Increasing Capacity to Inform Oral Health Policy

KNOWLEDGE TRANSLATION EVALUATION REPORT

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The Increasing Capacity to Inform Oral Health Policy Regarding Vulnerable Populations and the KT Plan (ICOH) is a study led by Drs. Joanne Clovis and Debora Matthews of Dalhousie University and Dr. Stephen Bornstein of the Centre for Applied Health Research at Memorial University. The overall goal of the ICOH study is to plan ways to measure and monitor oral health status and to guide policy aimed at improving the oral health of vulnerable populations on Canada’s east coast, beginning with the senior population. The study is a collaboration of clinician-researchers at Dalhousie University (Halifax NS) and a diverse group of stakeholders in NL including decision-makers, health services providers and researchers, all of whom share an interest in building the necessary links between the assessment of oral health needs and the delivery of oral health services. The project is funded by a CIHR seed grant aimed at reducing oral health disparities.

The ICOH study comprised an initial forum, key informant interviews, an analysis of NL government documents, a videoconferenced/videotaped demonstration of an oral health assessment protocol, and a final workshop. Reports and resources related to each of these components are available at www.icoh.dentistry.dal.ca.

This report is an evaluation of the integrated knowledge translation (KT) woven into the ICOH project and consistent with the CIHR meaning of integrated KT research that: “stakeholders or potential research knowledge users are engaged in the entire research process”\(^1\). Members of the ICOH team included both researchers and policy-makers. Both groups were involved from the grant application stage onwards. Intentional action contributed to knowledge dissemination primarily through two strategies: linkage and exchange events to share relevant research syntheses, and the development of researcher/knowledge user networks. Both diffusion (e.g. conference presentations, website postings) and dissemination activities (e.g. tools creation, educational sessions) were built into the design of the ICOH project. The strategic planning for KT was presented as a poster titled Knowledge Translation Along The Continuum From Research Question To Policy at The North American Dental Hygiene Research Conference (Bethesda, MD, 2009).

This report presents a separate KT evaluation for each project component followed by an overall ICOH project KT evaluation.

We have chosen the framework developed by Lavis et al. (2003)\(^2\) to evaluate the KT aspects of the project components using his five key questions:

- What should be transferred to decision-makers (the message)?
• To whom should research knowledge be transferred (the target audience)?
• By whom should research knowledge be transferred (the messenger)?
• How should research knowledge be transferred (the knowledge transfer processes and supporting communications infrastructure)?
• With what effect should research knowledge be transferred (evaluation)?
An initial forum was held Oct 21-22, 2009 for the purpose of bringing together potential stakeholders and partners supportive of oral health to share information and begin discussion about assessment and evaluation of oral health in NL. A report on the forum content and recommendations is available at www.icoh.dentistry.dal.ca/reports.html.

**Messages** - The following messages were intended to be conveyed via the forum.

- The importance of baseline data in policy planning and evaluation.
- The current state and mechanisms of oral health monitoring in Canada and Nova Scotia.
- The status of the proposed NL Oral Health Plan.
- Current and potential uses of videoconferencing in relation to oral health assessment and monitoring.
- Perspectives on the importance of, and issues surrounding, oral health assessment and monitoring in NL.

**Audience** - The intended audience was a diverse group of partners and stakeholders supportive of oral health. This audience included researchers, policy analysts, oral health professionals, telehealth experts, representatives of seniors’ organizations and care providers.

**Messenger** - The people who delivered the intended messages were:

- The importance of baseline data in policy planning and evaluation – oral health researchers
- The current state and mechanisms of oral health monitoring in Canada and Nova Scotia – oral health researchers
- The status of the proposed NL Oral Health Plan – a health policy developer
- Current and potential uses of videoconferencing in relation to oral health assessment and monitoring – oral health researchers, an oral health practitioner and telehealth experts
- Perspectives on the importance of, and issues surrounding, oral health assessment and monitoring in NL – the forum participants

**Processes** - The processes used to deliver the messages included:

- oral presentations,
• small group discussions with summary reports, and
• video and teleconferencing with remote sites.

Post forum delivery processes include:
• posting the presentations on the project web site (icoh.dentistry.dal.ca), and
• writing and disseminating the forum report.

**Effect** - The long term effects of the knowledge translation cannot be evaluated at present. **Short term effects** are:

• the creation of a stakeholders network through the forum planning process,
• the generation of the forum report, and
• the establishment of an Oral Health Research Affinity Group (OHRAG) under the auspices of the Newfoundland and Labrador Centre for Applied Health Research to promote, encourage and facilitate the implementation of applied health research to address oral health issues.
2. KT Evaluation – Key Informant Interviews

One component of the ICOH project was a series of key informant interviews. The purpose of the interviews was to discuss the barriers and enablers to assessing the oral health status and treatment needs of vulnerable populations in Newfoundland Labrador (NL), beginning with seniors; and to discuss the creation of a network of stakeholders supportive of influencing policy to establish an effective, efficient oral health care delivery system.

The 14 key informants included dental hygienists, dentists (practicing and retired; in private practice and government employed), physicians, and individuals with experience in developing policy. Two researchers (neither of whom was the interviewer) independently conducted analyses of the transcribed interviews, using different analytical approaches and technology (NVivo software and manual coding). Subsequent discussion between the two analysts resulted in a triangulation of the meaning and interpretation of the coding results.

A report on the key informant interviews is available at www.icoh.dentistry.dal.ca/reports.html.

Messages – Key findings of the analysis of the interviews were:

- Most interviewees believed oral health is an important policy issue, however most were unable to articulate the policy process and felt it was not a high priority among the general public.
- Resource allocation and inadequate communication between interest groups were identified as barriers to oral health becoming a governmental priority.
- Current government programs were praised but considered weak in oral health promotion strategies.
- Recommendations for enhancing oral health priority varied.
- Conclusion: Leveraging of existing programs and linkages and improving communication may increase public and government commitment to address oral health care, particularly for vulnerable populations.

Audience – The intended audience were provincial government policy makers and managers; leaders of oral health professional organizations; health researchers.
**Messenger** – The person who delivered the intended messages was the project lead, Dr. Joanne Clovis.

**Processes** – The processes used to deliver the messages included:

- Oral and poster presentations (ICOH final forum, International Symposium on Dental Hygiene conference (Scotland, 2010).
- A report on the findings of the Informant Interviews.
- Distribution of the report directly to policy analysts and executive of professional organizations.
- Posting of the report on the project website ([www.icoh.dentistry.dal.ca/reports](http://www.icoh.dentistry.dal.ca/reports)).

**Effect** – The long-term effects of this component of the project are unknown. The intended effects were an increased awareness of the variety of perspectives and concerns on oral health policy among key players in the field; improved communication among these players; and the leveraging of existing programs and linkages to improve oral health care.
3. KT Evaluation – Document Analysis


Messages – Key findings of the document analysis included:

- the themes arising from the analysis of the two documents, and
- the utility of document analysis as a qualitative research method

Audience – The intended audience included researchers, policy analysts, and oral health professionals.

Messenger – Both Elizabeth Blundell (summer research student) and Dr. Joanne Clovis delivered the intended messages.

Processes – The processes used to deliver the messages included:

- A written report shared with the Government of NL Department of Health and Community Services.
- A poster presentation given at the Dalhousie University Health Trainee Research Day (March, 2010).
- Oral presentations given at the initial and final ICOH fora.

Effect – The document analysis provided key themes that helped to focus the ICOH project and identified potential focus points for future partnerships in assessment and evaluation of oral health.
4. KT Evaluation – Survey Protocol Demonstration

A videoconferenced demonstration of the oral health status assessment protocol used in the Oral Health of Our Aging Population (TOHAP) project was planned. The purpose was to educate clinicians and policy-makers about the process and to stimulate interest in conducting oral health surveillance in NL. It was discovered during the planning process that the existing videoconferencing technology was not sufficient to allow high quality intra-oral images to be transmitted from NS to NL and then on to multiple remote sites within NL as intended. The planned videoconference was then revised to a videotaping session. The edited video demonstration of the protocol is available on request from Dr. Clovis either as a CD or as a link to an online video.

**Messages** – The intended messages were:

- The process of conducting an oral health survey that involves both an interview and clinical exam.
- Such a survey does not require elaborate infrastructure and is feasible provided some resources and adequate training.
- Videoconferencing is useful as a medium for intraoral examination training.

**Audience** – The intended audience for the demonstration were clinicians and policy-makers in NL as well as decision-makers regarding IT infrastructure at Dalhousie University.

**Messenger** – The demonstration involved an examiner, two research assistants, two volunteer participants and a narrator.

**Processes** – The demonstration was videoconferenced to one clinician during the taping process in order to elicit feedback on the video quality. The resulting video was edited extensively and text added. The edited video is available as a url link or on DVD upon request.

**Effect** – The long term effects of this component of the project are unknown. The short term effects were the following:
• The limitations of using videoconferencing to remote locations to demonstrate intraoral techniques has been identified. Improvements to IT infrastructure required to improve videoconferencing capabilities have been identified and some of these improvements have been implemented.

• The video developed will provide a valuable training resource for future surveillance research and in the development and evaluation of oral health programs.
5. KT Evaluation – Final Forum

The *Increasing Capacity to Inform Oral Health Policy Forum: Oral Health in Newfoundland and Labrador – Next Steps* was held on October 1 and 2, 2010 in St. John’s NL. The purpose of this forum was to bring together stakeholders and partners supportive of oral health to discuss the outcomes arising from the initial “Increasing Capacity to Inform Oral Health” Forum held in October 2009 (report available at [www.icoh.dentistry.dal.ca](http://www.icoh.dentistry.dal.ca)), to learn of oral health initiatives in NL and other provinces, and to plan future initiatives to improve oral health in Newfoundland and Labrador.

**Messages** - The following messages were intended to be conveyed via the forum.

- The outcomes of the Increasing Capacity to Inform Oral Health Policy study.
- The outcomes of Canadian and Nova Scotian surveys of oral health.
- Research initiatives to reduce disparities in oral health in Ontario, Quebec and British Columbia.
- The existence and activities of the Oral Health Research Affinity Group in NL.
- Current activities to advance the oral health of seniors in long term care.
- Current activities to advance the oral health of children in First Nations and Inuit communities.
- Potential future research or action programs to improve oral health in NL.

**Audience** - The intended audience was a diverse group of partners and stakeholders supportive of oral health. This audience included researchers, policy analysts, oral health professionals, public health experts and representatives of seniors’ organizations.

**Messenger** - The people who delivered the intended messages were:

- The outcomes of the Increasing Capacity to Inform Oral Health Policy study – an oral health researcher
- The outcomes of Canadian and Nova Scotian surveys of oral health – oral health researchers
- Research initiatives to reduce disparities in oral health in Ontario, Quebec and British Columbia – oral health researchers
- The existence and activities of the Oral Health Research Affinity Group – an oral health practitioner and dental public health expert
- Current activities to advance the oral health of seniors in long term care – an oral health practitioner and an oral health researcher
Current activities to advance the oral health of children in First Nations and Inuit communities – an oral health practitioner
Potential future research or action programs to improve oral health in NL – all forum participants

Processes - The processes used to deliver the messages included:
- oral presentations,
- small group discussions with summary reports, and
- web conferencing with remote sites.
Post forum delivery processes include:
- posting the presentations on the project web site (icoh.dentistry.dal.ca),
- the writing and dissemination of the forum report,
- sharing the recommendations with the Oral Health Research Affinity Group, and
- emailing participants with updates on outcomes of the forum.

Effects - The long term effect of the knowledge translation cannot be evaluated at present. Short term effects are:
- the generation of the forum report,
- strengthening of a network of seniors’ groups actively promoting initiatives to improve oral health services for seniors in NL,
- the offer of future collaboration and expertise by Dalhousie oral health researchers,
- the creation and maintenance of an email listing of all participants in the ICOH project and activities,
- direction provided for the Oral Health Research Affinity Group, and
- stronger links established between Dalhousie University and Memorial University of Newfoundland.
6. KT Evaluation – Overall ICOH Project

To evaluate the overall ICOH project from a knowledge translation perspective, we will use the framework developed by Ross, Goering, Jacobson and Butterill (2007) in their guide for assessing health research knowledge translation plans.

KT Goals
The KT goals of the ICOH project were:
1. To gain knowledge of:
   - current oral health policy and plans of the NL government
   - perspectives of the NL oral health stakeholder community around the need for creation of new (or expansion/revision of existing) oral health policy
   - perceived need for oral health status surveillance and barriers to such activity in NL
   - perceived mechanisms for conducting oral health status surveillance in NL
   - support for oral health status and surveillance research

2. To generate:
   - awareness of oral health status research outcomes and methods (both national and provincial models)
   - interest in oral health research and policy development through the creation of a stakeholder group
   - action towards developing grant proposals to advance oral health research in NL and NS

Collaboration
The ICOH project was an integrated KT project in that both researchers and potential knowledge-users (i.e. policy makers) were involved in all stages of the project: from project design, participating in data gathering activities, to reviewing dissemination tools and participating in diffusion activities. Although final responsibility for decisions rested with the researchers, all team member input was given full consideration and suggestions were acted upon.

Research Stage
Each component of the ICOH project involved KT activities at different stages (as outlined above). The fora were primarily linkage and exchange events to share relevant research syntheses, and to develop researcher/knowledge user networks. The document analysis and key informant interviews involved KT activities to disseminate the research outcomes while the survey protocol demonstration resulted in the development of a KT tool (a video) for knowledge users.
Participants
The ICOH project involved participants from several sectors: policy makers and analysts, clinicians, researchers, professional organizations and the public. In terms of their KT roles, all participants at some point in the project served as advisors (in that their opinions and insight were sought during small group discussion or key informant interviews) and members of the audience (during oral presentations or as the recipient of reports and dissemination tools). Participants were identified using the snowball method through established contacts of the members of the research team followed by secondary and tertiary contacts. The wide range of sectors and geographic locations represented by the ICOH participants ensured that a variety of perspectives and experiences were represented and provided input to the process.

Methods
The KT methods used during the ICOH project include both interactive linkage/exchange and dissemination/diffusion activities. The two fora as well as research team meetings provided opportunity for interactive exchange of ideas, information and perspectives and the building of stakeholder networks. Conference presentations of research outcomes, and website postings of reports and presentations allowed the diffusion of information while the survey protocol demonstration video will serve as a tool for dissemination.

Resources and Implications
The resources needed to support the KT activities of the ICOH project included:
- financial support through the CIHR-IMHA seed grant on oral health disparities
- infrastructure to support videoconferencing and webconferencing
- professionals with expertise in event organization, videoconferencing, webconferencing, video editing and web design
- time commitment from the team members to attend and participate in ICOH meetings and events as well as review and edit materials
- individual, team and institutional contacts with professional organizations, government employees and stakeholders groups

All of these resources were available through the commitment of the research team members and through the institutional support of Dalhousie University and Memorial University of Newfoundland. One resource that did limit the KT activities of the ICOH project was the external infrastructure needed to transmit high-quality live videoconferencing between provinces. Current infrastructure was insufficient to allow the planned live videoconference demonstration of the oral health survey protocol.
Integration of the KT process throughout the project facilitated collaboration and knowledge use. Although most of the KT effects of the ICOH project are long term in nature and cannot be assessed at present, the planned success factors contributed to the short term outcomes that are measures of ICOH success (http://www.cihr-irsc.gc.ca/e/41953.html). The multidisciplinary and interprofessional project team were experienced in collaboration and project development and also represented a wide range of stakeholders who contributed to the creation of a network of individuals and organizations. All of the project components were structured to enhance our knowledge of oral health, oral health issues, current provincial and national oral health status, and oral health policy using learning strategies and tools conducive to collaborative knowledge acquisition and use. Institutional support from Dalhousie and Memorial Universities was secured in the planning and strengthened throughout the project.

The most immediate outcomes of ICOH KT activities have resulted in the formation of a network of stakeholders in NL and NS with an interest in oral health In NL. Those NL members of this network with a specific interest in seniors’ oral health have mutually agreed to participate in lobbying efforts to effect change in the NL government’s oral health policy as it concerns long term care and seniors. Some members are active in creating awareness of oral health among their own seniors groups.

The ICOH project also resulted in the creation of an Oral Health Research Affinity Group that is currently investigating information gaps in order to identify potential research topics for a research grant application. Some members of OHRAG also collaborated with researchers at Dalhousie University in submitting an application called “Kungatsiajuk: Supporting the healthy smiles of NunatuKavut children” to the CIHR Spring 2011 Operating Grant competition. The application was successful and will fund a three-year research study aimed at improving the oral health of Inuit children living on the south coast of Labrador.

The oral health survey protocol demonstration video created as part of the ICOH project will serve as a valuable education and training tool for any future oral health status survey work in NL or elsewhere.

Overall, the ICOH project has raised awareness of the importance of oral health among its network of stakeholders and has increased participants’ awareness of the importance of research to provide evidence for oral health needs and assess the effectiveness of oral health policy.
References


