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



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Abstract

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 (henceforth referred to as village health workers or 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 their 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 that evaluates 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: The study sample consisted of 110 participants who were asked to complete the pre- and post-tests. The pre- and post-training test 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 tests 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 five to ten VHWs per session. Questionnaires 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 viewed a marginal improvement. However the data from the focus groups indicates that the VHWs were enacting changes in their community. The participants in the focus group were also aged 25-40 and 43 were males and 56 were females. The focus groups demonstrated that 86% of the VHWs noticed positive changes in the community; including the creation of latrines (34%), more drying racks (16%), more hand-washing (11%), increased usage of boiled water (9%) and the newfound creation and usage of tippy-taps (8%). When asked if the community viewed the VHWs as a positive asset, 81% answered yes. Lastly, when queried as to what support VHWs could use to facilitate their work, the majority answered some type of transport (51%); while other popular answers were gumboots and raingear, 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 score 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 do possess; however basic it may be. It also could indicate that the VHWs learned more at the training sessions than the test scores reveal. This could be due to a multitude of factors, including difficulty with reading, the 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 more focus on the follow-up to assess what the VHWs are actually able to do 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.

Background

Providers in public health have long since struggled to determine the best manner of disseminating information to communities. The idea of utilizing local members of the community to act as outreach health workers and educators has been tried by many and this study aims to evaluate the effectiveness of this type of intervention. Omnimed is in the midst of a large cohort study that will evaluate changes in health behavior and outcomes based on the presence of local community health workers.



Test Results

Participants who took both pre- and post-tests:	102
Average improvement in score between the pre- and post-tests:	20.25 points or 19.3%
The range of differences between the scores:	-5 to +61

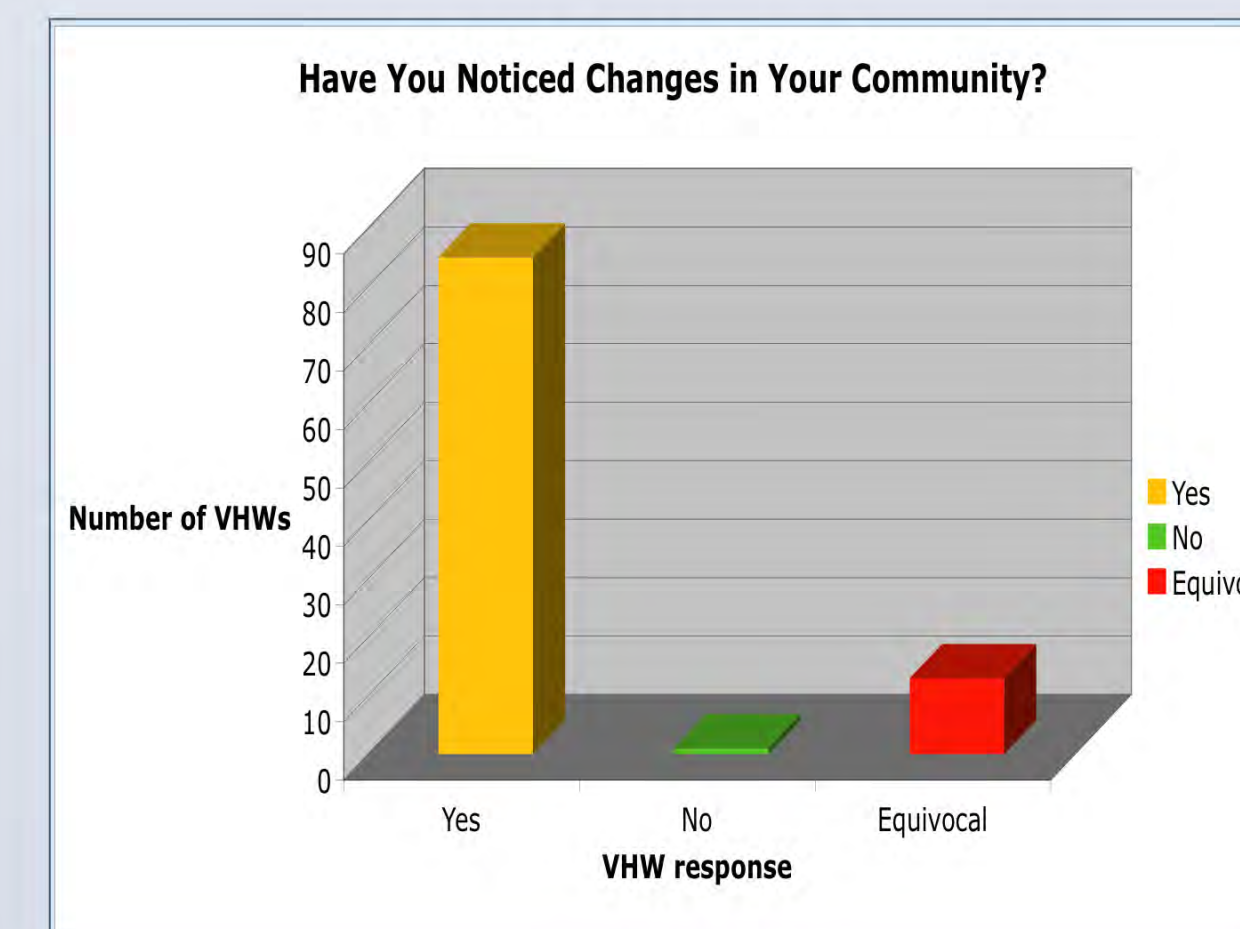
Survey Questions

VHT Impressions:

For the VHT Program to be sustainable—and continue to address the community's health issues—the VHT Members themselves need to feel valued and that they are making an impact in their communities.

1. Have VHT Members noticed changes in community?
2. In which areas have VHT Members noticed changes?
3. How does the community view the VHT Members (e.g., appreciative, indifferent, etc.)?
4. Does the community view VHT Members as HCIs?
5. Do higher level HCs view VHT Members as HCIs?
6. What type of support would make the work easier?
7. What challenges do VHT members face?
8. What questions do the VHT Members have?

Demographics



Survey Results

