

Keeping Public Health Surveillance Practice up to Speed: a Training Strategy to Build Capacity

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Objective

To enhance the knowledge and ability of public health practitioners to integrate and apply surveillance concepts, principles, and emerging tools into their practice.

Introduction

Public health surveillance practice is evolving rapidly. In the past decade we have witnessed the globalization of health threats, the emergence and re-emergence of infectious diseases, and an explosion of easily accessible new technologies. This fluid environment challenges the public health community, but also provides it with a unique and fertile environment to innovate and improve its practice. As surveillance is a core function of public health practice, public health practitioners need to be well equipped to achieve this function and address present and future public health challenges. We developed a five day training course that focused on the practical use of surveillance concepts and principles in public health. We are sharing findings on the development of the course and learner outcomes.

Methods

The course included three modules covering surveillance concepts and principles, surveillance data assessment and analysis, and innovative surveillance tools. Adult learning principles were applied to the course's instructional design. A range of instructional methods (interactive lectures, group discussions and exercises, case studies, and games) were used. Technical content was presented by national and international experts. We administered pre- and post-tests to measure participants' learning and to assess the applicability of the training to their current practice. Canadian public health practitioners meeting pre-requisites were the target audience.

Results

Thirty public health practitioners participated in the course. Participants designed, in small groups, a Lyme disease surveillance system. They learned how to critically appraise a surveillance system, to define and apply steps in surveillance data analysis. Participants used innovative surveillance tools such as GPHIN, ProMED, HealthMap, and Hoodris, and described participatory surveillance tools. They articulated the links to traditional surveillance and explored concepts to evaluate innovative surveillance approaches. Participants described examples of innovative surveillance in Canada and internationally, and discussed strengths and weaknesses of both innovative and traditional surveillance tools. Participants recognized how public health may change in the future in order to integrate innovative surveillance tools. The pre- and post-tests results indicated an increase in learning. Participants found the training relevant, interactive and practical. They appreciated the balance between theory and practical applications.

Conclusions

Public health practice is evolving swiftly. It is paramount that knowledge of basic surveillance concepts and principles, and most

current methodologies and tools be translated into public health best practice. To maximise the application of learning, the training format needs to be appropriately adapted to the adult learners. Training for public health practitioners needs to be interactive, practical, and include peer learning opportunities. Content experts should be involved in the delivery of training as sharing their knowledge and experience also improves public health surveillance practice. This training was a unique initiative that allowed public health practitioners to improve and update their surveillance practice with the application of innovative learning strategies and tools. It builds capacity and equips the public health community to better face current and future public health challenges that result from our complex and evolving world.

Keywords

Public health surveillance; Training; Public health practice

Acknowledgments

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