Building a Solid Foundation for Public Health Practice: Skills Enhancement for Public Health

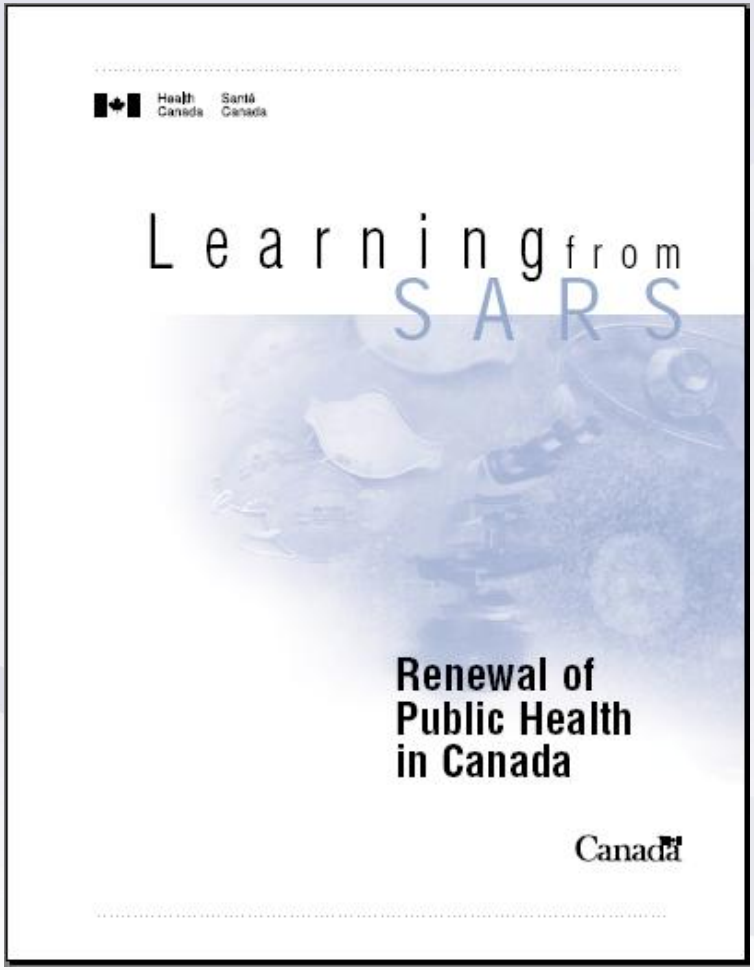
PUBLIC HEALTH AGENCY *of* CANADA
AGENCE DE LA SANTÉ PUBLIQUE *du* CANADA

Community Health Nurses of Canada
4th National Conference
Pre-conference Workshop
June 16th, 2010

Public Health Agency of Canada | Agence de la santé publique du Canada

Canada

Learning from SARS: Renewal of Public Health in Canada (2003)



"No attempt to improve public health will succeed that does not recognize the fundamental importance of providing and maintaining in every local health agency across Canada an **adequate staff of highly skilled** and **motivated** public health professionals. Our national aim should be to produce a cadre of outstanding public health professionals who are adequately qualified and compensated, and who have clear roles, responsibilities and career paths." 2003

Workforce Challenges

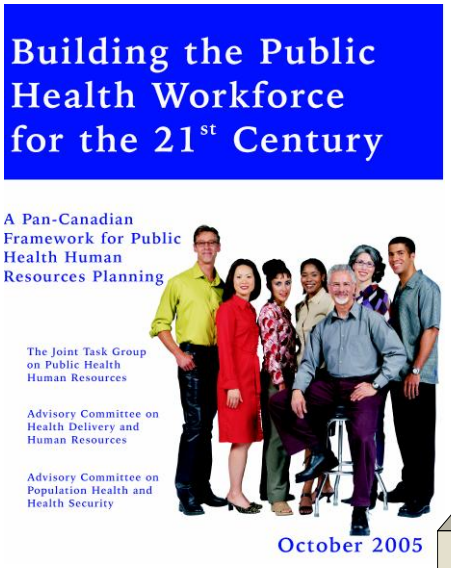
Lack of:

- qualified public health professionals in Canada, aging workforce & uneven distribution of existing practitioners (especially in rural & remote areas)
- common measure & data to quantify the gap
- public health practitioner ‘surge’ capacity to respond emergencies
- skills development & training opportunities for existing public health practitioners

National Response to Strengthen the Public Health Workforce

Federal/Provincial/Territorial Advisory Groups

- Develop pan-Canadian strategies to strengthen public health capacity
- Goals of the Public Health Human Resources Strategy
- 2 Components:
  - ✓ Develop public health core competencies common to all public health professionals
  - ✓ Enhance knowledge & skills among the public health workforce



Develop accreditation standards / quality control measures

Identify best practices in education (including placements, continuing education)

Identify best practices in interprofessional deployment

Identify best practices in recruitment and retention

Develop recruitment / retention strategies to attract required competencies

Develop structures to support interprofessional education (space, time, instructors)

Deploy workforce in interprofessional models based on their competencies

Develop worker competency assessment tools and incentives

Align education programs to reflect competencies and interprofessional practice

Map the competencies of each discipline against the core and function-specific competencies

Develop organizational competency assessment tools and incentives

Define the public health workforce for planning purposes

Gather data on the public health workforce

Identify core public health services

Identify core* public health competencies

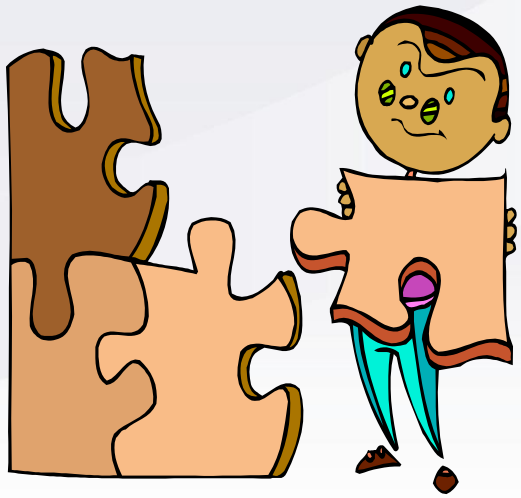
Identify function-specific** public health competencies

Public health needs of the population

Core Competencies for Public Health in Canada

Set of essential skills, knowledge & attitudes necessary for the broad practice of public health

- Basic building block to develop the workforce
- Independent of discipline & program



Core Competencies for Public Health in Canada: Release 1.0

36 statements organized under 7 categories:

1. Public Health Sciences
2. Assessment & Analysis
3. Policy & Program Planning, Implementation & Evaluation
4. Partnerships, Collaboration & Advocacy
5. Diversity & Inclusiveness
6. Communication
7. Leadership

Current Activities

- Build awareness & knowledge
- Develop tools & resources to support use
  - Core Competencies for Public Health in Canada Orientation Module (***www.corecompetencies.ca***)
  - Tools to demonstrate Core Competencies in practice
  - Performance assessment & management tools for individual practitioners & organizations
  - ***Skills Online*** continuing education program

Current Activities (con't)

- Evaluation plan
- Exploring use & integration of Core Competencies within Public Health Agency of Canada
- Working with public health disciplines to develop discipline-specific competencies
- pan-Canadian Environmental Scan to explore ways Core Competencies are being used & integrated
  - Local/regional public health organizations, & provincial/territorial governments and associations (completed)
  - Master of Public Health programs (completed)
  - Schools of environmental health (completed)
  - Schools of nursing (planned for 2010/11)

Recommendations from Environmental Scan

- Focus efforts on formal endorsement & adoption of Core Competencies
- Continue to educate about Core Competencies at all levels of public health
- Promote practice-based learning approaches
- Equip organizations with human resources, tools & methods that support integration of competencies into practice

Recommendations from Environmental Scan (con't)

- Promote & support "workforce driven" competency development activities
- Encourage & support competency-based mentoring & coaching
- Continue integration of core & discipline-specific efforts through collaborative projects and partnerships
- Use networks to create 'gathering spaces' for shared learning & collaboration
- Support public health leadership at all levels

How do we acquire & maintain the *Core Competencies for Public Health in Canada: Release 1.0*?

Do you think you can buy me some competencies too, Dad?

The role of continuing education….

Skills Online

Skills Online
Life-Long Learning

- Like other health-related fields, public health knowledge & practices continually evolve

- Continuing education is required to maintain high levels of relevant knowledge & skills to practice effective public health

Continuing education opportunities for public health practitioners across Canada not readily available

What is *Skills Online*?

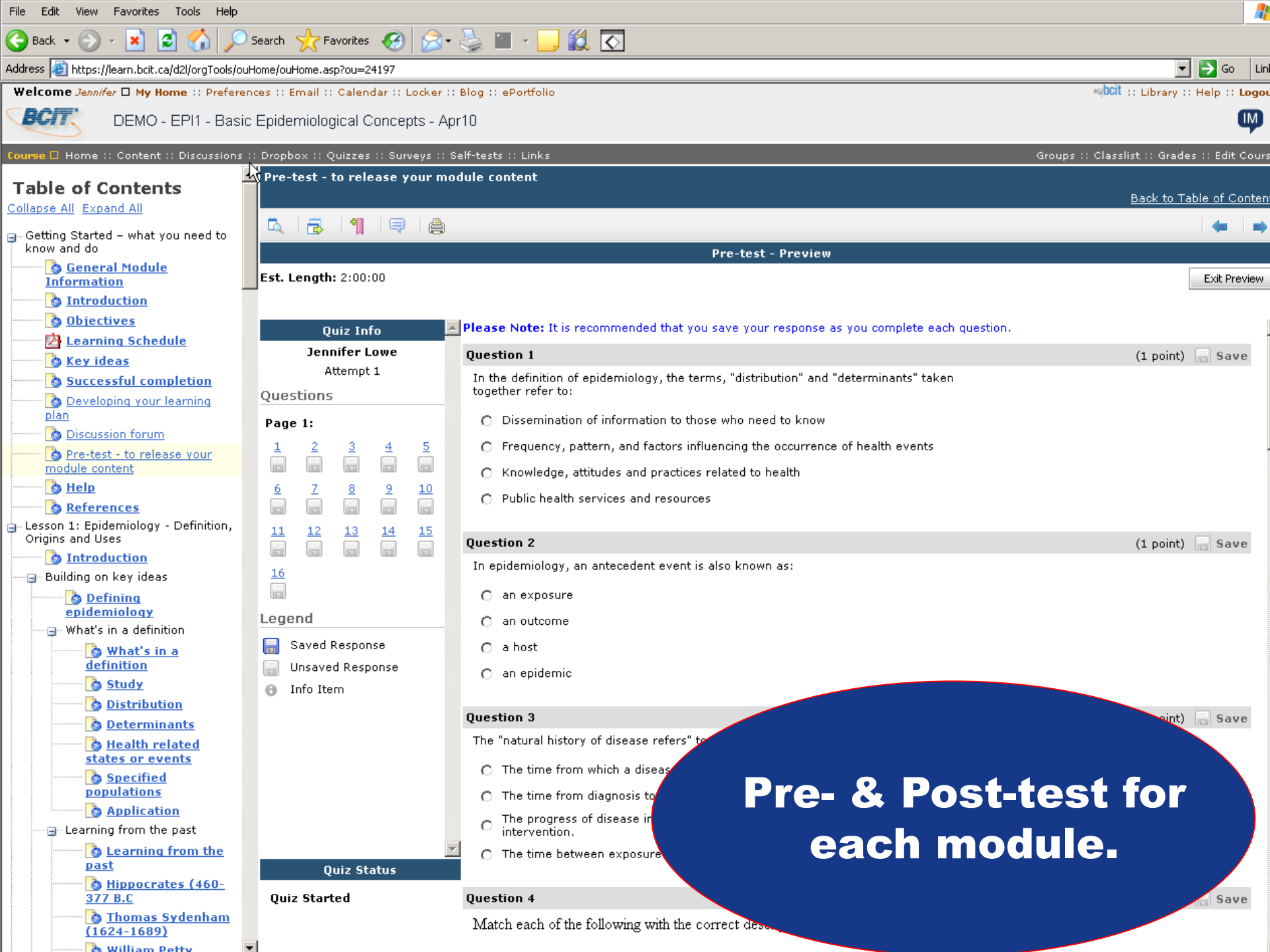
- Internet-based continuing professional development program for front line public health practitioners
- Facilitated modules in English & French
- Offered at no cost to public health professionals since 2002
- Close to 5,500 individuals have completed one or more modules
- Just over 8,000 modules have been completed

Module Delivery Format

- National teams
  - ~ 15 interprofessional learners from across Canada
- Facilitated modules - learners have access to an online facilitator with content & facilitation training
  - answer content-related questions
  - encourage discussion
  - provide feedback on learning exercises
  - guide learners through the material

Skills Online's Key Features

- Relevant, timely & practical Canadian content
- Easily accessible through web browser
- Low cost – no charge; need own hardware & software
- Help Desk for technical support
- Teams of 15-20 learners led by experienced, trained facilitator for content support
- 8 weeks to complete a module
- Modules range from ~ 25-35 hours in length
- Offered 3 times per year – Fall, Winter & Spring
- Based on principles of adult learning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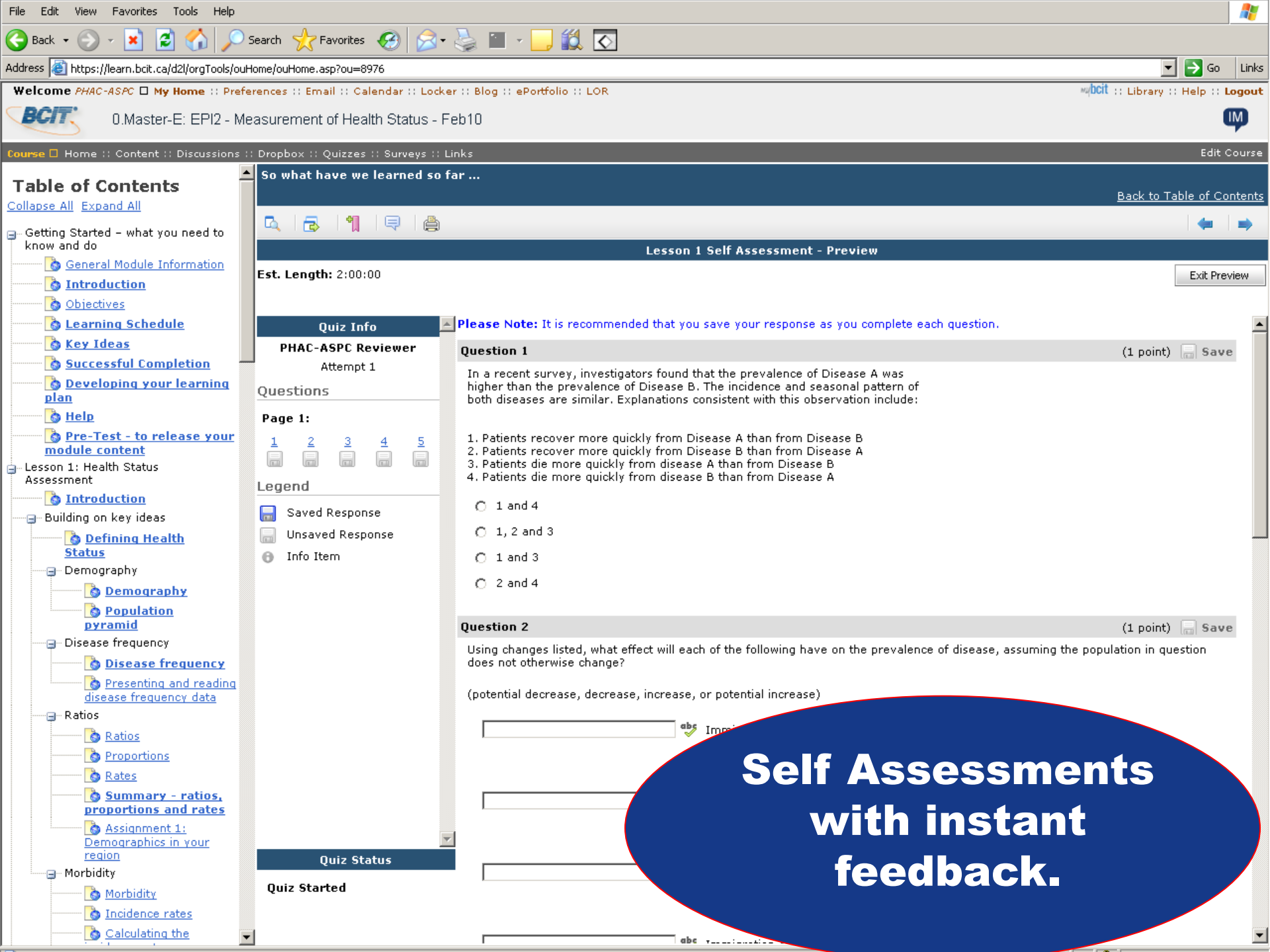
DEMO - EPI1 - Basic Epidemiological Concepts - Apr10
IM
Course Home :: Content :: Discussions :: Dropbox :: Quizzes :: Surveys :: Self-tests :: Links
Groups :: Classlist :: Grades :: Edit Cours
Table of Contents
Collapse All Expand All
Getting Started – what you need to know and do
General Module Information
Introduction
Objectives
Learning Schedule
Key ideas
Successful completion
Developing your learning plan
Discussion forum
Pre-test - to release your module content
Help
References
Lesson 1: Epidemiology - Definition, Origins and Uses
Introduction
Building on key ideas
Defining epidemiology
What's in a definition
What's in a definition
Study
Distribution
Determinants
Health related states or events
Specified populations
Application
Learning from the past
Learning from the past
Hippocrates (460-377 B.C
Thomas Sydenham (1624-1689)
Pre-test - to release your module content
Back to Table of Content
Pre-test - Preview
Est. Length: 2:00:00
Exit Preview
Quiz Info
Jennifer Lowe
Attempt 1
Questions
Page 1:
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16
Legend
Saved Response
Unsaved Response
Info Item
Quiz Status
Quiz Started
Please Note: It is recommended that you save your response as you complete each question.
Question 1
(1 point)
Save
In the definition of epidemiology, the terms, "distribution" and "determinants" taken together refer to:
Dissemination of information to those who need to know
Frequency, pattern, and factors influencing the occurrence of health events
Knowledge, attitudes and practices related to health
Public health services and resources
Question 2
(1 point)
Save
In epidemiology, an antecedent event is also known as:
an exposure
an outcome
a host
an epidemic
Question 3
Save
The "natural history of disease refers" to
The time from which a disease
The time from diagnosis to
The progress of disease in intervention.
The time between exposure
Question 4
Save
Match each of the following with the correct des
Pre- & Post-test for each module.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0.Master-E: EPI2 - Measurement of Health Status - Feb10
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Course Home :: Content :: Discussions :: Dropbox :: Quizzes :: Surveys :: Links
Edit Course
Table of Contents
Collapse All Expand All
Getting Started – what you need to know and do
General Module Information
Introduction
Objectives
Learning Schedule
Key Ideas
Successful Completion
Developing your learning plan
Help
Pre-Test - to release your module content
Lesson 1: Health Status Assessment
Introduction
Building on key ideas
Defining Health Status
Demography
Demography
Population pyramid
Disease frequency
Disease frequency
Presenting and reading disease frequency data
Ratios
Ratios
Proportions
Rates
Summary - ratios, proportions and rates
Assignment 1: Demographics in your region
Morbidity
Morbidity
Incidence rates
Calculating the
So what have we learned so far ...
Back to Table of Contents
Lesson 1 Self Assessment - Preview
Est. Length: 2:00:00
Exit Preview
Quiz Info
PHAC-ASPC Reviewer
Attempt 1
Questions
Page 1:
1 2 3 4 5
Legend
Saved Response
Unsaved Response
Info Item
Quiz Status
Quiz Started
Please Note: It is recommended that you save your response as you complete each question.
Question 1
(1 point) Save
In a recent survey, investigators found that the prevalence of Disease A was higher than the prevalence of Disease B. The incidence and seasonal pattern of both diseases are similar. Explanations consistent with this observation include:
1. Patients recover more quickly from Disease A than from Disease B
2. Patients recover more quickly from Disease B than from Disease A
3. Patients die more quickly from disease A than from Disease B
4. Patients die more quickly from disease B than from Disease A
1 and 4
1, 2 and 3
1 and 3
2 and 4
Question 2
(1 point) Save
Using changes listed, what effect will each of the following have on the prevalence of disease, assuming the population in question does not otherwise change?
(potential decrease, decrease, increase, or potential increase)
Self Assessments with instant feedback.

Discussions

Introduction

Back to Table of Contents

measures and data sources, you will be able to use them to evaluate aspects of health in your community.

In this lesson, we will explore the following:

- Definitions of health and health status
- Demography and the population pyramid
- Disease frequency
- Ratios, proportions and rates
- Morbidity

Throughout this module you will be asked to apply particular health status measures in evaluating aspects of the health status of your health region. In order to do this you will need to access Statistics Canada's Statistical Profile of Canadian Communities (http://ceps.statcan.ca/english/profil/PlaceSearchForm1.cfm). This site contains information from the Census of Population conducted by Statistics Canada and also includes population estimates, vital statistics data (births and deaths), and additional health information. Statistical profiles are presented for all Canadian communities (cities, towns, villages, First Nations Communities and Settlements, etc.) for metropolitan areas and for health regions, for 1996 and 2001. These profiles differ in the available data - birth and death information is not available in the 2001 profile. Information is provided on education, income and work, families and dwellings, births and deaths, general population information, and health information. A mapping feature is also available for viewing the location of any community within Canada.

Statistics Canada (http://www.statcan.ca/start.html) is the country's national statistics agency, with programs organized into demographic, social, health and economic areas. The Statistics Canada Website will provide you with the data you need to compute the various measures presented.

With the Assignments, you will be asked to calculate and comment on various measures. This will ena
to become familiar with the various health status measures and the features of the Statistics
It is important to note that not all products on the site are free – some data tables cost
you should look carefully before submitting search requests.

Throughout this lesson, you will be prompted to reflect on the concepts and pr
work as a public health practitioner. You will be invited to think of examples fr
colleagues and the material you read.

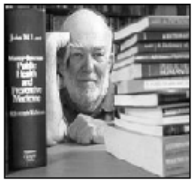
The assignment at the end of the lesson will build on your notes and examples.

As well, remember to check the Discussions forum regularly for new postings on existing disc
and for new discussion threads.

Links to external sources of information.

John Last (Present)

Dr. John Last is a physician and internationally renowned Canadian epidemiologist. On the encouragement of Dr. Robbie Fox, editor of the Lancet, Dr. Last completed a paper for publication in the Lancet entitled "The Iceberg: Completing the Clinical Picture in General Practice" (The Lancet 1963: 6 July; 28-31). Dr. Last saw the iceberg phenomenon (10% visible, 90% submerged) as a good metaphor for describing illness and disease in a population. Last suggested that like an iceberg, only a small portion of a condition in a population is visible. Much larger portions are invisible for various reasons. In order to complete the clinical picture, both the visible and the invisible aspects of the iceberg must be defined. This concept will be further defined later in this module.



John Last

Links

For more information:

- http://www.medicine.uottawa.ca/epid/eng/lastbio.html

Interviews with Public Health Practitioners.

Discussion forum: Using Epidemiology in the workplace.

Topic for discussion: Using Epidemiology in the workplace.

Lesson 1 of this module describes incidence and prevalence. Have you used incidence and prevalence rates in your public health practice?

If so, how?

If not, please describe how you could use such measures in the future.

Click here to access the discussion forum for this topic.

Lesson 1 - Discussion forum

Discussion forum - share ideas with other learners from across Canada.

Assignment 2: Breast cancer rates

In this assignment, you will review and interpret some published **incidence** rates, using the most recent age standardized cancer rates available from the Public Health Agency of Canada's Cancer Surveillance On-Line (http://dsol-smed.hc-sc.gc.ca/dsol-smed/cancer/index_e.html).

Specify the information to construct a table as follows: Cancer Incidence by Province/Territory Cancer of the Breast, female all ages ****, Age Standardized Incidence rate per 100,000 (Canada 1991) and answer the following questions. (***: You are looking for the most recent year available).

When answering, please quote the actual rates and the jurisdictions.

Assignment: Breast Cancer Rates

1. What is the range of age-standardized incidence rates for breast cancer (female) across the Provinces/Territories in Canada?
2. What is the age-standardized incidence rate of breast cancer (female) for your province/territory?
3. How does your provincial/territorial rate compare to the country as a whole?
4. What are some possible explanations for any differences that you observed?

Click here to learn more about the Canadian Cancer statistics. Other useful links include:

- Canadian Cancer Registry
- Canadian Cancer Society Statistics

Click here, or on the Dropbox link in the NavBar above when you are ready to submit

Assignments - apply learning to practice.

A public health practitioner is able to…

Core competency components	Module content examples
Identify relevant & appropriate data & sources of information  Category 2: Assessment & Analysis	vital statistics, census, administrative, Internet sites, notifiable diseases, registries
Collect accurate quantitative primary &/or secondary data  Category 2: Assessment & Analysis	examples of methods, tools being used in the field
Provide health status, demographic, statistical, programmatic & scientific information to professional & lay audiences  Category 6: Communication	organizing & displaying data, e.g., selecting & constructing tables, charts, graphs, maps

Content mapped to Core Competencies.

Interactive Demonstration
Skills Online

Skills Enhancement for Public Health

OUR APPROACH

LEARNING MODULES

INTRODUCTION TO:

ONLINE LEARNING

EPIDEMIOLOGY

- **Basic Epidemiological Concepts**
- **Measurement of Health Status**
- **Descriptive Epidemiological Methods**

SURVEILLANCE

INFORMATION MANAGEMENT

METHOD

- **Basic Biostatistics**
- **Principles & Practices of Public Health**
- **Survey Methods**

MOVING DATA TO ACTION

- **Communicating Data Effectively**
- **Evidence-Based Planning**

APPLIED PUBLIC HEALTH

- **Outbreak Investigation & Management**
- **Applied Epidemiology : Injuries**
- **Epidemiology of Chronic Diseases**

Skills Online Modules

MODULES AVAILABLE

- Basic Epidemiological Concepts
- Introduction to Surveillance
- Measurement of Health Status
- Communicating Data Effectively
- Epidemiologic Methods
- Introduction to Biostatistics
- Outbreak Investigation & Management
- Epidemiology of Chronic Diseases
- Applied Epidemiology: Injuries
- Intro to Surveillance

MODULES COMING Very SOON

- Intro to Public Health
- Intro to Literature Searching

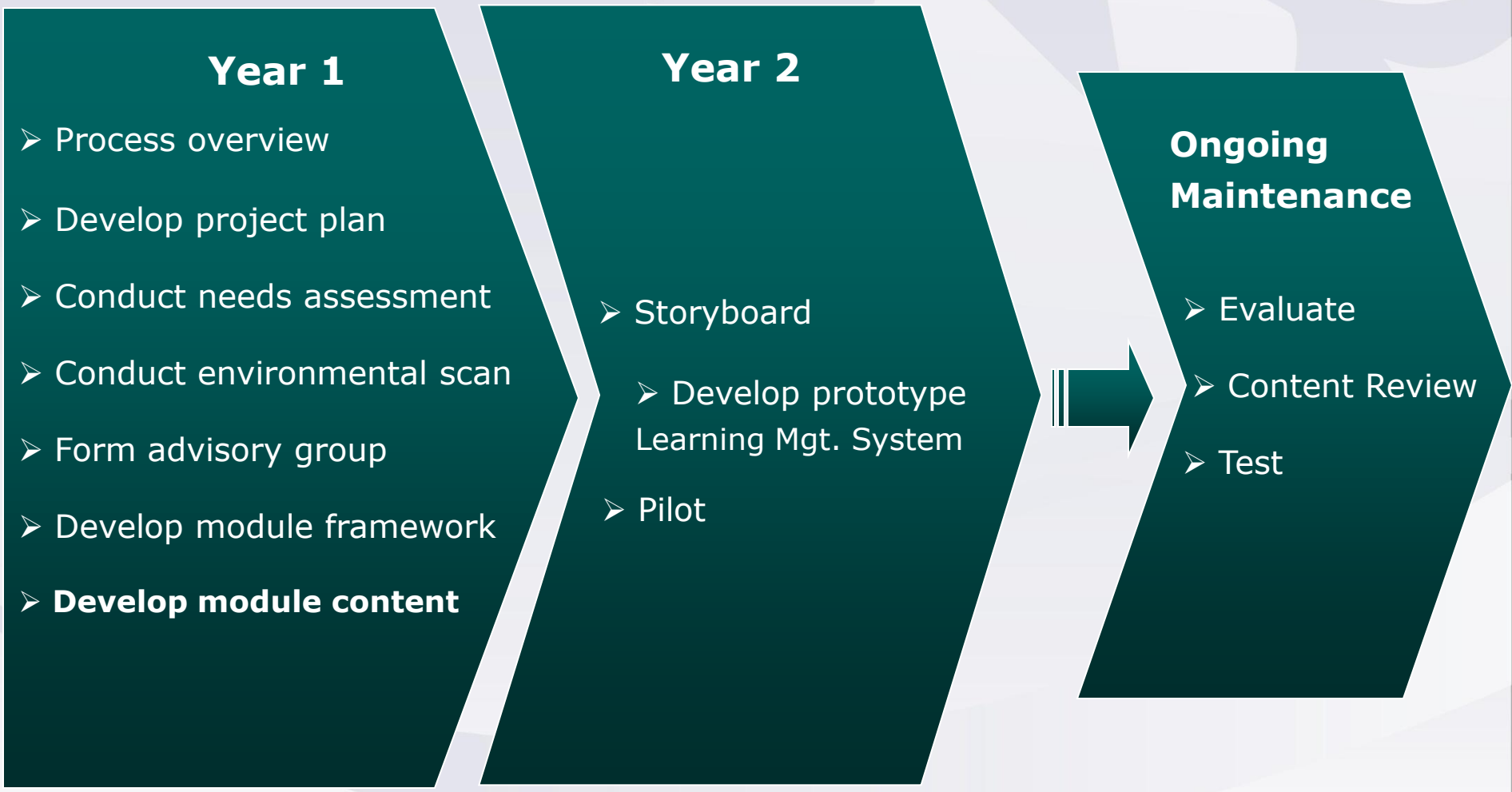
MODULES COMING SOON

- Evidence-based Public Health
- Planning for Public Health

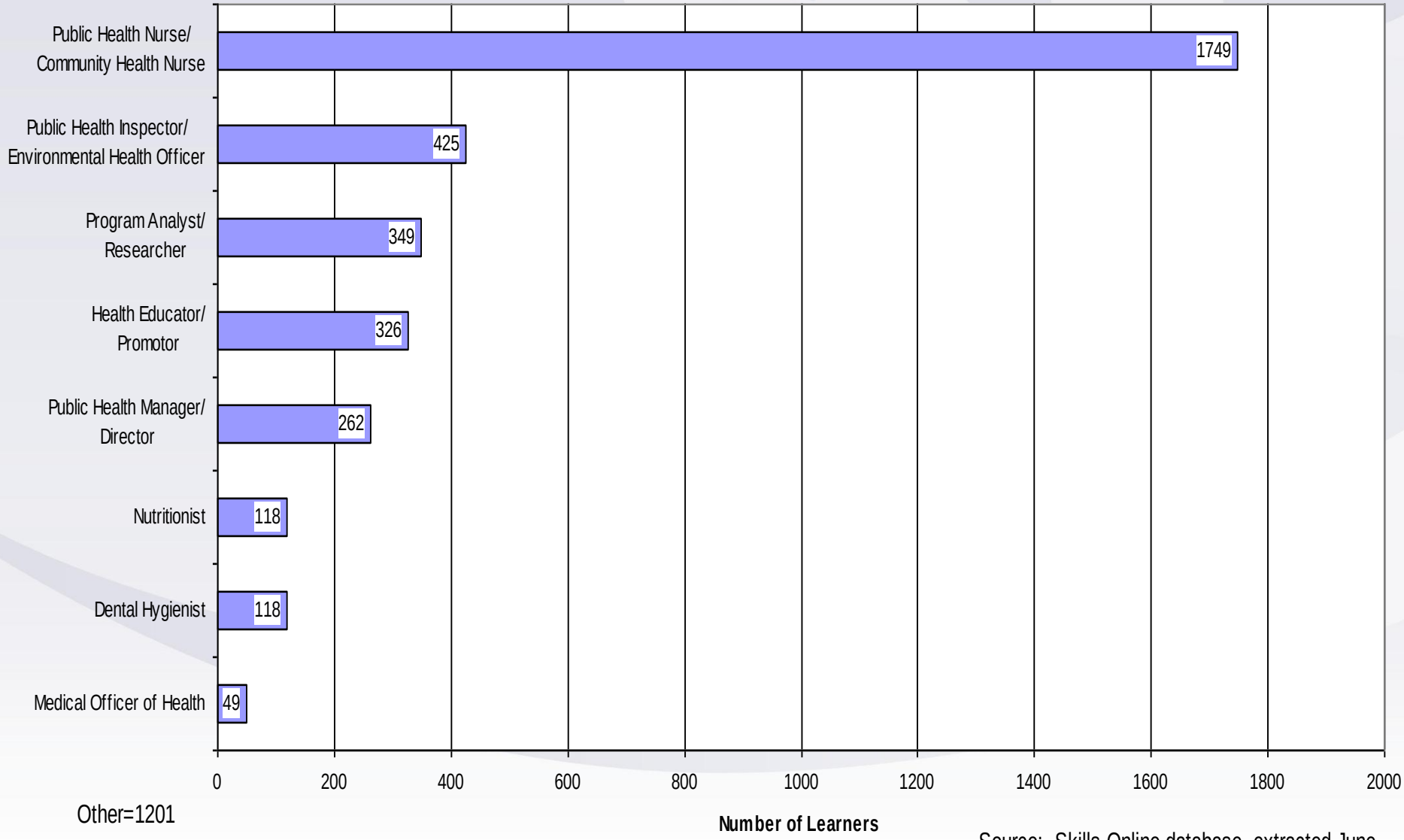
MODULES In - DEVELOPMENT

- Survey Methods
- Privacy & Confidentiality for Public Health

Skills Online Module Development



Number of Skills Online Learners in Canada by Professional Designation, Spring 2002 to Winter 2009



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Source: Skills Online database, extracted June

Benefits

Individual

- Acquired knowledge/developed CC ➡ shared & applied

Increased…

- perspective/enhanced appreciation – breadth, roles & work
- understanding/appreciation – surveillance

(data collection & use)

- understanding of terminology & concepts
- critical thinking, problem solving, creativity…
- willingness to collaborate
- practitioners' desire for & confidence in pursuing further education

Benefits

Organizational

- Skilled practitioners
- Consistent, common baseline understanding of PH principles
- Improved decision making/planning abilities
- Improved communication within & across teams
- Increased levels of confidence of staff translating into increased contributions at team meetings
- HR policies/practices

Recognition, Endorsement & Support

- Certificate from Public Health Agency of Canada & the Institut national de santé publique du Québec after successful completion of each module
- Endorsed by professional organizations & associations
- Support from provinces/territories & local organizations
- University recognition, e.g. Master of Public Health programs

Skills Enhancement for Public Health / Amélioration des compétences en santé publique

This is to acknowledge that

John Snow

has successfully completed

"Basic Epidemiological Concepts"

as part of the Skills Enhancement for Public Health program
Public Health Agency of Canada

OCTOBER 2005

PUBLIC HEALTH AGENCY of CANADA
AGENCE DE SANTÉ PUBLIQUE du CANADA

Dr. David Mowat, Deputy Chief Public Health Officer
Public Health Practice & Regional Operations
Public Health Agency of Canada

Public Health Agency of Canada / Agence de santé publique du Canada
ciphi
Canadian Public Health Association / Association canadienne de santé publique
Canada

For More Information

Core Competencies for Public Health in Canada

www.phac-aspc.gc.ca/core_competencies

Skills Online

www.phac-aspc.gc.ca/skills