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

Elizabeth Butler
*University of Massachusetts Medical School*

Edward O’Neil
*Omni Med*

Zachary Tabb
*Omni Med*

*See next page for additional authors*

Follow this and additional works at: [https://escholarship.umassmed.edu/ssp](https://escholarship.umassmed.edu/ssp)

Part of the [Community Health and Preventive Medicine Commons](https://escholarship.umassmed.edu/health-preventive-medicine), [International Public Health Commons](https://escholarship.umassmed.edu/international-public-health), [Life Sciences Commons](https://escholarship.umassmed.edu/life-sciences), and the [Medical Education Commons](https://escholarship.umassmed.edu/medical-education)

Repository Citation

Butler, Elizabeth; O’Neil, Edward; Tabb, Zachary; Mwebe, Edward; Mukadde, John; Jim, Prossy; Godkin, Michael A.; Savageau, Judith A.; Ahmed, Safi; and Wolfe, Arwen, "Evaluating the Efficacy of Training Programs for Community Health Workers in Rural Uganda" (2012). University of Massachusetts Medical School. *Senior Scholars Program*. Paper 127.

[https://escholarship.umassmed.edu/ssp/127](https://escholarship.umassmed.edu/ssp/127)
Evaluating the Efficacy of Training Programs for Community Health Workers in Rural Uganda

**Authors**
Elizabeth Butler, Edward O’Neil, Zachary Tabb, Edward Mwebe, John Mukadde, Prossy Jim, Michael A. Godkin, Judith A. Savageau, Safi Ahmed, and Arwen Wolfe

**Keywords**
Community Health Workers, Health Education, Inservice Training, Uganda

**Comments**
Medical student Elizabeth Butler participated in this study as part of the Senior Scholars research program at the University of Massachusetts Medical School.

**Rights and Permissions**
Copyright is held by the author(s), with all rights reserved.
**Background:** The Ministry of Health and Omnimed, a non-profit U.S.-based organization that works with international communities to provide basic health education, have partnered to provide health training to community health workers (VHWs) in rural villages in Uganda. The training is provided via an intensive five-day long 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 sessions, and are given the same questions in 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 training 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:** The study sample consisted of 110 participants who were asked to complete the pre- and post-tests. The pre- and post-testing consisted of 49 multiple-choice questions, written in Luganda, with a total possible score of 105. 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 questions 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 99 trainees were recruited to participate in focus groups. Focus groups were conducted three and six months after the original training session and involved free to test VHWs per session. Questionnaires were distributed to the groups and questions were read aloud with discussion about each topic. We asked the VHWs: 1) How did you achieve positive changes in your community? 2) What changes have you noticed? 3) How does the community view your VHT?; and 4) What support could you use in a VHT?

**Results:** The VHWs selected from the communities were aged 25-40 and more likely to be female than males, 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 of 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 viewed as a marginal improvement. However, data from the focus groups indicates that the VHWs were enacting changes in their community. The participants in the focus group were aged 25-40 and 43 were males and 56 were females. The focus groups demonstrated that 86% of the VHWs noticed positive changes in their community, including the creation of latrines (54%), drying racks (15%), hand-washing (11%), increased usage of boiled water (9%) and the newfound ability to speak Luganda (13%). When asked if the community viewed the VHWs as a positive asset, 87% answered yes. Lastly, when quizzed as to what support VHWs could use to facilitate their work, the majority answered some type of transport (55%), while other popular answers were hand-held radios and tarpaulin, more training, cell phones or a stipend to compensate them for their work.

**Conclusion:** The increased mean score of the post-tests indicates that the VHWs did learn basic health information during the training session. However, the improvement in test scores was not as notable as one would expect given the intense nature of the trainings and the baseline level of knowledge being somewhat low. The data from the focus groups, however, indicated that VHWs are creating positive change in their communities. This could mean that the simple act of appointing one person to educate their community imbues in them a responsibility to spread the knowledge that they have, however basic it may be. It also could indicate that the VHWs learned more at the training sessions than the test scores reveal. This study focuses on the delivery of information and knowledge to the community rather than the knowledge that the VHWs actually received. Another important aspect of the study is the advanced nature of the test questions, difficulty with multiple choice questions, or difficulty applying knowledge to the task, 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 assess what the VHWs are actuallydoing in their communities. Moving forward, it would be ideal to evaluate the villages themselves via a system of door-to-door 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.

**Survey Questions:**

- Have VHT Members noticed changes in community?
- In which areas have VHT Members noticed changes?
- How does the community view the VHT Members? (e.g., appreciative, indifferent, etc.)?
- What support do VHT Members need?
- Do you think the VHT Members are HC1s?
- How do VHT Members see VHT Members as HC1s?
- What type of support would make the work easier?
- What challenges do VHT Members face?
- What questions do the VHT Members have?