

On-line Learning by Public Health Practitioners

L'expérience du programme d'amélioration des compétences

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What is the Skills Enhancement Program?

- ❖ Continuing education for public health professionals
 - Distance education via e-learning
- ❖ Collaborative development and delivery
- ❖ Based on the principles of adult learning

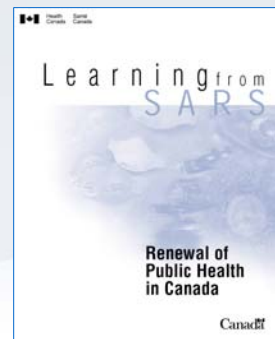
Cette présentation a été effectuée le 27 octobre 2006, au cours du Symposium "Nouvelles technologies de l'information en santé publique : implications sur le terrain" dans le cadre des Journées annuelles de santé publique (JASP) 2006. L'ensemble des présentations est disponible sur le site Web des JASP, à l'adresse <http://www.inspq.qc.ca/jasp>.

An adult learning environment

- ❖ Based on needs
- ❖ Participative in all aspects
- ❖ Practical, problem-centred
- ❖ Applicable to work
- ❖ Integrates experience of learners
- ❖ Interactive
- ❖ Self-directed
- ❖ Supportive
- ❖ Flexible
- ❖ Respects learners

❖ Based on needs

- Gap analysis of Health Surveillance
 - Need to improve skills at the front lines
- Learning from SARS (the Naylor Report)
 - Clear that the needs are broader than surveillance



❖ Participative in all aspects

- Consultation on priority modules
 - Epidemiology as the basic science of public health
 - Health surveillance
 - Outbreak management
 - Communicating information
 - Chronic disease, injuries, etc
- Learner participation in
 - Program/module design
 - Content review
 - Content and program evaluation

❖ Practical, problem-centred

Module 5 (APP1) – Outbreak Investigation and Management

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***E. coli* Case Study – Part 1**

On September 19, 2001, the director of a nursing home with 169 residents in Nowhereville called the regional public health office because a number of its staff and residents were experiencing bloody diarrhea. The first case was noted on September 9, 2001 and was followed within the next few days by approximately 50 ill residents. By September 18, the causative organism had been identified as *E. coli* O157:H7. In the previous month, no cases of *E. coli* O157:H7 had been identified in the nursing home. However, 6 residents had complained of loose stools. In the previous 12 months, 3 cases of *E. coli* O157:H7 had been reported from among the residents of this institution.

Questions

1. What are the characteristics of *E. coli* O157:H7 infections ...

❖ Applicable to work

Module 2 (Epi2) – Measurement of Health Status

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Learning exercise: State of Health in Your Region

Scenario: You have been asked to give a half hour presentation on the state of health in your Health Region for the local TV station. Please answer questions 1-4 in relation to a topic of your choice.

1. Provide at least two types of health indices that you would use and provide justification for the use of each.
2. Identify at least two different online sources of information that you would use (provide URLs).
3. What tables, graphs, etc would you prepare? Create descriptive labels for at least one of these tables and one of your graphs. Make sure that these descriptions provide a clear and concise summary of the content of the material.
4. What else do you need to consider in preparing for this presentation?

❖ Integrates experience of learners

Module 2 (Epi3) – Descriptive Epidemiological Methods

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Bulletin Board Discussion Activity: Function of Epidemiologic Studies in the Workplace

Think about your work as a public health practitioner and the types of public health activities and programs for which you are responsible.

Can you provide an example of how your work in these areas has been influenced by analytic epidemiologic studies (e.g. National Population Health Survey, Framingham Heart Study, Nurses' Health Survey)?

Supportive

Basic Epidemiological Concepts - Facilitated

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Homepage > Bulletin Board > **Bulletin Board Discussion Activity: Introduction to Epidemiology**

Discussion Messages: **Bulletin Board Discussion Activity: Introduction to Epidemiology**

Compose message Update listing Search Mark all as read Message options ▾

Display: All Unread Threaded Unthreaded

Select topic: Bulletin Board Discussion Activity: Introduction to Epidemiology **Go**

Status	Subject	Author	Date
▶ 2/2	<input checked="" type="checkbox"/> Bulletin Board Discussion...		

Done <https://skills.phac-aspc.gc.ca> - Discussions - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Subject: **Bulletin Board Discussion Activity: Introduction to Epidemiology**

◀ ⌂ ⌂ Close

Reply Reply privately Quote Download

Message no. 10

Author: Bryan Fair

Date: Friday, August 6, 2004 9:32am

Welcome to "Introduction to Epidemiology".

An important feature of Web-based learning is the opportunity it provides for learners like yourselves to interact with one another through a computer conferencing system. This interaction allows you to share your experiences and knowledge of public health practice and to learn from your fellow participants as they share their experiences and

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Interactive

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Conditional

Interview: Laura MacDougall, BC Centre for Disease Control

 Interview



Laura MacDougall

Surveillance Epidemiologist
Enteric and Vectorborne Disease
British Columbia Centre for Disease Control

Question: Explain why you chose to enter the Canadian Field Epidemiology Program?

 [Audio](#)

Question: At the provincial level, how do you learn of outbreaks occurring? What issues arise when managing inter-regional investigations?

 [Audio](#)

Based on your outbreak experience what are some tips that you would like to pass along to someone just getting into the outbreak investigation field?

 [Audio](#)

❖ Interactive

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Self Assessment Exercise: Lesson 3

1. The descriptive aspects of an investigation include:(Select ALL that apply.)
 - A. Place
 - B. Time
 - C. Person
 - D. Analysis of the hypothesis
2. Characterization of an outbreak by **time** may answer which of the following? (Select ALL that apply.)
 - A. The type of source?
 - B. Who is at risk of exposure?
 - C. The incubation period?
 - D. The probable period of exposure?
3. Characterizing an outbreak by **place** helps to: (Select ALL that apply.)
 - A. Identify the population likely to be at a significantly higher than average risk of exposure.
 - B. Provide clues to the source of the problem.
 - C. Make pretty maps of the area of study.
 - D. Focus our attention on a specific area to investigate

❖ Self-directed

➤ Asynchronous learning ...

...however:

- Scheduled sessions (fall, winter, spring)
- Facilitation and group discussions
- 8-week sessions

❖ Flexible

- Modules offered 3 times per year
 - Portable
 - Content may be printed
 - Any internet connection will do
 - No cost to register for a module
- ... but not free



❖ Respects learners

- Interaction with facilitators
- Personal learning is more important than grades
- Facilitators are practitioners
 - Quebec model uses experts (PhD students)

On-line Learning by Public Health Professionals

➤ Evidence that it works

Evidence that it works

- ❖ Feedback
- ❖ Evaluation
- ❖ Participation
- ❖ Outcomes
- ❖ Development of the community of practice

❖ Feedback / evaluation

“Skills Enhancement's online program provides relevant Canadian content in a cost- and time-effective manner. Epidemiology and surveillance skills and knowledge should be considered as basic tools in public health, yet traditional teaching is often hard to connect to local issues. Traditional classrooms cannot match this opportunity for learning with other practicing public health professionals and facilitators who have front-line experience”. – Director

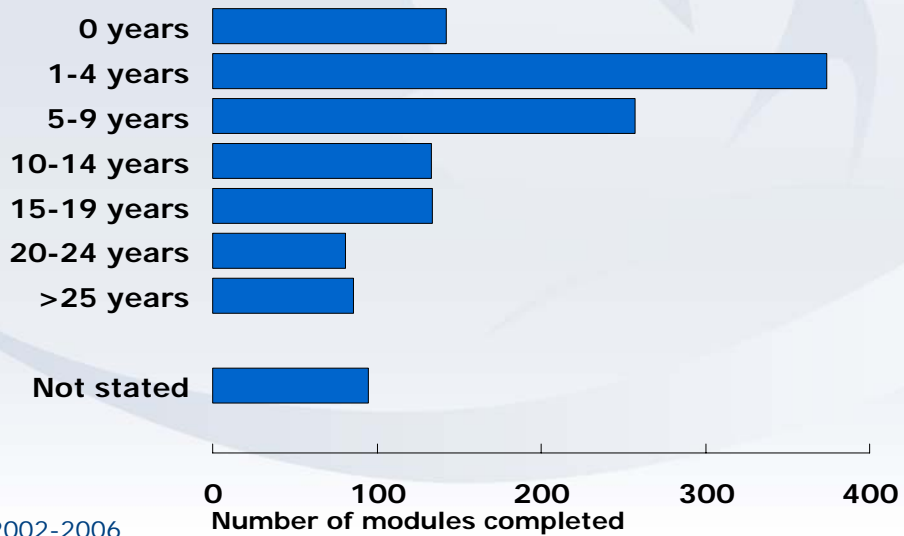
❖ Feedback / evaluation

« Mon expérience en direct m'a semblé - et me semble encore - opportune et pratique; elle a constitué une excellente ressource dotée de liens vers d'excellents sites. » -- Un apprenant

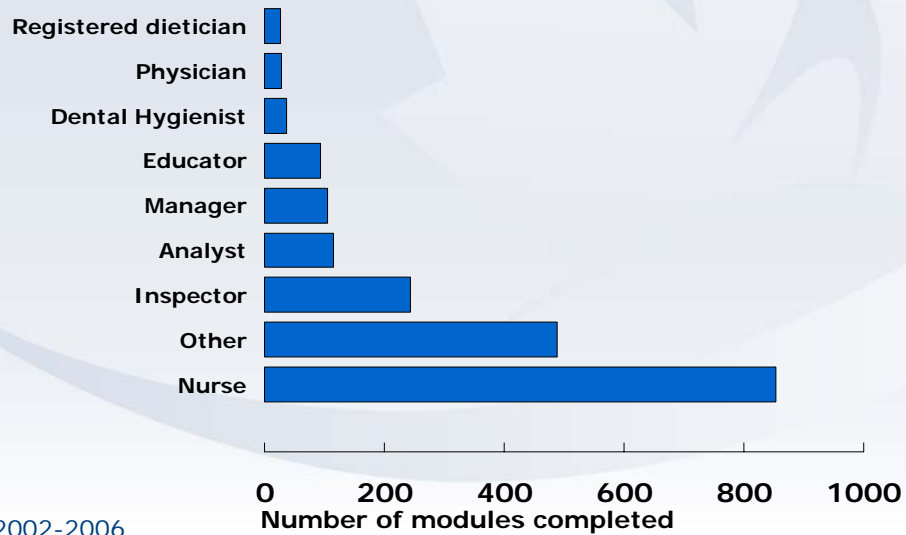
❖ Participation

- Are we reaching the target audience?
- Learner demographics
 - age / years of experience
 - professional group
 - province
 - language

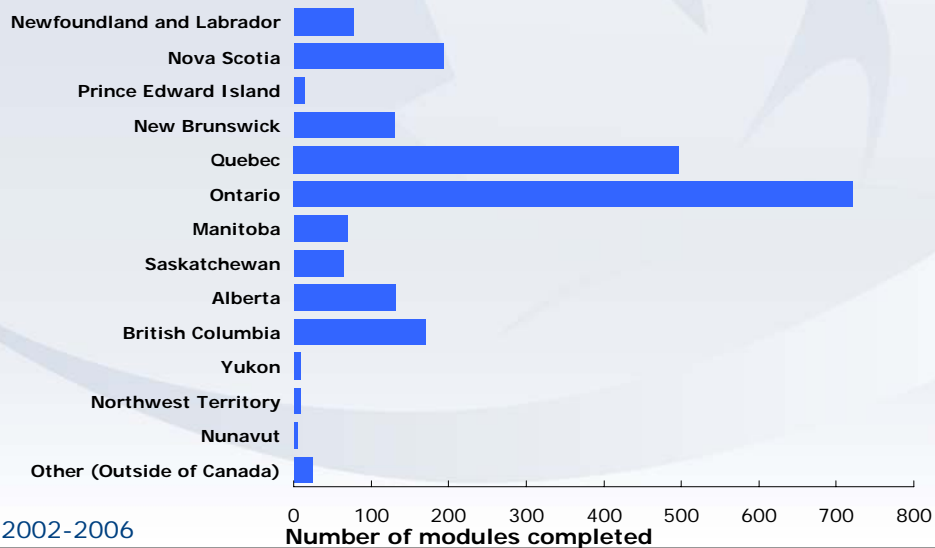
Skills modules completed by years of experience



Skills modules completed by profession



Skills modules completed by location of learner



Skills modules completed

Module	English*	Français†	Total
Basic Epidemiology Concepts	869	313	1182
Measurement of Health Status	411	136	547
Descriptive Epidemiological Concepts	235	62	297
Epidemiology of Chronic Diseases	63	23	86
Outbreak Management	81	-	81
Facilitation of on-line learning	78	20	98

*May 2002 - June 2006

†Sept 2003 - June 2006

Skills module enrolment Fall 2006

Module	English	Français	Total
Basic Epidemiology Concepts	302	170	472
Measurement of Health Status	79	53	132
Descriptive Epidemiological Concepts	63	32	95
Epidemiology of Chronic Diseases	26	15	41
Outbreak Management	74	36	110
Introduction to Surveillance	32	*	32
Total	576	306	882

* Ready to release in 2007

❖ **Outcomes**

➤ Application to work setting

"The outbreak among university students really got everyone's attention. Thank goodness I've completed the Outbreak Module! It is proving to be a major asset in assisting our department chair with communications and decisions about appropriate actions."

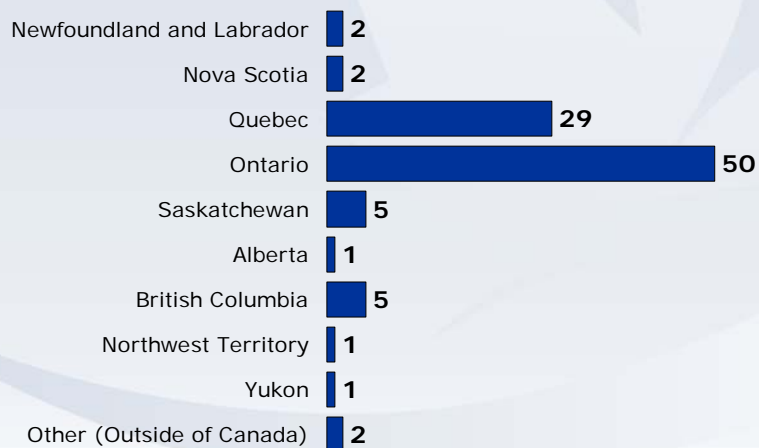
❖ **Development of the community of practice**

- Interaction continues beyond module
- Participation in development of core competencies

Challenges

- ❖ Organizational support
- ❖ Recognition of learning
- ❖ Learning curve for some learners
- ❖ Facilitation
 - 98 trained so far

Facilitators trained by location



Challenges

- ❖ Modules that can be re-used
 - Content and format
 - Academic settings
 - U Waterloo, U Saskatchewan, First Nations U, Lakehead U
 - Public Health Agency of Canada
 - development programs
- ❖ International interest

Opportunities

- ❖ Modules that can be re-used
 - Content and format
 - Academic settings
 - U Waterloo, U Saskatchewan, First Nations U, Lakehead U
 - Public Health Agency of Canada
 - development programs
- ❖ International interest

What next?

- ❖ New modules
 - Beyond surveillance and epidemiology
- ❖ Revision of all content
- ❖ Update the platform
 - WebCT 6 / Blackboard
 - Transform content to learning objects

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