How Well Does "Cascade Training" Work?

Results from CHNIS – a multi-country implementation fidelity assessment focused on improving CHW performance

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Background

World Vision's Global Health Strategy

Globally, millions of children under 5 year of age die every year from largely preventable causes such as pneumonia, diarrhea, malaria, HIV and AIDS, measles, with more than one third of child deaths attributable to under-nutrition. In alignment with the United Nations' Every Woman Ever Child Campaign MDGs, and SDGs, World Vision's (WV) strategy for Maternal and Child Health (MNCH) addresses the individual, environmental and community causes and conditions of morbidity and mortality. World Vision interventions are delivered to the household and community via three models - Timed and Targeted Counseling (ttC), Citizen Voice in Action (CVA), and Community Health Committees (COMM).

About the Child Health and Nutrition Impact Study

The Child Health and Nutrition Impact Study (CHNIS) is a multi-year research collaboration (2012-2017) between World Vision and the Johns Hopkins Bloomberg School of Public Health and their in-country academic partners. It is an impact evaluation, designed to attribute change in the health and nutritional status of pregnant women and children under 5 to World Vision's programmes. The evaluation is being carried out in 16 study sites located in four countries: Cambodia, Guatemala, Kenya and Zambia. Two sites per country are benefitting from ttC, COMM and CVA and two matched comparison sites in each country are receiving a more basic approach.

Among the goals of CHNIS is assess and improve CHW performance and determine how well cascade training contributes to their effectiveness.

Interventions models under evaluation

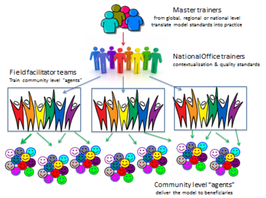
Timed and Targeted Counselling
Deploys Community Health Workers (CHW) to target families at critical points during pregnancy and infancy for adoption of life-saving health practices and referral to health services for essential care.

Community Health Committees
Helps communities organize themselves to take ownership of their children's health and tackle community-level barriers to good health care.

Citizen Voice and Action
Educates communities on their health care rights according to government health policy and commitments, and helps them advocate for fulfilment of those rights.

What is *Cascade Training*?

This approach to training attempts to assure intervention quality while achieving scale.
It involves the delivery of training through layers of trainers until it reaches the final beneficiary group.



ttC "spot check" questions

1. Month of pregnancy of first CHW visit
2. Where did the CHW visit you? (home vs. outside home)
3. How many CHW visits did you received during pregnancy
4 How many CHW visits have you received since birth of child
5. What is the date of the last CHW visit you received?
6. How was the quality of CHW communication during the visit?
7. Did the CHW discuss barriers to doing recommended practices?
8. Did the CHW help find solutions to the barriers?
9. Did the CHW include influential family members at the visit?
10. Did CHW check for complication & assist as needed?
11. If you were referred to the clinic did the CHW check on you when you returned home?
12. Did the CHW treat you well?
13. Are you satisfied overall with CHW services?

Methods

The CHNIS Midterm Review was conducted from June-October 2015. It was designed to evaluate how well models were being implemented in intervention sites and inform decisions about how to enhance field work. The focus of this report is on the performance of the Timed and Targeted Counseling (ttC) model.

Sampling: In Cambodia, Kenya and Zambia Lot Quality Assurance Sampling (LQAS) was used and in Guatemala, a census sample was used. Eligible informants were women who had participated in the ttC program (primarily during pregnancy).

Sample sizes by country and age group

Country	Site 1		Site 2		Total
	0-5.9m	6-12m	0-5.9m	6-12m	
Cambodia	95	95	95	95	380
Guatemala	21		43		64
Kenya	112	112	112	112	448
Zambia	114	95	104	104	417

Estimation: Pooled estimates across pre-defined supervision areas were computed. Following LQAS theory, all prevalence estimates reported here are surrounded by at least a ±10% margin of error.

Measurement: We assessed the quality of implementation against pre-established minimum quality standards defined for the ttC model. A draft implementation quality assurance and a "spot check" tool were used.

Views of behavior change counseling technique -- Barriers

"The VHSG (local term for CHW) visited me two times during my pregnancy, the first time she read the story book, but I didn't remember it, she gave me the message book, but I couldn't read it. The first visit was about 30 minutes and I did not ask her any question …because I was busy every day." [mother of 4 month-old, Pouk, Cambodia]

"Sometime women do not welcome my visit to their home because they are busy [or] they were distracted by their young kids and other things. I meet these difficult case 3 in 10." [VHSG, Chulikiri, Cambodia].

Results

ttC beneficiaries reported (see bar graph right):

- In Kenya, barrier exploration (48%), engagement of influential family members (43%) and assistance to find solutions (63%) were less common than in other countries and there were shortcomings in achieving training standards for the model. Subsequently CHW retraining was initiated.
- In Cambodia, Guatemala and Zambia, ttC beneficiaries reported moderately high levels of key markers for CHW behavior change communication technique. Engagement of influential family members during ttC visits was consistently reported at somewhat lower levels than other markers of effective technique.

Important contextual factors:

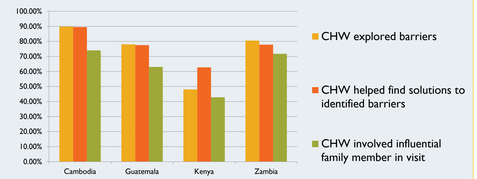
- CHW incentive packages (monetary and non-monetary) were variable across countries. These patterns have an effect on CHW motivation, and merit description elsewhere.
- In Guatemala, training cycles were unusually long (6 weeks each to deploy) because the intensity (hours/week) was considerably lower than expected. This change in the design arose from consideration of cultural factors including gender-based violence. This affected the scale up pace dramatically.
- Patterns around barriers to effective CHW service delivery were diverse and also merit further study.

Given about half of start-up costs are attributed to training, CHNIS hosted a debate to elucidate pros and cons of the *Cascade Training* approach based on these findings and on diverse programmatic experience (see table below).

Summary of World Vision's Community of Practice debate on *Cascade Training* drawing on these results

PROs	CONs
Most feasible and realistic option	Can result in poor quality intervention delivery
Makes it possible to achieve scale in programming	Content and understanding is inevitably diluted/lost at each stage of the training
Most feasible option if programme requires multiple cumulative training cycles	Takes a long time to deploy to field
Can facilitate national level capacity buidling and ownership	Difficult to revise content/update programme
More sustainable and contextually appropriate – no need for external experts	Prone to interruptions due to staff turn over
No easily identifiable alternative to achieve scale or sustainability in programming	Tracking and follow up of trainees is difficult

CHW adherence to key ttC behavior change counseling techniques



Conclusions & Recommendations

- The combination of data from CHW spot check with the Implementation Quality Assurance tool allowed for a comprehensive understanding of how well CHW programme was being implemented in each country. Not identified quality issues were related to the *Cascade Training* mechanism.
- Despite using standardized curriculums and training methods, *Cascade Training* can still leave CHW trainees with unsatisfactory mastery of the ttC core behavior change methodology.
- Effectiveness of alternate methods for reinforcing these skills (training curriculum and/or supervision) should be studied.
- While *Cascade Training* is a sustainable option for scaling up CHW programming, other training approaches (e.g. training teams deployed at regional level) should be assessed to determine if they produce better implementation and yield cost savings.
- *Cascade training* relies on the availability of both master trainers, and the trainers that they certify, to serve a field office initiating or scaling up an intervention. Greater attention should be paid to issues around the sustainability of top and mid level trainers
- Experience measuring ttC implementation quality was used to refine a standardized Implementation Quality Assurance tool currently being scaled up globally at World Vision.

Acknowledgements

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