oldest in Canada¹⁴. Over half of Nova Scotia’s seniors reside in rural areas¹⁵ resulting in particular challenges for accessing health care.

The investigative team was composed of researchers and decision makers from a variety of disciplines and health services sectors related to seniors and oral health services. Backgrounds of team members included dentistry, health promotion, public policy, economics, dental hygiene, long-term care administration, education, insurance, as well as community senior representation. The mix of skills and backgrounds ensured that multiple aspects of this complex public/private issue were addressed and that stakeholders who influence policy were included as an integral part of this investigation.

IMPLICATIONS

This research was directed to those who formulate health policies and programs for seniors. Here, we target relevant audiences and highlight the most significant implications arising from our research.

1. Implications Common to all Stakeholder Decision-Makers

Oral health must be explicitly recognized as an essential component of overall health and quality of life. A general lack of awareness of the importance of oral health contributes to oral and systemic disease and contributes to the marginalization of oral health services from mainstream health care.

- Effective strategies are required to raise the awareness of decision-makers and the general public concerning the importance of oral health for seniors.
- Continuity of oral health care for seniors requires an integrated health systems approach where structured mechanisms merge and coordinate private and public services.

2. Implications for Government Policy-Makers

There is no infrastructure at either the provincial or federal levels of government responsible for oral health care for seniors.

- Health Canada and provincial departments of Health must create leadership positions to address oral health care needs of Canadian seniors.
- Under the direction of provincial and federal oral health care leaders, oral health services related to prevention and health promotion

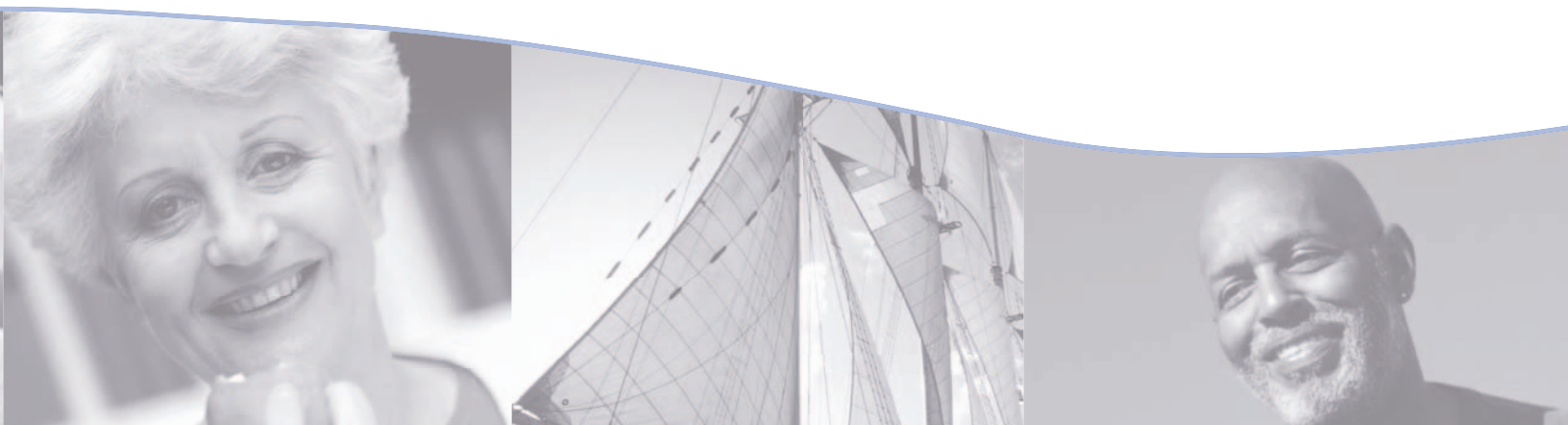
for seniors must be integrated with public and primary health care programs.

- Provincial Departments of Health, and provincial bodies regulating the health professions must examine all legislation impacting oral health care for seniors.
- Accessible, affordable and sustainable oral health programs and services must be available for all seniors.
- Clear guidelines must be developed for private and public continuing care facilities regarding standards of oral health care delivery and the provision of required services. These guidelines should include an oral health examination as an explicit component of “single-point” entry protocols.

3. Implications for Oral Health Service Delivery

The lack of accessible oral health care services is identified as a key challenge for rural dwelling seniors, those who are homebound and those residing in long-term care facilities.

- Mechanisms for service delivery to underserved and access-challenged seniors must be developed. Transportation for community dwelling seniors isolated from services is an important consideration.
- Where patient mobility is a problem, models of care delivery must include portable, mobile dental clinics. Long-term care facilities must be equipped with adequate facilities to enable the provision of oral health care services for residents.



- A standardized oral health resource kit that includes informational pamphlets, dental assessment tools, dental care products, and resources for oral hygiene training must be developed for use by non-dental care providers.
- Oral health labor force shortages and system needs must be examined and incentives created to attract oral health care personnel to underserved areas.

4. Financial Implications

The traditional fee-for-service, private practice delivery of oral health care does not ensure adequate service delivery for all seniors. Most seniors do not have access to third party oral health insurance and use of dental services is strongly correlated with income and existence of dental insurance.¹⁶ When compensation is based on conventional fee guide rates, dental professionals are often inadequately compensated for the special care needs associated with geriatric dentistry.

- Health economists must examine costs to the health care and other social systems associated with seniors' oral health needs.
- The financial support required to include oral health as an element of public and primary health care for seniors must be quantified.
- Dental service fee guides specific to geriatric dental care must be developed and pilot tested. Although this has already been undertaken in a number of jurisdictions, the impact of specialized fee guides on service delivery must be evaluated.

5. Implications for Research

There is a paucity of Canadian research addressing the factors impacting oral health and oral health practices over the lifespan. There are no baseline data to reflect the oral health status and oral health related quality of life of Canadian seniors. Service delivery programs specific to seniors have not been systematically evaluated to determine accessibility and sustainability.

- Academics must develop a national consensus for oral health assessments for seniors including standardized protocols for national and provincial oral health surveillance.
- Research is needed to assess the oral health status of seniors. This will provide the basis for longitudinal surveillance and a clearer profile of the needs of this growing population.

Collaborative research teams must be brought together to:

- Develop and evaluate oral health promotion programs, and oral disease prevention strategies for seniors.
- Develop and evaluate dental practice guidelines for the specific needs of seniors.
- Determine the feasibility and mechanisms for integrating oral health interventions and practices into existing primary health care strategies.
- Assess the impact of the aging population on the dental workforce.
- Develop and test different types of service delivery models.

6. Implications for Education

Those who care for seniors and those who educate caregivers must acknowledge the need for relevant education and training to meet the demands and needs of the aging population.

- Accreditation standards for dental, dental hygiene and other health related programs must ensure education experiences meet the oral health needs of the aging population.
- Non-traditional models for delivering oral health care, such as the use of mobile dental clinics to accommodate care needs outside of a traditional office setting, must be included as regular education components for oral health care professionals.
- Geriatric dentistry must be recognized as a discreet area of specialization. Because the complexities of seniors' oral health care often exceed the core competencies of undergraduate dental students, programs for geriatric dentistry must be developed to provide the appropriate leadership and expertise to care for this sector of the population.
- Geriatric training, both didactic and clinical, must be integrated into programs for health care workers outside traditional dentistry. Relevant education programs include gerontology, nursing, continuing care assistance, medicine, pharmacy, population health, and health education and promotion.
- Caregivers providing personal care must have access to adequate training opportunities to meet the special needs associated with geriatric oral health care.

APPROACH

This research addressed the question: *What are the key components of a health services model, based on continuity of care that will improve the oral health status of seniors?* The methodology was designed to understand seniors' oral care in a variety of contexts both within and outside health services research. The objectives included research activities from information gathering to strategy development (see Appendix A for an overview of the project methodology).

1. **Health Services Evaluation:**

To evaluate oral health services for seniors from the perspective of recipients of care (seniors 65+), direct and indirect care-providers.

2. **Promising Practice Scan:**

To determine barriers and facilitators to the use of oral health services for seniors by critical analysis of experiences and lessons learned in existing systems in Canada and elsewhere.

3. **Oral Health Policy Forum:**

To develop strategies for financial, organizational, and policy interventions that will clarify roles and relationships and improve private-public sector provision of oral health services.

4. **Communication and Dissemination Plan:**

To undertake a set of activities to disseminate research findings and policy implications to relevant stakeholders.

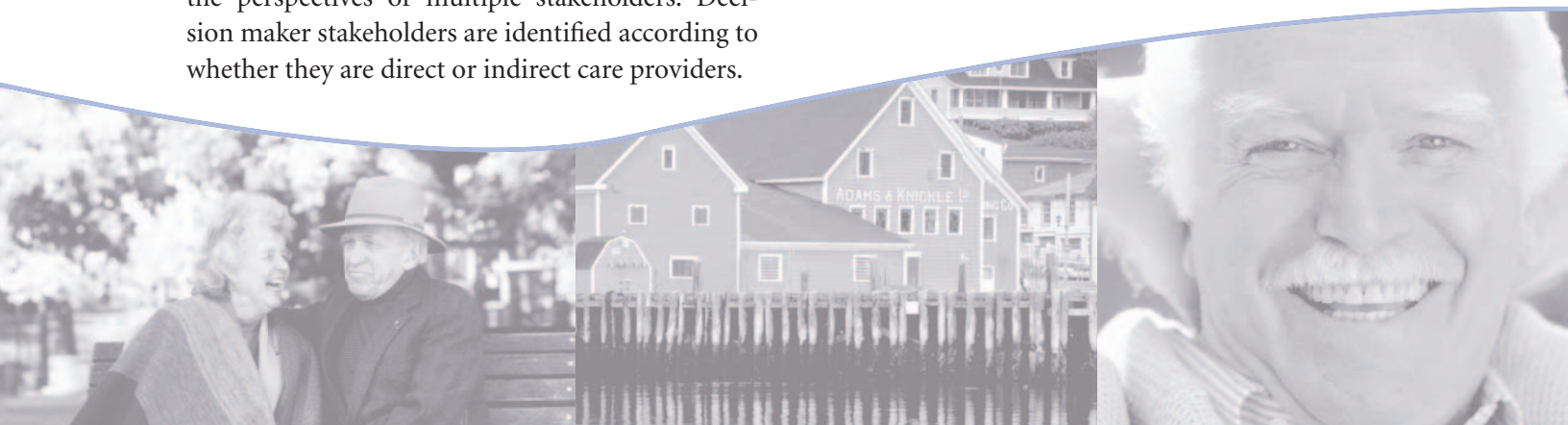
A comprehensive literature review on seniors' oral health revealed that there were no studies in Canada to identify tools or methods for conducting research on this issue. Thus, a grounded theoretical approach was taken and the research question was designed to reflect a broad range of issues and the perspectives of multiple stakeholders. Decision maker stakeholders are identified according to whether they are direct or indirect care providers.

Direct care providers include dentists, dental hygienists and assistants, personal care workers, and other health professionals directly involved in caring for the oral health needs of seniors.

Indirect care providers include the multitude of decision-makers who impact continuity of oral health care for seniors that is not "hands on". These groups include: the many organizations representing and regulating the dental professions; federal, provincial and municipal governments; seniors' organizations; educational institutions including universities and community colleges; continuing care (home care and long-term care), and private health insurers.

Objective 1. The Health Services Evaluation was conducted to examine the present state of the oral health care delivery system for seniors in Nova Scotia through the perspectives of the three categories of participants listed above. The perspectives of seniors and direct care providers were gathered using focus groups convened in six locations throughout Nova Scotia. Key informant interviews were held with indirect care providers.

- Focus groups were held in a variety of geographic locations (urban, rural, remote) throughout Nova Scotia.
- Seven focus groups (a total of 67 participants) were held for seniors living independently and in long-term care.
- Eighteen focus groups were held for direct care providers (a total of 106 participants) who came from multiple work settings including private dental practice, homecare, long-term care, and hospitals. Focus groups were held separately for dentists, dental hygienists, and nursing care providers.



All focus group participants were asked to identify enabling and challenging factors impacting oral health service delivery for Nova Scotia seniors by addressing the following four questions:

1. What dental services are available to seniors living in Nova Scotia?
2. What hinders seniors' access to oral health care?
3. What helps seniors access oral health care services?
4. What do you feel is needed to create a system of oral health care for seniors living in Nova Scotia?

Key informant interviews were conducted with a purposive sample representing seven indirect care provider groups. These included government, research, post-secondary education, long-term care, insurance providers, seniors' organizations, and Nova Scotia dentistry associations. Using a face-to-face, telephone and/or email interview format, key informants were asked to respond to the question: *how is the oral health care of seniors being addressed by indirect care provider sectors in Nova Scotia?*

Objective 2. The Promising Practice Scan was carried out to determine barriers and facilitators to the use of oral health services for seniors by critical analysis of experiences and lessons learned in existing systems in Canada and elsewhere. The review included a comprehensive search of academic and non-academic literature; internet searches and direct consultation with national and international dental professionals, service providers and program administrators. In order to address the complex nature of continuity of oral health care for seniors, the following five themes were identified as key dimensions of a comprehensive oral health service system.

1. Oral health care delivery programs
2. Oral health policies
3. Dental insurance plans (public and private)
4. Geriatric dental education
5. Strategies for oral health promotion and disease prevention.

Objective 3. The Oral Health Policy Forum entitled *Working Together to Improve the Oral Health of Seniors: Developing an Action Plan for Nova Scotia* was held in Halifax on November 5 and 6, 2003. Over 80 participants, including representatives of Nova Scotia seniors' and their organizations, the dental professions, nursing care workers, government, long-term care, funding agencies, health professionals, and health associations, gathered to engage in an evidence-based oral health strategic planning process. Formal presentations of project findings, informal networking and small group work activities were carried out to prioritize areas for action and to clarify the roles of various stakeholders in the development and initiation of an action plan to address the oral health care needs of Nova Scotia seniors. The detailed action plans are key to providing direction and impetus for activities to continue past the completion of this research project. The action plans also provide an important focus and direction for establishing the policy implications. Recommendations arising from this process will be used by relevant stakeholders striving to move policy and action agendas forward.

Objective 4. Project dissemination activities have included a variety of traditional and non-traditional avenues for communicating the project's progress and findings. A comprehensive listing of knowledge translation and dissemination products can be found in Appendix B. To date, these products include formal reports, media news releases, PowerPoint presentations, story-telling, and animation. Many of these products are already available on our website at www.ahprc.dal.ca/oralhealth/. Future development of the website will include online access to all of these products.

PROJECT RESULTS

Objective 1. Examining the oral health care delivery system for seniors in Nova Scotia

The following section contains a summary of the focus group findings and the key informant interviews. The findings are organized under five headings. The first four headings contain the key points identified by the focus group participants in response to the four focus group questions. The final heading describes the question posed to the key informants. A comprehensive account of the Health Services Evaluation findings is available on our website using a “storytelling format.”

1.1 Dental services available to seniors living in Nova Scotia

Collectively, the focus group participants identified a full range of traditional dental services such as: private practice dental services, specialized dental services, dental services in hospitals, and denturist services. Recognizing that seniors have access to the same range of dental services available to the general public prompted some participants to note the lack of dental services available to: seniors living in rural areas, homebound seniors and seniors living in long-term care facilities.

1.2 Barriers to accessing oral health care services

Participant’s responses to this question can be grouped into three main theme categories:

1. Financial: The type of financial challenges identified by participants included:
 - cost of dental treatment, particularly for people on a limited income
 - lack of affordable dental insurance
 - cost of transportation, particularly for those who are homebound and those living in rural areas or in long-term care facilities

- dental professionals are inadequately compensated for costs related to the delivery of dental care to seniors with complex oral health problems.
2. Long-Term Care (LTC): The lack of availability and accessibility of dental care in long-term care facilities is a result of a number of challenges.
 - There is no infrastructure to facilitate the continuity of dental care for seniors living in LTC.
 - Standardized oral health care policies and procedures do not exist in many LTC facilities.
 - Geriatric dental training for nursing staff and personal caregivers is unavailable or inadequate.
 - Adequate clinic space and dental equipment is not available within LTC facilities to facilitate onsite visits by dental professionals.
 3. Attitudes, Beliefs and Practices: Awareness of issues pertaining to proper oral hygiene and dental care is perceived to be a greatly overlooked and underestimated issue impacting seniors’ oral health arising from all sectors.

Seniors’ attitudes, beliefs and practices:

 - There is a culturally entrenched fear of dentists and dental procedures.
 - Seniors lack awareness about the importance of regular oral health care to their general health and quality of life.
 - Some seniors’ reliance upon others for help limits their ability to obtain dental care.
 - Seniors experiencing signs of dementia and those who are not aware of their own medical and drug histories are a challenge for dental professionals.



- Seniors identified that modern dental practices (e.g., the requirement for multiple office visits) impacted their ability to access oral health care.
- The time of year and weather conditions limits the ability to access care.

Dental profession's attitudes, beliefs and practices:

- There is a lack of awareness about the needs of the senior population and issues impacting them.
- Geriatric oral health education and training is not readily available for dental professionals.
- Dental hygienists perceived that their profession's lack of self-regulation created challenges that limit their ability to care for seniors living in long-term care facilities.

Society's attitudes, beliefs and practices:

- In matters of health, there is a belief that the mouth is separate from the body.
- There is a general lack of awareness about the impact of oral health on general health.
- Government's involvement in the regulation, assessment, and delivery of oral health care for homebound and institutionalized seniors is not sufficiently attentive to oral health concerns. This results in inadequate standards, protocols and policies.

1.3 Factors that contribute to accessing oral health care services

Participants identified a number of items that are helpful to seniors when accessing oral health care such as:

- The supportive efforts of friends, family and community members as well as dental professionals.

- Access to a coordinator for facilitating health care needs.
- Educational resources and training offered by dental hygienists as a valuable source of raising awareness and developing oral health care skills for nursing staff, family members and seniors.
- Television commercials, newsletters, and magazine articles provide an avenue for oral health messages.
- Access to dental insurance.

1.4 Creating a system of oral health care for seniors

A number of ideas were generated about how to create a dental care system for Nova Scotia that would help build upon services, (dental and non-dental), and make oral health care more accessible to all seniors. The key areas identified were:

- Creation of a universal dental insurance plan for seniors
- A dental care coordinator
- Mobile dental units to service the needs of all seniors
- Creation of seniors' oral health care standards and policies
- Educational awareness strategies.

1.5 Indirect care providers: Addressing the oral health care of seniors

Key informants recognized that some sectors are addressing oral health issues (services, education and/or training, oral health research, oral health advocacy) but no one indirect care provider sector in Nova Scotia is playing a key role in the delivery of oral health services for seniors. Therefore, the oral health of seniors is not being adequately addressed by any one sector. The most common reason given for not addressing the oral health care of seniors was the lack of awareness and understanding of

the issues. All sectors noted their willingness to address the issue in future if the evidence warrants their support. The following key points are worthy of note:

Government: Currently, no government sector is targeting seniors' oral health issues.

Academic Educators: Currently, five out of nine health-related educational programs identified in Nova Scotia offer some component of geriatric dentistry in their curriculum.

Dentistry Researchers: Dentistry researchers noted that, historically, there has been a lack of interest in seniors' oral health care issues in Nova Scotia and elsewhere.

Dentistry Associations: Dentistry associations are currently addressing seniors' oral health issues, but acknowledge more could be done in the future (e.g., advocacy and awareness raising).

Senior's Organizations: Senior's organizations acknowledge that presently oral health is not a topic being addressed, but welcome the opportunity to listen to the issues and plan for the future.

Long-term Care Administrators: There was no single individual or group who felt they could speak on behalf of the long-term care sector.

Objective 2. Promising practices scan to determine barriers and facilitators to the use of oral health services

Our findings are organized under the five headings described in the preceding section. A comprehensive report of the promising practice findings will be available on our website as part of our dissemination strategy.

Program Scan: Accessibility and sustainability were identified as important markers for determining the effectiveness of a program. The most promising practices for program development could be achieved by:

- Integrating dental services with other health services
- Providing on-site clinics in LTC facilities and mobile services
- Employing dental providers who have expertise in geriatric dentistry

- Providing subsidized "income based" dental fee adjustment schemes
- Adopting a geriatric fee schedule to adequately compensate dental professionals
- Addressing the provision of transportation
- Including awareness and education strategies as part of the program
- Partnering with allied health professions to create single-point entry assessment instruments that include oral health when determining continuing care service needs
- Evaluating programs to measure effectiveness

Policy Scan: Oral health policies were defined as any broad direction or course of action that has been endorsed by a body with authority to advocate for, implement and/or resource seniors' oral health care and services. There are a limited number of policies that address oral health issues targeted for the senior population. Of those that do exist, our scan revealed that these policies are very rarely monitored and are never routinely evaluated for effectiveness. Care and access policies lack a set of clearly defined guidelines and standards for health care workers to follow.

Insurance Scan: An insurance plan was defined as an agreement that guarantees the financial coverage of costs (partial or full) incurred as a result of receiving dental treatment. Dental insurance plans are created as a mechanism of pre-payment for dental care, not to insure against the probability of requiring dental treatment. Private dental insurance plans are directly linked to the ability of the dental plan recipient to make out-of-pocket payments thereby excluding many seniors from access. Pilot research is required to examine creative financial solutions for private dental payment plans. Current oral health financing models being piloted elsewhere in Canada should be evaluated to determine efficacy of "geriatric fee guide" implementation and the utilization and sustainability of insurance payment/deduction models.

Publicly funded dental plans were found to increase dental care utilization rates among the senior population but they do not ensure universal access. Without accessible and sustainable dental services specific to the needs of seniors, a perceived need for dental care by seniors, adequate geriatric training for dental and non-dental care providers, and a willingness for care-providers to engage in servicing all seniors, publicly available dental payment plans will remain underutilized.

Geriatric Dental Education: All Canadian and U.S. dental and dental hygiene education programs offer geriatric dentistry as a discreet requirement but programs are inconsistent with respect to content and clinical experiences required. For the most part, students in oral health professional programs receive marginal geriatric dental education due to the lack of comprehensive teaching standards and procedures. Accreditation and licensing requirements provide little guidance in establishing meaningful standards of competency for educators. To ensure competency for students in dentistry and dental hygiene programs, extensive clinical experience working with seniors who have a broad range of health issues must be provided. Geriatric education is most effective as a multidisciplinary endeavor that is integrated with other health care and gerontological education programs. The aging population, and the requirement that many seniors have for unique and specific oral health interventions, provides support for the recognition of Geriatric Dentistry as a formal area of specialization.

Oral Health Promotion Strategies: Our scan included any efforts used to raise awareness and to provide oral hygiene training to caregivers and seniors. Dentists, dental hygienists, students in dentistry and dental hygiene programs, dentistry associations, and dental hygiene associations provide information on seniors' oral health issues and oral hygiene training, predominantly upon request. There are virtually no other sources of oral health promotion. A Canadian review of oral health training programs directed at caregivers providing personal care (e.g., nursing staff, continuing care assistants) demonstrates inadequate oral health care education and training opportunities. Because oral hygiene is a largely neglected element of basic personal care for dependent seniors, research is required to evaluate appropriate training strategies. Frequent training programs provided within continuing care settings have shown the most promise in developing positive oral health attitudes and behaviors of both care-givers and seniors receiving care.

Objective 3. Oral Health Planning Forum

The 80 participants who took part in the highly successful two-day Forum *Working Together to Improve the Oral Health of Seniors: Developing an Action Plan for Nova Scotia* in November 2003 represented all of the project's key stakeholder groups. During the course of the Forum, participants worked in small groups to identify priorities for future oral health action planning and strategy development. From these sessions, seven priority areas emerged and are included in Figure 1. A detailed description of each area is provided in the following text.

Figure 1**Oral Health of Seniors
Collaboration Action Areas****Priority areas**

12

1. A multi-stakeholder Oral Health of Seniors Collaborating Committee is required to oversee and continue the work begun by this project.
2. A multi-stakeholder group that would address the oral health service delivery needs for seniors.
3. The development of a group of policy-makers to develop oral health policies to ensure seniors are provided an adequate level of care, that care providers receive proper training, and health care standards are universal across all care giving sectors.
4. The development of multiple public awareness strategies for use among a broad array of audiences to address the importance of oral health to quality of life and raise awareness about the various oral health needs of seniors and the public-private care providing systems (e.g., dentistry, allied health, insurance, education, and research).
5. A coalition of dental and dental hygiene educators and curricula advisors to address the need for enhancements to the existing geriatric dental offerings at the undergraduate, graduate and continuing education level.
6. The partnering of interdisciplinary health educators (dental assisting, faculty of medicine, nursing, and continuing care assistant programs) and curricula advisors to explore the various options for including components of geriatric dental education into existing formal program curricula and continuing education courses.
7. Oral health research, particularly related to seniors' issues, was an area that was identified as a priority. The lack of national and provincial level seniors' oral health status research was an area the Collaboration of Oral Health Researchers from Dalhousie University identified as a priority and had plans to develop and pilot-test oral health status and quality of life measurements with seniors in Nova Scotia.

It was apparent that interest in the issue of oral health care for seniors grew substantially during the course of the Forum. As the Forum concluded, many participants indicated an interest to continuing to work in the area of oral health care for Nova Scotia seniors. Those interested could sign up for one or more of the seven working groups (see Figure 1 above) to continue to work on these priority action areas.

Between January and March 2004, the seven working groups met at least once for a three-hour planning session. Additional consultation sessions with working group members were conducted via email and telephone to gain consensus on necessary revisions and additions to the working group's action plans.

The seven working groups identified key areas for action and the types of tasks required (short and long-term) to accomplish each action. Tables found in Appendix C provide a detailed overview of working group action plans. All working groups identified the need for financial support. As well, non-financial support from a variety of sectors involved in the care and delivery of services to seniors was needed to enable them to implement their strategies for action. For detailed working group action plans, visit the Oral Health of Seniors' Project website at www.ahprc.dal.ca/oralhealth.

Objective 4. Communications and Dissemination Plan

The purpose of Objective 4 was to undertake a set of activities to communicate and disseminate the model, findings, and the implementation strategies for improved quality of health services.

The knowledge translation strategy began at the outset of this project. Including the key stakeholders as part of the project team made it much easier for information and results from the project to be disseminated to the key sectors involved in oral health issues for seniors.

During the course of the project, a variety of activities were undertaken to raise awareness about the importance of senior's oral health and about the plans for this project. Meetings with stakeholders and presentations about the project were delivered to many groups across Nova Scotia. Examples include: Nova Scotia Association of Health Organization (NSAHO) members e.g., LTC Administrators and Directors of Care; Nova Scotia Dental Hygienists Association's Provincial Board of Directors; representatives from the Nova Scotia Senior Citizen's Secretariat including seniors councils and centres from across Nova Scotia; through media outlets like CBC Radio, ATV News and *The Chronicle Herald* – the main provincial newspaper; through newsletters, including Dalhousie University's Faculty of Dentistry, *Alumni News Magazine*; Health Promotion Atlantic; *LinkAGES: For and About Older Nova Scotians*, Nova Scotia Dental Association; Nova Scotia Dental Hygienists' Association; Doctors Nova Scotia; and so on. Our project website and listserves were also used to disseminate project information.

Future dissemination activities

Extensive dissemination of information about the issue of senior's oral health and our project will continue well past the end date of this project. Now that the project findings and implications are ready to be shared, a number of additional strategies (in addition to those traditional strategies listed above) will be used to convey information to our target audiences. Examples of these strategies include:

Presentations

- Presentations will be made to academic research audiences at conferences, to policy decision makers, through health fairs and seniors events, and to university students in health-related courses and faculties. To date six conference presentations are confirmed including: NSAHO's Continuing Care Provincial Conference, Dartmouth, NS (March 25-26/04); Canadian Public Health Association Annual National Conference, St. John's, NL (June13/04); Canadian Association of Gerontology, National Annual Conference, Victoria, BC (October/04); Linking Health Promotion to Policy, Atlantic Health Promotion Research Forum, Moncton, NB (June/04); Special Care Dentistry, Annual Conference, Calgary, AB (August/04); and Toward a New Perspective: From Ageing to Ageing Well, International Conference, Montreal, QE(October 3-5/04).

Written

Journal articles and opinion pieces will be written for peer-reviewed journals and publications.

- News releases, feature articles, editorials, and public service announcements will be prepared for newspapers possibly in conjunction with our partners e.g., Nova Scotia Dental Association during oral health month in April.
- The project website will be further developed by a Dalhousie University Dentistry student. Reports and documents will be included as will links to other relevant sites.
- Brochures, information sheets and media back-grounders will be prepared for key stakeholder audiences.

Visual images

- A tabletop display unit has been developed with interchangeable panels.
- PowerPoint presentations have been created for use by team members at meetings and events.
- The development of promotional items for use by seniors will be considered e.g., fridge magnets or wallet calendars with reminder to see dentist twice a year.
- Use of theater as a medium for dissemination e.g., use of actors in a skit or role-play (live or videotaped) to illustrate the project findings and the importance of this issue.
- TV shows and cable TV are forms of entertainment and information for many seniors – we will consider how we might work with network TV to write the issue of seniors oral health into TV sitcoms or encourage oral health questions to be included on game shows.

Other innovative knowledge translation strategies

- Develop a continuing education session on seniors' oral health for professional groups including physicians, dentists, dental hygienists/assistants, and pharmacists.
- Develop an informative and practical oral health resource kit that could be used by those who care for seniors (family members, home care workers, and other health professionals).

FURTHER RESEARCH

Our research over the past two years leads us to the conclusion that additional studies are needed to address the knowledge gaps related to the oral health of seniors and a model for achieving continuity of care. For example:

1. Population-based longitudinal research studies are needed to establish base-line data about the current status of seniors oral health in the province and country. There is a need for longitudinal data to monitor the shifts and changes in oral health status over the lifespan. This also allows for comparisons between cohort groups, and for national and international comparisons.
2. Pilot projects are required to test oral health service delivery options for seniors (ambulatory/non-ambulatory, independent/non-independent, rural dwellers) to determine the best methods for achieving continuity of care for seniors' oral health.
3. Oral health promotion strategies must be pilot tested to determine the most effective strategies for creating buy-in and raising awareness about the importance of oral health to overall health.
4. Pilot studies among nursing staff in continuing care (homecare and long-term care) sectors are necessary to determine the impact of training programs on short- and long-term oral health attitude, belief and practice change.
5. Methodological measurement studies are required to assess the reliability, validity and predictive nature of measures developed to determine the markers of best practices.
6. Evaluation studies are required to determine the effectiveness of oral health prevention and promotion programs, policies, and educational strategies.
7. Dental labour-force studies are required to determine the capacity of the dental community or their 'readiness-to-change' in order to keep pace with the changing demographics and the aging of the population.
8. Research is needed on fee-guides, payment and billing options to address the financial challenges experienced by the recipients and providers of oral health care.

ADDITIONAL RESOURCES

Copies of tools and materials developed throughout the course of this project, along with links to senior-specific oral health resources, Canadian and international, are available on the Oral Health of Seniors' Project website (www.ahprc.dal.ca/oral-health/).

BIBLIOGRAPHY

1. Ritchie, C. S., Joshipura, K., Hung, H. C., & Douglass, C. W. (2002). Nutrition as a mediator in the relation between oral and systemic disease: Associations between specific measures of adult oral health and nutrition outcomes. *Crit Rev Oral Bio Med*, 13, (3), 291-300.
2. Stewart, J. E., Wager, K. A., Friedlander, A. H., & Zadeh, H. H. (2001). The effect of periodontal treatment on glycemic control in patients with type 2 diabetes mellitus. *Journal of Clinical Periodontology*, 28, (4), 306-310.
3. Wu, T., Trevisan, M., Genco, R. J., Falkner, K. L., Dorn, J. P., & Sempos, C. T. (2000). Examination of the relation between periodontal health status and cardiovascular risk factors: Serum total and high density lipoprotein cholesterol, C-reactive protein, and plasma fibrinogen. *American Journal of Epidemiology*, 151, (3), 273-282.
4. Joshipura, K. J., Douglass, C. W. & Willett, W. C. (1998). Possible explanations for the tooth loss and cardiovascular disease relationship. *Annals of Periodontology*, 3 (1), 175-183.
5. Beck, J., Garcia, R., Heiss, G., Vokonas, P.S., & Offenbacher, S. (1996). Periodontal disease and cardiovascular disease. *Journal of Periodontology*, 67, (10 Suppl), 1123-1137.
6. Pyle, M. A., & Stoller, E. P. (2003). Oral health disparities among the elderly: Interdisciplinary challenges for the future. *Journal of Dental Education*, 67, (12), 1327-1336.
7. Millar, W. J., & Locker, D. (1999). Dental insurance and use of dental services. *Health Reports*, 11, 55-67.
8. Lamarche, P., Beaulieu, M-D., Pineault, R., Contandriopoulos, A-P., & Haggerty, J. (2003). *Choices for change: The path for restructuring primary health care services in Canada*. Report submitted to Canadian Health Services Research Foundation.
9. Detsky, A., & Naylor, C. (2003). Canada's health care system – reform delayed. *New England Journal of Medicine*, 349, 804-810.
10. Romanow, R. (2002). Building on values: The future of health care in Canada. *National Library of Canada*. Available at: http://www.hc-sc.gc.ca/english/pdf/care/romanow_e.pdf
11. Kirby, M. (Hon), & LeBreton, M. (Hon). (2002). *The health of Canadians: The federal role*. Final report prepared by the Sanding Senate Committee on social affairs, science and technology, on the state of the health care system in Canada. Volume six: Recommendations for reform.
12. Jokovik, A., & Locker, D. (1997). Dissatisfaction with oral health status in an older adult population. *Journal of Public Health Dentistry*, 57, 40-47.
13. Barmes, D. (2000). Public policy on oral health and old age: A global view. *Journal of Public Health Dentistry*, 60, (4), 335-337.
14. Lilley, S., & Campbell, J. M. (1999). *Shifting sands – the changing shape of Atlantic Canada: Economic and demographic trends and their impacts on seniors*. Health Canada, Atlantic region: Produced for the Health Promotion and Programs Branch.
15. Nova Scotia Department of Finance, Statistics Division. (2003). *Nova Scotia at a glance, 2002*. Available at: <http://www.gov.ns.ca/finance/statistics/agency/index.asp>
16. Statistics Canada. (1999). *Statistical report on the health of Canadians*. Available at: <http://www.statcan.ca/english/freepub/82-570-XIE/free.htm>

Appendix A: Overview of Project Methodology

Oral Health of Seniors Project

Purpose: To determine the strategies needed to develop an Oral Health Action Plan that will achieve continuity of oral health care for seniors living in Nova Scotia, and elsewhere.

Research Question: What are the key components of an oral health action plan, based on continuity of care, which will improve the oral health status of seniors?

Project Objectives

	Health Services Evaluation	Promises Practices Scan	Forum	Communication/Dissemination
Purpose	To examine the continuity of care in the delivery of oral health service for seniors in Nova Scotia.	To explore the kinds of strategies used to enhance the effectiveness of oral health delivery systems for seniors.	To develop action plan strategies for addressing senior's oral health issues in Nova Scotia.	To communicate and disseminate the project findings and recommendations.
Research Methods	<ul style="list-style-type: none"> • Focus Group Sessions • Key-informant Interviews 	<ul style="list-style-type: none"> • Literature searches (academic/ non-academic) • Informal discussions with key persons involved in the delivery of oral care to seniors • email surveys 	<ul style="list-style-type: none"> • PowerPoint and story-telling presentations • Keynote speakers • Multi-sector small working group discussions 	<ul style="list-style-type: none"> • Forum presentations • Conferences • Reports • Journal articles • Newsletters • Website
Research limitations	Non-representative sample of seniors, dentists, dental hygienists, and nursing staff. Lack of non-clinical seniors' oral health research.			

Expected Outcome

A comprehensive plan that addresses the oral health care needs of seniors

Appendix B: Knowledge Translation and Dissemination Products and Resources

Presentations

A variety of PowerPoint presentations were prepared including an overview of the project to introduce the project to stakeholders, and project participants; to show the progress of the project and finally to explain the findings. Presentations about the project have been given at local, national and international research conferences. Research articles will also be prepared and submitted to academic journals.

Reports

Six reports were prepared during the project:

1. Pre-Forum Participant Information Report
2. Oral Health Forum – Proceedings Report
3. Oral Health Forum – Evaluation Report
4. Detailed Literature Review Report
5. Report to Canadian Health Services Research Foundation
6. Oral Health of Seniors: a Nova Scotia Project Final Report

Research Tools

The following research tools were developed during the project:

1. Seniors and Direct Care Provider Surveys
2. Focus Group Discussion Guides (for Seniors and Direct Care Providers)
3. Key Informant Interview Schedule
4. Senior Program Provider Survey
5. Senior Dental Resources Survey (on-line)
6. Oral Health Forum – group activity sheets
7. Oral Health Forum Evaluation
8. Insurance Providers – Seniors' Dental Plan Questionnaire
9. Search Framework or Logic Model for seniors' dental programs and policies
10. Program Rating Scale
11. Seniors Dental Program Database
12. Seniors Dental Policies Database
13. Seniors Oral Health Resource Check List

Graphics

1. Project Research Model and Conceptual Framework
2. Animation film developed for use at Oral Health Forum
3. Graphic of car and road with signs indicating project progress and accomplishments

Data

1. Seniors Oral Health Survey – SPSS Database
2. Dentists and Dental Hygienists Survey – SPSS Database
3. Written transcripts of all focus group sessions with Seniors, Dentists, Dental Hygienists and Nursing Staff
4. Written transcripts of Key Informant Interviews
5. NUD*IST key word thematization of focus group findings
6. Seniors' Oral Health Program Database
7. Seniors' Oral Health Policy Database
8. Seniors' Oral Health Resource Database

References

1. An extensive bibliographic reference library of seniors' oral health literature was compiled and includes over 250 pieces of literature

Media

News releases were prepared for distribution to media outlets. In addition, project investigators were interviewed by Nova Scotia newspaper and radio outlets on several occasions during the course of this project. Feature articles and editorials will be prepared for inclusion in local newspapers, magazines and newsletters. A 30 second video "Ask your Dentist with Dr. Chris Baker" on the topic of seniors oral health is being produced for use by Atlantic Television Network (ATV) and will be aired throughout Atlantic Canada in 2004-2005.

Miscellaneous

1. A three panel display was prepared
2. A project fact sheet was designed
3. Seniors Expo 2003 – A Centre for Health Care of the Elderly, QEII Health Sciences Centre trade show booth included a quiz about oral health care and seniors
4. A project website was designed and continues to be updated www.ahprc.dal.ca/oralhealth/
5. Articles about the project findings have been prepared for various groups including seniors organizations, Doctors Nova Scotia, College of Nurses, Pharmacy Association etc.
6. Briefing notes will be prepared for appropriate Ministers and senior government officials
7. Promotional items e.g., toothbrushes with project website address are being considered.

Appendix C: Oral Health Working Group Action Plans

Table 1: Oral Health of Seniors Collaboration Steering Committee Action Plan

PRIORITY AREA: Oral Health of Seniors' Collaboration Steering Committee

SHORT-TERM GOAL: To achieve sustainability for the Oral Health of Seniors' Collaboration

ACTION AREAS

1. Recruit Steering Committee members
2. Develop Terms of Reference for the OHS Initiative
3. Apply for funding
4. Hire staff
5. Offer support to various OHS collaboration working groups

Table 2: Policy Development Action Plan

PRIORITY AREA: Policy Development

GOAL: To develop standards and guidelines for seniors' oral health

ACTION AREAS

1. Advocate for the importance of oral health to overall health and the integration of oral health into health policies
2. Develop standards and guidelines for the oral health of seniors
3. Develop policy to ensure that seniors' oral health guidelines and standards are integrated into the mandate of all sectors involved in caring for the senior population
4. Develop guidelines for tracking short- and long-term policy outcomes

Table 3: Public Awareness Action Plan

PRIORITY AREA: Public Awareness

GOAL: To develop and disseminate public awareness messages about seniors' oral health

ACTION AREAS

1. Review existing oral health data and develop public awareness messages
2. Apply for funding
3. Disseminate promotional material
4. Conduct on-going evaluations and public awareness campaigns

Table 4: Program Service Delivery

PRIORITY AREA: Program Service Delivery

GOAL: To provide accessible oral health services to seniors

ACTION AREAS

1. Develop and implement programs for the provision of oral health assessment and treatment to ambulatory seniors in underserved areas (i.e.-rural)
2. Advocate for LTC facilities within NS to provide a suitable space for the delivery of oral health services for both ambulatory and non-ambulatory residents
3. Collaborate with health care partners to ensure that oral health assessment is incorporated into baseline assessment for all seniors at the point of entry into the health care system (e.g. hospital, home care programs, LTC)
4. Recommend that oral health treatment components are available within the home care programs province-wide and advocate for their inclusion in other programs
5. Offer in-service dental training programs for non-dental health care providers
6. Advocate for the integration of third-party dental insurance into access criteria similar to the provincial pharmacare program
7. Develop program evaluation frameworks that provide measurable outcomes for the various seniors' oral health care delivery initiatives

Table 5: Geriatric Education for Dental Students and Professionals Action Plan

PRIORITY AREA: Geriatric Education for Dental Students and Professionals

GOAL: To advocate for changes to existing dental curricula to include enhanced geriatric dentistry components (didactic and clinical)

ACTION AREAS

1. Assess dental and dental hygiene curricula for components of geriatric dentistry
2. Develop enhanced geriatric dentistry/special needs course curricula for dental and dental hygiene students
3. Assess the feasibility of offering a General Residency Program (GRP)
4. Advocate for inclusion of Geriatric Dentistry as a recognized area of specialization
5. Develop and deliver Geriatric Dentistry Continuing Education programs/courses for dental/dental hygiene professionals
6. Increase student awareness of post graduate programs/rotations in Geriatric Dentistry

Table 6: Geriatric Education for Non-dental Care Providers Action Plan

PRIORITY AREA: Geriatric Education for Non-dental Care Providers

GOAL: To provide recommendations for the enhancement of geriatric dental education for seniors' non-dental care providers

ACTION AREAS

1. Identify and recruit new working group members from a cross sector of groups providing care to seniors
2. Research existing multidisciplinary module programs developed for providing dental education (skills/training) to non-dental caregivers
3. Recommend that changes to the curriculum of care-provider programs and gerontology programs allow for the inclusion of components (knowledge/skill) of geriatric dentistry (learning module programs)
4. Develop continuing education courses in geriatric dental care for non-dental care providers

Table 7: Research Action Plan

PRIORITY AREA: Research

GOAL: To conduct and support research on seniors' oral health issues

ACTION AREAS

1. Offer research support to the various Oral Health of Seniors' Collaboration working groups
2. COHR hosting capacity building conference in March 2004
3. COHR in collaboration with stakeholders plans to pilot-test assessment tools in Nova Scotia
4. COHR submission to NSHRF for a comprehensive study of NS seniors' oral-health status

* Collaboration of Oral Health Researchers (COHR) will continue with their present research agenda and will evolve to support research of the various working groups as needed.



ORAL HEALTH OF SENIORS A Nova Scotia Project

T: 902.494.2240

F: 902.494.3594

E: ahprc@dal.ca

www.ahprc.dal.ca

Atlantic Health Promotion Research Centre (AHPRC)

Dalhousie University

Suite 209, City Centre Atlantic

1535 Dresden Row

Halifax, Nova Scotia B3J 3T1