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The Effectiveness of Community Health and Empowerment Clubs in Kenya

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Abstract

Since the inception of the United Nation's Millennium Development Goals (MDGs) in 2003, and subsequent Sustainability Development Goals (SDGs) in 2017, there has been a call for development programs that empower local communities to address a broad range of SDGs in order to address the complex challenges in low income countries. Africa Ahead has successfully advanced more than four thousand Community Health Clubs (CHCs) in low income areas of Africa. CHCs are aimed at MDGs and they have led to improved hygiene and health in their local communities. The authors of this report are proposing a more holistic model – called Community Health and Empowerment Clubs (CHECs) - which address the majority of the SDGs. CHECs include not only community health education, but also economic education, income generation projects, social capital, economic empowerment, gender equity, and sustainable governance of villages. Base-line to mid-line data from CHEC villages in Kenya was collected and analyzed. Data analysis shows very strong statistical support for the CHEC model for improving household health as well as household economics and social well-being.

Keywords: community health, economic development, empowerment, CHEC

1.0 Introduction

Instead of focusing on increasing and improving the supply side of health services, there is increasing interest on enhancing household health through village-based initiatives.

As such, this paper introduces and tests the effectiveness of Community Health and Empowerment Clubs (CHECs) to enhance household health practices through an empowering approach for health and economics. CHECs provide households with tools and training on better nutrition and malaria prevention, clean water and improved sanitary practices, and other key community health issues. Additionally, they provide experiential training in household economics such as financial literacy and business management. Participation-mobilization-empowerment is interwoven throughout experiential health and economic trainings, and leads to collective action through income groups, community health projects and sustainable governance.

CHECs were first introduced in western Kenyan villages starting in 2021 through funding from a Rotary International Foundation grant to Global Health Connections (GHC), a not-for-profit organization. Four CHEC facilitators were recruited by GHC and trained online by Africa AHEAD Association (1) for over three months in four modules: Introduction, Planning, Monitoring and Facilitation including the use of the standard Africa AHEAD Toolkit with participatory exercises. Facilitators are college graduates with community health work and/or village-based microfinance experience, come from the surrounding areas, speak the local languages and know cultural nuances of a village/tribe. They have the local legitimacy that is needed for moving things forward in villages (2). They provide villagers with basic information about prevention of common diseases and entrepreneurial business concepts. Facilitators reach out to a village in hope that the village chief and elders will allow them to initiate a CHEC in their village. Upon approval, CHEC team members sign up 100 to 150 members and give each of them a membership card record attendance at weekly sessions over the subsequent nine months. The first six months are spent teaching a community health curriculum and this is followed by ten weeks of financial literacy training. Typically, women comprise at least 80% of the members of a CHEC. The CHEC participants in a village receive no material incentives or food for attending health sessions. Despite this lack of material incentive, CHECs invariably attract a consistently high attendance rate at health sessions over an extended period.

In the first six months, a Community Health and Empowerment Club (CHEC) aims to increase access to health knowledge as per the classic CHC training. Twenty-four health related topic sessions over six months are needed to ensure that knowledge and practice are sufficiently reinforced (3). Each meeting focuses on a single health issue such as the importance of handwashing. A related construct which supports the topic and doesn't incur much cost to the household is homework for attendees. For example, CHEC members are taught the importance of hand washing with soap or ash and are taught how to build a tippy tap to implement this at their house. These 24 weekly sessions are described in Table 1. To graduate from the twenty-four weeks of health learnings, participants must attend at least 80 per cent of the CHEC meetings. The graduation ceremony is a community-wide celebration to recognize CHEC members educational accomplishments. Graduates of a CHEC's six-month health curriculum are given the opportunity to then continue to ten weeks of financial literacy training and participate in community income generation groups. This training includes topics such as: business development, entrepreneurial behaviour, generating and funding a business, costing and pricing products, business records, growing and managing a business, and marketing.

Table 1. The Membership Card of Topics and Homework for CHECs in Kenya.

	Topic of the Session	Homework for the session
1.	Hand Washing	Build Hand Washing/Tippy Tap Stations
2.	Personal Hygiene	Build New, or Repair Existing Shower Shelters
3.	Diarrhea & Dehydration	Wash Hands Before Handling Food & Drink and Drink Plenty of Water
4.	Sources of Water	Fetch Water from Clean Sources
5.	Safe Storage of Water & Water Treatment	Filter and Store Water Properly (Issuance of Water Filters and Training Session from AquaClara)
6.	Zero Open Defection	Work on Model Latrine and Household Latrines
7.	Sanitation	Maintain a Clean Household
8.	Home Hygiene & Management of Solid Waste	Sweep/Clean Household Daily & Dig a Rubbish Pit
9.	Food Hygiene	Practice Handling All Foods Appropriately
10.	Respiratory Diseases	Keep Warm and Have a Well-Ventilated Home
11.	COVID-19	Sanitize Hands/Wear a Mask and Practice Social Distancing
12.	Skin Diseases	Wash Daily with Soap
13.	Parasitic Worms	Avoid Contaminated Food and Water
14.	Malaria	Use Mosquito Nets (Treated with Insecticide is Possible) and Keep Compound Clean
15.	Bilharzia	Avoid Using Contaminated Water
16.	Nutrition	Discuss Building Kitchen Gardens and Practice Eating a Balanced Diet
17.	Infant Care & Weaning	Breastfeed for 6 Months and Provide Nutritious Weaning Foods
18.	Gender Based Violence, Equality & Equity	Educate on Gender Based Violence, Equality and Equity Between Men and Women
19.	Alcohol & Drug Abuse	Educate on Alcohol and Drug Abuse
20.	Adolescent & Teen Pregnancy	Educate Teenagers on Changes in their Bodies and How to Prevent Pregnancy
21.	Anti-Microbial Resistance	Prepare and Handle Food Carefully; Wash Hands
22.	Immunizations	Discuss Recommended Immunizations
23.	Kitchen Gardens	Start Building Kitchen Gardens
24.	Graduation	Ceremony with Each Member Receiving a Signed Certificate

2.0 CHCs Evolve into CHECs

Although CHCs and CHECs do similar experiential health trainings, CHECs go further than the classic CHC by providing additional training in financial literacy and empowerment activities. Note that CHCs were developed around the time of the UN's six Millenium Development Goals, which has an emphasis on community health. Alternatively, CHECs are guided by the UN's seventeen Sustainable Development Goals, which use an integrated approach to primarily address poverty alleviation (3a).

The CHEC approach attends to at least ten of the seventeen SDGs, including: no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, decent work and economic growth, innovation and infrastructure, reduction of inequality, and sustainable cities and communities goals.

Graduates of a CHEC's six-month health curriculum are given the opportunity to continue onto ten weeks of financial literacy trainings and participate in community income generation groups. This training includes topics such as: business development, entrepreneurial attitudes and behaviours, generating and funding a business, costing and pricing products, business records and growing a business/marketing. Additionally, CHEC members form groups for income projects that are of interest in a village. For example, many of the CHEC villages have put bee hives in place for honey making (5) (6) (7).

Global Health Connections (GHC) support for Community Health and Empowerment Clubs (CHECs) take a different approach from the traditional ways of community microfinance that are led by financial institutions. Kenyan banks typically don't fund start-ups and are therefore criticized for not helping the poorest of the poor. Also, banks charge high interest rates of 15 to 20 percent and require that collateral be put up to secure a loan. Alternatively, CHECs help income groups come up with a business plan and provide funds if the group is willing to sign a Memorandum of Understanding to return the initial startup money within a designated period of time. A CHEC doesn't require collateral or charge interest. All told, CHECs help to empower the poorest of the poor despite the population's inability to gain credit from a bank (8).

Table 2: Indicators of Successful Community Mobilization in CHEC Villages

Indicators of successful community mobilisation	**Your country: Kenya**	
Standard mobilisation Targets for a Classic CHEC	**Total number**	**Target**
Number of weeks of training	24	24
Number of times CHEC met / average	1/Week	1/Week
Number of CHECs	15	20
Number of members in a CHEC (Size)	110 Members (On Average)	100-150
Number of possible households in all villages	Depends on the village. Typically Ranges from 100-200.	100-200
Average number of family in a household	7	5-8
Number of members		
Percentage of CHEC coverage in a village	80%	80% or greater
Number of beneficiaries	On average, 700 per village	700-800 per village
Number of NGO field officers in field	2-3	2-3
Number of MoH environmental health officers	0	0
Cost of Project	Varies on Economic Projects. On average $12,000 per CHEC	Between $10,000 to $12,000
Cost per beneficiary	$17 per beneficiary	Between $15-$18

Table 2 displays indicators of successful community health mobilization through CHECs in western Kenya. Weekly health trainings take place for 24 weeks. After starting with 4 CHECs in early 2021, there are 15 CHECs in operation in Kenya with an average size of 110 members per village. Thus, CHEC coverage in a village is approximately 80% with 700 direct beneficiaries in a village. The average cost of a CHEC has been $12,000US, which equates to $17US per beneficiary. To illustrate successful mobilization, Table 3 displays the results in one of the CHEC villages: Kanyadhiang in Homa Bay County. Kanyadhiang is a Lua tribe village and borders Lake Victoria to the west. As shown, attendance for various health experiential education sessions does not always meet the 80% threshold in Kanyadhiang. However, Global Health Connections (GHC) does a good job at providing additional education for those that don't attend all meetings. For example, GHC sends its facilitators out to households that participate in a CHEC to make sure that learnings are being implemented at the household. In cases, where there is a shortfall in implementation, the facilitators work with the household's CHEC member to improve conditions. Besides directly working with the household member, CHEC members who live nearby are often asked to help bring laggard households up to speed. This sharing of help among CHEC member households is used to reinforce the community mobilization goal for CHECs in Kenya.

Table 3: Targets and achievements of Mobilisation of the Community Kanyadhiang Village – Homa Bay County (73 members)

Dependant variable			
Number of sessions attended			
Water – 2 Total Sessions on Water	**# Sessions Held Pertaining to Topic and Name of Topic**	**Attendance #**	**Target: 80% or 58 members**
Enough water for all family to wash daily	1 session: Water Storage	45	58
Water containers are clean inside	1 session: Water Storage	45	58
Water containers are well sealed/covered	1 session: Water Storage & Treatment	45	58
Drinking Water is poured from jerry can	1 session: Water Storage & Treatment	45	58
Use of water filter (plastic)	1 session: Water Storage & Treatment	45	58
Sanitation - 1 Session on Sanitation			
Household has its own traditional pit latrine	1 session: Sanitation	45	58
Latrine is ventilated improved pit latrine (VIP)	1 session: Sanitation	45	58
The pit latrine has a well-fitting used cover	1 session: Sanitation	45	58
No urine/faeces inside latrine on floor/walls	1 session: Sanitation	45	58
No children's faces seen around house	1 session: Sanitation	45	58
No adult faeces seen around house	1 session: Sanitation	45	58
No animal dung seen around house	1 session: Sanitation	45	58
Personal cleanliness – 1 Session on Personal Hygiene			
Use of a bath shelter for daily washing	1 session: Personal Hygiene	50	58
Constructed bathroom for daily washing	1 session: Personal Hygiene	50	58
Children have clean faces, no flies on eyes	1 session: Personal Hygiene	50	58
Children have clean clothes	1 session: Personal Hygiene	50	58
Handwashing facility - 1 Session on Handwashing + Practical on building Tippy Tap			
handwashing facility near latrine	1 session: Hand Washing	44	58
Functional Handwash facility with soap & water	1 session: Hand Washing	44	58
Fly control / food hygiene			
Safe Food Storage	1 session: Food Hygiene	39	58
Livestock not kept in kitchen/house	1 session: Home Hygiene and Management of Solid Waste	39	58
Livestock kept in shed/pen	1 session: Home Hygiene and Management of Solid Waste	39	58

3.0 Data Analysis

Households involved in CHECs were surveyed using Qualtrics offline survey package. Surveying was done at baseline – before a CHEC was initiated – and fifteen months later, after experiential education in health and economics was completed and group income projects had been going on for about three months.

A day was set aside in each village for baseline surveying. The CHEC villages that were surveyed include: Kegati, Kiagware, Olare, and Kanyadhiang. Kegati and Kiagware are Kisii tribe villages and Olare and Kanyadhiang are Luo tribe villages. Thus, analysis results will have generalizability within a tribe and across tribes.

Complete survey data for baseline and midline survey was collected for 71 households in Kegati, 43 households in Kiagware, 81 household in Olare, and 73 households in Kanyadhiang villages as indicated in Table 3. There was no one present in some of the households for surveying when surveyors went back to perform the midline survey fifteen months later. Health, economic and social indicators were measured by categorizing survey responses into Red (poor), Yellow (adequate), and Green (best) categories using the standard Africa AHEAD household inventory, with some minor changes. Improvements were measured by comparing the number in each category from baseline to midline, with increases in green responses and decreases in red responses considered as improvements.

The null hypothesis for our impact of assessment is that no change took place from baseline to midline. As shown in Table 4, the baseline and midline survey results indicate statistically significant improvement ($p<.01$) in almost all of the variables from baseline to midline after only 15 months of CHEC activity. In the health survey, all variables showed statistically significant improvement in this time frame except. It is clear that household health broadly improved in a strongly significant manner over time.

Table 4: Chi-Square Values for Survey Indicators by Village

Survey	**Chi-Square Values**				
		Kisii Tribe Villages		**Lua Tribe Villages**	
	Indicator	**Kegati (N=71)**	**Kiagware (N=43)**	**Olare (N=81)**	**Kanyadhiang (N=73)**
Health	Compound	42.69**	66.41**	58.84**	24.97**
	Water Source	14.60**	35.70**	6.86**	7.99*
	Water Treatment	45.65**	90.70**	24.55**	22.06**
	Hand Washing	38.34**	101.66**	35.65**	18.16**
	Sanitation	68.96**	48.75**	16.69**	25.09**
	Malaria Prevention	121.16**	113.06**	109.43**	162.00**
	Nutrition	103.86**	103.66**	71.59**	102.84**
	Cooking	38.11**	5.78*	30.02**	23.94**
	Child Care	27.96**	40.41**	36.87**	37.61**
	Illness	96.62**	87.62**	70.86**	103.26**
	Values & Gender	23.67**	18.29*	9.14**	35.26**
	Household Roles	14.63*	19.25**	34.28**	2.22
Empowerment	Finance Roles	13.68**	21.68**	5.96	0.21
	Partner Relations	10.05**	2.34	4.37**	10.31*
	Village Participation	7.64	4.32*	15.82**	23.54**
	Psychology	12.32**	24.80**	58.89**	38.12**
	Financial Literacy	10.07**	7.65*	47.24**	40.74**
	Financial Management	13.76**	26.02**	1.47	12.49**
Economic	Income Improvement	22.46**	2.13	26.99**	60.77**
	CHEC Impact	34.93**	28.09**	65.61**	67.99**

**statistically significant change at the $p<.01$ level

*statistically significant change at the $p<.05$ level

4.0 Discussion

It is clear that the CHEC model offers initial evidence that a horizontal, community-based health and economic model that includes and empowerment element can help villages improve health, income and social well being household conditions. Further, these results are generalizable having coming from four villages and two tribes, the Kisii tribe and the Luo tribes in western Kenya.

We surmise that there are a variety of reasons why CHECs should have a positive impact in a village. Firstly, well-educated local leaders present health and economics educational sessions. The educators are known and respected in the villages (2). They speak the language and know the culture and, as a result, members are much more receptive to their teachings. Secondly, health and economics education sessions are experiential with hands on learning and 'homework' assignments for implementation in households. The club members are held accountable not just by mandating attendance of at least 80% of sessions, but also going to households to see if learnings have been implemented practically. Thirdly, the CHEC approach attempts to build social capital in a village (9) Initially, members participate in health and economic trainings. Practical exercises mobilize CHEC participants to join community projects and such. These activities often lead to confidence building, self-esteem, and community involvement**,** which we refer to as the empowerment component of the CHEC model. Fourth, villagers who go through the CHEC approach are being empowered and encouraged to take responsibility for improving their household health and economics (10) (11).

5.0 Limitations

Future studies should also include process evaluations in order to capture key factors of implementation that may influence outcomes, the number of resources provided for implementation, methods used to recruit participants, and socio-political and cultural contextual factors. Due to the difficulties and costs associated with conducting experimental designs, we recommend rigorously designed, quasi-experiments using mixed methods research, including focus groups. Considering these research design caveats, the results of this research strongly suggest that the Community Health and Empowerment Club (CHEC) model provides strong positive impact for improving household health and is a worthwhile endeavour for additional development in coming years. Further research will investigate the improvement in economic and empowerment factors that the CHEC adds to the classic CHC model.

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