

**EVALUATION REPORT OF THE COMMUNITY HEALTH STRATEGY
IMPLEMENTATION IN KENYA**

October , 2010

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LIST OF ABBREVIATIONS AND ACRONYMS

AMREF	African Medical and Research Foundation
ANC	Antenatal Care
AOPs	Annual Operational Plans
APHIA	AIDS, Population and Health Integrated Assistance
CAPs	Community Action Plans
CBHC	Community Based Health Care
CBHIS	Community Based Health Information System
CBOs	Community Based Organizations
CDF	Constituency Development Fund
CHANIS	Child Health and Nutrition Information System
CHCs	Community Health Committees
CHEWs	Community Health Extension Workers
CS	Community Strategy
CUs	Community Units
DANIDA	Danish International Development Agency
DCH	Division of Child Health

DHMT	District Health Management Team
DMOH	District Medical Officer of Health
ECN	Enrolled Community Nurse
GAVI	Global Alliance for Vaccines and Immunization
GOBI	Growth monitoring, ORT, breastfeeding and immunization
GoK	Government of Kenya
GTZ	German Development Cooperation
HENNET	Health NGOs Network
HSSF	Health Sector Services Fund
ICC	Interagency Coordinating Committee
IDA	International Development Assistance
IEC	Information, Education and Communication
ICT	Information and Communications Technology
ITNs	Insecticide Treated Nets
JICA	Japan International Cooperation Agency
KDHS	Kenya Demographic Health Survey
KEPH	Kenya Essential Package for Health
KIDDP	Kenya-Italy Debt for Development Programme

LATF	Local Authority Transfer Fund
LLITNS	Long Lasting Insecticide Treated Nets
MBB	Marginal Budgeting for Bottlenecks
MDGs	Millennium Development Goals
MoMS	Ministry of Medical Services
MoPHS	Ministry of Public Health and Sanitation
MUAC	Mid-Upper Arm Circumference
NHSSP	National Health Sector Strategic Plan
NTWG	National Technical Working Group
NIA	Neighbours Initiative Alliance
OED	Operations Evaluation Department of the World Bank
PHASE	Personal Hygiene and Sanitation Education
PHC	Primary Health Care
PHTs	Public Health Technicians
PRST	Poverty Reduction Strategy Programme
SAPs	Structural Adjustment Programmes
TORs	Terms of Reference
UNICEF	United Nations Children's Fund

EXECUTIVE SUMMARY

Introduction

Implementing community health services is a top priority of the Ministry of Public Health and Sanitation (MOPHS), and its partners in Kenya. This is well articulated in the Ministry of Health Joint Programme of Work and Funding, 2006/07–2009/10, the MoPHS strategic plan 2008-2010 and the second National Health Sector Strategic Plan (NHSSP II) of 2005–2010. The Kenya Essential Package for Health (KEPH) introduced six life-cycle cohorts¹ and six service delivery levels². One of its key innovations is the recognition and introduction of level 1 service, which aimed at empowering Kenyan households and communities to take charge of improving primary health care their own health. In this regard it became inherent that an evaluation be done to assess the progress made so far by the Community strategy in delivering health care at level one and recommend ways of improving it.

Since the rolling out of the community health strategy in 2006, other players in the health sector like the civil society organizations (CSOs) and the Faith Based Organisations (FBOs) have meaningfully complemented the government's efforts in establishing community units aimed at empowering the communities to manage their own health. In line with the vision 2030, the government intends to scale up community units in the country, and also work towards improving the health service delivery at level one. In view of the above facts, an evaluation was undertaken in order to establish

¹The cohorts include;- Cohorts 1 and 2- pregnancy and newborns; cohorts 2 and 3-young and older children; cohort 4-adolescents; cohort 5 -adults and cohort 6 –elderly.

² The six levels are:- Level 1-community; level 2-Dispensary/clinics; level 3-Health centre; level 4-pimary/district hospital; level 5- secondary/provincial hospital and level 6- tertiary/national hospital

the effectiveness and relevance of the community health strategy as well as take stock of the lessons learnt with regards to empowering communities in taking charge of their own health. Based on the above, the evaluation team was tasked with giving recommendations for the revision of the community health strategy.

Evaluation purpose and methods

The main purpose of the evaluation was to establish the effectiveness and relevance of the community health strategy as well as take cognizance of the lessons learnt with regard to empowering communities in taking charge of their own health. The evaluation utilized a triangulation approach in data collection. The main data collection method was a household survey in which 3884 respondents were interviewed. The respondents were randomly selected from 21 of the 64 districts where the community health strategy has been implemented by the Global Alliance for Vaccines and Immunization (GAVI).

Qualitative data was collected through Focus Group Discussions (FGDs) with Community health workers and beneficiaries. In addition, more data was collected through Key Informant Interviews (KIIs) with stakeholders and partners at District, provincial and national levels. In this regard 40 FGDs were conducted and 120 KIIs carried out with District Health Management Team (DHMT) members in the selected districts and an additional 10 other KIIs with partners and MoPHS at the national level.

Summary of findings

A desk review of CBHC programmes in countries including India, Thailand, Ethiopia, Brazil, Malawi , Philipines, Nigeria was undertaken and the results showed that the

community health intervention models in most countries are different but the principles of operations are more or less the same. It was however evident that Community Health Workers' (CHWs) high retention rate is attributable to well defined incentive package. In addition, the community health intervention services have synergy when strongly linked with other grass root level functionaries such as those of water, sanitation and education. In addition they also lower the costs of routine monitoring and evaluation if they are jointly assessed.. Similarly, political will and government's commitment through budgetary allocations is paramount for the success of community health strategies.

The evaluation established that the services currently being offered by the Community Strategy at level one in Kenya under the hygiene and sanitation such as water safety, food hygiene and solid waste disposal among others are relatively more comprehensively covered as compared to the other components.

Global indicators including those on; health of newborns, maternal health, malaria and environmental health and sanitation were used to assess the overall performance of the CS. There were two categories of sampling sites; the intervention and comparison sites.³

³ The intervention site refers to well established community units with community strategy implemented by GAVI or any other partners for a period of six months or more; while the comparison site refers to sub locations where the community unit has not been established within the same district.

Overall, the two sampling sites had significant differences in most of the evaluated aspects at 95% confidence interval. The intervention site had 84.2% of the proportion of children aged 12 months and above having been fully immunized whereas 80.1% of the comparison sites had received full immunization ($\chi^2=7.580(a).452$, $df =2$, $p=0.023$). Also, 27.1 percent of children in the intervention sites and 23.6 in the comparisons sites 6 months of age were exclusively breastfeeding ($\chi^2=1.572$ (b), $df =1$, $p=0.210$). Two weeks before the evaluation, 21.6% and 42.2% of the children under five in the intervention and comparison sites respectively had diarrhoea ($\chi^2=112.9(b)$, $df =1$, $p<0.001$).

In this study results indicated that 55.9% of the respondents from intervention sites attended at least four ANC visits compared to 44% from comparison sites. There was a significant statistical difference in the two sites, ($\chi^2 = 149.535$, $df =4$, $p<0.001$).). The expectant mothers are also given a tetanus vaccine during pregnancy to protect the unborn child. The results indicated that 94.5% of the mothers in the interventions sites and 72.4% in the comparison sites protected their children from neonatal tetanus ($\chi^2 = 240.976$, $df =1$, $p<0.001$).). The results also indicated that 53.7% and 44.4% of the mothers in the intervention and comparison sites respectively were assisted during the delivery of their last child by a skilled attendant ($\chi^2 = 63.331$, $df =5$, $p<0.001$).).

In the intervention site, 86.6% of the respondents knew at least one family planning method compared to the 84.2% in the comparison sites ($\chi^2 = 3.223$, $df =1$, $p= 0.073$). Similarly in terms of access to family planning services the results indicated that 87.2% and 86.1% of the respondents in the intervention and comparison sites respectively knew where to access family planning services in their area. The utilization of family planning is still low in both sites though not significantly different between the intervention and comparison sites. Currently 47.4% and 47.2% of the respondents from intervention sites and comparison sites respectively are using any method of family planning in the selected districts ($\chi^2 = 0.006$, $df =1$ $p= 0.940$). Pills and injectables are the

most commonly used family planning methods. The survey found out that 71.3% and 70.2% of the household in the intervention and comparison sites respectively had at least one mosquito net ($\chi^2 = 0.358(b)$, $df = 1$ $p = 0.550$).

The proportion of households with latrines was 87.7% in the intervention sites and 84.4% in the comparison sites ($\chi^2 = 8.225$, $df = 1$, $p = 0.004$). The results indicated that 78.6% of the respondents in intervention sites and 73.5% in the comparison sites practiced proper handling of children stools. The results indicated that 29.1% and 23.4% of the respondents in intervention and comparison sites respectively treat their water and that the difference was significant in the two sites ($\chi^2 = 15.269$, $df = 1$, $p < 0.001$). The results indicated that water treatment may be a likely explanation for the differences observed for diarrhea.

Results from KIIs with CHEWs and FGDs with CHWs showed there was an established link between the community and the health facilities. This was mainly through the coordination between PHT-CHEW and the CHWs who participated in identifying cases of illnesses at the community level and referring them to the health facilities. After interviewing the CHEWs and CHWs as well as holding discussions with the beneficiaries in the CUs, it was revealed that the community was increasingly becoming aware of their rights to quality health care. However community members were not adequately empowered to demand for the services and there was lack of clear structures for addressing their grievances.

It was established that, the community based health information management was not very effective. However, not all CUs were introduced to the CBHIS and some data tools were developed by NGOs in their specific programmes. Information collected included the mothers referred for ANC, exclusive breastfeeding, children receiving vitamin A, ART defaulters among others. All this information is collected on a monthly basis and submitted to the CHEWS who then forward to the District health records officers who

then compiles the report and forwards to the national level. This information is then used to guide the health interventions at the community level.

Lessons learnt

The main lessons learnt from the evaluation are as follows;-

- Participation of community members in strengthening health systems elicited grass root acceptance, support and sense of ownership. This resulted in increased demand for health services at level 1 therefore improving health of the target population.
- Active supervision and linkages forged between DHMT, CHEWs, CHWs, and CHC played a key role in the sustainability of the programme.
- Creating community demand for health services by government and partners must be matched with the availability of improved services within health facilities.
- A comprehensive, integrated approach to a multidimensional health programme helps ensure that communities ultimately access the services they need.

Conclusions

There is evidence that developing countries such as Kenya have a big burden of disease. Similarly they have fewer number of health professionals and also spend a smaller proportion of the budget on health. From the evaluation results it could be concluded that:-

- The community health strategy has potential benefits in improving health service coverage and quality leading to a more productive living bearing in mind that the implementation had been there for only six months at the time of the

evaluation. Therefore community health strategy in may be is a vehicle for social transformation towards improved quality of life at the community level.

- Information from KIIs at the MoPHS and DHMT showed that the facilitation resources were limited and therefore there is a need to mobilize resources. This is through providing an annual budget line for the strategy in the MoPHS.
- There were discrepancies between the content of training for CHWs and the tasks they were required to perform after training by different partners.
- The current MoPHS policy which involves the non remuneration of CHWs/CHCs is not favourable. Some programmes implemented by partners have a structured remuneration package for their CHWs hence the government CHWs who are not remunerated get disillusioned.
- The CS services are not comprehensively addressing the needs of the people at all stages of the life cycle. For instance the adolescent's Reproductive health and psychological health issues are not effectively addressed.

Recommendations

Based on the evaluation results, the following recommendations are made for the revision of the community health strategy.

Recommendations for policy and practice

- There is need to explore non financial incentives for CHWs that are performance based e.g. when there is; reduction in maternal death, increased condom use etc in their communities before we consider financial incentives. This approach has

worked very well in some countries e.g India. These incentives would take the form of exchange tours, badges, recommendations letters, and certificates of attendance.

- The training of CHWs should be re-designed and delivered in phases (several short training modules spread over time) covering more content. Such multi-phased training will increase the retention rate because the CHWs will anticipate further training and probably develop a career path. This approach has worked very well in Malawi and successful participants have been recommended for further training.
- There is a need for advocacy to ensure that all partners/ministries of government adopt the community unit as the unit for all developmental work to ensure synergy
- There is a need to ensure that if trained health workers are to be CHEWs working with the community health strategy, then their functions should be included in the basic/pre-service training and they should only be deployed for this work. Otherwise there is need to develop a new cadre of workers specifically for CS as has been the case in Ethiopia

Recommendations for Service delivery

- There is need for production and dissemination of key health messages of CS targeting high impact interventions. These should include effective communication mechanisms through visual and audiovisual channels.
- There should be improved staffing of the facilities where CUs are linked in order to strengthen referrals and linkage systems especially taking into consideration the spatial distribution and population density. This will improve support supervision from CHEWs to CHWs during their community work.

Recommendations for Further Research

Further studies should be carried out in the following areas:-

- Evaluating the performance of CS and emphasis should be on the key health indicators
- Determining the optimal contents of the CHW kits, considering their capacity, training and their role in service delivery.

CHAPTER ONE: INTRODUCTION

1.1 Background

Kenya is a signatory to the international declaration for achieving health for all by the year 2000 through a conference held at the Alma-Ata in the Soviet Union in 1977 which was later endorsed by the World Health Organization (WHO) in 1978. The efforts to achieve the goals of this declaration and that of the Bamako initiative of 1988 are yet to be realized. (MoH , 2006) . However, the Government today has a policy of free health for children below five years, and also some services are freely available to women who are expecting. The CH strategy is one way of working towards providing health care for all by lowering the costs of health through strengthening primary health care and providing low cost interventions at the community levels through CHWS.

The Ministry of Public Health and Sanitation (MoPHS) adopted the Community Health Strategy in the year 2006 to actively engage the communities in managing their own health (MoH, 2005). The strategy aims at improving health indicators by implementing some very critical interventions at the community level. The overall goal of the community strategy is to enhance community access to health care in order to improve productivity and thus reduce poverty, hunger, and child and maternal deaths, as well as improve education performance across all the stages of the life cycle and the government has achieved 7% coverage to date. Non-governmental and community based organizations (CBOs) have also been involved in the implementation of the strategy at grass-root levels.

The second National Health Sector Strategic Plan in Kenya (NHSSP II - 2005-2010)

came up with a new approach to the way the sector would deliver health care services to Kenyans – the Kenya Essential Package for Health (KEPH). KEPH introduced six life-cycle cohorts and six service delivery levels. One of the key innovations of KEPH is the recognition and introduction of level 1 service, which was aimed at empowering Kenyan households and communities to take charge of improving their own health. The community health strategy set an ambitious target of reaching 16 million Kenyans (3.2 million households) in four years. It envisaged building the capacity of households not only to demand services from all providers, but to know and progressively realize their rights to equitable, good quality health care. The strategy introduced innovative approaches such as community participation for accomplishing these challenging but realizable targets.

Implementing community health services is a top priority of the Ministry of Public Health and Sanitation, and its partners in the sector. This is articulated fairly well in the Ministry of Health Joint Programme of Work and Funding, 2006/07–2009/10 and in the MOPHS strategic plan 2008-2010.

1.2 The purpose and justification of the Evaluation

Other players in the health sector like the civil society organizations (CSOs), Faith Based Organizations (FBOs), CBOs and Non-governmental Organizations (NGOs) have meaningfully complemented the government's efforts in the implementation of the strategy aimed at empowering the communities to manage their own health. Some of these organizations have established CUs, trained CHWs and DHMT members and given material support for the implementation of the community health strategy.

In line with the National Vision 2030, the government intends to scale up community units in the country, and also work towards improving the health service delivery at level one. In view of the above stated information, it was important to carry out an evaluation of the implementation of the community health strategy in order to establish its effectiveness and relevance as well as take cognizance of the lessons learnt with regards to empowering communities in taking charge of their own health.

1.3 Nature of the Review

The assessment of the effectiveness and impact of the community health strategy was based on the objectively verifiable indicators and means of verification set out in the terms of reference (TORs), together with a review of the context in which the programme is operating. An overall assessment of the performance was based on how individual results have led to the achievement of the purpose and objectives of the strategy. In addition to the effectiveness and impact of the programme, the evaluation considered the relevance, efficiency and sustainability of the strategy:

Relevance: Did the programme address issues which are relevant to the target group? Were the strategies and approaches used to achieve the programme results appropriate? Have they been reviewed and adapted to any new circumstances/problems encountered during the implementation? Was the programme design able to address the problems identified?

Efficiency: Are the costs incurred during implementation justified by the achieved outputs of the programme? Does the time frame and human resource match the outcomes of the programme?

Sustainability: What are the prospects that communities will maintain an acceptable level of health status based on the major indicators?

1.4 Terms of reference for the Evaluation

The scope of the community strategy evaluation was to:

- Review the historical performance of the conventional primary health care delivery in Kenya based on the guidelines provided during the Alma Ata and Bamako declarations.
- Identify the different kinds of the services provided in the level one with a view to assessing the comprehensiveness of the services.
- Determine the level of capacity building for the Community Health Extension Workers (CHEWs), Community Health Workers (CHWs) and Community Health Committees (CHCs) to provide services at level one.
- Assess the extent of linkages between the health facilities and community units
- Determine the extent the capacity of the community has been strengthened to demand for quality health services as reflected in the output and output indicators.
- Establish how information is collected from the household level, analyzed, utilized and transmitted to the higher levels.
- Based on the above give recommendations for the revision of the Community Health Strategy.

CHAPTER TWO: REVIEW OF THE HISTORICAL PERFORMANCE OF THE PRIMARY HEALTH CARE

2.1 Primary health care and community based health care in Kenya

The PHC was launched in Kenya as a pilot programme in 1977 and rolled out to 14 districts in the country as Community Based Health Care (CBHC) programme in 1986. In the 1980's and early 1990's, Kenya made considerable achievements in developing a health care system based on the Primary Health Care (PHC) model through community participation by addressing all and other additional elements of PHC. The concept of PHC as originally outlined by the world's nations at the 1978 Alma-Ata Conference sought to establish the accountability of health workers and health ministries, with guarantees to meet the basic health needs at low cost.

Primary Health Care interventions in Kenya were enhanced by the Bamako Initiative of 1987 which aimed at increasing access to primary health care by raising the effectiveness, efficiency, financial viability and equity of health services. This resulted in acceleration of the uptake of health promoting and disease preventing maternal and child health programs. This led to availability of essential drugs at an affordable cost, through the sale of essential drugs in community pharmacies that clearly reduced both financial and geographical barriers to access (Kara & Mcpake, 1993).

The CBHC involved active participation of communities in decision-making concerning their priorities in health promotion and disease prevention. The commitment of the Kenya Government in reinforcing PHC was emphasized in the National Development Plans of the 80s and 90s: 1980-84; 1985-88 and 1989-93. In particular, the 1989-93

national development plan provided a general framework for PHC development. Attempts were also made to change the attitude of health personnel towards PHC through capacity building that targeted the District Medical Officers of Health (DMOH) and the District Health Teams, and these were charged with the responsibility of coordinating the PHC activities in the districts (WHO, 2003).

This comprehensive broad-based PHC approach was abandoned for being too costly due to a global recession and shrinking health budgets. It was replaced by the cost-effective “selective PHC” in form of vertical disease-specific interventions such as growth monitoring, ORT, breastfeeding and immunization (GOBI), mainly targeting reduction in child mortality. The situation was further worsened by the introduction of World Bank and IMF austerity policies popularly known as the Structural Adjustment Programmes (SAPs) during the 1980s. ‘User-financing’ and ‘cost-recovery schemes’ were among the most pernicious of these policies. This was mainly because of the introduction of ‘cost sharing’ whereby the beneficiaries had to pay some amount of money in the health facilities. Health records in Kenya have shown that when cost-recovery was introduced, the use of primary health care facilities by high-risk groups dropped.

This led to adoption of a new approach to the way the sector intended to deliver health care services, the Kenya Essential Package for Health (KEPH). KEPH introduced six life cycle cohorts and six service delivery levels. The community-based component of KEPH recognized and introduced level 1 service, which aimed at empowering Kenyan households and communities to take charge of improving their own health (MOH, 2006).

The community-based approach *is the mechanism through which households and communities take an active role in health and health-related development issues.* Initiatives outlined in the approach target the major priority health and related problems affecting all cohorts of life at the community and household levels. It is envisioned that the communities and households will actively and effectively be involved in their health issues and enabled to increase their control over their environment in order to improve their own health status. One of the major intentions of this approach, therefore, is to build the capacity of communities to assess, analyze, plan, implement and manage health and health related development issues, so as to enable them to contribute effectively to the country's socio-economic development. The second major intended impact of the approach is to empower the communities to demand their rights and seek accountability from the formal system for the efficiency and effectiveness of health and other services.

2.1.1 Community Based Health Care in other countries

Thailand has a long history of PHC development which started before the Alma Ata Declaration of 1978. Since then, the PHC has evolved through many innovative health activities: community organization, community self-financing and management, the restructuring of the health system and multi-sectoral co-ordination. Through this, improvements in the nutritional status of children under five, household's accessibility to clean water, immunization coverage, and the availability of essential drugs have been observed. PHC has been successful in Thailand because of community involvement in health, collaboration between government and non-government organizations, the integration of the PHC programme, the decentralization of planning and management,

inter-sectoral collaboration at operational levels, resource allocation in favour of PHC, the management and continuous supervision of the PHC programme from the national down to the district level, and the horizontal training of villagers to villagers (NITAYARUMPHONG, 1990).

In 1995 the Philippine government enacted the Barangay Health Workers Act of 1995, which granted benefits and incentives to accredited *barangay* health workers (BHWs). The act included such provisions as subsistence allowance, career enrichment programs, recognition of years of primary health care, special training programs, and preferential access to loans (Paison, 1999). An increasing number of honoraria, or travel allowances, have been provided to community volunteer health workers (CVHWs) from both municipal governments and village development councils. The honoraria, which range from US\$.50 to US\$50 a month, are possible because of the devolution of health services from the provincial level to the municipality and village levels. At each level local support for the health programs is funded out of the government's respective revenue allocation (Paison, 1999).

In Brazil, a decentralized approach using paid health agents (HAs) has been shown that it could improve access to health care. The selection criteria ensured that the HAs ought to have lived in the community for the previous five years; they also had to be over 18 years of age; able to work eight hours a day; and committed to social service. Each HA visited 75 households (225 in urban areas) once a month to provide health education and minor curative treatment. Nurses from the nearest clinic supervised them. The agents earn the equivalent of US \$112 a month (twice the average local monthly income), which is paid out of tax funds from the state government to insulate the HAs from local politics. To ensure local support for the HAs, municipal governments must use some of the newly decentralized funds to employ the nurse supervisors before the

state funds could be released. The use of HAs has resulted in a well-trained cadre of health workers and dramatic improvements in child health, with an infant mortality reduction of 32 percent.

In Nigeria, a Rural Health Program, of the Christian Reformed Church in Gongola State found that VHWs left their posts after one to three years (Gray and Ciroma 1987). The VHWs worked one or two hours a day and received a small salary (the equivalent of US\$13 to \$27 a month in 1984). Men with lower monthly incomes worked two years and women with lower incomes worked one year, while men with higher pay stayed an average of 3.25 years and higher paid women stayed 1.5 years. Small salaries were reported most often as the reason VHWs found the work difficult.

Some countries have experimented with insurance plans. In Haiti a combination of a prepaid scheme, existing community groups, and revenue-generating activity has been used to motivate CHWs to provide preventive services (Augustin and Pipp, 1986).

In India, PHC is the first contact point between village community and the Medical Officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The PHCs are established funded and maintained by the State Governments under the Minimum Needs Programme (MNP)/ Basic Minimum Services Programme (BMS). There is recognition, provision of uniform, apron, identity card, and awards for ASHAs. The ASHAs also receive **performance-based incentives** for promoting universal immunization, referral and escort services for health care programmes and construction of household toilets.

In India there is a system of linkage through village health committees (VHC) but there is a variation in community participation. In addition, the terms of reference for the VHC are not clearly spelt out. The HSA are ex-official of the VHCs while the CHW are part of the community health village committees (CHVC). The Management and utilization of the health information is left to the HSAs. The HSA's are supervised by Environmental Health Assistants (EHA); however there were indications that other technical cadres e.g the nurses are involved in the supervision of HSA. The Convergence between Health and WCD has been institutionalized hence a strong linkage between community and volunteers/staff.

The ASHAs in India are women aged between 25-45 years and are volunteers. They are elected from the community through a process involving community and grass root level functionaries but they must be literate with education up to class eight. There is a clear Data collection, management and utilization system from the village level to the district level. Data is collected by HSA at village level then analyzes it and provides feedback to the VHC and community on monthly basis. A village health register is maintained by the Anganwadi Worker (AWW). ASHA play a role in helping the AWW to complete and update the register by maintaining a daily diary. The diaries, registers, health cards, immunization cards may be provided to from the untied funds made available to the Sub-Centres. There are no professional tasks shifted to ASHAs because the country has adequate staff as reported at all levels of health care. The ASHAs have a drug-kit to deliver first-contact healthcare and they are first port of call for health related demands of deprived sections of the population, especially women and children, who find it difficult to access health services. There exists a well managed referral system where the government tenders to a private firm at a cost of 14,000 rupees per month and fuel charged per kilometers (MoPHS, 2008).

Research carried out on Malawi, found out that there was no equivalent of CHWs and CHEWS but instead there are Health Surveillance Assistants (HSAs), who are institutionalized and are paid through the government payroll. These are guided by a scheme of service and are liable to promotion to senior HSA. There are also volunteers who may be similar to CHW but who do not have clearly defined roles but are used by the HSA's whenever they require their support. The HSA's are provided with bicycles, drug kits and are given an opportunity to further their studies in areas including nursing, environmental health and medical health. They undergo 6-10 weeks training depending on the kind of training.

In Ethiopia CHWs are any persons willing to volunteer their services and 50% of them are women. The CHWs are trained for 3-5 days and some partners reimburse transport as a form of motivation. Their coverage area depends on the population density and is between 20-50 households. There exists a Monitoring and Evaluation (M&E) system in which EPI data is transmitted from the health post to the Health Center. However there are no data collection tools and the CHEWs use note books to collect information.

In a system established in Ethiopia's Gumer District, each household contributed one *birr* (US\$0.15) a year to support the community health agents (CHAs) and traditional birth attendants (TBAs). This contribution was enough to cover a modest stipend for all trained CHAs and TBAs, and the attrition rate fell from 85 percent a year to zero (Wubneh, 1999).

In conclusion, the review shows that the community health intervention models in the respective countries are different but the principles of operations are more or less the same. It was evident that CHWs high retention rate is basically attributable to

availability of a well defined incentive package. Political will and government's commitment through budgetary allocations is key. In regard to the services offered by CHWs, women seemed more acceptable and trusted to work with the families and communities. The community health intervention services have synergy when strongly linked with other grass root level functionaries such as those of water, sanitation and education.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This evaluation was conducted by a team of five consultants from Promotive Health Consultants. About 84 research assistants were engaged for this exercise, which covered 20 districts across the country. In each district, 3 sub locations with community strategy (intervention site) and 2 without community strategy (comparison sites) were sampled.

The intervention site refers to a well established community unit (CU)⁴ with community strategy implemented by GAVI or any other partners for a period of six months or more; while the comparison site refers to where the community unit has not be established within the same district.

3.2 Evaluation Tools

The evaluation team used a comprehensive, mixed-methods evaluation design relying on both qualitative and quantitative methods as follows:

3.2.1 Desk review

This was conducted using standardized tool for extracting relevant information. The literature that was reviewed included documents on history of primary health care in Kenya and CHS; policy and strategies guidelines, manuals, website providing

⁴ A community unit is equivalent to a sub-location.

information on best practices, M & E formats and tools. In addition, desk review was conducted on Primary health care and Community Based health care in selected countries namely Ethiopia, Nigeria, Haiti, Phillipine, Malawi, India, Thailand, Brazil and Cuba.

3.2.2 Household Questionnaire

A structured questionnaire was designed, piloted and used to collect quantitative data from the households in the selected sites. A total of 3947 respondents from the sample population were interviewed. The questionnaire consisted of the major components of the programme informed by the existing data collection framework and relevant strategy documents.

3.2.3 Key informant interviews

Key Informant Interviews were conducted using a semi-structured tool for key people **directly** and **indirectly** involved in the implementation of Community Health Strategy from the national to CU level. These included National, Provincial and District officers; such as DHMT members, chairs of the community health committees (CHCs), Community health Extension workers (CHEWs), Donors, CSO and FBO officials and other relevant stakeholder in the health sector. In this regard, a total of 120 KIIs were conducted at District level and another 10 conducted with Key officials at MOPHS, HENNET, JICA and UNICEF.

3.2.4 Focus Group Discussions

Focus Group Discussions (FGDs) were held with Community health workers and Beneficiaries to collect their views on the implementation of the community health strategy. In this regard a total of 40 FGDs were conducted 20 with CHWs and 20 with beneficiaries mainly women.

3.3 Study design

The study design was a cross-sectional comparison study covering intervention and comparison CUs in the selected districts.

3.4 Sampling

The study utilized a multi-stage sampling design involving the following stages. The target population was drawn from 64 districts where the community health strategy has been implemented by GAVI. To obtain a representative sample, 30% (statistically considered as a critical mass) of the districts were selected based on a table of random numbers. Therefore a total of 20 districts were selected for the evaluation (each of the districts had several intervention sites/units). The following table summarizes the selected districts. Table 1 provides a list of selected districts for the survey.

Table 1: Districts that were selected for the survey

District	Number of community units with intervention	Province
Kisumu West	7	Nyanza
Siaya	7	Nyanza
Bondo	6	Nyanza
Wajir West	6	North Eastern
Bungoma East	8	Western
Eldoret West-U.G South	6	Rift valley
Mumias	6	Western

District	Number of community units with intervention	Province
Kaloleni	7	Coast
Mombasa	7	Coast
Kilindini	7	Coast
Kilifi	7	Coast
Machakos	5	Eastern
Yatta	3	Eastern
Kajiado	6	R Valley
Kangundo	4	Eastern
Thika	7	Central
Nakuru	7	R valley
Naivasha	7	R valley
Nyeri North	17	Central
Gatundu	9	Central

Summary - Central (3 districts), Coast (4 districts), North eastern (1 district), Nyanza (3 districts), Rift valley (4 districts), Western (2 districts) and Eastern (3 districts), north eastern (2 districts).

In each district, purposive sampling was used to select 3 CUs (Sub locations) which

acted as intervention sites and 2 non intervention sites (sub locations) for comparison. The study team ensured the intervention and non intervention CUs were not adjacent to each other. These cluster groups provided a sampling frame from which the households were drawn. Once at the CU, the researchers identified approximately the center of the Community Unit. At this point the enumerators transected the unit in different directions (North, East, south and West). Using systematic sampling design every fifth home was selected and the head of household interviewed. In case the HH head was not present, the next most senior member of the household was interviewed so long as they belonged to the target age group (18 years and above). There was no call back and in this regard the enumerators moved to the next HH and systematically continued until the required number of respondents was achieved.

3.4.1 Sample size determination for Household interviewees

The sample size was calculated on the basis of wanting to capture difference of 14 percentage points in the critical indicators (e.g. immunization coverage) for each of the intervention areas. Detecting change of this magnitude was based on a 95 percent level of significance on the observed value of change. A design effect of 1.3 was chosen based on estimates of design effect in the 2008 KDHS for similar characteristics.

The following formulae was used to calculate the sample size

$$n = D [(Z\alpha + Z\beta)^2 * (P1(1 - P1) + P2(1 - P2) / (P2 - P1)^2]$$

KEY: n = required minimum sample size per comparison group;

D = design effect, which provides a correction for the loss of sampling efficiency resulting from the use of cluster sampling instead of simple random sampling

(often set at the conservative value of 2.0).

P_1 = the estimated level of an indicator measured as a proportion at the time of the first survey or for the control area;

P_2 = the expected level of the indicator either at some point in the future or for the programme area, such that the quantity $(P_2 - P_1)$ is the size of the magnitude of change desired for detection;

Z_α = the z-score corresponding to the degree of confidence desired for concluding that an observed change of size $(P_2 - P_1)$ would not have occurred by chance alone (α is the level of statistical significance; it is frequently set at .95 for most social programmes); and

Z_β = the z-score corresponding to the degree of confidence required to detect a change of size $(P_2 - P_1)$ if one actually occurred (β is the statistical power).

On the basis of these parameters, the sample size was calculated as follows:

$$D = 1.3$$

$P_1 = 0.36$ (for the indicators requiring the highest sample size to maintain the precision of the study - i.e. underweight)

$P_2 = 0.32$ (the expected percentage change is 14percent)

$$Z_\alpha = 0.95$$

$$Z_\beta = 0.80$$

This gave a total sample size for programme of about **4200** respondents. Therefore

approximately 200 HHs were sampled per district on a ratio of 3:2 for intervention and non-intervention sites. This constituted 120 HHs in the intervention and 80 HHs in the comparison sites within a district. In order to cater for confounders as a result of spillover effect of the intervention, the researchers ensured that the control sites selected were as not adjacent to the intervention sites. The actual Households interviewed were 3834 covering 20 Districts representing 96% response rate. The reduction in the sample size was caused by inability to get to parts of Wajir District due to bad weather and inaccessible road network.

3.5 Data Management

3.5.1 Process of data collection

The data collection was undertaken using the following steps

Step one: Recruitment and training of research assistants

An intensive, two-day training of the Research Assistants (RAs) was undertaken prior to the evaluation. The training covered the basics of enumeration, how to conduct household interviews, focus group discussions, participatory translation and back-translation of the survey instruments, pre-testing of the instrument for appropriateness and suitability, and actual fieldwork logistics, among others.

Step two: Data collection process

Enumerators filled out the questionnaires and sampled only heads of households (either men or women). However, it was the responsibility of the consultants to verify the completeness and thoroughness of the questionnaires, before handing over to the data entry clerks.

3.6 Data analysis procedures

Quantitative data was entered using SPSS data builder version 4.0 (an access based data base software) and later converted to SPSS where analysis was done. Descriptive and inferential statistics were used. For descriptive statistics of frequencies and percentages were used to summarize the data while inferential statistics: Chi-square was used to tests for investigating whether distributions of categorical variables differ from one another., a *p value* less of equal to 0.05 was considered significant. The results are presented in the form of frequencies and percentages

Qualitative data was triangulated and analyzed based on the thematic areas. Nvivo Nudist software was used for qualitative analysis and all the information gathered was transcribed. Structure analysis and triangulation was used to generate the themes so as to draw conclusions based on the TORs.

3.7 Ethical considerations

Before data collection, it was important to assure the respondents of confidentiality and get their verbal consent before participating in the study. In some cases, respondents were requested to grant permission to be cited in the report.

3.8 Challenges encountered during the survey

Working in cross cultural communities is always a challenge. The people in the communities had many expectations from the research team; some for instance, asked for a reward or some form of compensation before participating in the study. The poor infrastructure in some areas was a big challenge especially during the rainy season.

Specifically in Wajir District (North Eastern Province) the road became almost impassable due to flooding.

3.9 Limitations of the Study

1. Operational definition of cases (intervention sites) and controls (comparison sites) in community surveys. The controls in this study were not truly controls since the design is not experimental. The results may be compromised by the distance, access to other community units especially if all intervention units are located in accessible areas vis-à-vis the non intervention communities
2. Interviews - There is a possibility of reporting bias in interviews as a result of social desirability making respondents say what they think the researchers want to hear. The enumerators were encourage to probe and ensure that the respondents gave accurate answers
3. The CS programme document had not set clear indicator targets for the specific components to be achieved.

CHAPTER FOUR: RESULTS PRESENTATION AND DISCUSSION

4.1 Comprehensiveness of the Service provided in level one health care in the CHS

To assess the level of performance of the services provided, the evaluation team used global health indicators as outlined in the Community strategy document (Reversing the trends- Taking the Kenya Essential package for Health in The community, 2006) to demonstrate the performance of the programme.

The evaluation established that the services currently being offered by the CS at level one were mainly: effective communication aimed at behavior change, disease prevention, and access to safe water and basic care. The components of services under the hygiene and sanitation were relatively more comprehensively covered as compared to the other components (*See table 2 below*).

Table 2: Summary of services provided at level one

Service	Status	
	Beneficiaries	Providers(CHWs)
1. Disease prevention and control to reduce morbidity, disability and mortality		
Communicable disease control		
• HIV/AIDS	Fully covered⁵	

⁵ Fully covered is when more than 80% of the items in the specific component have been addressed (WHO guidelines on universal coverage).

Service	Status	
	Beneficiaries	Providers(CHWs)
• Malaria	Fully covered	
• STI		
• TB	Partially	
First aid and emergency preparedness/treatment of injuries/trauma	Partially covered ⁶ : Need to improve by providing CHW kits	
IEC for community health promotion and disease prevention	Partially covered : inadequate provision of IEC material	
Family health services to expand family planning, maternal, child and youth services		
MCH/FP, maternal care/obstetric care, immunization, nutrition, C-IMCI	Comprehensively covered	
Adolescent reproductive health	Not covered ⁷	
Non-communicable disease control: Cardiovascular diseases, diabetes, neoplasms, anaemia, nutritional deficiencies, mental health	Partially covered: CHWs already trained on nutrition	
Other common diseases of local priorities	Not covered	

⁶ Not fully covered is when less than 80% of the items in the specific component have not been addressed

⁷ Not covered when no items in the specific component have not been addressed

Service	Status	
	Beneficiaries	Providers(CHWs)
within the district, e.g., eye disease, oral health, etc.		
Community-based day-care centres	Not covered	
Community-based referral system, particularly in emergencies	Partially covered: No effective transport system	
Paying for first-contact health services provided by CHWs	Not covered	
3 Hygiene and environmental sanitation		
IEC for water, hygiene, sanitation and school health	Partially covered : inadequate provision of IEC material	
Excreta/solid waste disposal	Comprehensively covered	
Water supply and safety, including protection of springs	Partially covered : the CS not engaged in protection of water sources	
Food hygiene	Comprehensively covered	
Control of insects and rodents	Comprehensively covered	
Personal hygiene	Comprehensively covered	

Service	Status	
	Beneficiaries	Providers(CHWs)
Healthy home environment: environmental sanitation, development of kitchen gardens	Comprehensively covered	
Organizing community health days	Partially covered	

4.1.1 Socio Demographic Characteristics

Sixty four percent (64%) of the household heads were males while 36% were females. However, women responded to the specific questions relating to MCH/FP. The mean age of the respondents was 40.14± 0.2 years. Majority (77.8%) of the respondents were married while 9.5% were widows, 6.5% were single, 5.4% were either separated or divorced and the rest 0.8% did not respond. The main source of household income was farming accounting for 43% of the household income with wage employment (13%), salaried employment (14%) and trading (19%). Majority of the respondents had attained at least primary education (41.5%). Table 4.3 below summarizes the socio-demographic characteristics of the respondents.

Table 3: Socio-Demographic characteristics of the household heads

Characteristic	Description	Frequency	Percentage
Sex (n=3947)	Male	2528	64
	Female	1419	36
Marital status(n=3947)	Single	251	6.4
	Married	3084	78.1
	Separated	90	2.3
	Widow/widower	375	9.5
	Divorced	27	1
	Non Response	120	3
Level of education (n=3834)	No formal education	383	9.7
	Nursery	37	1
	Primary	1668	42
	Secondary	1104	28
	Tertiary	241	6.1
	University / Higher	43	1.2

	Non Response	450	11
Main Occupation	Farming	1699	43
	Trading	757	19
	Artisan	127	3
	Wage employment	534	13
	Salaried	565	14
	Fishing	110	2.8

4.1.2 Health of Newborns

4.1.2.1 Immunization status of the children

A large proportion of childhood deaths can be prevented by vaccination against six serious diseases and early diagnosis and treatment of common childhood illnesses

According to the World Health Organisation, a child is considered fully vaccinated if he or she has received a BCG vaccination against tuberculosis; three doses of DPT vaccine to prevent diphtheria, pertussis, and tetanus (or three doses of pentavalent which includes 2 additional vaccines); at least three doses of polio vaccine; and one dose of measles vaccine. These vaccinations should be received during the first year of life.

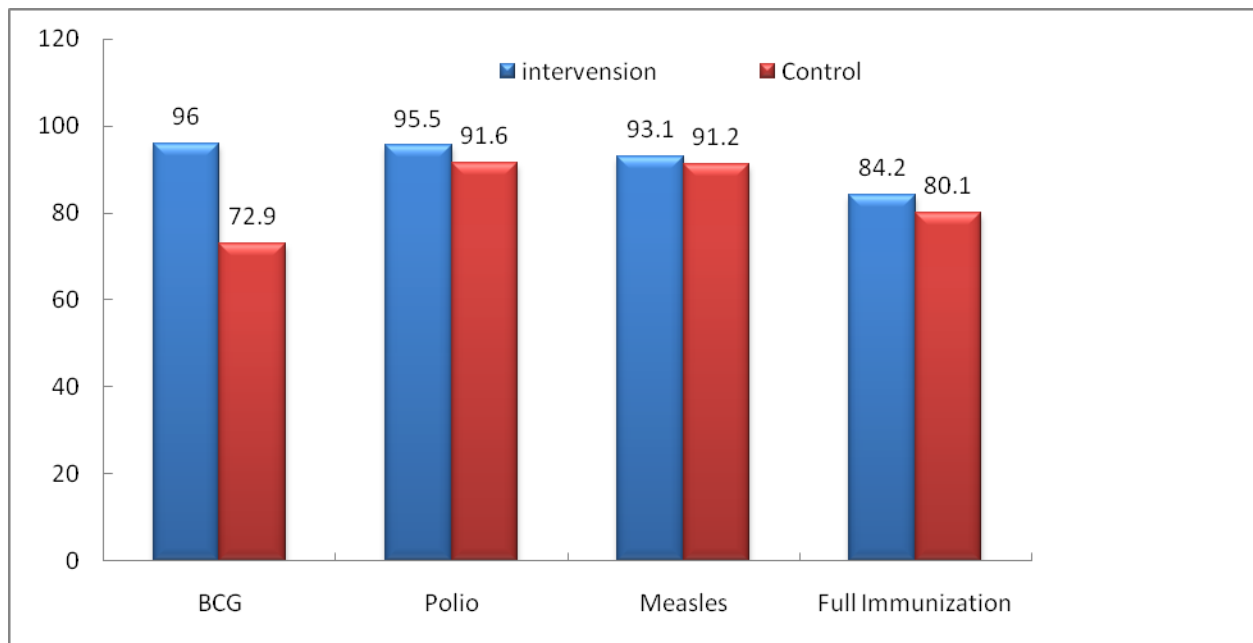
The information on vaccination coverage was obtained in two ways; from health cards and from mother's verbal reports. All mothers were asked to show the interviewer the health cards used for the child's immunisation. If the card was available, the interviewer copied the dates of each vaccination received.. If the mother was not able to present a card for a child at

all, she was further asked to recall whether the child had received BCG and this was confirmed by checking the BCG scar on the child. Polio and measles vaccines were also asked. If she indicated that the child had received the polio vaccines, she was asked the number of doses that the child received.

Overall, the two sampling sites had significant differences in most of the evaluated aspects at 95% confidence interval. The intervention site had 84.2% of the proportion of children aged 12 months and above having been fully immunized whereas 80.1% of the comparison sites had received full immunization ($\chi^2=7.580(a).452$, $df =2$, $p=0.023$). The results indicated that in the intervention sites the BCG coverage was 96.0% while in the comparison sites it was 72.9% ($\chi^2=94.211 (a)$, $df =1$, $p <0.001$). In terms of polio vaccine, the results indicated that in the intervention area 95.5% of the children had received the vaccine while in the comparison sites 91.6% had received ($\chi^2=14.654 (b)$, $df =1$, $p <0.001$). However in regards to the measles vaccine, there was no significant difference with 93.1% and 91.2 in the intervention and comparison sites receiving the measles vaccine respectively ($\chi^2=0.870 (b)$, $df =1$, $p <0.351$). These may be attributed to the frequent measles and Polio vaccination campaigns targeting children both at home and in early schools.

Although GAVI has supported a country wide immunization programme, the significant difference may be attributed to the efforts of the CS approach whereby the CHWs visit homes and encourage mothers with young children to take the children for immunization. Figure 2 below shows a summary of the immunization coverage in the children aged 12 months and above in the selected districts.

Figure 1: Childhood vaccination in control and intervention sites



4.1.2.2 Breastfeeding and Introduction of other foods

WHO recommends that children are exclusively breastfed for the first six months of life. There were significant differences in exclusive breastfeeding of children for the first six months of life in the two sites. Also, 27.1 percent of children in the intervention sites and 23.6 in the comparison sites 6 months of age were exclusively breastfeeding ($\chi^2=1.572$ (b), $df =1$, $p=0.210$).

4.1.2.3 Childhood illnesses in the last 14 days

The results indicate that there were significant differences in the proportion of children with fever in the two sites with 32% of the children in the intervention sites reported to have had fever, 43% of those from the comparison sites had fever ($\chi^2=22.008$, $df =1$, $p=0.003$).

Diarrhoea can cause dehydration, a leading cause of illness and death among children in Kenya. As show in figure 3 during the two weeks before the survey, 21.6 percent and 42.2 percent of the children under five in the intervention and comparison sites respectively had diarrhea. Chi square results revealed significant differences in the two sites with regard to diarrhoea ($\chi^2=112.911(b)$, $df =1$, $p <0.001$). This may be associated with the introduction of other foods and fluids to children below the age of six months as observed in the comparison sites hence exposing them to higher risks of diarrheal morbidity. Another reason is the lack of treatment of drinking water especially in the comparison sites.

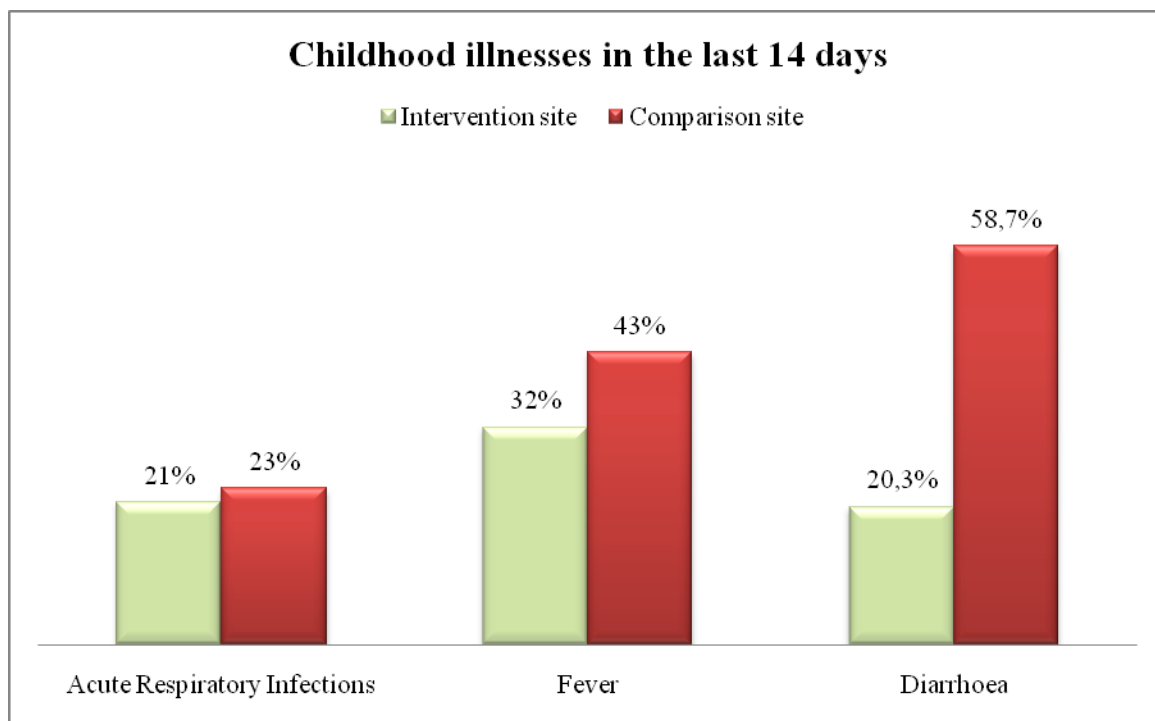


Figure 2: Childhood illnesses in the last 14 days

4.1.3 Maternal Health

It is recommended that mothers receive antenatal care at least four times during the pregnancy. In this study results indicated that 55.9% of the respondents from

intervention sites attended at least four ANC visits compared to 44% from comparison sites. There was a significant statistical difference in the two sites, ($\chi^2 = 149.535$, $df = 4$, $p < 0.001$). The expectant mothers are also given a tetanus vaccine during pregnancy to protect the unborn child. The results indicated that 94.5% of the mothers in the interventions sites and 72.4% in the comparison sites protected their children from neonatal tetanus ($\chi^2 = 240.976$, $df = 1$, $p < 0.001$.) The results also indicated that 53.7% and 44.4% of the mothers in the intervention and comparison sites respectively were assisted during the delivery of their last child by a skilled attendant ($\chi^2 = 63.331$, $df = 5$, $p < 0.001$).

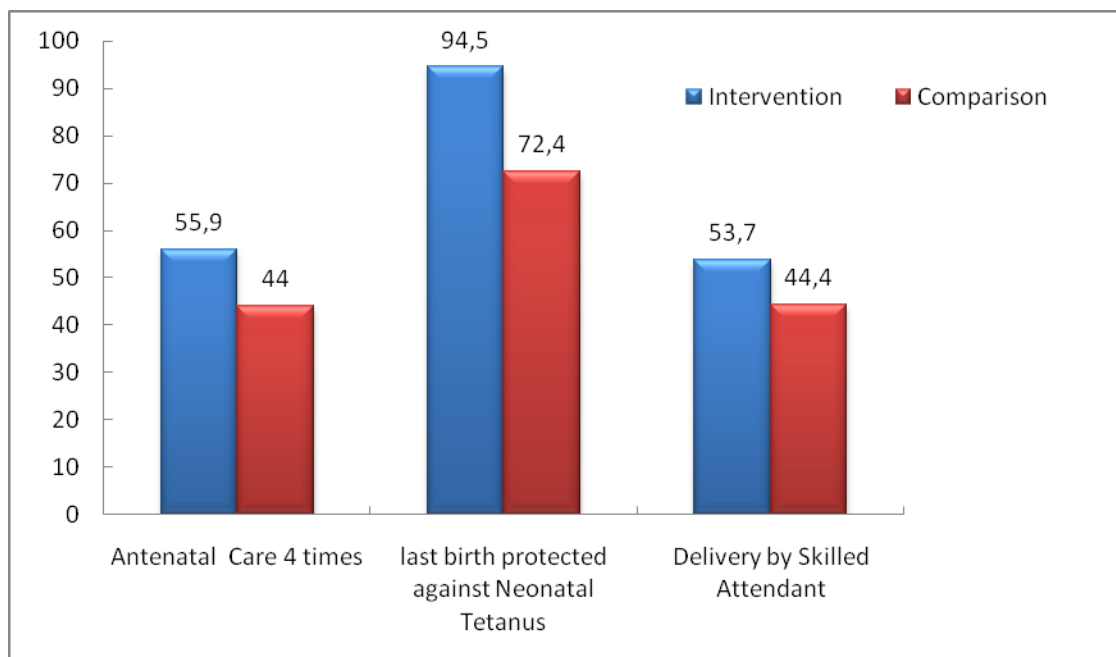


Figure 3: Maternal health indicators by site

4.1.4 Family Planning

In the intervention site, 86.6% of the respondents knew at least one family planning method compared to the 84.2% in the comparison sites ($\chi^2 = 3.223$, $df = 1$, $p = 0.073$). Similarly in terms of access to family planning services the results indicated that 87.2%

and 86.1% of the respondents in the intervention and comparison sites respectively knew where to access family planning services in their area. The utilization of family planning is still low in both sites though not significantly different between the intervention and comparison sites. Currently 47.4% and 47.2% of the respondents from intervention sites and comparison sites respectively are using any method of family planning in the selected districts ($\chi^2 = 0.006$, $df = 1$ $p = 0.940$). Pills and injectables are the most commonly used family planning methods.

4.1.5 Malaria

Malaria remains one of the major killers of children under 5 years in Kenya. The National Malaria Strategy outlines four interventions to control and prevent malaria: management of malarial illness, use of insecticide-treated mosquito nets, control of malaria during pregnancy, and control of malaria epidemics.

Significant differences were observed with regard to having a mosquito net in the two sites ($\chi^2 = 85.487$, $df = 13$, $p < 0.001$). The survey found out that 64.8% and 59.6% of the household in the intervention and comparison sites respectively had at least one mosquito net. This figure was higher in the interventions sites where there were partners implementing malaria programmes. Further, it was realized that 59% of the children in the intervention sites and 37% of the children in the comparison sites slept under a mosquito net the night before the interview ($\chi^2 = 23.110$, $df = 1$ $p = 0.0092$). Also significant were the number of women aged 15 -49 who slept under a mosquito net with 62% and 40% in the intervention and comparison sites respectively having slept under

one the night before the survey ($\chi^2 = 24.034$, $df = 1$, $p = 0.010$). (See figure 5).

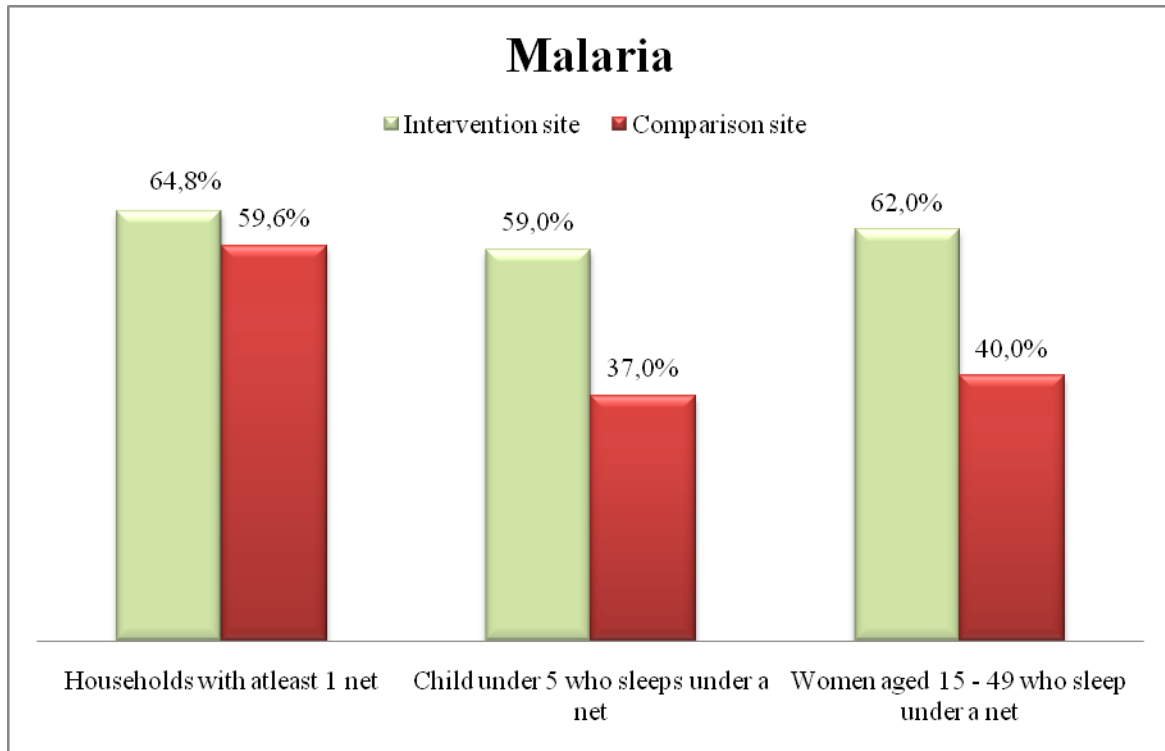


Figure 4: Malaria control intervention mechanisms

4.1.6 Environmental Health and Sanitation

Latrines are important in enhancing the sanitation and hygiene of any household, if properly utilised. The proportion of households with latrines was 87.7% in the intervention sites and 84.4% in the comparison sites ($\chi^2 = 8.225$, $df = 1$, $p = 0.004$). The results indicated that 78.6% of the respondents in intervention sites and 73.5% in the comparison sites practiced proper handling of children stools. The results indicated that 29.1% and 23.4% of the respondents in intervention and comparison sites respectively

treat their water and that the difference was significant in the two sites ($\chi^2 = 15.269$, $df = 1$, $p < 0.001$). The results indicated that water treatment may be a likely explanation for the differences observed for diarrhea.

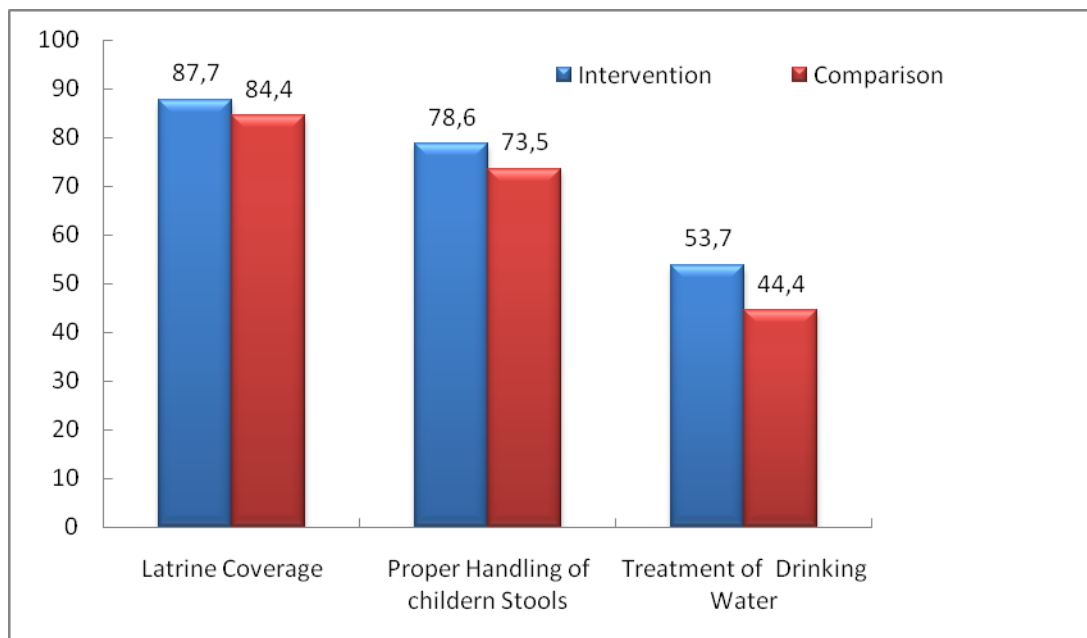


Figure 5: Environmental health and sanitation indicators

4.2 Capacity building for CHEWs, CHWs and CHC

Capacity building started with training of trainers (TOT) for DHMTs – two focal persons (mainly the District Public Health Officer (DPHO) and District Public Health Nurse (DPHN)) per district. They were then mandated to train and supervise the CHEWs in their districts. However, there was lack of continuity of supportive supervision as a result of frequent transfers of these focal persons. This was aggravated by the continued sub-division of districts. Therefore there is a need to train all DHMT members to ensure continuity and sustainability of the CS.

4.2.1 The Community Health Extension Workers (CHEWs)

According to the Community Strategy document, each trained CHEW is expected to supervise 25 CHWs. By the time of the evaluation all the CHEWs had been trained on the community strategy and were able to offer supportive supervision to the CHWs. However in the expansive districts with poor infrastructure like Kaloleni, Wajir PHT-CHEWs encountered difficulties in getting to some areas. Each CU had two CHEWs, a nurse who worked mainly at the health facility and a Public health technician who worked in the field. The CHEW nurses working in dispensaries were overworked because each dispensary is run by only one nurse. Similarly, there was only one PHT per sub-location (in some cases per location) who also had other responsibilities as per their job descriptions. It was noted that the PHT-CHEW was however more involved in CS field activities while the Nurse-CHEW was more involved at the health facility indicating synergy. Reports from key informants indicated that there was a country-wide shortage of nurses and PHTs employed in the CUs.

4.2.2 The Community Health Workers (CHWs)

The core of level 1 health service provision rests on key household practices. In this regard, CHWs who were described as 'gate keepers' of health in the community were found to be effective in dialoging with the households on actions for health since they shared a common situation and experience. In all the districts visited, the CHWs had been selected by the community using the MoPHS guidelines with a strong emphasis on the willingness and ability to work as volunteers.

The capacity building for CHWs had been supported by GAVI through the Ministry of Public Health and Sanitation and various implementing partners whose programmes had a community focus. The training lasted for 10 days if the new CS curriculum was

being used and 15 days if the old PHC curriculum was used. Each phase was for a period of five days.

Although the CHWs had been equipped with knowledge and skills that they needed in order to carry out their roles in the community as per their training, the only tool/material they had received to facilitate their work were the household registers for data collection. A few CUs had a community based health information system (CBHIS) chalk board, CHW bags and a few IEC materials on malaria prevention from implementing partners. Lack of CHW Kits and incentives still posed a challenge to the effectiveness of CHWs. It also emerged that the CHWs needed further training in VCT counseling, HBC, Child counseling especially targeting the youth on drugs and conflict management to avert domestic violence.

4.2.3 The Community Health Committees (CHCs)

In every CU, a CHC has been formed to act as a link between the community and the health facility. The chairman of the CHC is a community member, the secretary is a CHEW and the treasurer is a CHW. They are expected to oversee the operations of level 1 health services in the community by actively participating in the selection and supervision of CHWs, discussing with CHWs the community data and community action plans in order to address the identified health issues in the community.

In the current study, the CHCs had not been trained on the Community Strategy because the curriculum/training manual had not been fully developed. Therefore the roles of the CHCs are yet to be clearly understood by the community.

Asked on the relevance of the CHC, one of the CHW discussants had this to say

Yes CHCs are relevant since community members listen to them, they are also effective

since they call for a meeting once in three months and advise us on village to go for outreach and even organize how will go the sites for outreach even when no money from MOPHS. Moreover, they participate in hygiene/sanitation one village to another e.g. organize to build latrine for poor family.

(CHWs, FGD Bondo West district)

4.3 Linkages between Health facilities and Community units

The evaluation found out that there was an established link between the community and the health facilities. This was mainly through the coordination between PHT-CHEW and the CHWs who participated in identifying cases of illnesses at the community level and referring them to the Nurse-CHEW health facility. The CHEW at the health facility would compile the information and forward to the DHRIO. The CHWs in the CUs referred patients with a written note with to CHEW in the health facility. For cases they were unable to handle at the health facility, they referred the concerned patient to the appropriate next level. This referral system worked quite well but the special referral forms were not adequately supplied by MOPHS. It was also noted that in some cases despite the referral the patients are not able to afford to pay for the services especially for terminal illnesses like cancer.

In terms of the linkages one of the CHWs in an FGD had this to say

'When we go to the community and we find a patient we write a note to the health facility and sometimes accompany the patients to the health facility and ensure that they are attended to. In case the situation is too serious and the dispensary cannot handle the patient is further referred to the hospital' (CHW FGD Naivasha district, Karagita CU)

4.4 Capacity of the communities to demand for quality health services

One purpose of KEPH is to reverse the declining trends of key health indicators through enhancing services at level 1 and restore people's confidence in the formal health sector. It is therefore critical to build and strengthen linkages between the two avenues of health care.

The demand for quality health services depends on the communities' awareness through health education and promotional activities. Interviews with CHEWs and CHWs as well as discussion with beneficiaries in the CUs revealed that, the community was increasingly becoming aware of their rights to quality health care. However community members have not been adequately empowered to demand for the services. This was expressed by various FGD participants who had benefitted. This is illustrated by the following statement.

"Although we are aware that we have a right to demand for our services it is difficult for us to question a doctor...You know the doctor is always right....."

(FGD participant in Karagita CU, Naivasha District)

Despite the fact that suggestion boxes had been placed at most health facilities they are underutilized. Therefore, alternative mechanisms for channeling feedback such as *barazas*, church meetings and CHCs focal person should be explored.

4.5 Information flow from Households to other levels of the health care system

The results of the evaluation showed that the community based health information

management system was not working very effectively. This could mainly be attributed to lack of data collection tools at the at the community level by CHWs. In addition, the existing tools for reporting (MOH 513, MOH 514, MOH 515 and MOH 516 forms) are not user friendly in terms of the details required to be filled in by the CHWs. Furthermore, the document is bulky making it costly to photocopy. The document should be simplified and modified into a register to ease its usage and storage. In addition, even the limited data collected and forwarded through the established mechanisms rarely went beyond the district level and hence was not well utilized. Therefore, there is a need to establish a formal and functional CBHIS.

One of the issues our members have raised is that all different partners are using their own reporting tools and the big question has being how does this build up to the national level so that we can be able to report that the CS is achieving this and that.(KII interview)

CHAPTER FIVE: SYNTHESIS OF COMMUNITY HEALTH STRATEGY PERFORMANCE

5.1 Results framework

The evaluation endeavored to come up with a strategic Results Framework in order to illustrate the focal points of the Community Strategy. The framework (*see figure 7*) shows the relationships between the **incremental results** of the key activities of the CS all the way up to the overall objective or goal of the intervention.

The framework shows that the stages at which results should be monitored and

evaluated. In addition, it clearly reveals the causal relationships that the programme design intends to connect. For instance, the effective training of CHWs and CHEWs leads to provision of a higher quality of care at the community level thus ultimately leading to an improvement in health status or health outcomes for the targeted population. The effectiveness of the programmes related activities can be measured at each result level along the way.

The goal of this strategy was to enhance community access to health care in order to improve productivity and thus reduce poverty, hunger, child and maternal deaths, as well as improve education performance at all stages of the life cycle. The figure below provides the evaluation results framework.

Results framework

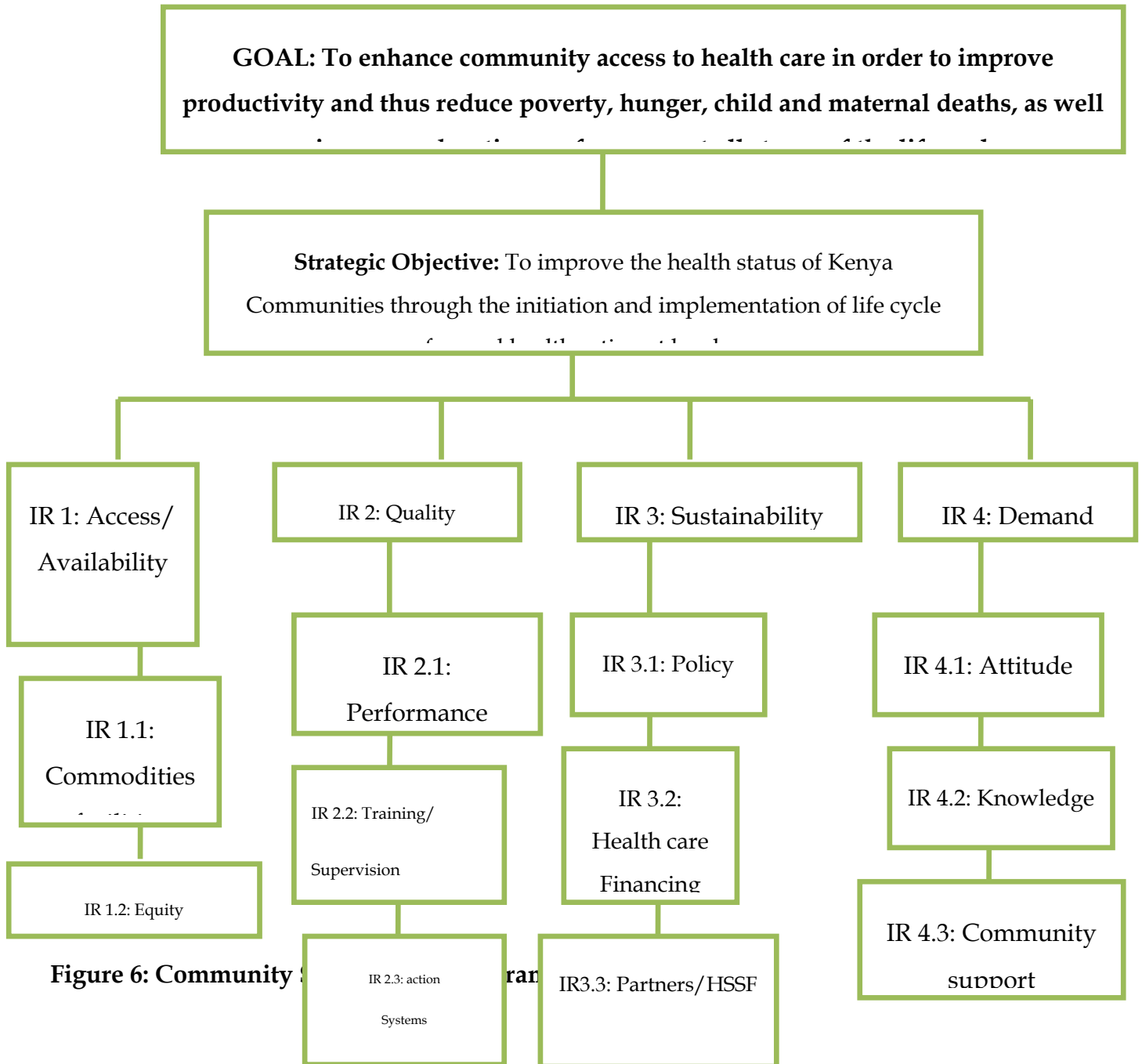


Figure 6: Community

5.2 Relevance of the programme/strategy

A significant proportion of the country's population continues to carry high burden of preventable ill health resulting into high demand of health services at all levels of the health system. In line with the vision 2030 and the NHSSP II the government identified the community health strategy approach to ensure that the Kenyan communities have the capacity and motivation to take up the essential role in health care delivery. The study results revealed that the programme addressed issues pertinent to the community; including increase in childhood immunization, exclusive breastfeeding of children upto 6 months in life, reduction in childhood fever and diarrhoea, improved maternal health, an increase in malaria control interventions, improved access to safe drinking water and good hygiene practices. The findings of the evaluation show that the strategy has significantly reversed the negative health indicators observed before the implementation of the programme. The approaches used were appropriate as it involved community participation in the health management system especially at level 1, therefore the community is at the foundation of accessible, acceptable, affordable and equitable health care.

"We Experienced low health status- people didn't know preventive measures e.g. malaria nets, clearing bushes, there was poor sanitation, use of unsafe drinking water and unbalanced diet leading to malnutrition at the grassroots. In addition those with HIV were shy and anti social due to stigmatization"

(Beneficiaries FGD Nakuru district, Makutano CU)

5.3 Effectiveness of the programme/strategy

The evaluation showed that the programme was effective because the results from the intervention sites significantly differed from the comparison sites for most indicators assessed. The results showed that there was enhanced community access to health care

as evidenced by improved childhood immunization coverage, uptake of ante-natal care and HIV related stigma reduction among others.

One of the discussants had this to say

The number of illnesses have reduced and now we find parents taking their children to health facilities more for immunization and baby clinics....Also, more women are delivering in hospitals and also seeking postnatal care services. Generally people in this area are utilizing the services of health facilities more when ill and practicing preventive health like sterilizing water and hand washing."

(CHW FGD Uassin Gishu District, Kesses CU

5.4 Efficiency of the programme/strategy

The evaluation did not quantify the cost of the programme vis a vis the outcome/ impact however the results showed that there were proper linkages between the Health facilities and the community as the health centers register higher number of people seeking health services compared to before the strategy was implemented. However, due to the inherent challenges even within the health facilities such as understaffing and delivery of vital drugs to the health center. But actual CHWs needs should be addressed as well as facility level data in terms of the absorption of the increased demand for services arising from the efforts of the CHWS.

It was also revealed that, the implementation of the community strategy had been constrained by inadequate resource allocation from the national level. It was also noted that the referral system between the community level and the local health facilities was

fairly well established. This was in spite of staff shortages at the health facility level which limited outreach activities and supervision of CHWs by CHEWs. For example, CHWs records had not been routinely collected nor analyzed and used even at the CU level. Information from other CBHC programmes had shown that CHWs when adequately facilitated and supervised were capable of collecting, analyzing and using the data in the health information system to address health issues and also provided community feedbacks.

5.5 Sustainability of the programme/strategy

The implementation of the CS could be hampered by low government commitment in terms of resource allocation. This has serious implication on its sustainability.

Nevertheless, it was found out that measures have been put in place to enhance sustainability of the programme. They included the following: - forged linkages between existing government and CU through CS -ICC, PHMT and DHMT. Capacity building through the training of CHEW, CHWs and CHCs will ensure continuity of the CS activities. Furthermore, regular monitoring and evaluation activities undertaken by the MoPHS ensured that the strategy structures continued accessing support from Government.

More divisions in the MOPHS are being involved in addition , there are many partners who are willing to support these efforts including; UNICEF, MILDMAY, INTRA-HEALTH, AGHA KHAN FOUNDATION, AMREF, APHIA II PLUS, USAID, POP COUNCIL, NACC etc.

In terms of Sustainability, an FGD discussant had this to say

“For sustainability CHWs should be paid, consider CHWs in jobs, facilitated through

trainings, more referral tools availed, more health facilities ate CU level, mobile clinics e.g for deworming put in place and CHCs to be put in place. In addition funding by NGOs should become through the CUS not CBOs”

(CHWs FGD Gatundu district, Kiamwangi CU)

The participatory approach outlined in CS may ensure that the communities will sustain the programme; for example the CHWs are locals who live in the community and so are also beneficiaries of the strategy. However, there is a need to have processes such as incentives that would motivate them, help them earn recognition and reduce dropout rate. The CS could also explore community health insurance as a measure that can support the sick and the CHWs.

Likewise the programme will establish a demand to healthcare services and change communities environmental and hygiene practices.

Another FGD discussant had this to say on sustainability

“To keep the programme going, CHWs should be remunerated so that they keep teaching, given transport bikes and uniforms as well as trained more. The CHWs should also be given kits and their numbers increased. The health personnel should be increased, medicines supplied adequately at health facilities and facilities expanded with the participation of community members”. Beneficiaries FGD Naivasha district, Karagita CU)

Another KII had this to say on sustainability

“Sustainability can be achieved if community ownership is promoted..... CHS is a flagship of vision 2030 but resources not put there. There’s need to empower communities with IGAs”.

(KII interview)

5.5 Challenges of the community health strategy programme

- There is need to harmonize the trainings to ensure that all components of CS are included. The CHWs underwent different types of training modules by partners based on their particular project needs (i.e. Nutrition, HBC, HIV & AID, or MCH). This was evident especially between partners and the GAVI sponsored sites.
- Although the CHWs undertook their responsibilities with an understating that it was on a voluntary basis, they had their own expectations regarding rewards and incentives which should be provided by the programme, resulting in lower working morale and reduced retention rate.
- There were limited resources and this was evident because: facilities such as bicycles , CHW KITs and IEC materials were not adequately supplied. These are important for effective implementation of the strategy.
- There were significant transfers of the MoPHS staff for example DHMT members involved in the implementation of the strategy resulting in lack of continuity of strategy activities. There was also a high turnover of CHWs due to low motivation as a result of insufficient supportive supervision, lack of incentives and recognition as well as inadequate materials.

5.6 Lessons Learnt

- Participation of community members in strengthening health systems elicits grass root acceptance, support and sense of ownership. This resulted in increased demand for health services at level 1 therefore improving health of the target population.
- Active supervision and linkages forged between DHMT, CHEWs, CHWs, and CHC is key to the programme sustainability.

- Creating community demand for health services must be matched with the availability of improved services within health facilities. A comprehensive, integrated approach to a multidimensional health program helps ensure that communities ultimately access the services they need.
- Volunteerism and lack of a clear career progression path for CHWs (especially for young CHWs) could undermine their motivation and retention.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

There is evidence that developing countries such as Kenya have the biggest burden of disease in the world and fewest numbers of health professionals as well as the lowest expenditure on health. The results showed that the CS has clear benefits in improving health service coverage and quality leading to a more productive living. Therefore the CS in Kenya is a powerful tool for social transformation towards improved quality of life at the community level.

The following are the key conclusions of the evaluation:-

- The annual budget line provided by the government to implement the CS was inadequate.
- There were discrepancies between the content of training for CHWs by different partners.
- The current MoPHS policy which is against remuneration of CHWs/CHCs is not effective. Some programmes implemented by partners have structured remuneration packages for their CHWs hence causing disillusionment on the government CHWs.
- The CS services do not entirely address the needs of all the life cycle cohorts as outlined in the KEPH. For instance the adolescent's reproductive health and psychological health issues are not effectively addressed.
- An increased number of PHT-CHEWs who are more community oriented would make the impact of CS to be more felt than it is at the moment.

- There is a big need of dedicating CHEWs to be stationed only at level 1. Most EHTs may choose to inspect restaurant and do other activities for cost sharing not because they do not see the importance of community work, rather they want to earn something out of their work.

6.2 General Recommendations

6.2.1 Policy

- There is a need for government and partners to explore sustainable financial incentives for CHWs: allowances, reimbursements among others. This has been the case in other countries such as Ethiopia where CS has successfully been implemented. Suggestions from FGDs with CHWs averaged to a monthly allowance of about Kshs.3000.
- There is a need to explore non financial incentives for CHWs that are performance based e.g. exchange tours, badges, recommendations letters, and certificates of attendance. This model has been effective in countries like India.
- The training of CHWs should be re-designed and delivered in phases (several short training modules spread over time) covering more content. Such multi-phased training will increase the retention rate because the CHWs will anticipate further training and probably develop a career path as in the case of Malawi where they are recommended for further training.
- There is a need for advocacy to ensure that all partners/ministries of government use the community unit as the unit for all work within communities. This will enhance synergy and reduce contradictions in promoting community empowerment.

- Ensuring that if trained health workers are to be CHEWs, then their functions should be included in the basic/pre-service training and they be deployed only for this work. Otherwise there is need to develop a new cadre specifically for CS as has been the case in Ethiopia.

6.2.2 Service delivery

- There is a need for production and dissemination of key health information regarding the CS of targeting high impact interventions. These should include effective communication mechanisms through radios, television.
- There should be improved staffing of the facilities where CUs are linked in order to strengthen referrals and linkage systems especially taking into consideration the spatial distribution and population density. This will improve support supervision from CHEWs to CHWs during their community work.

6.2.3 Further Research

- Further studies should be carried out on the performance of CS where emphasis should be on the social determinant of health..
- Need to study and determine the optimal contents of the CHW kits. This should be done in consideration of their capacity, training and their role in service delivery.

6.3 Specific recommendations

The CHEWs

- The MoPHS should recruit more Public Health Technician (PHT)-CHEWs and adequately build their capacities on the implementation of the CS.

- The MoPHS and partners should facilitate the CHEWs to supervise work within the CUs by providing them with appropriate means of transport.
- An integrated supportive supervision of all programs with the ministry should be carried out. Similarly, a joint supervision of the strategy activities with the ministry and partners can be done.
- The ministry should ensure that the transportation system in the field for CHEWs is facilitated. Use of motorbikes and vehicles crucial. At the moment there is no such supporting cost.

The CHWs

The MoPHS and implementing partners should:

- ❖ Facilitate the movements of CHWs in some of the expansive and hard to reach areas by provision of appropriate means of transport such as bicycles, motorbikes and vehicles.
- ❖ Ensure that there is adequate supply of CHW kits to improve their effectiveness.
- ❖ Recruit and train more CHWs in order to attain a workable ration.
- ❖ Introduce performance-based token remunerations.

The CHC

- ❖ The roles of CHC need to be clarified to the community members to avert conflicts with CHWs. This can be done by clearly outlining their roles in the strategy.
- ❖ The Community Units should be empowered to conduct a needs assessment and come up with practical action plans that address their health needs.

Community Based Health Information System (CBHIS)

- ❖ The MoPHS should strengthen community data collection and monitoring systems. Further capacity building on the same will have to be done to attain this objective.
- ❖ The Community Based HMIS should be linked to the national HMIS. This will foster the tracking of diseases trends and uptake of services.

Linkages and Coordination at national, district and community levels

- The DHMT should establish a monitoring and evaluation system on the implementation status of the Community Strategy based on the global health indicators.
- Guidelines should be developed to facilitate channeling of resources/support by partners to avoid duplication in areas that have already received support.

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LIST OF ANNEXES

Annex I: List of Key Informants at the National Level

Dr. John Odondi	-	Head of Primary Health Care Division
Dr. O. A. Omar	-	Northern Kenya Ministry
Dr. James Mwitari	-	Head, Division of Community Health - MoPHS
Dr. Irene Mbugua	-	National Health Coordinator - World Vision
Mary Wakenga	-	HCBC Coordinator, Mildmay International
Julius Ochieng	-	Mildmay International
Mr Mburu	-	Community Liaison - APHIA II
Dr. Teresia Omwoyo	-	Intra-Health
Dr. Makiko Kinoshita	-	JICA
Dr. Sanjiv Kumar	-	UNICEF
Dr. Kennedy Ongwae	-	UNICEF
Lilian M. Mutea	-	UNICEF
Beatrice Okundi	-	HENNET