Evaluating the Efficacy of Training Programs for Community Health Workers in Rural Uganda

Elizabeth Butler MSIV, Edward O'Neil MD, Zachary Tabb, Edward Mwebe, John Mukadde, Prossy Jim, Michael Godkin PhD, Judith Savageau MPH, Saif Ahmed MSIV, Arwen Wolfe

Abstract

Background: The Ministry of Health and Omnimed, a non-profit U.S.-based organisation that works with international communities to provide basic health education, have partnered to provide training to community health workers (henceforth referred to as village health workers or VHWs) in rural villages in Uganda. The training is provided via an intensive five-daylong session that introduces a wide variety of themes in basic health education taught by experts in the respective fields. The participants are selected by the local government based on their age, reliability, level of education and availability. On the first day, the participants are given a pre-test to evaluate their level of knowledge about the subjects that will be taught during the training session, and are given the same questions as a post-test on the last day of training. This is done to evaluate how much information the participants learned about basic health during the training.

The participants are followed after this training by quarterly meetings, focus groups and further, more specific, training sessions. We analyzed data from the pre- and post-tests to evaluate the amount of information learned through the training sessions and we also evaluated feedback from the focus groups to determine how trainees thought the program was affecting their community and to analyze the challenges facing the VHWs.

Objectives: The objective of this project was two-fold: 1) to evaluate the amount of information about basic health retained by VHWs who participated in a week-long training session; and 2) to follow-up with VHWs to see what changes they noticed in their communities and determine what challenges they face in disseminating health information in their villages.

Methods: A study sample consisted of 110 participants who were asked to complete the pre- and post-tests. The pre- and post-testing test consisted of 49 multiple-choice questions, written in Lugaanda, with a total possible score of 95. The pre-test was distributed to the participants on the first day of the training session. Participants were administered post-tests on the last day of the training session. The question and the delivery of the exams were the same at both points in time. The grading of the test was as follows; each correct answer received one point, incorrect answers received no points, and questions with more than one answer received no points. We compared the percentage of correct answers of the pre- and post-tests to determine any changes in knowledge as a result of the training session.

A total of 100 trainees were recruited to participate in focus groups. Focus groups were conducted three and six months after the original training session and involved five to ten VHWs per session. Questions were distributed to the groups and questions were read aloud with discussion about each topic. We asked the VHWs: 1) Have you noticed healthy changes in your community?; 2) What changes have you noticed; 3) How does the community view a VHW?; and 4) What support could you use as a VHW?

Results: The VHWs selected from the communities were aged 25-40, were more likely to be female than male, and generally had a non-health related occupation. One hundred and two participants completed both the pre- and post-tests. The average difference between test scores at the two points in time was an improvement of 20.25 points, or 19.3%. The range of differences between the scores was -5 to +61. Given that the VHWs were not previously educated about basic health, this was an advanced nature of the test questions, difficulty with multiple choice questions, or difficulty applying knowledge to the test, especially considering that most of the VHWs were adults many years out of school. In light of this information, one could consider a different method of evaluation, and focus more on the follow-up to review what the VHWs are actually doing in their communities. Moving forward, it would be ideal to evaluate the villages themselves via a system of direct-witness surveys that ask the villagers about changes they have or have not made and if they have seen any improvement in their health. This information will provide further evidence as to whether VHWs are an ideal model in the field of health education.