

A Case Study Evaluation of Community Health Clubs in Port au Prince, Haiti

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Introduction

After an absence of over a century, cholera is now expected to remain endemic on Hispaniola until the underlying structural, behavioral and social conditions on both sides of the island are addressed. While government and civil society have made progress re-building capacity and increasing access to basic water (62% nationally, up from 61% in 1990) and sanitation infrastructure (24% nationally, up from 19% in 1990)¹, **many communities remain fragmented, dysfunctional, and increasingly dependent** upon top-down health education strategies. Without an integrated, community-based approach to health education that emphasizes behavior change and **creates common-unity**, Haitian communities will be unable to build resiliency and sustainably address health threats like cholera.

Since 2012, the Center for Medical Humanities & Ethics at the University of Texas Health Science Center San Antonio, in collaboration with the Eco-Eau et Jeunesse (Eco-Water and Youth) Haiti organization, have been training community-based facilitators to provide participatory education and stimulate common-unity through Community Health Clubs in Port au Prince. To date, **23 Clubs with over 1,200 members across 12 communities** have been formed, with **over 550 members completing the entire 23 week curriculum**. Between June and July 2014, graduate students from Yale University and the UT Health Science Center completed a **retrospective case-study evaluation** using mixed methods in a purposive sample of 3 communities to demonstrate the **outcomes of the first two years** of this innovative health education and community development program in Haiti.

Zafé Kabrit se Zafé Mouton: Community Health Clubs in Haiti

The Community Health Club (CHC) approach² is a Participatory Health and Hygiene Education methodology developed by Zimbabwe AHEAD in 1995 that has been recognized as one of most **cost-effective approaches to WASH education and service provision**³. To date it has been adapted and implemented in 9 African countries, 1 Asian country and most recently in the Dominican Republic and Haiti. In Haiti, 23 Clubs have been formed in 12 communities in Port au Prince since 2012. An additional 25 new facilitators were trained in July 2014 and are currently in the process of forming new clubs.

The 23 Clubs formed in 2013 are provided in Table 1:

Community	Club Name	Club Slogan	# Members	# Graduates (%)
Canaan	KSK Jerusalem	Health is free	77	30 (40%)
Blanchard Lakou Leon	KSK Lakou Leon	Health all the time	64	34 (53%)
Rosenberg	KSK Hands Together	Health for one and health for all	27	24 (89%)
Village des Rapatriés Haitiens	KSK For a better Development	Look in front; health before everything.	25	20 (80%)
Barriere fer	KSK Barriere Fer	Each one helps others	50	44 (88%)
Cite Soleil	KSK My shining sun	With prevention no disease	35	29 (83%)
Carrefour Feuilles	KSK Fouchard	One community is a chain of solidarity to manage health.	74	32 (43%)
Cite Soleil	KSK Friend of Health	Health for ever	20	16 (80%)
Simon Pele	KSK for discovering the wealth of life	Health is more wealth	33	33 (100%)
Simon Pele/ Cite Dieuseul	KSK nan Site Dyessel	We want health and cleaning	55	46 (84%)
Simon Pele	KSK pou Lavi	Without cleanliness we cannot fight disease	25	23 (92%)
Lizon	KSK Bring and Join	My health is yours	25	12 (48%)
Corail	KSK de Corail Cesse-lesse		25	13 (52%)
Aéroport Simon 6	KSK Lavni	Health all the way	20	15 (75%)
Ilavois 5, house's member	KSK Revolution	Revolution of cleaning = health all the way	34	16 (47%)
Sarth school	KSK Jean-Baptiste du Sable	Health is victory	30	20 (67%)
Simon Pele	KSK Lakou La Roche	We like cleaning, we are working to keep our community clean	30	25 (83%)
Totals			617	432 (70%)

Table 1: Communities, Club Names & Registered Membership 2013-2014

Methods

This study collected primary data using both **semi-structured interviews** with CHC facilitators and from **household surveys** with both CHC graduates and non-members in three case communities (red text in **Table 1**). The interviewed facilitators (n=12, N=14) led Health Clubs that have graduated members and represent a wide range of communities across Port-au-Prince (e.g., Cite Soleil, Canaan, Sarthe, and Carrefour Feuilles). Three communities were selected for a case-study approach, based on the following criteria:

- **safe to enter**, deemed by our local partners;
- **availability of the facilitator**, to find the graduates' place of residence and establish trust; and
- **the greatest number of graduates**.

In-person surveys were conducted to assess differences in health knowledge and practices and socioeconomic characteristics between health club graduates and non-members. The surveys were conducted orally in Haitian Creole with both a U.S. team member and a local partner who served as a translator when necessary. All households with graduates that were both available and eligible were surveyed. Graduates were deemed **ineligible** for the survey **if under 18 years of age** or were **currently living outside of the selected case communities**. In households with more than one graduate over 18 years of age, only one graduate was selected. Non-member households were selected by systematic sampling every nth household, excluding graduates' households. Household members were not selected randomly due to time constraints. Our **sample characteristics** are provided in **Table 2**.

The survey instrument was adapted from previous surveys conducted with CHC members⁴ and developed in consultation with local community health workers. The survey was translated to Haitian Creole and back-translated to ensure accuracy. For the knowledge questions, respondents were asked to provide up to **5 times to wash hands** and **5 ways to prevent diarrhea, skin diseases, worms, and malaria**. The number of correct responses given for each question were summed to create a total WASH knowledge score (0-25). Scores were then grouped into 4 bins using the IQR; Low (0-7), Medium Low (8-10.5), Medium High (11-14), and High (14-25).

Results

Demographics

	Graduates N (%)	Non-Members N (%)	Total N (%)
Sample	52 (26.3)	146 (73.7)	-
Gender			
Male	22 (42.3)	42 (28.8)	64 (32.3)
Female	30 (57.7)	104 (71.2)	134 (67.7)
Age			
18-25	32 (61.5)	28 (19.2)	60 (30.3)
26-35	11 (21.2)	42 (28.8)	53 (26.8)
36-45	6 (11.5)	38 (26)	44 (22.2)
45+	3 (5.8)	38 (26)	41 (20.7)
Employed			
Yes	13 (25)	53 (36.3)	66 (33.3)
Education			
None	1 (1.9)	12 (8.6)	13 (6.8)
Some Primary	9 (17.3)	35 (25)	44 (22.9)
Primary	30 (57.7)	65 (46.4)	95 (49.5)
Secondary	7 (13.5)	12 (8.6)	19 (9.9)
University/Professional	4 (7.7)	16 (11.4)	20 (10.4)

Table 3: Sample Demographics

WASH Knowledge

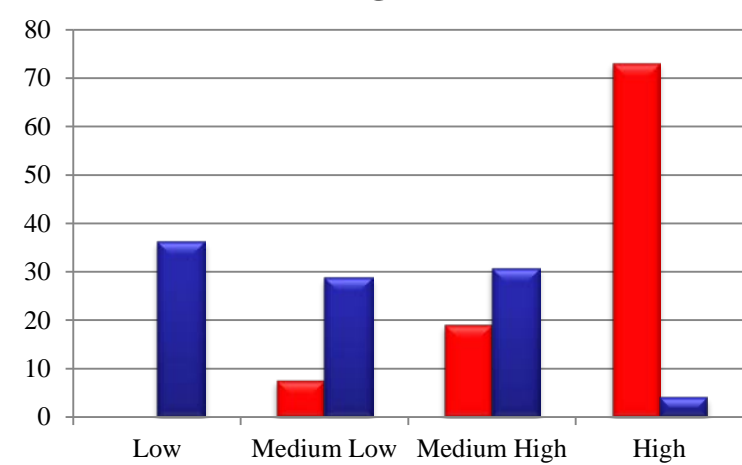


Figure 1: Binned Knowledge Scores by CHC Membership

CHC Members are significantly more likely to have a high binned WASH knowledge score (86.4%) than Non-CHC Members (13.6%), chi square, $\chi^2(3, n=198) = 110.1, p<0.0001$.

Behavior

- Of HH without a latrine or WC (n=45), **Graduates are more likely to share a neighbors/friends facility** (84.6%) than openly defecate, as compared to Non-Members (43.8%), Fisher's Exact Test $p<0.02$.
- Of those with a sanitation facility and consented to observations (n=139), **Graduates are more likely to have a clean facility** (74.4%) as compared to Non-Members (45.0%), $\chi^2(1, n=139) = 9.714, p=0.002$.

	Graduates N (%)	Non-Members N (%)	Total N (%)
Blanchard Lakou Leon	18 (30)	42 (70)	60 (30.3)
Barriere Fer	22 (26.5)	61 (73.5)	83 (41.9)
Rosenberg	12 (21.8)	43 (78.2)	55 (27.8)

Table 2: Sampled Communities

The survey instrument was adapted from previous surveys conducted with CHC members⁴ and developed in consultation with local community health workers. The survey was translated to Haitian Creole and back-translated to ensure accuracy. For the knowledge questions, respondents were asked to provide up to **5 times to wash hands** and **5 ways to prevent diarrhea, skin diseases, worms, and malaria**. The number of correct responses given for each question were summed to create a total WASH knowledge score (0-25). Scores were then grouped into 4 bins using the IQR; Low (0-7), Medium Low (8-10.5), Medium High (11-14), and High (14-25).

Community Perception of Clubs

Community **participation** in Club activities was limited by **mobilization strategies; distrust** of facilitator's volunteer status and intentions; limits on **free time**; and a perceived need for **incentives**. Only 26% of Non-Member HHs were aware of the Club in their community.

Community Distrust

"...when you have a club, people don't realize that you are voluntary by doing this. They always think that they think you are being paid and don't want to share it with anyone." - Facilitator (0606_002)

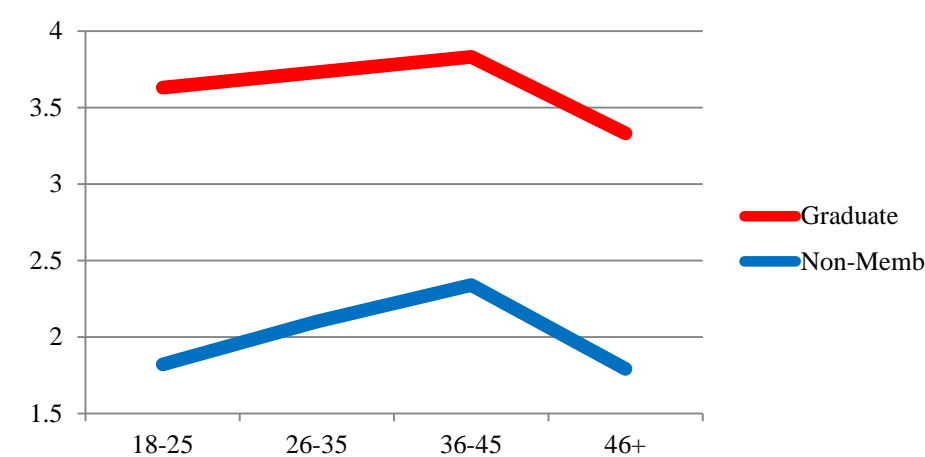


Figure 2: Average Binned Knowledge Scores by Age Groups

Weak, negative correlation between Age and WASH Knowledge, $r=(-0.249), n=198, p<0.0001$; independent of CHC membership.

Member Defecation Practices

"I would estimate that many members that don't have latrines in their homes. Some of them probably and usually go to a friend and ask to use their latrine." - Facilitator (0603_002)

Social Impact

Clubs seem to **increase social networks** of Members and **build trust**; which in turn appears to influence WASH behaviors like defecation practices.

"Some of [the members] were friends before but others didn't really know each other before. Their relationship was solely based on the club [...] in the clubs we are also a formed family." - Facilitator (0603_002)

Behavior Change Challenges

Club member efforts to engage in new preventative health practices beyond their homes are disrupted by community distrust and a perceived lack of resources and capacity.

Impact of Community Distrust

"Sometimes we try to make a clean up of the community [...] But sometimes the young ones in the club don't really do it. Because people in the community think they receive money for that. And sometimes people in the community give us a lot of problems [...] they say we have an organization, we have money, and those words sometimes discourage the younger people." - Facilitator (0606_001)

Perceived & Actual Resource Limitations

"If we talk about [...] the practicality of defecating, and if there are some people that don't have latrines or toilets in the first place, as a facilitator I don't want to just talk about how things should be done. [...] But really in fact, it hurts me a lot. Because I'm in the community talking about the subjects, and we all know about the consequences, but we don't have the financial means to do anything about them. [...] But effectively, until now we haven't found any partners or available government branches or representatives to help us with those activities." - Facilitator (0603_003)

Discussion

This data demonstrate begin to demonstrate some of the differences between Community Health Club graduates and non-members in Port au Prince, Haiti. Despite limitations in mobilization and recruitment that resulted in 'young' Clubs, **Club graduates**, regardless of age, **demonstrated more preventative WASH knowledge** than non-members. However, **behavioral changes require more than knowledge**. While the survey found few significantly different behaviors between graduates and non-members, the qualitative data suggests **Health Clubs foster positive social relations** that can **positively improve health-related behaviors**. **Toilet sharing** demonstrates how Club Graduates utilized the **increase in trust amongst their peer group** as behavior change strategy. We hypothesize that **wider community participation** in CHCs is **hindered by mobilization strategies, distrust and dependencies** created by a history of misguided handouts, and the perception Clubs are for young people. These results are important for refining the dimensions to be measured under a prospective outcomes study with a larger sample size.

References

1. World Health Organization and UNICEF (2013) Progress on sanitation and drinking water: 2013 update. Geneva: WHO, Available at: http://www.wssinfo.org/fileadmin/user_upload/resources/JMPReport2013.pdf.
2. Waterkeyn, J. and Cairncross, S. (2005). *Creating demand for sanitation and hygiene through Community Health Clubs: A cost-effective intervention in two districts of Zimbabwe*. Social Science & Medicine. Vol. 61, pp.1958-1970.
3. United Nations Development Program. (2008). *Poverty, Health and Environment: Placing Environmental Health on Countries' Development Agendas*. Joint Agency Paper.
4. Rosenfeld, J., Berggren, R., & Paulino, F. (2013). Measuring behavioral changes associated with Community Health Clubs in the Dominican Republic. *2013 Water and Health Conference: Where Science Meets Policy*, Chapel Hill, NC. Peer reviewed oral presentation.

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