CLTS Implementation in Malawi: Lessons from the Process Evaluation of a Sanitation and Hygiene Intervention

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BACKGROUND

Community-led total sanitation (CLTS) is an approach used to eradicate open defecation and promote hand hygiene in rural areas through three phases: pre-triggering, triggering, and post-triggering[1].

Despite its widespread use, there are mixed reviews on the efficacy of CLTS for achieving a sustained increase in sanitation and hygiene coverage. Nevertheless, CLTS was formally integrated into the Malawi National Sanitation Strategy in 2009, and based on this, World Vision Malawi is currently implementing a WASH for Everyone (W4E) program using this approach in Chiradzulu District, Malawi.

To measure the efficacy of CLTS on sanitation and hygiene coverage in this setting, a process evaluation was conducted to evaluate the dose delivered, reach, and intervention fidelity of CLTS delivery.

Figure 1: Study location

METHODS

This retrospective process evaluation used the MRC framework[2] to evaluate the fidelity, dose, reach, and adaption of the intervention across the key stages of implementation (Table 1).

Table 1: Process evaluation domains and how they were measured at each stage [2]

CLTS stage	Process evaluation domain		
	Dose delivered	**Reach**	**Fidelity**
Pre triggering	No. of triggering invitations	No. of CLTS trainings No. of people invited for triggering	Quality of CLTS trainings
Triggering	No. of triggering sessions	No. of CLTS activities No. of people attended	Triggering activities
Post triggering	No. of household follow ups conducted	No. of people reached with household visits	Follow up activities
Hygiene campaigns	No. of campaigns	No. of people reached	Hygiene campaigns

METHODS

Quantitative and qualitative data was collected from numerous sources, with a total of 1318 participants.

Reports
- Project log frame (n=1)
- Project quarterly reports (n=4)

In depth interviews (IDI)
- Project officers and community Health Workers (n=12)
- Local and natural leaders (n=16)
- Masons (n=8)

Household surveys
- Community members (n=1151)

Focus Group Discussions (FGD) (n=14)
- Community volunteers (n=30)
- Community members (n=69)
- Task force leaders (n=27)

Logistic regression analysis was used to hypothetically assess the relationship between exposure to standard CLTS activities i.e. triggering events, receiving a household visit, and the presence of the latrine and handwashing facility at the household.

Figure 2a: Household survey with a community member

Figure 2b: FGD with task force leaders

RESULTS

Despite a delay in implementation, all planned activities were completed, delivering the anticipated dosage (Figure 3). CLTS pre-triggering activities, including meeting with chiefs and scheduling of a triggering day were implemented with high fidelity.

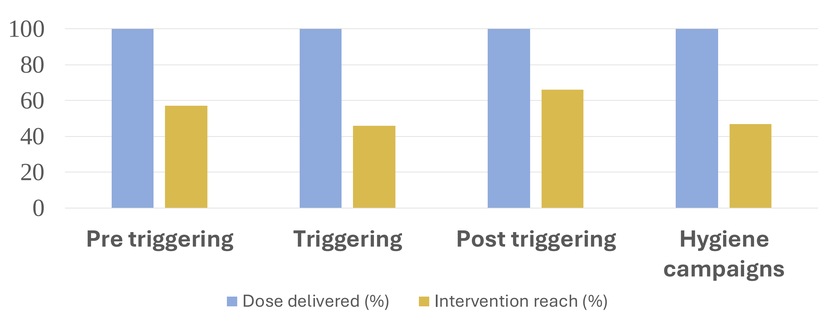

Figure 3: Intervention's dose delivered and reach

RESULTS

However, fidelity of subsequent phases (i.e. training of facilitators, triggering sessions and post-triggering phases) was variable across the programme areas.

"From my previous experience, the current CLTS trainings were rushed" [IDI, CHW]

"They did not show us how faeces can reach our food. They just explained" [Female FGD participant].

Table 2: Logistic regression between exposure to the intervention and the availability of pit latrine and handwashing facility as the outcomes

Variable	Latrine availability		Handwashing facility availability	
	OR	**CI**	**OR**	**CI**
Attended triggering only (n=98)	1.39	[0.87, 2.21]	0.89	[0.57, 1.39]
Attended follow up visit only (n=300)	0.8	[0.60, 1.06]	0.95	[0.71, 1.27]
Exposed to both triggering and follow up (n=431)	1.46	[1.12, 1.90]	1.3	[1.00, 1.68]

Attending a triggering event only or receiving a household follow up visit only, did not increase the chance of having a latrine or HWF (Table 2). Being exposed to both triggering and household visit increased the chance of having a latrine or HWF significantly. This could emphasize the importance of being exposed to all the phases of CLTS as stated in the CLTS handbook. The marginal association between being exposed to all CLTS components and availability of a handwashing facility could reflect the main emphasis of CLTS activities being on latrine coverage coverage.

STUDY IMPLICATIONS

- Maintaining fidelity of triggering sessions must be prioritised to achieve initial sanitation and hygiene improvements
- Attending both triggering session and follow up household visits should be promoted to enhance behaviour change
- The promotion of handwashing facilities and associated behaviours in CLTS implementation requires equal emphasis to the promotion of latrine construction.

1. Kar, K., & Chambers, R. (2008). Handbook on community-led total sanitation.
2. Moore, G. F., Audrey, S., Barker, M., Bond, L., Bonell, C., Hardeman, W., Moore, L., O'Cathain, A., Tinati, T., & Wight, D. (2015). Process evaluation of complex interventions: Medical Research Council guidance. Bmj, 350.

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