

Global Communication and Marketing

Leveraging Information and Communication Technologies (ICT) to support public health workforce communications and capacity development in Central America

Background: During health emergencies, rapid communication and instructional capabilities is critical. Strategies for strengthening these capabilities include identifying and testing current communications channels and resource networks, and providing public health workers opportunities to practice using Information Communication and Technology (ICT) resources. Use of ICT and health communications strategies have not been fully evaluated for efficacy, impact and Return-On-Investment (ROI), nor have they traditionally been considered as a capacity enhancement program internationally.

In Central America, NCHM is pilot testing (ICT) systems by developing, delivering, and evaluating laboratory biosafety training and related health communications on a regional basis.

Partners: US CDC, Coordinating Office for Global Health, Global Disease Detection/CDC-Central America Program, Guatemala Ministry of Health, Guatemala National Reference Laboratory, Farmacéuticos & Químicos Professional Association

Objectives:

- Identify ICT, distance learning, and communications capacity, delivery modes, and support systems that are appropriate for each target audience.
- Determine usefulness of ICT systems for public health workforce communication and training.
- Identify and establish partnerships with public health workforce and communications networks and organizations.

Methods: The presenters conducted a country assessment of the health communication and marketing capacity in Guatemala and the surrounding region. This assessment identified ICTs, partners, and networks available to the local public health systems for information and communication dissemination. To determine whether these systems could be used to disseminate information to the public health workforce, we developed an eLearning program for the public health workforce that incorporated health communication components.

An additional needs assessment was conducted to finalize the subject matter for the training and to determine the appropriate delivery method. A draft training product on laboratory biosafety in both CD-Rom and web-based formats, incorporating related health communications materials, was developed.

Evaluation: A formative evaluation field trial of the training was conducted in June 2007. The subject matter expert evaluation included five experienced laboratorians with a minimum of a five-year college degree in a laboratory-related field who reviewed the complete training and provided written assessment responses. For the pilot user evaluation, five target audience members were administered a pre-test, including an observation of one of the skills taught in the training (hand washing), and a brief questionnaire on resources available in their current work setting.

During the course, evaluators recorded observations of the learners use and reaction to the training. Following the course, a post-test and learner satisfaction evaluation were administered.

Results and Conclusions:

Subject Matter Expert Evaluation

In the formative evaluation, subject matter experts broadly agreed that the target audience could achieve the objectives outlined with specific exceptions outlined for disinfection and personal protective equipment. They agreed that the training, while piloted in Guatemala, would be relevant to laboratory personnel in any Central American country and the target audience could learn from the self-study style course. Specific concerns were noted by the experts regarding the level of difficulty of specific areas of content. Specific concerns were noted by the experts the regarding level of difficulty of specific areas of content.

Learner Evaluation

Learners generally agreed that they could achieve the learning objectives, and (aside from some exceptions) transfer knowledge into the work place. They generally indicated they could learn from this style of self-study course and would like to take a course of this type again.

Observations indicated that there were several technical and formatting issues, rather than the content itself, that caused confusion for the users such as: lack of understanding of the navigation process, inconsistencies in the presentation of content on the screens, and difficulty in answering the types of questions posed in the written tests.

Hand washing skills pre- and post-observation indicated that all learners completed more steps of the hand washing process after the training.

Communication and Training Preferences

While the number of pilot study participants was quite small, results regarding preferred method for receiving information in a public health emergency indicated that email was most preferred. Preferences for training modes that the learners previously participated in was mixed, but preferences for training in an emergency appeared to be any of the various forms of self-study (video, web, or print-based).

Next Steps:

Results from the pilot evaluation will be used to finalize the training course and evaluation tools, and gather comparative data for summative evaluations. Future evaluation activities are planned to assess implementation fidelity, training impact on knowledge and skills taught in the workplace, and return on investment. Further, a communications and marketing plan has been drafted that will guide efforts to market the training to the public health workforce and public health leaders, and to ensure its dissemination and use by the target audience. Questions will be incorporated into the evaluation plan to identify the depth of dissemination of the product through communication channels and networks.



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