

Maintaining currency and quality in an online distance learning system: Lessons learned

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Introduction

The North Carolina Center for Public Health Preparedness (NCCPHP) Training Web Site offers immediate access to short high-quality trainings on public health preparedness topics for public health professionals and other interested persons.

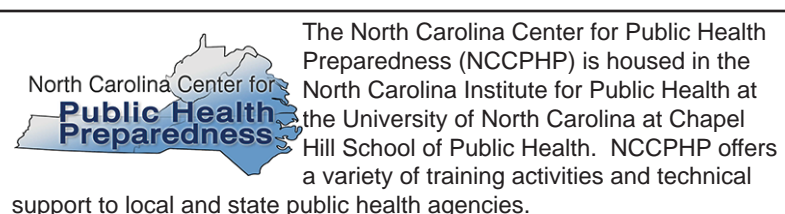
In 2006, the site contained more than 160 trainings developed by NCCPHP over a 5-year period and a collection of links to more than 500 trainings offered by other training providers. The site is heavily used, with 34,365 trainings completed by 10,524 distinct users.

Since the site's launch in 2003, technological advancements have resulted in a noticeable difference in the audiovisual quality of older trainings. Some training content has also become dated. As usage of the site and the number of trainings have grown, both the catalog of trainings and the underlying database structure have become inadequate.

Goals for a comprehensive review of the NCCPHP Training Web Site were to:

- Devise a review process that would address all aspects of the site—training content, audiovisual quality, and cataloging—and provide a methodology for future reviews;
- Develop a strategy for prioritizing repairs and updates; and
- Begin making updates to trainings.

View the NCCPHP Training Web Site at
<http://nccphp.sph.unc.edu/training>



The North Carolina Center for Public Health Preparedness (NCCPHP) is housed in the North Carolina Institute for Public Health at the University of North Carolina at Chapel Hill School of Public Health. NCCPHP offers a variety of training activities and technical support to local and state public health agencies.

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Methods

Because there is little or no literature defining a methodology for reviewing online training modules or maintaining infrastructure currency for an online learning system, NCCPHP built a review process around known concerns.

Trainings from other sources

Comprehensive surveys of public health trainings are now offered by other Web sites, so the NCCPHP collection has become redundant. Due to the difficulty of maintaining links and surveying an increasingly complex set of online training offerings, staff determined that the Training Web Site will no longer offer a catalog of trainings from outside providers.

Trainings developed by NCCPHP

NCCPHP staff reviewed internally developed trainings for key variables. Modules were assigned a cumulative score based on the average rating for each of the components and its volume of usage per month. Based on the cumulative ranking and, if needed, a qualitative assessment, trainings were placed in one of four priority groups. Trainings with major technical problems but high use were marked for higher priority repair.

Site organization

Training modules were sorted into a new cataloging system with an index of topic headings and a keyword search feature.

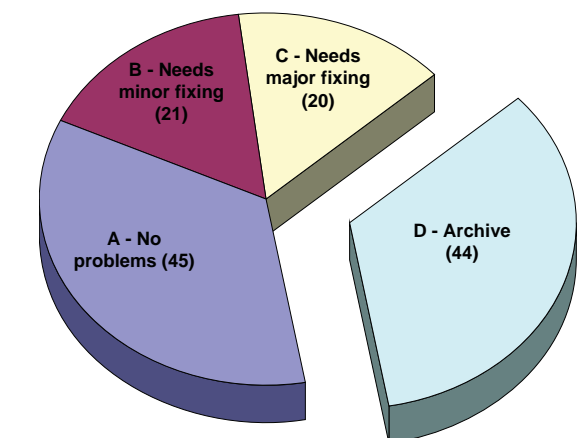
New topic headings were modified from existing topic headings to more closely represent the breadth and depth of training content. New sub-topic headings were developed for those broad topic headings in which large numbers of trainings required further differentiation.

The keyword search was developed by adapting nationally-recognized cataloging systems. Staff reviewed educational objectives for each training module to identify key topic areas, entered potential keywords into the National Library of Medicine's Medical Subject Headings (MeSH) to identify relevant MeSH terminology, and added additional keywords through a review of the indexing terms used for the New York Academy of Medicine's Resource Guide for Public Health Preparedness and commonly-accepted terms from public health and epidemiologic literature.

Results

The new topic heading structure has 16 major headings (compared to 30) and more closely matches the content of the trainings. The search feature contains 240 keywords. The majority of trainings were rated as excellent or very good with respect to timeliness and relevance to public health. However, over a third of the modules had low quality audio and video.

Final review priority groups



Lessons Learned

A review needs to incorporate both qualitative and quantitative approaches. A qualitative assessment was carried out when numerical scoring (cumulative rank of 2.5–3.5) did not clearly indicate classification into a priority group.

An internal review forces staff to make deliberate choices about the value of site content (quality vs. quantity) and allows for better quality control.

When modifying site components such as the index, keywords, and user interface, all changes must facilitate ease of use for the target audience.

Trainings should receive a regular review after 2 years, if not sooner (for time-sensitive data/information). Regular reviews will require less time to conduct than intermittent reviews.

The review process can be lengthy. Additional time should be allotted for updates and repairs identified during the review.

Overview of the review process

