Implementing Scope Changes: Lessons Learned

Presenters:
Stacy Mackie, RDH
Ann Eshenaur Spolarich, RDH, PhD
Presented on behalf of the
College of Registered Dental Hygienists
of Alberta (CRDHA)

Promoting Regulatory Excellence

Learning Objectives

1. Understand how to work within existing legislative framework to extend the scope of practice.
2. Utilize regulatory guidelines in the formation of an innovative credentialing program, including curriculum development, certification and licensure, and continued competence.
3. Learn how to identify and define the necessary competencies that define safe and prescribing behaviour and risk assessment/management.

4. Formulate a curriculum model that facilitates self-study and independent learning.
5. Discuss various forms of evaluation used to measure related outcomes, including process, product and program evaluation.
6. Appreciate the importance of developing a data collection plan at the onset of the project to ensure ongoing program evaluation to modify the curriculum as needed; process evaluation to improve program management; and product evaluation to assess the impact of this service on the community.
PROGRAM OVERVIEW
Stacy Mackie, Deputy Registrar

Terminology
• “College” of Registered Dental Hygienists of Alberta (CRDHA) is not a “school of dental hygiene”
• CRDHA is a “regulatory organization”
• Dental hygienists who want to practice dental hygiene in Alberta must be registered with us
• Registered dental hygienist (RDH) is the title we use in Alberta = licensed or certified

Alberta Legislation “Advantage”
• Government involves other health professions (dentistry, medicine, pharmacy), educational institutions, industry, members of the profession
• No “exclusive scopes of practice” - a specific task (use of stethoscope) cannot be limited to only one profession
• Government authorizes Councils to determine criteria for testing, credentials and certification of their own profession
Alberta Legislation “Advantage”

- Each profession determines its own “competencies” (defined “knowledge, skills, attitude & judgment”)
  - Must be reliable, valid, and evidence-based
- Competencies must be part of formal education
  - Without these competencies, government would have said prescribing status is an expansion of existing scope of practice, which needs a different approval
- Dental hygiene, like all health professions, has input on the minimum standards for education in Alberta (both public and private)

What would happen if dental hygienists could open their own practices?

- If dental hygienists could open up independent practices or provide services in nursing homes -> increase access to dental hygiene care
- What changes would need to be made to allow dental hygienists to provide the same services to clients in these new practice settings?

Legislation Change

- Dental hygienists would need the authority to prescribe the drugs routinely used in dental hygiene practice
- Dental hygienists have the fundamental knowledge and experience to identify the need for drug therapy and identify appropriate agents
- Adding prescription authority is a natural extension of what was already occurring in practice
Legislation Change Process

- Worked with government and stakeholders to help them recognize that dental hygiene education prepared dental hygienists to safely make all the decisions around prescribing these drugs — stakeholders included the regulatory bodies of the Physicians & Surgeons and the Pharmacists
- All the decision making processes were in place: what was necessary was to ensure that they were aware of the regulatory requirements for issuing prescriptions

Legislation Change

- Therefore, it was logical to include prescribing authority in the new regulations
- A list of prescription drugs used to support dental hygiene practice was identified
- These drugs are used for the prevention and treatment of oral disease and managing medical emergencies that occur in the dental setting

Drugs listed in the Regulation

(i) antibiotics
(ii) antifungal agents
(iii) anti-infective agents
(iv) antiviral agents
(v) bronchodilators (for medical emergencies)
(vi) epinephrine
(vii) fluoride
(viii) pilocarpine (for dry mouth)
(ix) topical corticosteroids
CRDHA’s Role
• Once in the regulations, CRDHA was able to determine the procedure that dental hygienists must complete to be authorized to prescribe drugs
• The final result — the dental hygienist would be issued a Prescriber’s ID number from CRDHA

Components of the Credentialing Program
52 Competencies previously identified led to
• Curriculum development
• Certification and Licensure Process
• Continued Competence

What are the goals?
• Safe, effective prescribers
• Ensure a standard level of knowledge regardless of educational background or years of experience
• CRDHA Council determined that dental hygienists “must pass a Council approved Pharmacy Course”
Prescriber’s ID Program

- Self-paced, self-study course includes:
  - Mandatory Assignments
  - Final Examination
- Once successfully completed - apply for Prescriber’s ID number through the CRDHA
- CRDHA issues a Prescriber’s ID number and informs Alberta College of Pharmacists (ACP)

Course Development: Project team

- To do this project well, we required many experts
  - instructional designer
  - content experts
  - graphic designer and illustrator
  - reviewers (dentists, pharmacists, dental hygienists, addiction specialist, educators)
  - psychometricians and exam writing experts
  - faculty support (pharmacologist)

Design and Development: Who will take this course?

- Open to all registered (certified) dental hygienists anywhere in Alberta
- New graduates to 50+ years experience
- Variety of practice settings: community or public health, private practice, long-term care facilities (nursing homes), stand-alone dental hygiene clinics, home health care
Design and Development: What is their knowledge level?
- Must assume a basic background knowledge in pharmacology, physiology, anatomy, communications, etc.
- Course CANNOT teach the entire dental hygiene undergraduate curriculum again
- Certain individuals may require review before taking the course ⇒ requires self-assessment

Design and Development: What are the necessary competencies?
- Looked at the Alberta specific competency profile for practicing dental hygienists
- Looked at competency profiles for other prescribers e.g., physicians, nurse practitioners, dentists, affiliate prescriber programs in the UK

Competence is the “combined knowledge, skills, attitude, and judgment” required to provide professional (dental hygiene) services.

Design and Development
- Competencies led to the content of the modules and the learning objectives
- All the critical competencies and learning objectives are tested in the final examination
- Examination Blueprint developed
  - provides explicit instructions and guidelines on how the competencies are expressed within the examination
PROCESS EVALUATION

Process Evaluation

- Scope of the project
- Accuracy of the content
  - Method of developing content
  - Ongoing review process
- Instructional design elements
  - Key educational strategies that foster learning

Scope of the Project

- Determining the project components
  - Self-paced course
  - Assignments (included in the course)
  - Examination (separate from the course)
- Scope of the course
  - Modules
  - Learning objectives
  - Key learning points (goals)
Prescriber’s ID Program
- Self-paced, self-study course includes:
  - 7 Modules
  - Mandatory Assignments
  - Final Examination
    - Offered electronically and on paper
    - 85 questions = supplied response and case-based questions
    - Assess knowledge, application and critical thinking skills on 52 competencies from Alberta’s dental hygiene competency profile
    - Score of 80% required to pass

Self-Study Modules

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<thead>
<tr>
<th>Module 1</th>
<th>Professional Accountability, Collaboration, and Communication</th>
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<tbody>
<tr>
<td>Module 2</td>
<td>Decision-Making Related to Medication Use</td>
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<td>Module 3</td>
<td>Principles of Pharmacology</td>
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<td>Module 4</td>
<td>Drugs Used in Dental Hygiene</td>
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<td>Module 5</td>
<td>Risk Management, Drug Errors, and Medical Emergencies</td>
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<td>Module 6</td>
<td>Issuing a Prescription</td>
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<tr>
<td>Module 7</td>
<td>Storage, Disposal, and Labelling</td>
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Scope Challenges
- Topics are interrelated
- Level of detail
- Cannot teach entire dental hygiene program
Method for Developing Content

- **Content experts** ⇒ write and review first draft of contents (one module at a time)
- **Instructional designer** ⇒ edit and restructure content; ensure accuracy; deal with changes in the content
- **Content experts** ⇒ review and edit
  - Cycle continues until content is approved

Method for Developing Content

- **Graphic designer** ⇒ layout content
- **Content experts/instructional designer** ⇒ review and edit
- **Graphic designer** ⇒ make changes
  - Cycle continues until content is approved
- **Printer** ⇒ print multiple copies of final version for learners

Instructional Design Elements

- The course is designed to be printed (not delivered as web-based training), and it must act as both the teacher and resource material
- Requires a unique instructional design approach ⇒ self-paced learning
  - Learners control the pace of the learning ⇒ self-motivated, active, and responsible for their learning
  - New learning format ⇒ most learners may not have learned this way before
Design Elements

- How does the instructional designer restructure content?
- Must restructure the content to provide the learner with action and reflection
- Used eight different design elements

Facts and informational text

2. Health History Questionnaire

- The health history questionnaire is a legal document that the client completes during the initial dental hygiene visit. The questionnaire is used to obtain further information regarding the client’s physical and oral health status, the drug profile (pharmacologic history), determinants of health, and risk factors.

- Note: The health history questionnaire (which is completed in the assessment phase of the Dental Hygiene Process of Care) does not reflect the client’s consent to receive dental hygiene services. Informed consent for the proposed dental hygiene services (care plan) is obtained from the client during the planning phase.

Did You Know?

- Shown in the margin beside text
- Acts as a stop sign about something in the text
- Used to draw special attention to a fact
Practice Tip

- Shown in the margin beside text
- Suggests how the learner can apply the information on the job
- Guides the learner to take action

Tip and Text

2. Health History Questionnaire

- Advises clients to request a personal medication list from their pharmacist. This is beneficial for their own use, but is also helpful for completing the health history questionnaire.

Pause & Reflect #1

- Shown in the margin beside text
- Used to draw attention between the text and the learner’s current practice
- Asks the learner to consider and reflect
Pause & Reflect #2

- Not in the margin
- Provides lines for the learner to write notes
- Answers are not provided

Does your work setting have a drug error management program? If not, explain why. If you have a program, where is the information about the program located?

Persona

- Fictional people who represent the variety of learners
  - Age; Personal situation; Education; Job experience; Job description; Expertise; Work environment; Telling quotes; Scenario
- Four personas are used in this course
- Used to relate to the learner
- Learners can see themselves doing the job

DENTAL HYGIENIST: MAUREEN O’MALLEY

- Age: 45
- Personal situation: Married with two children; one grandchild
- Education: Received a dental hygiene diploma program in 1989 at Penn State–DuBois and a Bachelor of Science in 1999
- Work experience: 17 years in the field of dental hygiene
- Job description: Provides dental hygiene therapy for patients of 175 dental care facilities. Also provides patient education in all areas of dental hygiene care. Works with staff to create patient education materials. Ensures each patient receives care provided in an individualized care plan. Also provides staff education in the area of dental hygiene. Assists in the development and implementation of new programs and procedures to enhance the delivery of dental hygiene care. Assists in the development and implementation of new programs and procedures to enhance the delivery of dental hygiene care. Also works on a private practice for one day per week.
- Employment: 1989–present, dental hygiene technician; local anesthesia 1999–present, dental hygienist
- Work environment: Two continuing care facilities in small town next door.
- Talking points: How do you enhance the patient experience? What do you do to make the environment a relaxing and comfortable place for patients?
Scenario

- Move learners from comfort (what they know) to discomfort (what they don’t know)
- Applies the knowledge in a realistic situation
- Must apply the new knowledge and use critical thinking to solve a problem
- Answers are provided at the back of each module

Resources

- Requires the learner to use other materials (e.g., Drug Reference Handbook) to answer questions
- Guides the learner to take action as they would need to do on the job

Adverse Drug Effects (Scenario 3)

<table>
<thead>
<tr>
<th>Drug and Dosage</th>
<th>Adverse Effects</th>
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Answering Mr. Rossco’s Adverse Reaction

Mr. Rossco, a 47-year-old, has a history of diabetes. He is taking:

- Glucotrol® tablets 20 mg x 2 tablets q.i.d.
- Eye drops for diabetes: 1 to 4 times per day
- EP 120 mg
- 225 cc
- No known allergies

Mr. Rossco’s client, Mr. Rossco, is 47 years old. The following are stated on Mr. Rossco’s face:

- Hypothyroidism
- Diabetes

What should Mr. Rossco do to manage this reaction? (See the final page for managing adverse reactions.)

1. Mr. Rossco, I’m just going to pull you up slowly and see if you can determine what’s going on. Mr. Rossco demonstrates increasing urinary output.

Mr. Rossco doesn’t report any problems with breathing.
Hand-In Assignment

- Always shown how to complete the task (e.g., in a scenario)
- Marked by CRDHA course administrator
- Required for course completion (mandatory)

EVALUATION

Ann Eshenaur Spolarich, RDH, PhD

3 Components to Evaluation

- Process Evaluation
- Product Evaluation
- Program Evaluation
Process Evaluation

- Process evaluation is a dynamic activity that is ongoing throughout the development of the project
- Allows for continuous feedback to ensure that the project is proceeding as planned
- We reviewed the key aspects of process evaluation for this project
- Now I will address other relevant aspects of evaluation

What types of evaluation are used during and after project implementation?

- Product evaluation
- Program evaluation
- Planning to conduct these aspects of evaluation actually begins at the conceptualization of the project:
  - What do we want to know about this project and its participants when the project is complete?

Product Evaluation

- This aspect of evaluation uses specific metrics that reflect outcomes of the program
  - Characteristics of participants
  - Time needed to complete the self-study course
  - Success rates for passing the assignments and examination
- These outcomes are measured longitudinally to gather and track data that support the program
- Data is used to identify specific program components that may require modification at re-evaluation
  - Data will be shared at Conference
Setting Defensible Passing Scores

- The bar has been set high (80% pass mark for final exam)
- Must pass all written assignments to be eligible to sit for the exam (75% pass; alternate assignments are given if unsuccessful first attempt)

Program Evaluation

- Assesses the overall value and impact of the program on dental hygiene practice and the quality of care provided to the community served
- Encompasses many aspects of evaluation:
  - Quantitative assessment
  - Qualitative assessment

Program Evaluation — Quantitative Assessment Examples

- Patterns of behaviors of dental hygienist prescribers
  - What drugs are most frequently prescribed?
  - Does the setting influence the type of drugs that dental hygienists prescribe?
  - How do characteristics of the client population influence types and numbers of drugs prescribed?
- Access to care issues
  - In what settings are dental hygienist prescribers most frequently employed?
  - How many clients received services from a dental hygienist prescriber?
  - What services did clients receive?
Program Evaluation — Qualitative Assessment Examples

- Prescriber evaluation after successful completion of the program
  - Do they value their new prescribing responsibilities?
  - Do they feel adequately prepared to prescribe?
  - Do they have confidence in their skill level?
  - Are they still practicing the way they were taught?
  - Are there any areas in which they feel inadequately or improperly prepared?

Program Evaluation — Qualitative Assessment Examples

- What effect have dental hygienist prescribers had on the community that they serve?
- What are the perceptions of other healthcare providers about dental hygienist prescribers?
- How do dental hygienist prescribers actually comply with the regulations that define this aspect of dental hygiene practice?

What makes this program so different?

- No teacher — instructional materials must be written as both the resource and as the teacher
- Quality Assurance — every aspect of the program is based upon the practice standards and competencies set forth by the regulatory organization (CRDHA)
- Practical — program is designed to meet the needs of actively practicing dental hygienists
What makes this program so different?
• Program allows participants to address their fears and to ask questions in a safe environment
  - Create learning activities that create discomfort for learners by placing them in real-world “fearful/uncomfortable” situations, which allow participants to safely explore, confront and overcome their fears through active learning
  - Influences design of activities and evaluation strategies
• Program design challenges participants and allows them to succeed, so that they are held “capable” versus simply accountable

Issues of Continued Competency
• Ongoing support throughout the program and afterwards is critical for maintaining success
  - Learning activities in the modules
  - Resources: texts, drug databases, website support
  - Workshops
  - Articles in professional publications
  - Teleconferencing
  - Guidance from project personnel

Factors for Consideration
• Changes in political arena and legislation may require changes in the program
• Participants accept the increased responsibility as a dental hygienist prescriber
• Paper or electronic course format
• Flexibility of learners, experts, and organization
• Coordination of the work effort of many people on one project
• Communication with all experts; distance
• How do we keep the momentum going after the initial novelty of the program wanes?
What can we learn from this project?

- Success requires careful planning from the beginning - project conceptualization
- Using a team of individuals with diverse areas of expertise brings greater quality to the program
- Allies from other health disciplines and regulatory organizations help to ensure success

CURRENT DATA

More data from both the exit survey (product evaluation) and the annual survey (program evaluation) will be shared at the CLEAR Conference

Participant Profile  n = 64 (as of Aug 17, 2011)

- Sex: 96.87% are female (n = 62)
- Average age: 40.17 years
  - range = 25 - 60 years
  - median = 40 years
- Average number of years in practice: 13.86 years
  - range = 2 - 38 years
  - median = 13 years
  - mode = 6 years
- Average time to complete program: 10 months
  - range = 5 - 14 months
  - median = 10 months
  - mode = 12 months

Note: 3 graduates no longer hold a prescriber’s ID — moved out of province or are no longer practicing as a dental hygienist
Annual Survey Results  n = 25

• All dental hygienist prescribers who had been prescribers for at least 5 months were invited to participate in completing the annual survey to assess their practice behaviours
• 46.29% response rate

Details on the survey analysis will be provided at the CLEAR Conference

Graduates from the Program

July 2008 — start of 1st intake
March 2009 — 2nd intake
March 2010 — 3rd intake
May 2011 - 4th intake

As of Aug 17, 2011
• 70 have successfully completed the course
• 64 dental hygienists have been issued their prescriber’s ID number
  - 3 people moved or retired and no longer hold Prescriber’s ID
  - 3 had not yet applied for prescriber’s ID
Practice Settings of Current Prescribers (n = 64)
- 100% are employed in practice
- 77% practice in an urban setting (n=49)
- 64% work solely in a private dental office (n = 41)
  - 8 educational institution
  - 9 own stand alone dental hygiene practice
  - 3 owns mobile dental hygiene practice
  - 1 community health setting
  - 2 hospital setting

Speaker Contact Information
- Stacy Mackie, Deputy Registrar
  stacy.mackie@crdha.ca
  (780) 465-1756 (phone)
  (780) 440-0544 (fax)
- Ann Eshenaur Spolarich, RDH, PhD
  - Please contact through CRDHA using the coordinates above