An Innovative Approach to Surveillance Training in the African Region

Man Kai Wong*[2, 1], Monique Tuyisenge-Onyegbula[2], Peter Gaturuku[3] and Helen Perry[2]

[1]Oak Ridge Institute for Science and Education (ORISE), Oak Ridge, TN, USA; [2]Centers for Disease Control and Prevention, Atlanta, GA, USA; [3]World Health Organization Regional Office for Africa, Brazzaville, Congo

Objective

This presentation addresses the challenges of expanding district level surveillance training in Africa. We developed an e-Learning course and field tested the modules using an innovative approach to assess the feasibility of delivering electronic surveillance training.

Introduction

Integrated Disease Surveillance and Response (IDSR) is a World Health Organization (WHO) Regional Office for Africa (AFRO) strategy for strengthening national public health surveillance and response systems in African countries. The strategy incorporates the International Health Regulations (2005) core capacities for public health surveillance and response systems[1]. Since 2010, more than 30 countries have conducted at least one IDSR training workshop[2]. Limited resources preclude conducting workshops in each of the 4,500 districts in all WHO-AFRO region. One solution is to implement an electronic version for IDSR training.

In collaboration with WHO-AFRO, we conducted a literature search to identify e-Learning best practices, and transformed the IDSR workshop training materials into electronic modules using measurable performance objectives, realistic examples, meaningful practices, and real time feedback to the learner. We also utilized an online learning management platform that lets course managers track learner progress and share supporting materials. The IDSR e-Learning course, available in English, French and Portuguese, aims to increase access to skills that support the prevent-detect-respond goal areas of the Global Health Security Agenda.

Methods

In 2014, we field tested a pilot version of the e-Learning course in two modalities: one onsite and the other remote. The three-day onsite field test took place at the Zimbabwe WHO Country Office with participants from national, provincial and district levels. We observed learner performance and discussed challenges with the participants each day. The remote field test took place during the same time in six African countries where participants took the course from their work stations or homes using their own computers and internet connection. They submitted real-time feedback using an online course review tool. All participants were sent a post-course survey to rate the feasibility of the delivery medium, the relevance of the content, and the functionality of the course.

Results

A total of 74 participants (15 onsite and 59 remote) from various health levels and roles took part in the field test, and 57 participants (14 onsite and 43 remote) completed the course. Participants provided 261 comments, most of which were about local adaptations for the content and functionality of some learning screens. We observed that computer literacy for onsite participants ranged from competent to very basic. Remote participants reported that time and internet connectivity were barriers to completing the course. Participants indicated on their surveys that the course content is very relevant to their jobs. They also suggested distributing USB modems or CD-ROMs in areas with insufficient internet connectivity, and integrating the course into pre-service training programs to ensure the continuity of an IDSR-trained workforce.

Conclusions

As the use of technology in the African region advances, e-learning tools and platforms provide innovative opportunities for strengthening health systems. The unique design of this field test allowed us to gain insights from a range of health professionals on their experience using technology. The rich data collected is used to devise a dissemination strategy that takes into account local adaptations and accommodates different computer literacy levels. We anticipate that this e-Learning course will contribute to building skills for preventing, detecting, and responding to health threats in all health levels.

Keywords

e-Learning; Africa; Integrated Disease Surveillance and Response (IDSR)

References

WHO and CDC. *Technical Guidelines for Integrated Disease Surveillance and Response in the African Region.* Brazzaville, Republic of Congo and Atlanta, USA; 2010.

WHO and CDC. *IDSR District Level Training Course. Facilitator Guide and Participant Modules.* Brazzaville, Republic of Congo and Atlanta, USA; 2011.

*Man Kai Wong
E-mail: wyu9@cdc.gov