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LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND SUSTAIN WATER, SANITATION AND HYGIENE SERVICES

A comparative analysis of the impact of hygiene promotion and sanitation marketing in rural Ethiopia

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Access to good quality, safe-to-use sanitation in rural Ethiopia remains low. Implementation by WASH actors of sanitation marketing in rural Ethiopia is limited. Over four years, People In Need, in cooperation with government partners implemented a WASH project using a "local system-strengthening" approach. This study compares two types of intervention to improve sanitation and hygiene behaviours: hygiene promotion and hygiene promotion in combination with sanitation marketing. The study found that the additional sanitation marketing component was associated with improved latrine quality and presence of a handwashing facility near to the latrine, compared to a hygiene promotion intervention alone. This demonstrates that sanitation marketing can add significant value to rural WASH programs.

Introduction

Access to improved sanitation remains a significant challenge in rural Ethiopia. Although there have been improvements in latrine coverage, access to an improved facility fell from 7% in 2005 to 4% in 2014 (CSA, 2014). The CLTS method is actively promoted through the Health Extension framework (MoH, 2013a). However, even though households may have a latrine, whether this latrine is safe and functional can have a significant impact on whether the household (or some of its members) continue to practice open defection (O'Connell, 2014). The Sanitation Marketing approach is supported by the Ethiopian government (MoH, 2013b), however as the approach was originally developed for urban contexts, its applicability to remote rural contexts is not widely understood. In cooperation with the Ethiopian Ministries of Health, Water, Technical Vocational Education & Training and Micro & Small Enterprise (M&SE), and with funding from the European Commission's Humanitarian Aid and Civil Protection Department and the Czech Development Agency, People In Need (PIN) implemented hygiene promotion and sanitation marketing interventions in Wolayta Zone of SNNP Region of Ethiopia. This paper explores two main research questions:

- Can a change in approach from hygiene promotion to sanitation marketing be associated with different WASH behavioural changes?
- Can the length of any form of hygiene promotion or sanitation marketing intervention be associated with improved WASH behavioural change?

Methods

The project took place two rural *Woredas* of Wolayta Zone, Duguna Fango and Kindo Koysha. Both are rural areas and the population are primarily agriculturalists with some livestock rearing. The hygiene promotion and sanitation marketing activities were components of a larger WASH project that also aimed to improve water access. *Kebeles* (large villages of approximately 5000 people each) were selected based on high levels of water insecurity. The project was implemented in three phases between 2013 and 2016. The

selected kebeles received either hygiene promotion alone or both hygiene promotion and sanitation marketing:

Table 1. Kebeles receiving hygiene promotion (HP) and sanitation marketing interventions

Kebele Name	Phase I		Phase II		Phase III	
	HP	SM	HP	SM	HP	SM
Anka Damot			Y	Y	Y	Y
Anka Duguna			Y	Y	Y	Y
Dada Kare	Y				Y	
Dendo Koyisha Humbo	Y					
Duguna Boloso			Y	Y	Y	Y
Duguna Damot Shinka	Y		Y	Y	Y	Y
Fango Bijo					Y	Y
Fango Humbo			Y	Y	Y	Y
Ido Boloso	Y		Y	Y	Y	Y
Molticho					Y	
Mundena					Y	
Offa Kalacha					Y	Y

Both the hygiene promotion and sanitation marketing activities took a "local system-strengthening" approach in alignment with the health extension framework. The hygiene promotion used a combination of Community Conversations (a series of group discussions based on hygiene topics) and household follow up visits. PIN trained Health Extension Workers (HEWs) and Health Development Army (HDA) volunteers to lead these activities. The Sanitation Marketing approach used a two-pronged strategy for increasing demand and improving supply for quality latrines:

1) Improving supply: In cooperation with the M&SE and TVET Offices and local community, PIN identified existing local artisans (e.g. carpenters) living in the kebeles and established cooperatives. Training on business and technical skills were provided and demonstration latrines were constructed in public places (e.g. health posts and kebele administration offices). Latrine designs varied and were based on previous willingness-to-pay and market surveys. Initial capital was provided to the artisan groups, to purchase raw materials and develop a supply chain of the required materials into their kebele. Varieties of demonstration latrines at different prices were constructed using local materials similar to the styles of local households. The artisans were free to adapt the latrine designs according to the needs of their customers as long as quality and safety were not compromised. PIN facilitated joint trainings and monitoring visits to establish linkages between the artisan cooperatives and local M&SE and TVET Offices so that the cooperatives could receive sustained support on technical, business administration and financial issues.

2) Increasing demand: In 2013, prior to the intervention, PIN conducted formative research with adopters and non-adopters of latrine usage in the target areas. Barriers to adoption included a lack of knowledge on how to upgrade their own latrines, lack of skilled builders in the kebele, lack of materials and limited household finance. The barriers were addressed through the "improving supply strategy". Issues around safety and social-pressure from other community members were identified as key drivers to improving or using a latrine. These drivers were used in the promotional strategy. Promotional material was developed using photos of the available types of latrine, and this was provided together with training on the Sanitation

Marketing approach to the HEWs and HDA volunteers. These materials were then used during their community conversations and household visits and the HEWs and HDA volunteers could refer interested households to the artisan groups.

For each phase of the project, baseline and endline surveys were conducted using KAP formats translated into Amharic. Each survey was preceded by 1 day of data collector training and pre-testing. The target population was considered as all the inhabitants of the target kebele. Using the total number of households, a final sample size was calculated for a 95% confidence level. The sample size was then increased by 10% to allow for non-responses. The data were analysed using Microsoft Excel. Pearson's chi-squared test was applied to determine whether there was a significant association between (a) the change in approach from hygiene promotion to sanitation marketing and (b) the length of any intervention and the following dependent variables (all measured through observation in the surveyed households):

1. Latrine cleanliness (yes/no)
2. Solid superstructure ensuring adequate privacy (yes/no)
3. Functional door (yes/no)
4. Solid slab that looks safe to use for all the family[1] (yes/no)
5. Squat-hole cover (yes/no)
6. Handwashing facility near latrine with soap/ash (yes/no)

Results

Latrine cleanliness, a solid superstructure, a solid slab and the presence of a handwashing facility were strongly associated with both the sanitation marketing approach and an increased length of intervention.

Table 2. Availability of clean and safe latrines following one and two phases of hygiene promotion (HP1 and HP2) or hygiene promotion and sanitation marketing interventions (SM1 and SM2). Associations were quantified using chi-squared tests.

	HP1	HP2	SM1	SM2
Latrine cleanliness	63.7%	73.0%	77.0%	81.2%
Solid superstructure ensuring adequate privacy	67.9%	64.9%	77.9%	82.8%
Functional door	42.3%	43.2%	36.3%	37.9%
Solid slab that looks safe to use	77.7%	77.0%	77.9%	91.8%
Squat-hole cover	39.9%	45.9%	29.2%	37.4%
Handwashing facility near latrine with soap/ash	32.5%	31.7%	47.8%	45.9%

The following associations were found:

Table 3. Associations

Dependent variable	Change in approach from HP to SM (chi-square value)	Length of intervention (chi-square value)
Latrine cleanliness	Yes (27.7)*	Yes (27.3)*
Solid superstructure ensuring adequate privacy	Yes (25.1)*	Yes (17.1)*
Functional door	No (2.3)	No (0.8)
Solid slab that looks safe to use	Yes (31.2)*	Yes (26.2)*
Squat-hole cover	No (6.2)	No (0.7)
Handwashing facility near latrine with soap/ash	Yes (80.3)*	Yes (24.3)*

*p-value< 0.001

Latrine cleanliness, a solid superstructure, a solid slab and the presence of a handwashing facility were strongly associated with both the sanitation marketing approach and an increased length of intervention.

Discussion

Adding a sanitation marketing component to hygiene promotion in rural contexts can be associated with improved latrine quality, and this is likely to increase usage and reduce open defecation. Furthermore the strong association to the presence of a handwashing facility with soap/ash shows that the sanitation marketing component can improve handwashing behaviours. The positive association between length of intervention and presence of improved latrines/hand washing facilities reinforces the findings.

There was no association found for the functional door and squat-hole cover. Following discussions with the selected communities, we found that these two latrine components are of lower priority for households. Furthermore, a piece of tarpaulin, cloth or similar was not deemed a "functional door".

There were several limitations to this study. First, the study was built into a development project and certain 'experimental design' features were not feasible. For example, there was no control group (i.e. receiving no intervention) and no households received the sanitation marketing component alone. This limits the interpretation of our findings, such that a combination of hygiene promotion and sanitation marketing was associated with improved WASH behaviours compared to receiving hygiene promotion alone.

References

CSA 2014 *Ethiopia Mini-Demographic and Health Survey 2014.* Central Statistics Agency, Addis Ababa, Federal Democratic Republic of Ethiopia.

MoH 2013a *CLTSH Verification and Certification Protocol.* Ministry of Health, Federal Democratic Republic of Ethiopia

MoH 2013b *National Sanitation Marketing Guideline.* Ministry of Health, Federal Democratic Republic of Ethiopia

O'Connell, Kathryn 2014 *What Influences Open Defecation and Latrine Ownership in Rural Households?: Findings from a Global Review.* The Water and Sanitation Program, World Bank Group.

Note

1. The project team decided not to use the "washable slab" definition (which requires concrete, ceramic or plastic) as this was unrealistic given the project context of working in poor, remote water insecure communities.

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