

Great Lakes University of Kisumu (GLUK)

Tropical Institute of Community Health and Development (TICH)

A RENEWAL OF COMPREHENSIVE PRIMARY HEALTH CARE (CPHC)

REGION 2: AFRICA

Draft Report

Research project on:

*An Assessment on Contribution of Community Strategy Approach to Comprehensive
Primary Health Care (CPHC) In Kenya*

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This research implementation was a result of was a collaborative effort that involved two strong partners; the Ministry of Public Health and Sanitation (MOPHS) through District Health Management Teams(DHMTs) i.e (Suba,Bondo,Rachuonyo,Nyandarua North and South,Murang'a and Garissa districts) and GLUK .We would like to acknowledge the strong collaboration of MOPHS and GLUK which has made the whole process participatory.

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List of Acronyms

AIDS.....	Acquired Immune Deficiency Syndrome
ANC.....	Ante Natal Care
AR I.....	Acute Respiratory Infections,
CBIS.....	Community Based Information System
CHCs.....	Community Health Committees
CHEW.....	District Health Systems
CHW.....	Community Health Worker(s)
CPHC.....	Comprehensive Primary Health Care
CMR.....	Child Mortality Rate
CSA.....	Community Strategy Approach
CU.....	Community Unit
DHMT.....	District Health Management Team
DHS.....	District Health Systems
FBOs.....	Faith Based Organization
FGD.....	Focus Group Discussion
GLUK.....	Great Lakes University of Kisumu
HMIS.....	Health Management Information System
IMR.....	Infant Mortality Rates
ITNs.....	Insecticide Treated Nets
KSPA.....	Kenya Service Provision Assessment
MDG's.....	Millennium Development Goals
MOH.....	Ministry of Health
NHSSP.....	National Health Sector Strategic Plan
NGO.....	NON Governmental Organization
PMTCT.....	Prevention of Mother To Child Transmission.
PHT.....	Public Health Technician
PHO.....	Public Health Officer
SPHC.....	Selective Primary Health Care
SPSS.....	Statistical Package For Social Sciences
TICH.....	Tropical Institute of Community Health and Development

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Abstract

Kenya participated in the Teasdale Corti study on Revitalizing Comprehensive Primary Health Care between 2009 and 2010. The Kenyan study was *An Assessment on Contribution of Community Strategy Approach to Comprehensive Primary Health Care (CPHC)* based on the principles of CPHC. The study process involved an experienced Research Mentor, an upcoming Researcher from Great Lakes University of Kisumu and a Research User from the Ministry of Public Health and Sanitation Kenya.

Community strategy is the term used in Kenya by the Health Sector as an equivalent to Revitalization of Comprehensive Primary Health Care. Primary Health Care Concept was adapted for implementation by Kenya from the Alma Ata Declaration of 1978 and the implementation of the elements started mainly in 1980. There were some improvements realized based on the PHC elements such as improved community participation and intersectoral collaboration up to the late 1980s.

The achievements were however not sustained. Over the years the health indicators have remained poor. Nyanza Province which was the initial pilot area for this research project is one of the major contributors to the country's poor performance on health indicators. The IMR was 119 against the national IMR of 72/1000, CMR is 700 against the national statistic of 414/100,000 live births. (KDHS 2003). Malaria is number one in the top ten diseases followed by HIV/AIDS and TB. Intervention performances, for instance, Immunizations coverage was 78%, Contraceptive Prevalence Rate 39%, Delivery by skilled Attendant 49% (Nyanza Provincial Report 2007)

The Great Lakes University of Kisumu through a partnership approach worked with the Ministry of Health (MoH), and in particular at the district level in the District Health Systems (DHS). This was piloted in six districts in western part of Kenya. These were Nyando, Siaya, Suba, Kisumu, Rachuonyo and Bondo districts all from Nyanza province to help reverse the poor trend of deteriorating health indicators by applying a model, developed by the Tropical Institute of Community Health and Development in Africa (TICH) which is a faculty in GLUK, called the Community Strategy Approach. This model is based on the concept of CPHC and focuses specifically on the principle of Intersectoral collaboration (partnership), community participation, empowerment and access to health care. Within two years of it being implemented (i.e. between 2005 - 2007) an evaluation of

the model in the six pilot district sites revealed that the model had promoted some of the PHC elements like improved community participation and improved service delivery health outcomes. The MoH then adopted the Community Strategy as a model to roll out throughout the country. This model has key components namely: The establishment of Community Units Health facilities that are linked to well defined community-Sub locations, the establishment of governance and management structures, the recruitment and training of human resource to support these units and the establishment and strengthening of Community Based Information system (CBIS) making the information available and linked to Health Management information System (HMIS).It also involves the use of this information to trigger dialogue in all the levels of the health system thus leading to planning for the priority areas.

Although the roll out of the Community Strategy Approach model by the MoH and other partners has continued since 2007 it was not known what issues could be going on in the process of this roll out and the outputs and outcomes that could have gone beyond the pilot site. The study sites were Suba, Bondo and Rachuonyo districts in Nyanza province were compared with Thika, Nyandarua North and Nyandarua South district in central Province and Garissa district in North Eastern Province.

This study gives three levels of comparisons. The first one the intra district comparison within the pilot districts we have the TICH partnership sites and the non TICH partnership sites. The second comparison were interdistricts, comparing the one district to the others and lastly a comparison across the provinces to capture the different socio economic contexts of household in these districts.

The overall aim of this study was to assess how the Community Strategy Approach contributes to the renewal of the Primary Health Care (PHC) initiative in Kenya in terms of District Health System (DHS) strengthening, evidence based planning, resource management, community participation, the changes in service delivery and population health outcomes.

The specific objectives of the study were to:

- Identify and assess the components of the *Community Strategy Approach* model that have been implemented and sustained by the MoH and other partners in the 8 districts
- Compare the uptake of the Community Strategy Approach components in TICH and non-TICH sites, intra districts, inter districts and across 3 provinces in Kenya.
- Document the experiences specifically the successes, challenges and best practices) of the MoH and other partners in implementing the *Community Strategy Approach*; (Relate the the approach and its contribution to the Principles of CPHC)

- Assess the effect and impact of the implementation of the *Community Strategy Approach* in improving the quality of health care service delivery-looking at the quality of service delivery from the clients perspective (clients satisfaction).
- Assess the effect and impact of the implementation of the *Community Strategy Approach* on maternal, child health outcomes in the pilot districts.

This was comparative case study which used both qualitative and quantitative approaches to complement each other. These included Desk reviews, household survey in six districts, Health facility assessments, Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs). Data analysis was done quantitatively using SPSS and Qualitatively under themes and sub themes. The duration of the study was two years beginning January 2009

Major findings

- The assessment of the components of the *Community Strategy Approach* model that have been implemented and sustained by the MoH and other partners in the 7 districts revealed that: Nyanza Province with the highest community strategy implementation rate 31.8%, Central Province the third in rank of coverage 19.2% and North Eastern with 10.8% Intervention coverage. (MOH,2010).
- Comparison of the uptake of the Community Strategy Approach components in TICH and non-TICH sites(intra districts) showed that The functionality of these structures were rated by the number and frequency of meetings,the presence of minutes,attendance & Representation.The Community Health Committees (CHCs) performance were Suba (70%), Bondo (75%), Rachuonyo (67%), Thika (29%), Garissa(33%), Nyandarua south (38%), Nyandarua North(28%). The functional CHC were ranked as a proportion the existing ones.The Health Facility Management Committee (HFMCs) and the District Stakeholders were functional in all the districts,However the Divisional Stakeholders forum was only evident in the TICH Supported districts- Bondo,Suba and Rachuonyo districts.
- proportion of active trained CHWs was found to be high in TICH supported districts Suba (53%), Bondo (55%), Rachuonyo (52%), Thika (42%), Garissa(21%), Nyandarua south (48%), Nyandarua North(43%).
- Strengthened governance particularly community health committees and stakeholder forums have influenced ANC attendance (4 + Times) ($r=0.750$) and use of ITN's for mothers ($r=0.906$) and children under five strongly.
- CHW's relate strongly to the output on the use of ITNs for mothers and children under 5 years ($r=0.615$), households with safe water($r=0.600$)and vitamin A uptake for children under 5 years ($r=0.734$). Average results are showing for ANC Attendance (4 + Times).
- CBHIS has strongly influenced immunization coverage($r=0.607$). It is the only element that has positive correlation with output on all the health indicators, though the influence is low overall.

The successes and best practices of the MoH and other partners in implementing the *Community Strategy Approach*; were:

Improvement at the Health Facility level: There was increased intersectoral collaboration, Improved Community participation through Evidence based participatory planning improvement has been reported in over 60 % of the health facilities. The current practice of developing the Annual Operational Plans (AOPs) is an evidence of participatory planning where the community units plans and forwards their plans to the health facilities which in turn submits the collated plans to the district.

There are strengthened linkages and governance structures in the health system cycle. The level one care at the households and community are now closely linked to the health facilities.

Joint meetings, dialogue days are held. The above elements of the Community strategy approach contribute to enhancing the Principles of CPHC

In terms of the effect and impact of the implementation of the *Community Strategy Approach* in improving the of quality of health care service delivery: The Policy documents are available at the health facility level, this has raised awareness on the policy issues and has kept the health workers abreast with the current trends with regard to health indicators and policy changes.

The training of the Community Health Workers (CHWs) and Community Health Extension Workers (CHEWs) has ensured the technical sustainability of the community strategy activities by providing a pool of trained human resources for health even at the community level.

There is a strengthened Health Facility Management Information System (HFMS) that is also closely linked the Community Based Information System (CBIS). These complementary role of the information system has ensured completeness of data.

The use of this data to trigger Dialogue in the community units has inculcated the culture of dialogue for continuous improvement. The elements of assessing, dialogue, planning and acting resulted in action plans that are doable and were also used for measuring progress and change.

The effect and impact of the implementation of the *Community Strategy Approach* on maternal, child health outcomes in the pilot districts:

Improved Service delivery outputs.

- a) The health facility deliveries improved from the previous years. Suba district from 29.4% to 32.2% Bondo district from 28.4% to 34.2% and Rachuonyo district from 27.6% to 34.4%.
- b) The proportion of household with access to water treated at the point of use increased significantly in the three districts Suba, Bondo and Rachuonyo districts. While for central province districts the proportion for households with access to

treated water was comparatively high Thika 52.4%, Nyandarua South 65.4% and Nyandarua North 67.2%. However, the Proportion is low in Garissa 52.4%.

- c) The uptake of vitamin A for children under 5 years increased significantly in the three districts Suba, Bondo and Rachuonyo districts. While for central province districts uptake of vitamin A was comparatively high Thika 79.5%, Nyandarua South 78.6% and Nyandarua North 80.2%. However, the Proportion is low in Garissa 65.4%.
- d) The proportion of mothers attending ANC 4 times and more was high in intervention sites 59.1% compared to 57.4% in non intervention sites. The service delivery outputs showed an upward trend with regard to the district targets. The service delivery outputs that were measured included ANC 4+ times, Measles, Family planning, Health facility delivery, VCT, PMTCT and post natal care

Conclusion and Recommendations

There should be a continuous supervision and close linkage between District Health management Teams (DHMTs), the health workers at the facility level, CHEWs, Community Health Committees (CHC) and CHWs at the community level for the sustainability of the community strategy activities.

Creating community demand for health services by government and partners must be matched with the availability of improved services within health facilities.

The community strategy plays a key role in the renewal of comprehensive primary Health care in Kenya, therefore there is need for an integrated approach to a multidimensional and multisectoral health programme that ensure community's increased access to health services

1.0 INTRODUCTION

The concept of Primary Health Care (PHC) was realized in the former Soviet Union at a Conference in Alma Ata in 1978 organized by the World Health Organization (WHO), UNICEF and Ministries of Health across the world. The Alma Ata International Conference on Primary Health Care set the target of “*Health For All (HFA) by the year 2000*” (WHO, 1978). At the conference it was recognized that only 30% of the world population had access to basic health care. PHC was therefore perceived as the practical approach to be used to extend access to the rest of the world population (WHO,1978).

The Conference defined PHC as *"Essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination."*(WHO, 1978)

In the process of implementation, however, the understanding of the concept has been varied by countries and implementers. The essential elements the Alma Ata conference came up with were: Education: information education and communication for behavior change; prevention and control of locally endemic diseases; immunization against major infectious diseases (EPI); maternal and child health care, including family planning; essential drugs provision; food and nutrition; treatment of common/minor ailments; adequate supply of safe water and basic sanitation (WHO, 1978).

Selective Primary Health Care (SPHC) as a package of low cost interventions came up in 1980s encompassing G.O.B.I. (FFF) for: Growth monitoring. For identifying at an early stage children who were not growing, because of poor nutrition. Oral rehydration. To control diarrhoeal diseases with Oral rehydration Solution(ORS), a mixture of water, salt and sugar that could be prepared by mothers. Breast feeding of infants as a means to prevent diseases, Immunization especially against diseases of childhood (measles, diphtheria, tetanus, polio, tuberculosis and whooping cough and Food supplementation, Female literacy and Family planning.

Primary Health Care and the health promotion movement which flowed from it, draws attention to the very real importance of the social, cultural and economic factors in health. We now speak of the “social determinants of health” as we understand better the complex

interconnections between our environments and the health of the people in those environments (WHO, 1998).

The implementation of PHC has however over time moved away from the more comprehensive aspect towards a “selective” approach of PHC due to a variety of reasons. Implementers and funders found the selective approach more practical, easy to monitor and more easily be able to show value for the money spent. Examples such as growth monitoring, oral re-hydration, breast-feeding, immunization, supplementary feeding, family planning and currently HIV/AIDS, TB and Malaria have been targeted by the selective PHC approach. Some of these interventions achieved high levels of coverage yet the resulting impact on mortality was far below expectation, as they tend to ignore the social determinants of health status (Sanders,1996).

These have led to increasingly complex, inefficient and inequitable health systems driven by an ever larger number of special ‘global health initiatives’, with limited sustainability possibilities, while weakening the Public Health Systems (Sanders, 1996). Selective PHC initiatives also tend to undermine capacity to work intersectorally on the determinants of health and in partnership with communities. The five principles of PHC are Effectiveness, Efficiency , Affordability, Integration of health Programs and Self-reliance.

In Kenya implementation of the PHC concept started in 1974, as a pilot project in Kakamega district by the Ministry of Health, which fed its experience to the PHC Conference. Although the pilot project demonstrated admirable results it was not sustained, since the findings of the study were not translated into policy (Were, 1984).

Over the years, many of the health indicators have remained poor in Kenya. Nyanza Province which is one of the study areas is one of the major contributors to the country’s poor performance and so is North Eastern Province. For example the IMR of Nyanza is 119 against the National 72/1000, MMR 700/100,000 Live births against 414/100,000 live births. (KDHS 2003), Malaria is number one in the Top Ten diseases; HIV/AIDS 15% (NASCOP 2005) and Intervention performances for instance Immunizations coverage 78%; Contraceptive Prevalence Rate 39%; Delivery by skilled Attendant 49% (Provincial Report 2007), Prevention of mother to child transmission(PMTCT), and voluntary counseling and testing(VCT) uptake are low.

The problem to be addressed was the persisting poor performance of the District Health System (DHS) evident in the worsening health indicators in Kenya in spite of decades of efforts to improve it, often through selective PHC activities as well as health sector focused reforms (MoH, 2005). is that poor performance is caused by selective PHC initiatives; Even interventions on child and maternal health care are looked at selectively in most cases. Health sector limited reforms are not engaging other sectors critical to health status improvement, and lack of linkage between the health system and the community. This has been made worse by inadequate information system required for evidence based management of the health system. Another notable inadequacy is the limited community participation and interfacing them and the formal health system, denying the system an opportunity for timely feedback from the perspective of the consumer vital to sustainable quality improvement efforts.

1.1 Back Ground information of Community Strategy Approach (CSA)

The Ministry of Health (MoH) in implementing the National Health Sector Strategic Plan (NHSSP II), 2005-2010 which talks of “Reversing the Trends” in Health indicators had these questions unanswered- “Where did we go wrong in implementation of PHC; How can we engage the communities more, to reverse the trends of poor health indicators? The NHSSP II was drafted as a way of answering these questions and hence its theme “Reversing the trends” The ministry of Health then looked for partners who had community approaches to health care issues that could give technical support on how to strengthen the district health system (DHS). Tropical Institute of Community Health and Development (TICH) in The Great Lakes University of Kisumu (GLUK) was then identified and that is how the *Community Strategy Approach* which is basically a renewal of the Comprehensive Primary Health Care was started in 2005.

GLUK worked with District Health Systems (DHS) in six districts in western part of Kenya. These were Nyando, Siaya, Suba, Kisumu, Rachuonyo and Bondo districts all in Nyanza province to develop, test and scale up the community strategy approach, whose key elements were:

- The development of committees at the village, community and health facility levels as governance and linkage structures, bringing together service providers and consumers into decision making

- The identification, training and deployment of a Community Health Extension Workers (CHEWs) for each Community Unit (CU) who acts as the facilitator of dialogue at the community level and provides support to the Community Health Workers (CHW) Based Information System (CBIS)
- The identification and training of Community Health Workers (CHWs) to support households in health improvement initiatives, as well as maintain the village register as part of maintaining a Community Based Information System (CBIS) and facilitating dialogue at the household and divisional level through the community structures.
- Establishment of village registers of all households to provide community based information including all health status aspects targeted for improvement of health indicators. The household registers are updated by the CHWs every six months to monitor change in health seeking behavior. This community based information was analyzed and displayed on chalk boards at the sites agreed by the community like the health facility, Chiefs and Divisional Officers' (D.Os) sites
- Relevant health facility data were also analyzed and displayed on chalk boards by the nominated health worker at the link facility referred to as the (CHEW) preferably a Public Health Technician((PHT) / Public Health Officer(PHO)or Community Health Nurse.
- Suggestion boxes were established at health facilities for client satisfaction comments and analyzed monthly by a facilitating agency in the triad in this case of pilot, TICH.
- Holding dialogue sessions based on data from the community and health facilities depicting the current situation regarding elements targeted for improvement. These dialogue sessions are held monthly at household, community and health facility levels and every four months at the sub-district level.

1.2. Dialogue as wheel change in the Community Strategy Approach.

The dialogue that is triggered by data is a process that involve displaying the data from the health facilities and from the community (managers, service providers and community representatives from community units representing defined constituencies in their community) to clearly depict the current situation. This is followed by discussion towards consensus building regarding the data presented and what is not acceptable and needs improvement. Action towards improvement is agreed on and plan of action developed with targets to be achieved before the next dialogue session. This process takes place at

household, community unit, and health center and sub-district levels, based on issues emerging from the data gathered and analyzed at every level.

Dialogue to Drive Planning, Action

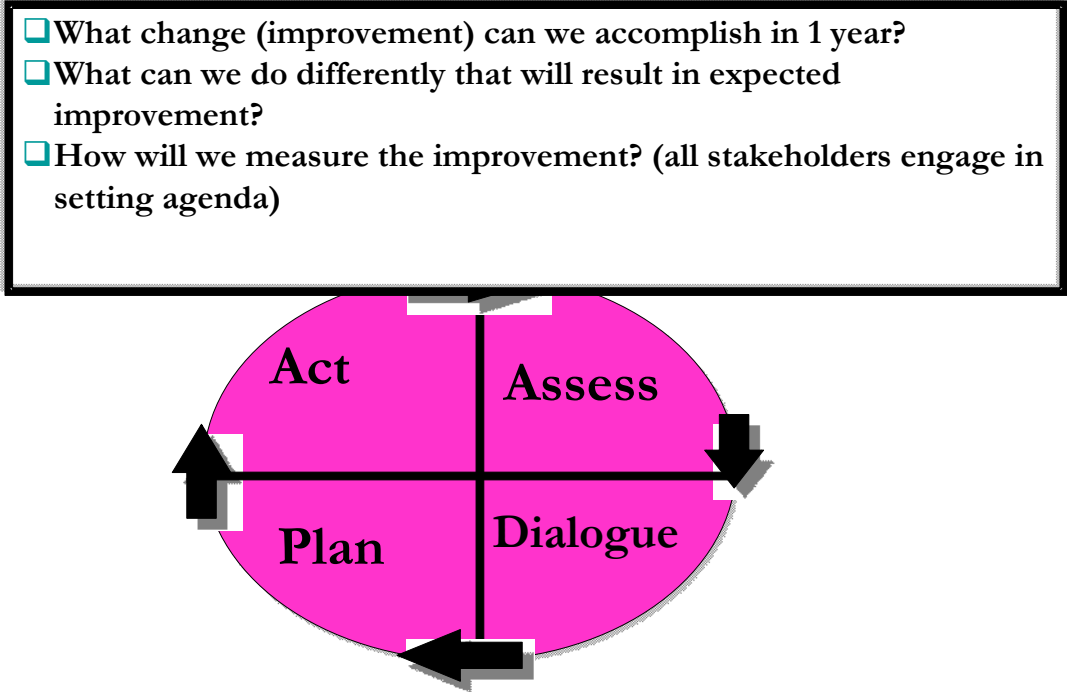


Figure 1: The dialogue as the wheel of change

Through community participation in governance, and service delivery, the *Community Strategy Approach* strategy sought to increase equity in access to essential health care by tackling the contextual factors determining vulnerability to ill-health and poverty. The aim of the pilot study was to demonstrate the effectiveness of the GLUK/TICH model’s “community strategy” which is essentially based on the principles of CPHC and aims to improve the performance of the District Health System (DHS).

1.3 Community Strategy Approach as a model for CPHC

Findings from District Health System (DHS) evaluation of the pilot sites Nyando, Siaya, Suba, Kisumu, Rachuonyo and Bondo districts (TICH, 2007) showed that the *Community Strategy Approach* initiative strengthened the linkage between the community and the health system (TICH, 2007) through the village, community unit, and health facility committees, as dialogue structures informed by community and health facility based information system used for decision making, planning and action.

2.0 Problem Statement

Ministry of Health (MoH) and the Great Lakes University of Kisumu (GLUK) Kenya piloted a PHC-based intervention model using an *Approach* known as *Community Strategy* in six out of the then twelve districts in Nyanza province, Kenya in 2005. This approach was evaluated, reviewed and was found to work in strengthening the link between the community and the health facilities and therefore was adapted by the ministry in 2007. The strategy was then fed into the ministry's implementation plan for the National Health Sector Strategic Plan II (NHSSP II 2005-2010 with a slogan of " Reversing the trends" of poor health indicators), focusing on the Kenya Essential Package for Health (KEPH). The MoH was to use the model through roll-out process with other partners using the key elements which include policy dissemination and awareness; governing and linkage structures; human resource trainings (CHWs ,CHEWs ,CHC members); CU linked information system; Evidence Based Dialogue and community action day.

The Ministry has been in the process of rolling out throughout the country with other development partners. However, little is known about how the roll-out process has been , and the key elements that have been up taken. It is also not clear whether and how effectively the *Community Strategy Approach* can be applied in contexts different from Nyanza province where the piloting was done.

Therefore the purpose of the study was to evaluate the uptake of the key elements of the *Community Strategy Approach*, listed above, and the contributions to the maternal and child health service outcomes in Comprehensive Primary Health Care (CPHC).

2.1 Research questions:

- 1).What components of the renewal of the *Community Strategy Approach* model have been implemented and sustained by the MoH and other partners in the districts where TICH is not involved?
- 2).What have been the experiences (ie. successes, challenges and best practices) in its implementation by the Ministry of Health (MOH) and other partners (apart from TICH)?

3).To what extent does evidence based participatory planning improve accountability and responsiveness in district health service delivery?

4).What maternal and child health outcomes have been achieved and sustained in the districts implementing the *Community Strategy Approach*?

2.2. Why the questions are important to ask.

It is important to ask these questions for several reasons. The Community Strategy Approach (CSA) involves the use of huge amounts of resources (material, money and money power) therefore there is need to qualify and justify the use of these resources. The Community Strategy Approach (CSA) is an effort to strengthen the Health systems which is rapidly emerging as one of the most dynamic and complex areas of research for health. It is the purposeful generation of knowledge that enables societies to organize themselves to improve health outcomes and health services. Awareness is growing among politicians, policy-makers, healthcare providers and researchers that the evidence base to support the theory and practice of strengthening health systems is not strong, especially in low-and middle-income countries. Moreover, the scientific foundations for this type of research are in need of significant development and improvement.

We need to provide evidence of the cost effectiveness of Community Strategy Approach (CSA). This evidence base is sufficiently strong to justify a major commitment to CSA towards the renewal of CPHC in Kenya.

2.3 Main Objective

The main objective of the proposed study is to assess the uptake of a district-based intervention, modeled on PHC principles and termed as *Community Strategy*) in various sites in Kenya and its effect in terms of District health system (DHS) strengthening, service delivery and population health outcomes.

2.4 Specific objectives

1. To identify and assess the components of the *Community Strategy Approach* that have been implemented and sustained by the MoH and other partners in varied contexts across 7 districts in Kenya.

2. Compare the uptake of the Community Strategy Approach components in TICH and non-TICH sites, intra districts, inter districts and across 3 provinces in Kenya
3. To document the the successes, best practices and challenges experienced by the MoH and other partners in the implementation of the *Community Strategy implementation* across these 7 districts.
4. To assess the effect and impact of the implementation of the *Community Strategy* in improving the outcome of health service delivery at a primary care level.
5. To assess the effect and impact of the implementation of the *Community Strategy Approach* on maternal and child health outcomes in the pilot districts.

2.5 Justification for the Community-Strategy Approach

Service providers are increasingly aware that households not only take the majority of preventive and promotive health actions, they also provide clinical care of the critically and chronically ill. Studies in Tanzania and Malawi have shown that 70% of child deaths occur at home, without any contact with the health system, caused by preventable or easily curable diseases such as malaria, measles, acute respiratory infections (ARI), pneumonia, diarrhea and malnutrition (REPOA,2007).

The culture of dominance among service providers against that of silence among households and communities makes it difficult for the ideas of the communities to be heard. Service providers never really get to know what their clients understand. Thus they often assume that what they have said, advised or given has been accepted and will be done, only to be surprised later that no change has taken place in terms of behaviour or practice and therefore health outcomes. It is to be realized that households have the deepest interest of their own health at heart and they are always trying their best even when what they do appears unreasonable. Yet the providers do not listen enough to hear what the consumers are expressing in their own terms and context, because providers tend to be uprooted from their socio-cultural contexts. This leads to loss of trust as local efforts and initiatives are ignored or displaced by temporary actions that fizzle away.

The providers, like people everywhere, have perspectives and viewpoints on the way things are that under gird their values. They interpret everything they experience through these mental maps. They see the world as they are conditioned to see it. The community people, for their part, also see things through their own legitimate maps, the lenses of their own experiences. People have alternatives in meeting their health needs; they have their own interests that cannot be ignored if we are to do business with them through the community-based Kenya Essential Package for Health (MoH 2005) Yet traditional approaches to care continue to be ignored at a time when the coverage by the formal facility-based health care system has gradually declined as people's confidence in the formal health sector has eroded. (MoH, 2005)

3.0 LITERATURE REVIEW

3.1 History of Primary Health Care (PHC) in Kenya

In 1970s there was a perception that 'modernisation' on its own, was not delivering dignified living for the majority of people. Primary Health Care (PHC) emerged from a realisation of the failure of the dominant medical model to meet major health needs of populations, It could treat disease for some but it couldn't build health for all. PHC attempts to move beyond the boundaries of narrow bio-medical framework, including the idea of context into the picture of disease and health. It emphasizes the notion that technical 'solutions', pharmaceuticals and clinical interventions will not be adequate in improving health without creation of healthy environments.

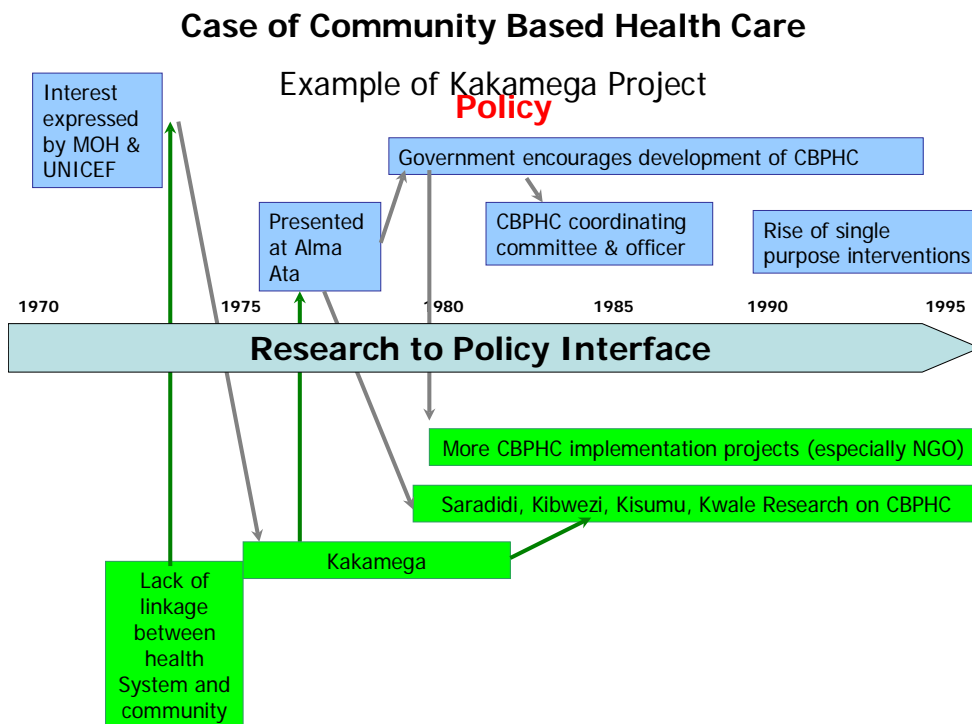
In Kenya (PHC) started in the 60s but the first Community Based Primary Health Care (CB-PHC) project supported by Ministry of Health (MoH) was implemented in Kakamega district, western province from 1974 to 1982. The project offered fresh ideas, mechanisms, strategies and approaches that could lead to essential health care for all (Were, 1984). Although MoH approved the PHC approach in 1982 (Were, 1984) and established a unit at headquarters known as Community Health unit to institutionalise it, no policy guidelines were elaborated to guide its implementation on a large scale.

When so much is at stake in terms of the policies to be adopted for the provision of health services in poor countries, it is important to clarify contributions of past health improvements and its role in the provision of health services in the future (Chen et al 1993). This is the principle on which the evaluation of the Community Strategy Approach (CSA) was based.

At individual and community levels, information is needed for assessing the extent to which services are meeting the needs and demands of the communities. Better availability and use of information has been shown to deliver cost savings, reduce systems inefficiencies, and improve health outcomes. (MOH, 2007)

The utilization of available information by the community has received attention in literature because it justifies among other factors, efforts by research and related organizations to improve peoples' activities and output. (Wagner, 2000)

Figure 1.0. The History of PHC in Kenya



The desired outcomes of CPHC have been noted as increased equity in access to health care and other services or resources essential for health, reduced vulnerabilities through increased community empowerment (capacities), improved participation mechanism and improved population health outcomes and greater health equity (Macdonald,2000)

Few studies have examined whether PHC reduced inequity; those that did found that PHC services were more likely to be used by poorer groups, thus closing an access gap (MOH, 2005).

Strengthening the health systems has been identified as a key intervention for reducing child mortality as well as promoting health growth and development (Bryce et al,2003) In Kenya health services are provided through a network of over 4,700 health facilities country wide, with a public sector system accounting for about 51 percent of these facilities (KSPA,2004). The NHSSP II provides for a framework that is used to ensure functional health system through good governance, management and effective information system.

3.2 The key results of the evaluation done on the original pilot study of the Community Strategy Approach (CSA) model.

There is need to complement the health care system with a competent community based system. The health care systems can no longer cope with increasing burden of disease. The few health professionals cannot provide adequate coverage to add to the gaps in performance. In many communities, community health workers have been trained and tasked with the provision of health care but often with inadequate skills and knowledge to manage the current health issues, inadequate technical or economic support, as established in a recent study by TICH during external evaluation (Koot 2004). Some of the key achievements of the Community Strategy Approach (CSA) can summarized as increased percentage (over 60%) of Households involved in raising cross bred chicken for enhanced nutrition and income security, over 40% of HH growing more than one crop of various categories of food groups, Concept and practice initiated through Agribusiness and wealth creation trainings conducted in Bondo, Siaya, Suba, Kisumu ,Rachuonyo and Nyando Districts, Over 30 partner communities/institutions engaged in 10 Districts in 3 provinces, functional Community Based Information System (CBIS) established in 7 Districts, Stakeholders review and District awareness workshops conducted to improve on the community program.

The Community Based Information System (CBIS) showed that over 80% of households in partnership areas are practicing the ten acceptable healthy practices (Child Immunization, ITN use, treatment of water at home, home treatment of diarrhea, improved agriculture among others).

There are countries that have achieved significant and durable improvements in health. These have shown consistent commitment to equitable development that is broad based and multi sectoral. They include Sri Lanka, China, Costa Rica and Kerala state in India. All of which invested substantially in the social sectors and particularly in women's' education, health and welfare. The political commitment to social and health provisioning in these countries has been sustained through strong citizen participation (Halstead et al 1985) This has been achieved in Costa Rica through a long history of democracy and egalitarian policies and in Kerala through activism by disadvantaged political groups and through social revolution in China.

More recently there have been some countries which have attempted to roll out PHC as a statewide or nationwide program. For example, Thailand begun implementing PHC in 1977, using the village health volunteers and village health communicators, supported by paid health workers, to extend coverage of priority interventions at community and household level. Universal access to health services was ensured through introduction of prepayment of a nominal 30 Baht by all citizens. Collaboration in community development with other sectors, notably education and agriculture was key in this strategy. Child nutritional status improved from 47% showing normal growth in 1979-1982 to 79% showing normal growth by 1989. Similar successes were achieved in immunization status, access to clean water and sanitation and availability of essential drugs. Thailand's program has now expanded to include HIV and AIDS and a focus on achieving the Millennium Development Goals (MDG's)

Accompanying democratization in the mid 1980s Brazil initiated a large scale CHW program, which preceded and contributed to the development of the national Family Health Program (*Programa saude da Familia or PSF in Portuguese*) in 1994. By 2007, this government funded program consisted of 26,730 community based teams of physicians, nurses, nurse assistants and CHWs and covered 85 million Brazilians. The PSF program has significantly contributed to sharply reduced diarrhea deaths and infant mortality rates. (Macinko , 2007)

3.3.Social and political context -the policy context:what enables and what constrains the implementation of community strategy.

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.

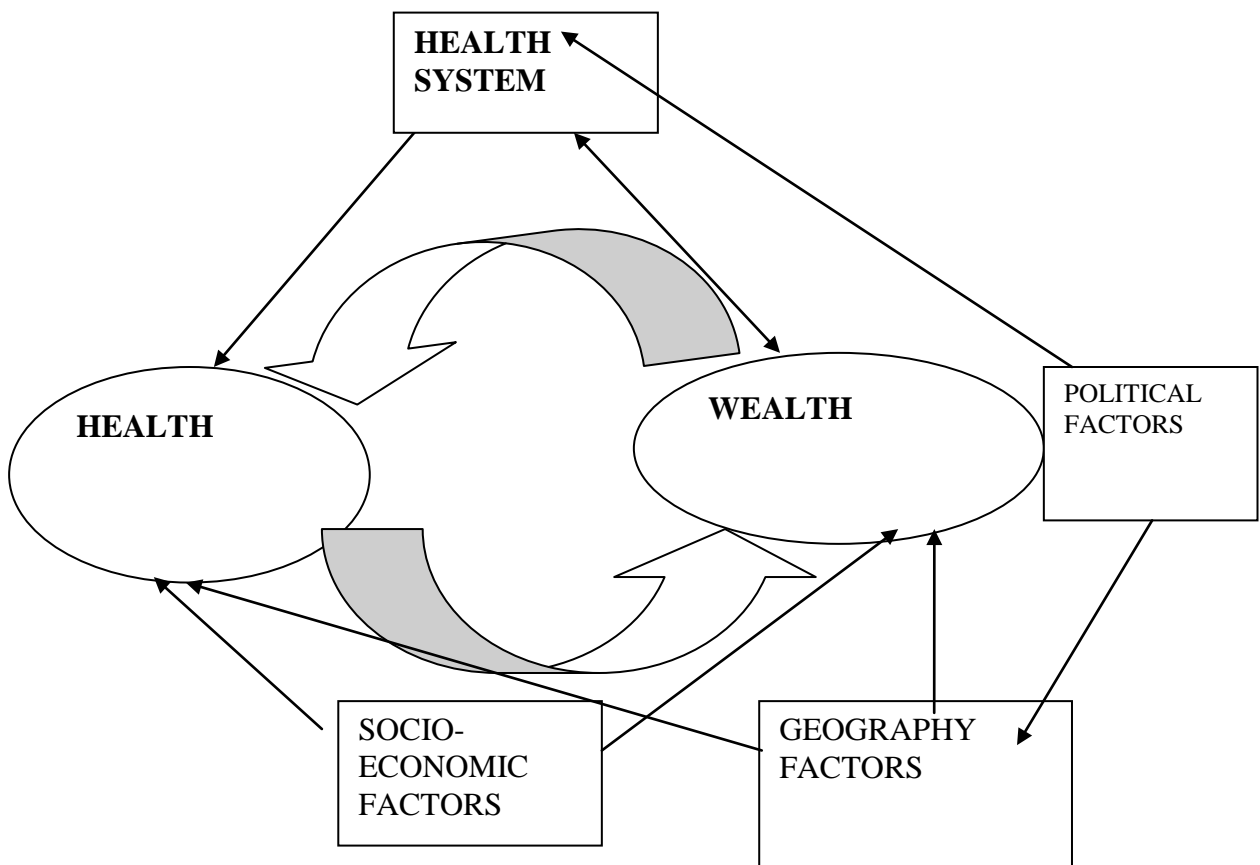
The evaluation established that the services currently being offered by the Community Strategy at level one in Kenya under the hygiene and sanitation such as water safety, food hygiene and solid waste disposal among others are relatively more comprehensively covered as compared to the other components.

There are gaps in the process of formulating policy and inadequate governance and management structures.networking and collaboration. Coupled with inadequate financial and human resources

3.6 Conceptual Framework.

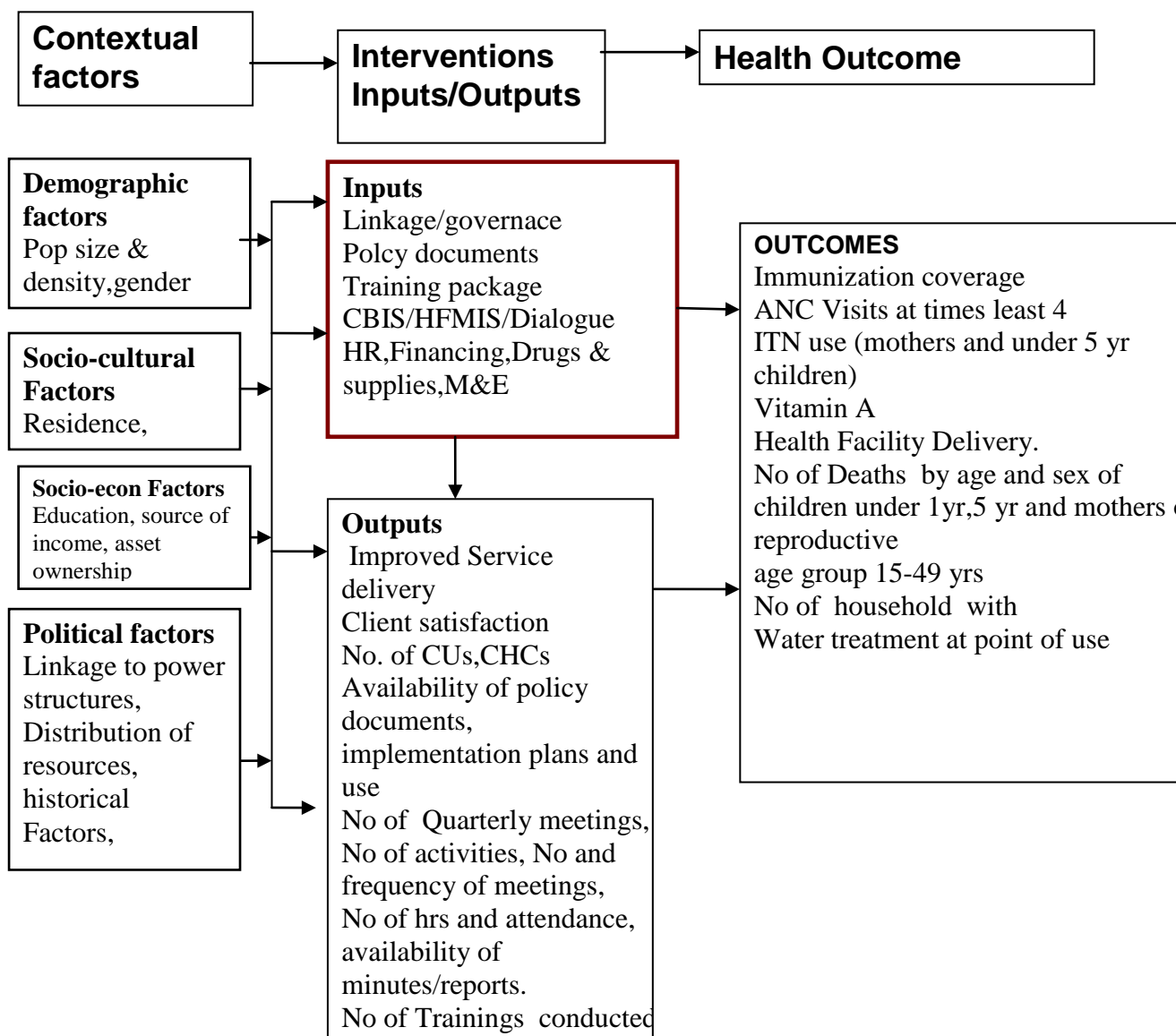
This conceptual framework is a reminder that 'health is politics'. The 'microscopic' perspective, the narrow focus on biological malfunctioning and its rehabilitation, allows us not to focus on the 'macroscopic' vision (Macdonald, 2000; 1993) and pretend that health work is not political.

Figure 2.0 The relationship between health and politics.



3.7 Operational Framework

The indicators used for measuring improvement are summarized in the Operational framework below



3.0 METHODOLOGY

4.1 The study design

This study is a comparative case study design, to compare areas where TICH is involved together with the MoH with areas where the MoH is implementing CPHC with the other partners or on their own, using qualitative and quantitative methods of data collection to assess the uptake CPHC implementation by districts in varied contexts within the country. The main data collection methodologies for this section are essentially qualitative such as Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), health facility assessment, and exit interviews.

The main quantitative aspect involves cross sectional household sample surveys in seven districts designed to assess health outcome indicators to answer research question 4. This was intended to provide evidence as to the effectiveness of CPHC in improving the population coverage by the Kenya Essential Package for Health (KEPH), when implemented by the MoH-TICH as compared to the MoH in partnership with other partners.

4.2 Sampling and Sample Size

Cross section data collection was done at different times of the year 2009. Seven districts were included in the evaluation Suba, Bondo and Rachuonyo districts. These districts were purposively included in the evaluation due to the fact that they were the TICH pilot districts and also had other partners involved in the community strategy and results of a previous evaluation of the CPHC (Community strategy approach) exist. The socio economic context of Nyanza is different, with the highest poverty index ranking in the country, according to UNDP (2005).

The comparison districts were randomly selected three from Central Province- Thika, Nyandarua North and South, and one from North Eastern province (Garissa district). North Eastern Province is a sparsely populated in semi arid region with nomadic communities. Central Province is comparatively higher in socio economic status and with high population density. Multi stage sampling technique was used to pick a sample from the three different provinces. Cluster sampling was used to randomly select households for the Household survey where the villages formed the clusters.

Table 1.0 .A Summary of methods of data collection by objectives

Objectives	Methods	Tools	Motivation& Assumption	Sample Decisions	Recruitment Process	Questions	Analysis
1 Components	Desk review KII	checklist KII guide	Knowledgeable informants will present a true picture	Purposive	Managers at District, incharges, Member of CHC,HFC, CHEWs, Facilitating partners.	Components of CPHC implemented Sustainability plans in place	Transcription Themes & sub themes (Manual & Nvivo)
2 Experiences	KII FGD Observation	KII guide FGD guide Checklist	Roll out sites have been implementing Strategy activities.	Purposive Random	Managers at District, incharges, Member of CHC,HFC,CHWs CHEWs, Facilitating partners.	Experiences- Inputs,process, output Challenges Lessons learnt	Qualitative Transcription Themes & sub themes (Manual & Nvivo)
3 Impact on & Responsiveness	KII FGD Observation Participant observation Health Facility (HF) assessment	Review of secondary data KII guide FGD guide Checklist HF assessment Questionnaire	There has been continuous M& E	Purposive for districts and HF implementing ,non implementing matched by level of care Random-for HF within a district	Managers at District, incharges, Member of CHC,HFC,CHWs CHEWs, Facilitating partners. Mystery client Health Facilities	Questions on way of assessing client satisfaction	Qualitative Transcription Transcription Themes & sub themes (Manual & Nvivo) Quantitavely-SPSS
4. Outcomes	HealthFacility assessment Householdsample Survey	HF assessment Household(HH) questionnaire	There has been continuous M& E	Health Facilities Households	Purposive Random	Questions on health indicators on MDGs	Quantitavely-SPSS

4.3. The community and research users involvement in the research process

The proposed research project arises from a participatory research initiative in which communities using health facilities in the study were key partners in the design and the conduct of the study that aimed at enhancing their role in influencing how services are provided. They thus participated as partners in suggesting methods of data collection such as “the suggestion box” to monitor client satisfaction, instead of direct exit interviews. The communities and service providers participated in identifying the indicators to be included to measure performance. In addition they participated in data collection, collation, and usage for dialogue meetings leading to planning for the key issues discussed and action. The community members will therefore be able to manage the information, feeding it back to the health system for improvement of key health indicators Dialogue sessions held gives the community members an opportunity to participate in decisions affecting their health. It brings together the community, the service providers, the management and the researchers to discuss evidence of their performance and to inform continuous improvement of the selected key health indicators like immunization, client satisfaction, Antenatal care (ANC) attendance among others.

Thus the stakeholders (MOH, communities, (FBOs) who have been involved will continue to be involved in several aspects of the proposed scaling up phase of the study such as taking responsibility in ensuring the necessary service coverage in their own villages and units; continuously assessing improvement in health outcomes in their areas of responsibility following health actions decided on and facilitated by themselves. It is through this process that communities have significantly contributed to the new research questions to which they too are seeking answers in order for them to sustain the CPHC elements and health outcomes. The community will continue to be involved in research design, planning for the community survey, and dialogue in stakeholders forums to influence policy and intervention.

4.4. Preparation of policy makers for the results of the research

The policy makers are already involved at different levels from the beginning and through the process. Planning with District Health Management Team (DHMT) and Health Facilities teams. They will be involved in data collection, feedback meetings, dissemination as well as contributing to formulation of the recommendations and the use of results for decision making.

Technical Advisory Group (TAG): the current study has been guided by the TAG which is made up of senior policy makers from the MoH involved in feedback meetings. The TAG was involved in the pilot districts. This national technical working permits the sharing of findings to spark off policy formulation as necessary.

The TICH annual Scientific Conference provides opportunity for engagement on CPHC initiatives at the international level.

4.5. Data processing and analysis

Data was edited in the field at the collection site to ensure completeness. Further cleaning was done in two phases. The first cleaning was done daily where the data collection tools were sorted according to their categories and further checked for completeness and edited. All quantitative data were processed by soft ware package- Statistical Package For Social Scientists (SPSS). The second phase of cleaning was done after quantitative data has been entered in the computer. Summaries from the key informant interviews, and exit interviews were made after every session where emerging themes and sub theme were analyzed.

4.6. Data entry and analysis

The principle investigator carried out the analysis of all information collected. Quantitative data was entered and electronically analyzed with the use of the statistical software, Statistical Package for Social Scientists (SPSS). Data analysis was done according to the study objectives and focus was on calculating key program indicators. Qualitative data was treated textually to describe factors influencing CPHC

implementation that may have contributed to the findings. Quantitative data was presented in tabular and graphical forms. Interpretation of findings then followed for both qualitative and quantitative results.

Study Limitations

The purposive approach to sampling with regard to the TICH pilot districts and limitation in the sample size given short time and resources available. The contextual issues presented a challenge in terms of Comparability of the districts in terms of socio economic, infrastructure and the disparity in health resources of different districts.

The spill over effect of the intervention sites to the non intervention sites in community surveys. The results may be compromised by the distance, access to other community units especially if all intervention units are located in accessible areas compared to the non intervention communities.

4.7. Ethical Issues

The Great Lakes University of Kisumu (GLUK) and Kenya Medical Research Institute (KEMRI's) research and ethics board's approval will be sought before the actual study is started. Permission will also be obtained from the relevant authorities to conduct the research in the district. This will include the District Commissioner, Provincial Medical Officer of health and the District Medical Officer of health in the respective districts.

The study has taken into consideration the issues of justice and conflict of interest in that the districts have been selected according to their chronological entry in the implementation of community strategy. It was non invasive and therefore the potential of doing harm was limited.

The respondents were provided with information on the research and its intended purpose and informed consent was obtained from them. All the responses got from respondents were treated as confidential. The study was flexible to allow any respondent to withdraw if she/he feels uncomfortable to continue with the study. The interviews were based on voluntary participation and only respondents who were willing to answer questions honestly were recruited. The respondents were not be paid or compensated for their

participation. Care was taken during data collection not to cause any form of harm to respondents, psychologically or physically.

4.8. Knowledge translation

A report was finally written to give a detailed and complete account of the whole process. Feedback was given to the District Health Management Team (DHMT) in joint workshop for the six districts who had taken part in the study where the findings will be discussed. In addition, the study findings were disseminated to the health facilities that would have participated in the study through the respective DHMTs and through face to face dialogue sessions with the health workers in the health facilities, community health committees and Community Health Workers (CHWs).

The results of the study will also be shared with Teasdale Corti Global conference on Revitalizing Health for All.

Publication of the study results the final report will be done and made available to the public through Journals. All other relevant authorities interested in the study findings will access it through the report and journals. Results from the study will form a basis for improvement by the health facilities and the nation at large. It will also be utilized by Teasdale Corti in its final evaluation

4.9. Quantitative and Qualitative data

The table below shows the qualitative data collected by districts. The Research Team made the set targets in the sampled population.

Table 1.1 **Quantitative data**

<i>Province</i>	<i>Districts</i>	<i>Divisions</i>	<i>Sub locations</i>	<i>Sample size</i>	<i>Target in the proposal</i>	<i>No. Of Households Covered</i>
Nyanza	Suba	3	6	380	380	350
	Rachuonyo	3	6	380	380	384
	Bondo	3	6	380	380	390
Central	Nyandarua North	4	4	600	380	640
	Nyandarua South	4	5	600	380	640
	Thika	4	4	600	380	650
North Eastern	Garissa	2	2	600	380	660
					2660	3694
Total number of households visited					Households	Households

A total of 3694 households were covered in the study in the seven districts. This was above the target households in the proposal as there was increased demand for the household assessment from the District Health Management Teams (DHMTs)

Table 1.2 **Qualitative data**

<i>Province</i>	<i>Districts</i>	<i>Client Satisfaction (exit interviews)</i>	<i>Health Facility (Community Unit Assessment)</i>	<i>FGD with CHWS</i>	<i>KII With MOH/DPHO</i>
Nyanza	Suba	62	3 Health facilities	2	1 MoH & 1 DPHO
	Rachuonyo	60	3 Health facilities	2	1 MoH & 1 DPHO
	Kisumu East	60	3 Health facilities	2	1 MoH & 1 DPHO
Central	Nyandarua North	60	3 Health facilities	2	1 MoH & 1 DPHO
	Nyandarua South	60	3 Health facilities	2	1 MoH & 1 DPHO
	Thika	60	3 Health facilities	2	1 MoH & 1 DPHO
North Eastern	Garissa	60	3 Health facilities	2	1 MoH & 1 DPHO
Total		422	21 Health Facilities	14 FGDs	7 KIIs

The qualitative data covered 21 health facilities, three from each district. A total of 14 FGDs, 7 KIIs and 422 exit interviews were done.

4.10. How the Research project changed over time .

There were changes in the sampled district: Number increasing from 6 to 7 . This was due to the increased demand on the ground. While covering the Nyandarua North district. The twin district Nyandarua South pleaded with the research team that they would also like to be included in the research and would take care of their own costs.

A site replacement was done whereby the Rift valley province sites were replaced by the central province sites with advice from the MoH. One site Murang'a (district) was replaced by Nyandarua North district within the same province.

The sample size for two of the covered districts (Nyandarua North and south) were doubled due to the MoH's justification that there was need to do a comparison of the intervention sites (where the community units (CUs) had been established) and the non intervention sites (where there were no Community units (CUs)).

The **intervention sites** were where the community strategy was implemented-The establishment of Community units (CUs) training of CHEWs and CHWs with continuous supervision. The **non intervention sites** were the sites without the implementation of community strategy activities.

5.0 RESEARCH FINDINGS

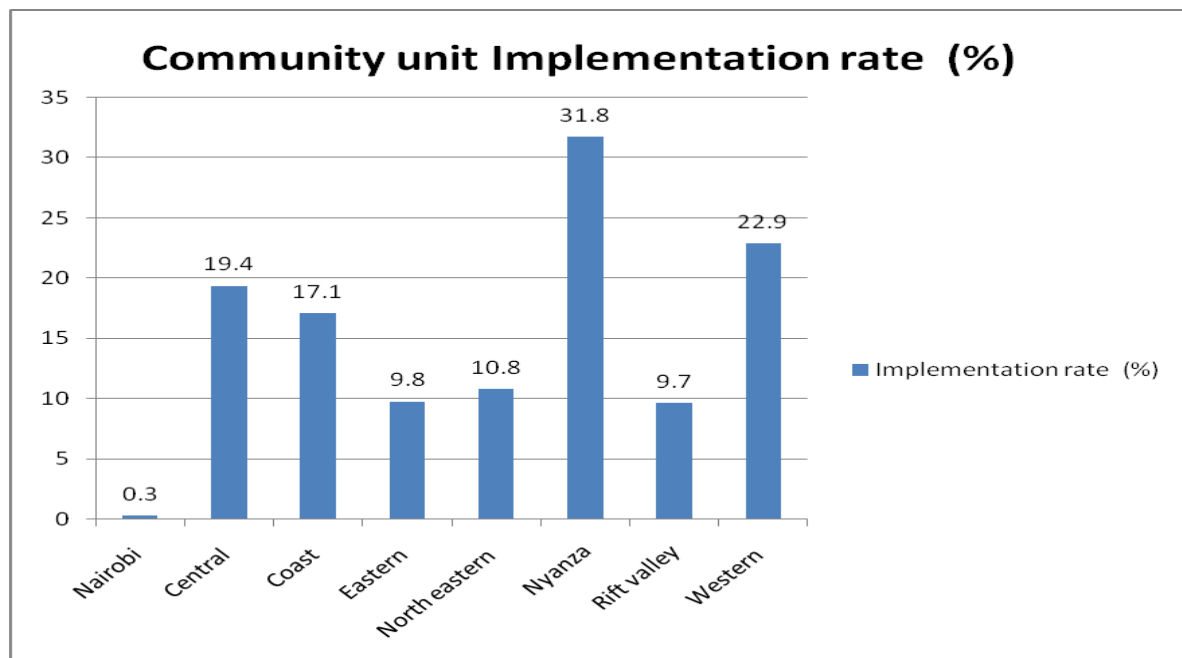
5.1. Overall National community strategy scale up status

Table 5.1. Scale up status of communit strategy by province

<i>The number of Community Units (CUs) to be established by province</i>				
Province	Population 2010	Target	Actual CUs established	Implementation rate (%)
Nairobi	3,350,000	670	2	0.3
Central	4,835,000	967	188	19.4
Coast	3,505,000	701	120	17.1
Eastern	6,255,000	1251	123	9.8
North eastern	1,440,000	288	31	10.8
Nyanza	5,850,000	1170	372	31.8
Rift valley	10,315,000	2063	200	9.7
Western	4,735,000	947	217	22.9
Total	40,405,000	8057	1253	15.5

The study covered Nyanza Province with the highest community strategy implementation rate 31.8%, Central Province the third in rank of coverage 19.2% and North Eastern with 10.8% Intervention coverage. (MOH,2010)

Figure 5.1. Physical progress of community units by Target and province



All the regions the % coverage of CUs is less than 50%.Nyanza has achieved the highest rate of implementation at 31.8%. The National rate of implementation of CU's is overall low with no province achieving 50% implementation rate.

5.1 What components of the *Community Strategy Approach* model have been implemented and sustained by the MoH and other partners in the district .

5.1.1 Governance & Mngement structures

There were three categories of the implementors of the community strategy approach in three differrent regions. These were:

- Great Lakes University of Kisumu through the Tropical Institute of Community Health (TICH) which supported(Bondo,Suba and Rachuonyo districts)
- Ministry of Public Health and Sanitation (MOPHs) which suported (Thika and Garissa districts)
- Other Partners-Non governmental Organization (NGOs) which supported (Nyandarua south and Nyandarua North districts)

Table 5.1.1a **Governance & Mngement structures:** The Community Units sites visited by regions by Implementers

Community units	<i>TICH supported districts</i>			<i>MOH supported Districts</i>		<i>Other Partners supported districts (NGOs)</i>	
	Suba	Bondo	Rachuonyo	Thika	Garissa	Nyandarua south	Nyandarua North
CHCs							
Visited	10	12	5	14	3	16	18
Functional	7	9	3	4	1	6	5
% Performance	70	75	60	29	33	38	28
HFMCS							
Visited	5	5	4	4	3	6	6
Functional	5	5	4	4	3	6	6
% Performance	100	100	100	100	100	100	100
Stakeholders forum District/Division							
Visited	4	4	3	3	3	3	3
Functional	3	3	2	1	1	1	1
% Performance	75	75	67	33	33	33	33
Overall performance %	82	83	76	54	55	57	54

The functionality of these structures were rated by the number and frequency of meetings,the presence of minutes,attendance & Representation.The Community Health Committees (CHCs) performace were Suba (70%), Bondo (75%), Rachuonyo (67%), Thika (29%), Garissa(33%), Nyandarua south (38%), Nyandarua North(28%). The functional CHC were ranked as a proportion the existing ones.The Health Facility Management Committee (HFMCs) and the District Stakeholders were functional in all the districts,However the Divisional Stakeholders forum was only evident in the TICH Supported districts- Bondo,Suba and Rachuonyo districts.

One of the committee members gave the following description as part of the functionality of the structures:

Yeah, basically we have a community-facility linkage where we start from the households being Supported by the CHWs then a number of CHWs meet at what we call community health committee (CHC) or at Community Unit (CU) level then from there we have level one which is referring to level 2 like that up to the district which is level 4 so all these areas we have some committees that are linked and then there is the CHEW who link the CHC with the health facility at the health facility we have the 2 CHEWs that's the Nurse and the Public health technician (PHT) attached to that area .

Table 5.1.1b: The establishment of Community Units by regions.

	<i>Nyanza province</i>			<i>Central Province</i>			<i>North Eastern</i>
Community units	Suba	Bondo	Rachuonyo	Thika	Nyandarua south	Nyandarua North	Garissa
Visited	12	15	5	17	15	16	3
Functional	8	11	3	8	8	9	1
% proportion of functional CUs	67	73	60	47	53	56	33

The proportion of functional community units was high in Bondo district 73%, followed by Suba 67%, Rachuonyo 60%, Nyandarua North 56%, Nyandarua South 53%, Thika 47% and Garissa 33%.

5.1.2 Human Resource to support the community Strategy Approach

The Human Resource was assessed based on the number and content of training. The Community Health Workers (CHWs) are key human resource to the success of the Community Strategy Approach. The assessment found out that over 80% of the CHWs can account for what they do during the household visits.

Table 5.1.2. **Human Resource for community units.**

Human Resources	<i>TICH supported Districts</i>			<i>MOH supported Districts</i>		<i>Other Partners supported Districts</i>	
	Suba	Bondo	Rachuonyo	Thika	Garissa	Nyandarua south	Nyandarua North
CHWs							
Target @ CU#25CHWs	300	375	125	425	75	475	425
Trained	175	230	78	250	45	430	420
Trained and active	160	208	65	180	16	210	180
Proportion of Active CHWs	53	55	52	42	21	48	43
CHEWs # HFs							
Target	15	15	14	14	13	16	16
Trained	5	7	3				
Trained and active CHEWs	5	7	5	3	2	7	8
Proportion of Active CHEWs	33	47	36	21	15	44	50
Average Proportion of Human Resources	43	51	44	32	18	48	50

One Community Health Worker (CHW) gave the following account:

One of them is defaulter tracing both for TB patients and immunization once they go round and check from the cards they will be able to know and take up the matter with the parent and also for water treatment they pick the tabs from the CHEWs and go out and distribute them, they are also able to talk comfortably the message of latrines that these people can make simple latrines to prevent outbreak of diarrheal or any other disease, they also talk to the community about the need to keep their homes clean, dish-rack and slashing and destroying used containers that can harbour mosquitoes even nutrition

A gap in the training of CHCs was noted. One of the CHC members expressed that

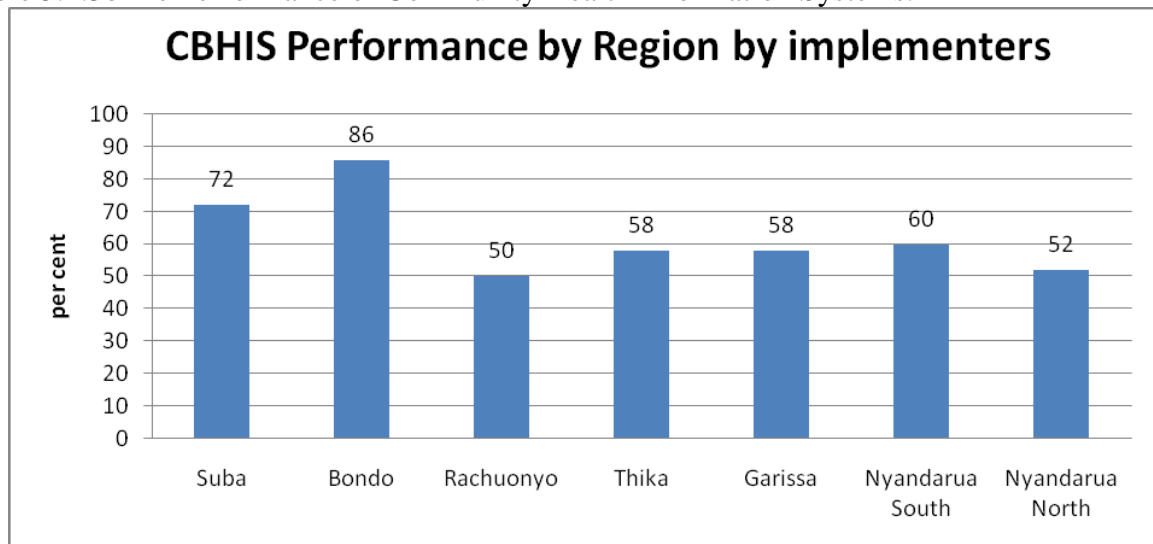
They were trained they have the concept they have the content but they are not driving so I don't now whether the people never chose the correct people because they are in the CU'S and I think the CHC'S should be driving this....

Table 5.1.3a The performance of the Community Based Health Information System by Regions and by implementers .

	<i>TICH supported districts</i>			<i>MOH supported Districts</i>		<i>Other Partners supported Districts</i>	
	Suba	Bondo	Rachuonyo	Thika	Garissa	Nyandarua south	Nyandarua North
Community Based Health Information system (CBIS)							
N=No. of CUs Visited	n=12	n=15	n=5	n=17	n=3	n=16	n=15
Available CBHIS(HH reg)	11	12	4	8	2	5	7
Available and linked to HMIS	16	20	6	8	2	4	6
Used for dialogue	21	30	18	12	3	12	9
Score	48	62	12	28	7	18	22
Out of	66	72	24	48	12	30	42
% CBHIS performance	73	86	50	58	58	60	52

The community based information elements was ranked and scored as 1=Available CBHIS, 2=available and linked, 3=CBIS used for Dialogue. Bondo district ranked high in CBHIS 86%. This shows that the data was continuously collected, made available, linked to the health facility information and also used for dialogue.

Table 5.1.3b The Performance of Community Health Information Systems.



5.1.4 Assessment of Dialogue Days.

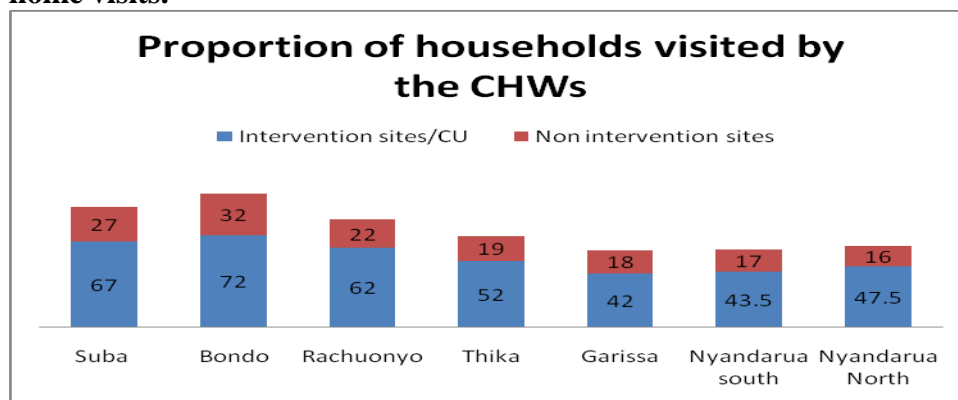
Holding dialogue sessions based on data from the community and health facilities depicting the current situation regarding elements targeted for improvement. These dialogue sessions ideally should be held monthly at household, community and health facility levels and every four months at the sub-district level.

The dialogue was assessed at various levels at the household it was equivalent to the proportion of households visited. At the community unit level, the community unit dialogue assessed based on the duration and frequency. When last done, minutes, attendance & representation. Suba had 5 CUs x 6 Quarterly Dialogue days giving a total of 30 dialogue days, Bondo had 7 CUs x 8 Quarterly Dialogue days (56 dialoguedays) and Rachuonyo had 3 CUs x 4 (12 Dialogue days), There were no dialogue at Community unit levels in Nyandarua south, North, Thika and Garissa Districts. Dialogue at the Health Facility level was observed in all the health facilities visited. From the findings there are improvements in the implementation of plans (qualitative observation) that was realized in holding the dialogue sessions with the community members.

One of the Chairmen of Health facility Management Committee (HFMC) said that;

There has just been monthly dialogue day the community come and say what they know about the facility; how the services can be improved at the facility and then we also display the charts that this is how we are performing you see the children are also not coming for immunization, women are not delivering in the facility then they will tell us why whether it is the staff attitude at the facility or the quality of treatment then we see what to do and then other issues like latrine coverage, water treatment how best they can be done and several other indicators like use of ILLTN usage can improve and behaviour change communication on how people can change their behaviour and attitudes so that the percentages I was talking about can improve.

Table 5.1.5. **proportion of Households reached through dialogue during the CHWs' home visits.**



The level of the the proportion of the household visits reflects the degree of dialogue of CHWs with the household members.

5.2 A Comparison of achievements in implementation of the community strategy components by regions and by implementers.

The criteria for the level of implementation of the community strategy was based on five elements. These were: The establishment of Community Units (CUs) i.e the proportion of CUs, Establishment of governance and management structures-Community health committees (CHCs), Health Facility Management Committees (HFMCs) and District stakeholders Forum (DHSFs). Proportion of trained and active CHEWs and CHWs. Community Based Information system (CBIS) –Available CBHIS (HH reg), available and linked, CBHIS used for dialogue and the number and level of dialogue sessions.

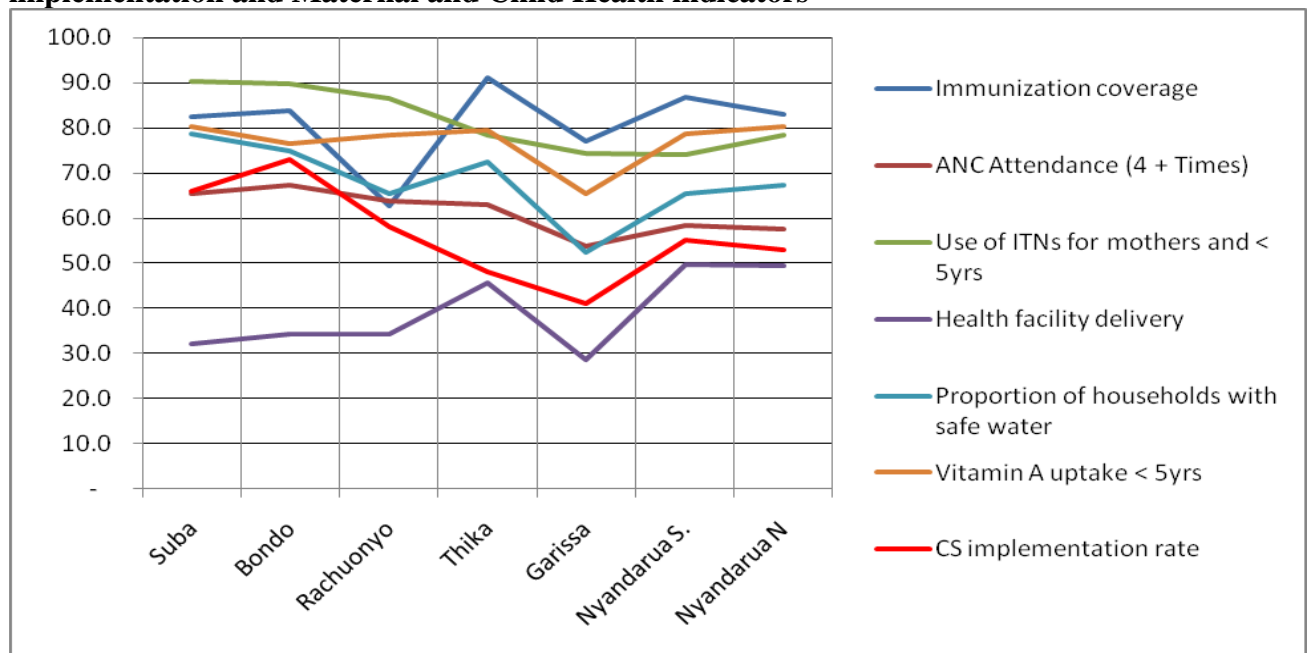
Figure 5.2.1 : **The community strategy implementation levels by regions and implementers**

<i>Community strategy Component</i>	<i>TICH supported districts</i>			<i>MOH supported districts</i>		<i>OTHER PARTNERS supported districts</i>	
	Suba (%)	Bondo (%)	Rachuonyo (%)	Thika (%)	Garissa (%)	Nyandarua S. (%)	Nyandarua N. (%)
Governance & Management structures	82	83	76	54	55	57	54
Establishment of Community Units	67	73	60	47	33	53	56
Human Resource for community units	43	51	44	32	18	48	50
Community Based Information system	73	86	50	58	58	60	52
Community Strategy average implementation rate	66	73	58	48	41	55	53

Figure 5.2.2. Comparison of Maternal child and maternal health outcomes by regions and districts.

Indicators for maternal child health	TICH supported districts			MOH supported districts		OTHER PARTNERS supported districts	
	Suba	Bondo	Rachuonyo	Thika	Garissa	Nyandarua South	Nyandarua North
Immunization coverage	82.4	83.7	62.8	91.0	77.0	86.7	82.9
ANC Attendance (4 + Times)	65.6	67.4	63.8	63.0	53.7	58.4	57.4
Use of ITNs for mothers and < 5yrs	90.2	89.8	86.4	78.6	74.6	74.2	78.4
Health facility delivery	32.2	34.2	34.4	45.6	28.7	49.6	49.2
Proportion of households with safe water	78.7	74.8	65.4	72.4	52.4	65.4	67.2
Vitamin A uptake < 5yrs	80.2	76.4	78.2	79.5	65.4	78.6	80.2

Figure 5.2.3.A Graphical correlation between the Community Strategy implementation and Maternal and Child Health indicators



The uptake of community strategy components with the quality of health service delivery and outcome. The implementation was noted to have made a difference in the quality of Health service delivery. Compare the Agriarian socio-economically Rich (Central), Agriarian socio-economically poor (Nyanza) and nomadic sites (Garissa)

Figure 5.2.4.A correlation of the community strategy elements and Health outcomes.

<i>A correlation with Health outcomes.</i>	<i>Structures</i>	<i>CHWs</i>	<i>CHEWs</i>	<i>CBHIS</i>
	Pearson's correlation (r)	(r)	(r)	(r)
Immunization coverage	0.375	0.032	0.205	0.607
ANC Attendance (4 + Times)	0.750	0.510	0.091	0.000
Use of ITNs for mothers and < 5yrs	0.906	0.615	0.496	0.000
Health facility delivery	0.354	0.320	0.258	0.000
Proportion of households with safe water	0.471	0.600	0.258	0.382
Vitamin A uptake < 5yrs children	0.540	0.734	0.592	0.000

Community strategy implementation elements cluster with the highest results.

COMMUNITY HEALTH COMMITTEES		
HEALTH INDICATORS	PEARSON CORRELATION	CORRELATION LEVEL
ANC Attendance (4 + Times)	0.750	Strong positive correlation
Use of ITNs for mothers and < 5yrs	0.906	Strong positive correlation
STAKEHOLDER FORUMS		
ANC Attendance (4 + Times)	0.750	Strong positive correlation
Use of ITNs for mothers and < 5yrs	0.906	Strong positive correlation
HUMAN RESOURCES FOR COMMUNITY UNITS		
CHW's trained and active		
HEALTH INDICATORS	PEARSON CORRELATION	CORRELATION LEVEL
Use of ITNs for mothers and < 5yrs	0.615	Strong positive correlation
Proportion of households with safe water	0.600	Strong positive correlation
Vitamin A uptake < 5yrs	0.734	Strong positive correlation
CBHIS		
Health indicators	Pearson correlation	Correlation level
Immunization coverage	0.607	Strong positive correlation

Strengthened governance particularly community health committees and stakeholder forums have influenced ANC attendance (4 + Times) ($r=0.750$) and use of ITN's for mothers ($r=0.906$) and children under five strongly.

CHW's relate strongly to the output on the use of ITNs for mothers and children under 5 years ($r=0.615$), households with safe water($r=0.600$)and vitamin A uptake for children under 5 years ($r=0.734$). Average results are showing for ANC Attendance (4 + Times).

CBHIS has strongly influenced immunization coverage($r=0.607$). It is the only element that has positive correlation with output on all the health indicators, though the influence is low overall.

5.3. The experiences , successe and best practices in its implementation by the Ministry of Health (MOH) and other partners

5.3.1 Improvement at the Health Facility level

Evidence based participatory planning improvement has been reported in over 60 % of the health facilities.The current practice of developing the Annual Operational Plans (AOPs) is an evidence of participatory planning where the community units plans and forwards their plans to the health facilities which in turn submits the collated plans to the district.

There strengthened Linkage and governance structures in the health system cycle. The level one care Households and community are now closely linked to the health facilities.

The Policy documents are available at the health facility level, this has raised awareness on the policy issues and has kept the health workers abreast with the current trends with regard to health indicators and policy changes.

The training of the Community Health Workers (CHWs) and Community Health Extension Workers (CHEWs) has ensured the technical sustainability of the community strategy activities by providing a pool of trained human resources for heath even at the community level.

There is a strengthened Health Facility Management Inforamation Sytem (HFMISS) that is also closely linked the Community Based Information System (CBIS).These complementary role of the information system has ensured completeness of data.

The use of this data to trigger Dialogue in the community units has inculcated the culture of dialogue for continous improvement.The elements of assessing,dialogue,planning and acting resulted in action plans that are doable and were also used for measuring progress and change.

In the area of Financing, Drugs & supplies, Monitoring and Evaluation, it was noted that there has been an improvement in the supply chain. One of the Health facility In-charge said that:

There is improvement you know when you are criticised to change your attitude or there is lack of drugs then you try to improve on that when the nets are not there you call population services international (PSI) so that whatever makes them not visit the facility is made available if it is vaccines they get so that they are not told such and such antigen is not there.

There has been reported improved Service delivery as an output with regard to the involvement of the CHWs and the perception of the clients at the health facilities.

One of the Health worker at the facility level clarified as part of the improvement at the health facility level:

Yes as I told you the immunization coverage went up with community strategy by involving CHWs children are now coming and as last week measles coverage was at 81% and latrine coverage, water treatment have gone high usage of nets has gone up because of behaviour changes so the demand for LLITN has gone up, nutrition has improved because of kitchen gardening and there is increased demand for service delivery at the facility.

One of the DPHO noted the following as an improvement:

It is very tricky because we have been making request but now everything is being rolled down to the facilities so it's the facilities to make annual work plans to capture all that they want to do and the ministry can approve that

One of the MoH gave the following account of what happens in the process of establishing community units:

We normally identify a sub-location which is needy then a baraza is called and CHWs that are recognised are selected then we form CHC which is linked to CHWs then we plan a training of 2 days to map the village to know what is there on the ground to get the baseline from there we come back present and make a work plan that's now the CHEWs who will do the training however the PHO will supervise the training to ensure quality then financing the MoH through partners normally support us for dialogue activities and outreaches however the financing has not been very positive

Chandruok mokwongo en ni jogweng ongeni watiyo kendo ichulowa misara to wan to wangeyo ni watiyo tich voluntary to kawadhi e gweng gi form kawo data to wachini uchieme wiwa gi otas kiny ka kiny gi nying nyithiwa gi ema udak go

Translated as:

“ The community members know that we are employed and we are paid salary, but us we know we are volunteers, yet during the household visits,the household members tell us that we are “eating” (paid)from the data we collect from them”

5.3.3.Best Practices and innovations to learn from the Community Strategy Approach (CSA)

The health facilities are sensitive to the needs of the community. This has closed the gap between the health facilities and the community they serve.

The feedback component of the District health System has been strengthened.Frequent meeting at the health facility by the HFMC for planning,implementation,monitoring and feedback (PIMEF) active at the facility level

There has been a progressive exhibition of Positive staff attitude and commitment based on an achievement. A culture or a system rewarding performance.

In virtually all the health facilities. There was observed Orderliness and timeliness in starting work.

Constituency Development Fund (CDF) used in put up new physical infrastructure and improve the existing infrastructure. This has in the long run improved the health infrastructure and therefore by extension the accessibility to health care for the population.

There was an significant improvement in the area of accountability and responsiveness in district health service delivery. Community members in the Community Units feel that the Health workers at the health facilities are now accountable.

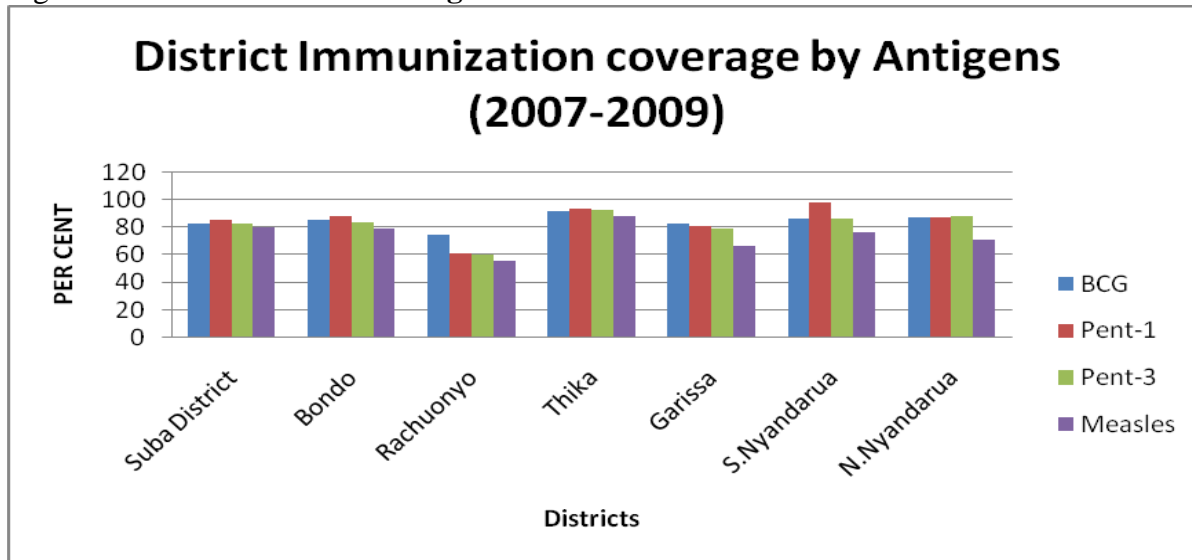
5.4.District Comparisons

The following indicators for Maternal and child health outcomes in the districts were compared:

- i. Immunization coverage
- ii. ANC Visits at times least 4
- iii. ITN use (mothers and under 5 yr children)
- iv. Uptake of Vitamin A
- v. Health Facility Delivery.
- vi. Proportion of household with Water treatment at point of use

5.4.1. Immunization coverage

Figure 5.2. Immunization coverage

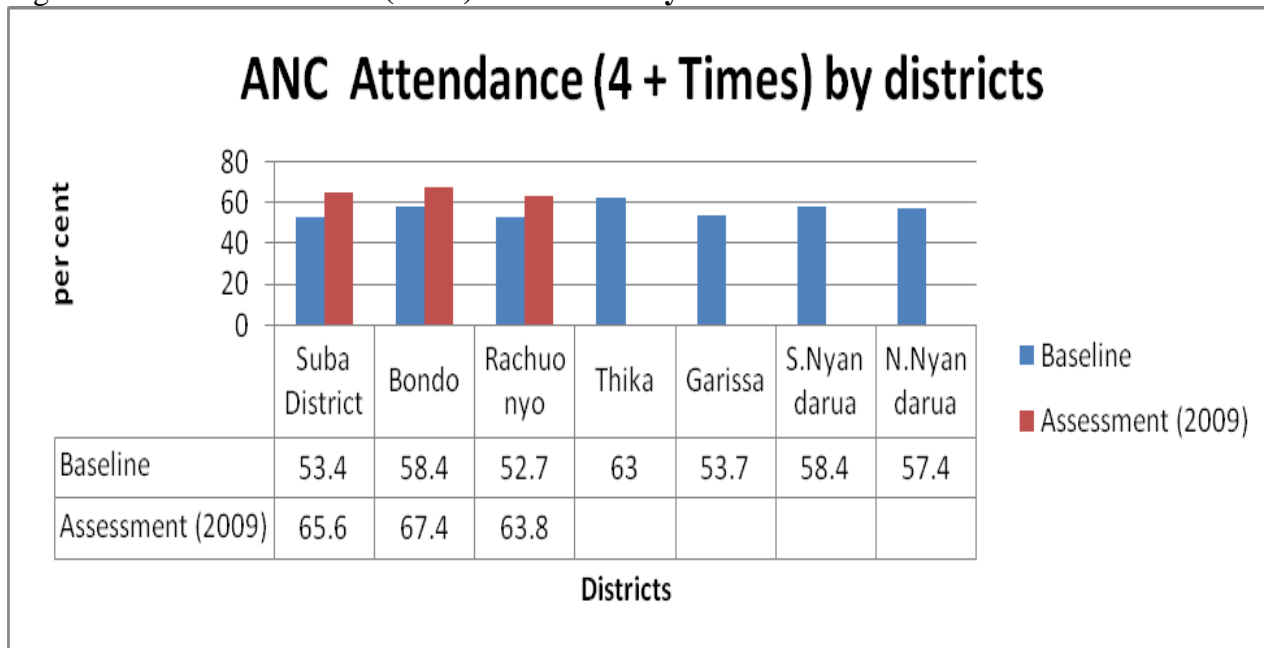


Influence of Community Strategy Approach (CSA) on quality of health service delivery

5.4.3. Ante-natal Care (ANC) Attendance (4+ Times)

Table 5.4.3 ANC Attendance

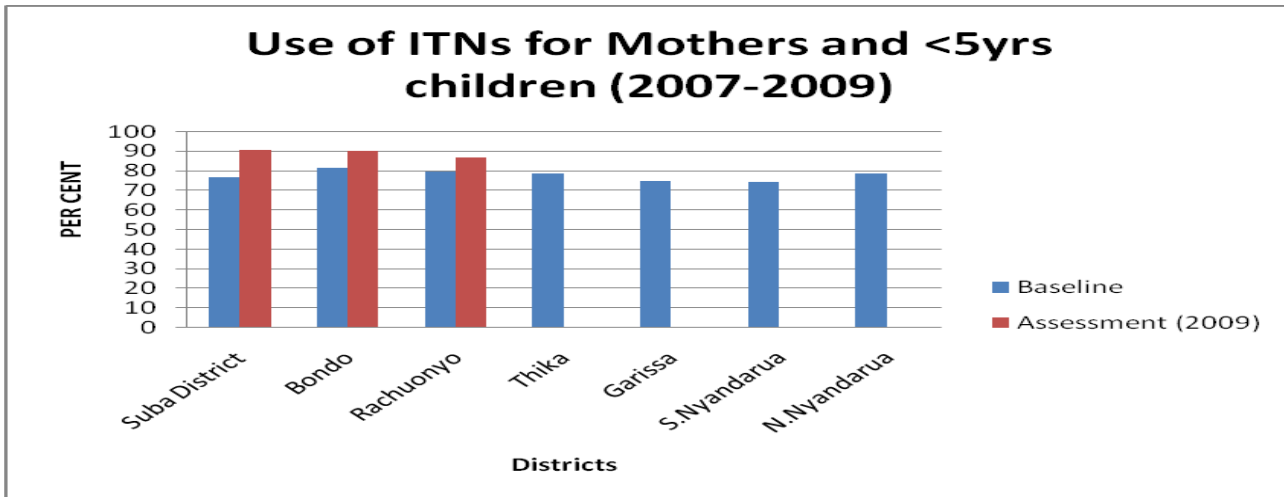
Figure 5.4 Ante-natal Care (ANC) Attendance by districts



For Thika, Nyandarua South and Nyandarua North Districts the baseline was done 2009, the assessments will be done mid June 2011.

5.4.4. The Use of insecticide mosquito treated nets (ITNs)

Figure 5.4.1 ITN use by districts



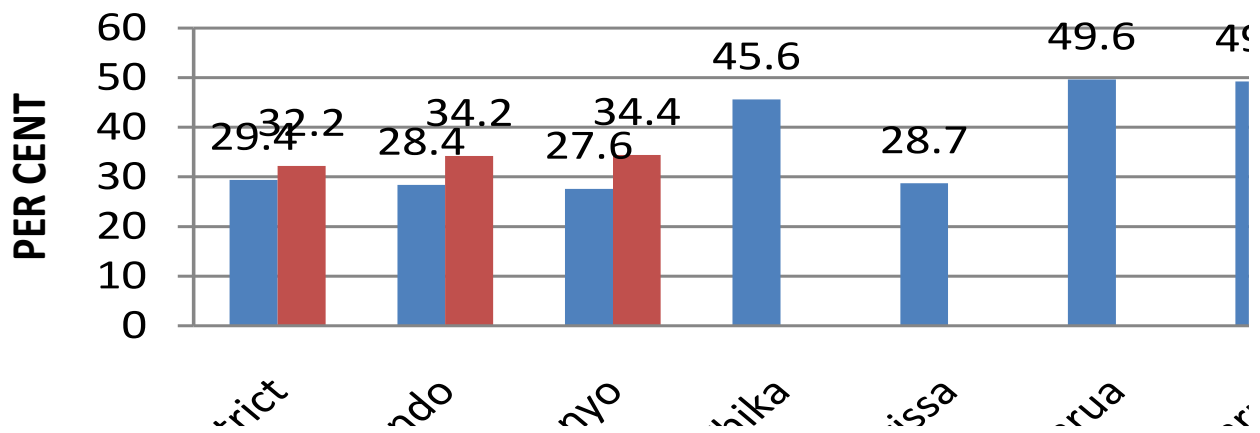
There was a marked improvement in the the proportion of households that used Insecticide treated mosquito nets especially in the Nyanza province where the both baseline and assessment surveys were carried out.

5.4.5. Health facility Delivery

Figure 5.4.2 Health facility delivery by districts

□

Health Facility Delivery by District



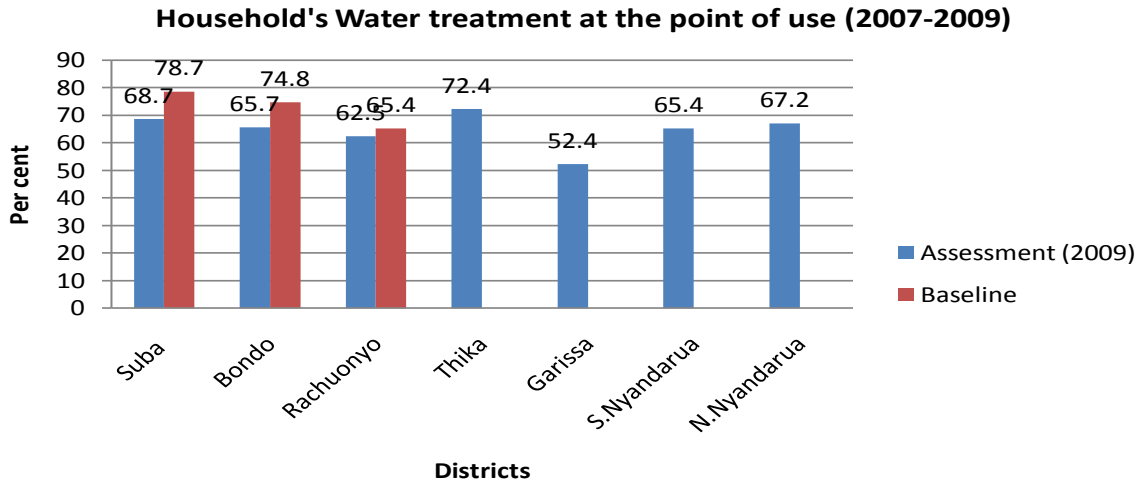
The health facility deliveries improved from the previous years. Suba district from 29.4% to 32.2% Bondo district from 28.4% to 34.2% and Rachuonyo district from 27.6% to 34.4%.

District Public Health Nurse gave the following comments on health facility delivery

We have several interventions one of them is to raise the immunization coverage that is working well as per last week when I was at Ober facility the coverage was at 21% where it has ever been before, we also have the ANC uptake which is also doing well mothers are now accessing the facility for ANC services the challenge is that the client that come for facility delivery is less than those who come for ANC .

5.4.6 Proportion of households with safe water.

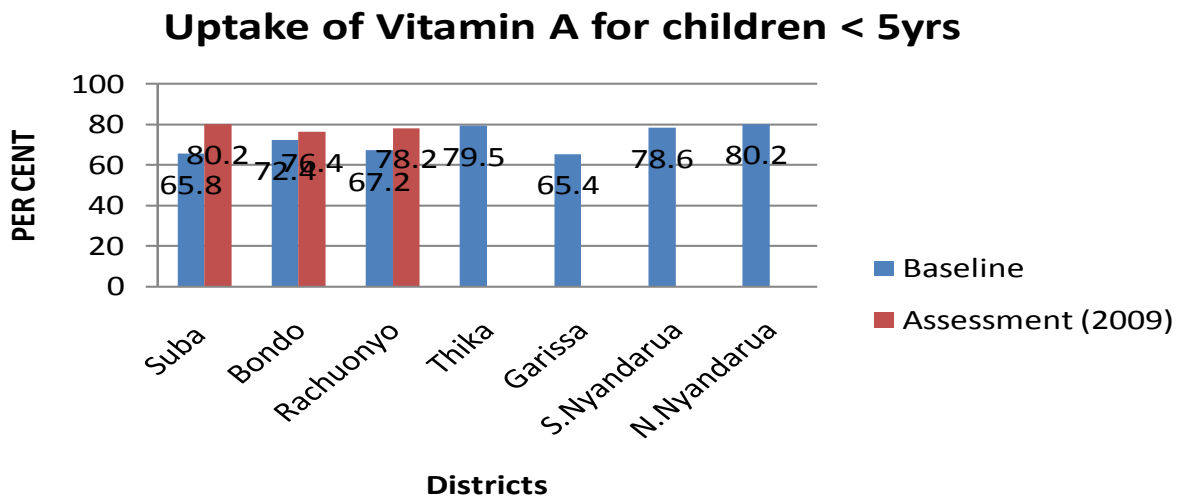
Figure 5.4.3 Proportion of households with safe water



The proportion of household with access to water treated at the point of use increased significantly in the three districts Suba, Bondo and Rachuonyo districts. While for central province districts the proportion for households with access to treated water was comparatively high Thika 52.4%,Nyandarua South 65.4% and Nyandarua North 67.2%. However ,the Proportion is low in Garissa 52.4%.

5.4.6 Uptake of Vitamin A

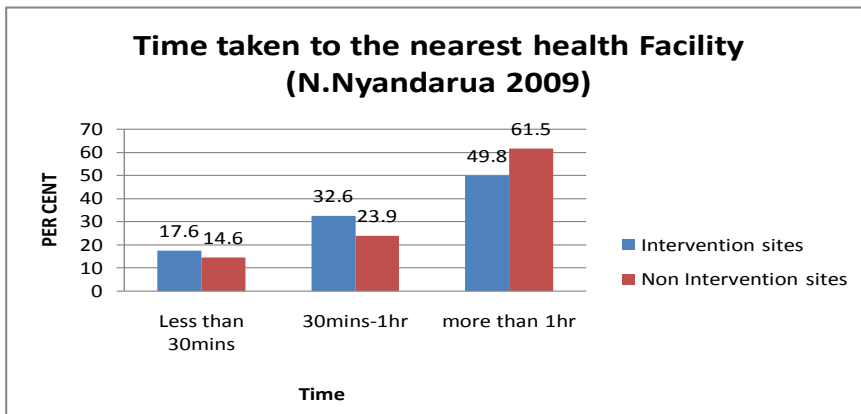
Figure 5.4.4 uptake of vitamin A



The uptake of vitamin A for children under 5 years increased significantly in the three districts Suba, Bondo and Rachuonyo districts. While for central province districts uptake of vitamin A was comparatively high Thika 79.5%,Nyandarua South 78.6% and Nyandarua North 80.2%. However ,the Proportion is low in Garissa 65.4%.

5.4.7. District Case Scenario

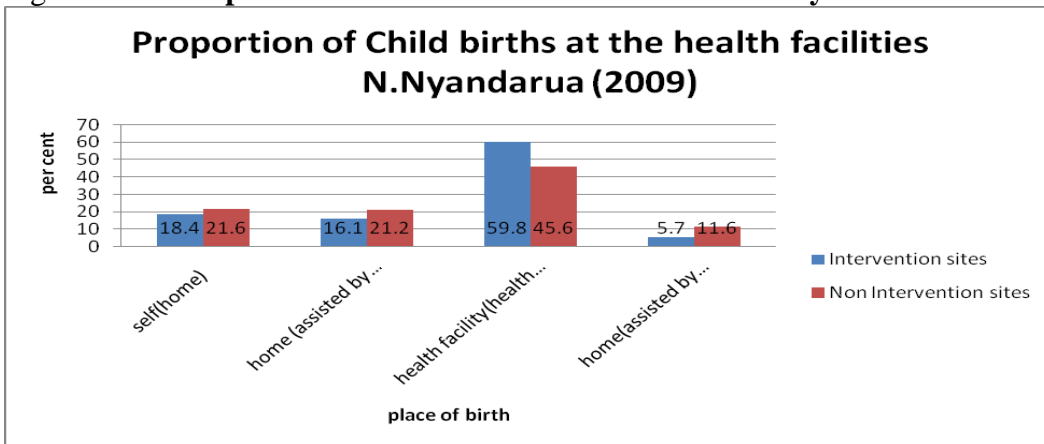
Figure: 5.4.5 Accessibility to Health Facilities



The majority of the households are still far from the health facilities. Over half of the households (61.5%) in non intervention sites are more than one hour walk to a health facility.

5.4.7.2. Proportion of child births at Health facilities.

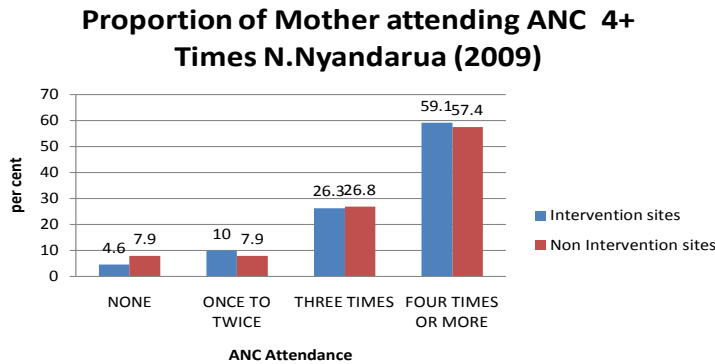
Figure 5.4.6 Proportion of child births at Health facilities by sites



The proportion of child births at health facilities in intervention sites was high 59.8% compared to the non intervention sites 45.6%.

5.4.7.3. Proportion of mothers attending ANC 4 and More times.

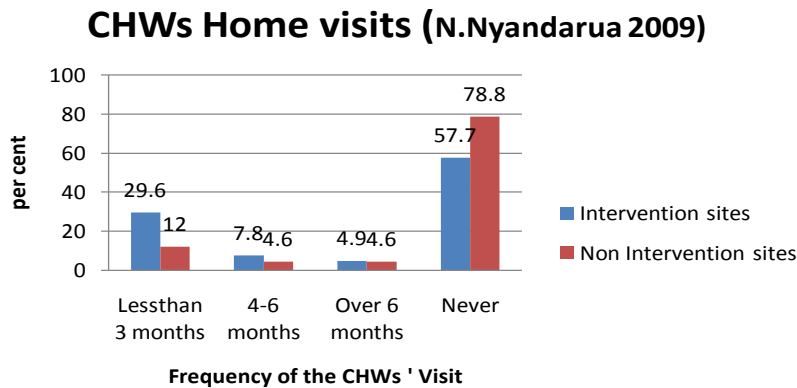
Figure 5.4.7. Proportion of mothers attending ANC 4 and More times by sites



The proportion of mothers attending ANC 4 times and more was high in intervention sites 59.1% compared to 57.4% in non intervention sites.

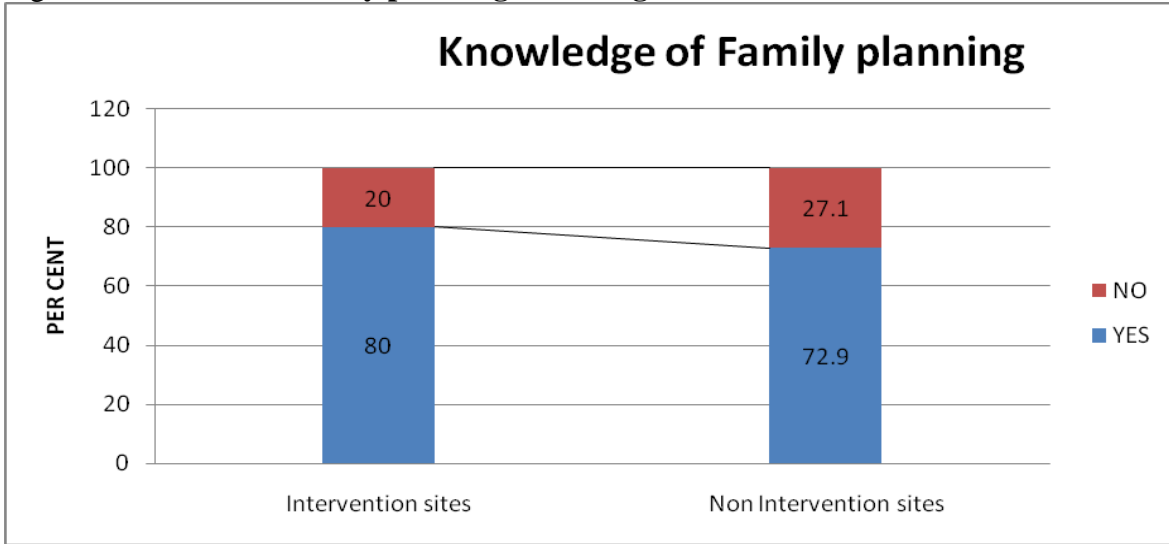
5.4.7.4. CHWs Home visits

Figure 5.4.8. Proportion of households visited by CHWs



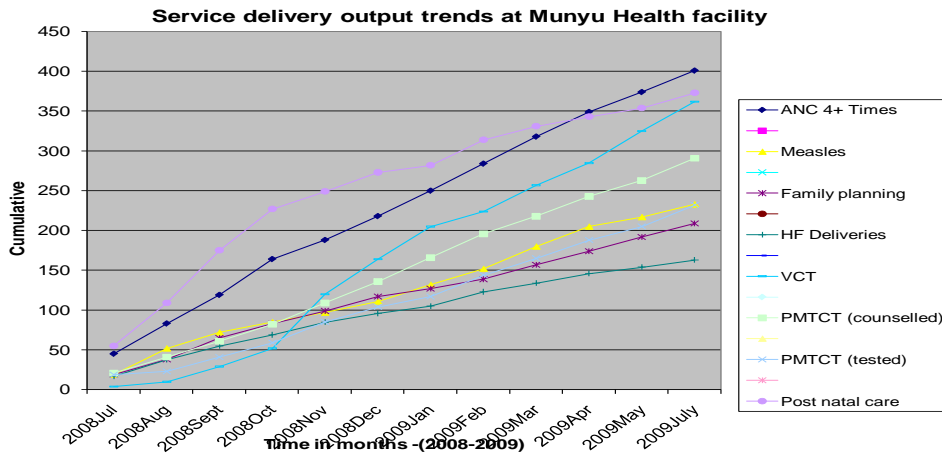
The non intervention sites recorded a high proportion of households that were never visited at all 78.8% compared to 57.7%. The intervention sites recorded a higher proportion of households that were frequently visited (visited less than 3 months 29.6%)

5.4.7.5. Knowledge of family planning methods in three districts in Nyanza Province
Figure 5.4.9. Level of family planning knowledge



The intervention sites recorded a high proportion of household heads with knowledge on family planning 80% as compared to the non intervention sites 72

5.4.7.6. Service delivery outputs at Munyu Health facility Central Province
Figure 5.4.10. Munyu Health facility Central Province: Service delivery outputs



The service delivery outputs showed an upward trend with regard to the district targets. The service delivery outputs that were measured included ANC 4+ times, Measles, Family planning, Health facility delivery, VCT, PMTCT and post natal care

6.0 DISCUSSION OF FINDINGS

6.1. How the findings relate to the principles/outcomes of CPHC:

6.1.1. Increased equity in access to health care and other services/resources essential to health

A number of comparative studies have demonstrated an association between the provision of primary care in developed countries and favourable markers of health status. There is also evidence for an association between health-care systems that are organised around a strong primary-care sector and reduced health inequalities. Because they reach so much of the population, primary care services such as general practice have an opportunity to address health inequities by improving access to quality care: for example, by providing better anticipatory or preventive care within primary care services themselves and by outreach into disadvantaged communities. However, to be most effective, these need to be integrated with other multilevel community-based strategies that address the social and economic determinants of health. The community units in their planning reflected on these social determinants of health.

6.1.2. How can primary care increase equity in health?

Tudor Hart, working as a general practitioner in Wales, first described the 'inverse care law' in which those with the greatest need access health services the least. This applies both to access to primary care services and access to those services that occur subsequent to first contact. In Australia, the evidence for disparities in access to primary care is most apparent in relation to primary, secondary, and tertiary preventive care services. People who are socioeconomically disadvantaged are more likely to need, but are less likely to use, preventive health services such as dentists, immunisation, and cancer screening tests. There is evidence to suggest that women of low socioeconomic status are less likely to have attended health services for a Pap smear, although women living in low socioeconomic areas have a higher incidence of cervical cancer.

One strategy to deal with this disparity in access is to target disadvantaged communities and populations with specific health programs and services. While this may work in the short-term, as commitment wanes it may be more difficult to sustain when compared to 'mainstream' programs and services. The community strategy addresses the disadvantaged communities in that the planning at the community unit level takes care of the priority needs of the community.

6.1.3. Specific interventions in primary care to reduce health inequalities

Strategies that have been shown to be effective in reducing health inequalities include outreaching services, reducing cost and other barriers to access, developing culturally appropriate services, and increasing access to skills and resources that will enable people to adopt more health promoting practice. People who have developed programs that attempt to improve access for socioeconomically disadvantaged groups, through direct provision of allied health services and raising community awareness of the need to access GPs for preventive care. Targeted community-based preventive or outreach programs are effective in reducing behavioural risk factors and improving preventive health care.

Outreach programs have achieved improved health outcomes for disadvantaged groups such as homeless people. As part of a holistic approach to family support, home visiting has been shown to minimise the risks of child abuse and neglect. Approaches to improving the health of disadvantaged communities are most effective when they are tailored to the needs of those communities, involve local communities, and provide services in ways that increase their accessibility. Developing relationships within communities takes time and often needs to start by addressing priority issues identified by the community. These may not be the same issues as identified by local service providers. A study to identify factors that enhanced the capacity of divisions of general practice to develop diabetes programs with indigenous communities found that having a population rather than a patient approach, an active involvement of local community controlled health services or community organisations, and a willingness to move at the pace set by the community.

6.1.4. Reduced vulnerabilities through changes in community empowerment (capacities)

Vulnerability refers to the susceptibility of a community to a hazard and the prevailing condition, including physical, socio-economic and political factors that adversely affect its ability to respond to hazards or disaster events. The community and its members may or may not be contributing intentionally or directly to the prevailing conditions. However, altogether, they create factors and situations that define the vulnerability of the community. Vulnerabilities can be manifested as physical, social, or attitudinal vulnerability. The disruption of a community can be reduced if it is better prepared, e.g. if there is suitable infrastructure and human systems and coordination. Poor countries and citizens are always more prone to disasters through their greater vulnerability to hazard and risk than higher income countries and citizens. For example, epidemics within poor communities often increase during and after hazardous events such as floods and droughts

8. Conclusion and Recommendation.

Primary care can make a major contribution to reducing health inequalities

Recommendations

There should be a continuous supervision and close linkage between District Health management Teams (DHMTs), the health workers at the facility level, CHEWs, Community Health Committees (CHC) and CHWs at the community level for the sustainability of the community strategy activities..

Creating community demand for health services by government and partners must be matched with the availability of improved services within health facilities.

The community strategy plays a key role in the renewal of comprehensive primary Health care in Kenya, therefore there is need for an integrated approach to a multidimensional and multisectoral health programme that ensure community's increased access to health services.

9.1 Triad experiences

One of the triad members commented that:

Initially the triad approach in research was tricky to for this was the first time we were using such an approach. We were not sure we would get along with each other given our different background and experience in research

With time each member of the triad discovered that they all had role to play in the development of the research proposal and in the implementation of the actual project. This realization fostered the spirit of team work and identification of individual roles within the triad. Through the involvement of the research user we were able to tap into a network of research users and this promoted the acceptability of the project during the implementation phase. This network of research users was identified as important especially in the dissemination and uptake of research findings. It was within this triad that the value of dialoging with the community to understand various innovations at the community level was identified as a key step in meeting the research objective

Lessons learnt

- The research design should consider the context of the research area and at implementation there should be room for justifiable flexibility.
- Involving the research user in every stage of the research process creates a higher demand for the use of findings.

- The greater the involvement of team leader the better the collaboration by the various health personnel and stakeholders due to wider area of influence and ability to communicate wider (DMOH- can bring on board all health personnel).
- Prompt and appropriate response to health issues within the community have been realized where community units have been formed using data (Dialogue/Case studies).

Suggestions on how to improve the researcher-user partnership

- i. Improved communication through teleconferences
- ii. Scheduled feedback sessions to coincide with the research users performance review meetings so as to give the findings and progress in the research.

Other areas of need.

- i. To share and learn from the way others teams monitor and document process of the research activities(field notes).
- ii. Reporting and documentation of case studies
- iii. Developing publication paper in process of research.
- iv. Development of policy briefs.

9.2 Outcome mapping exercise

The outcome mapping exercise was a great success following the positive challenges it posed to the research team in the understanding of the expected research outcomes. Through this exercise the research team managed to reflect and re-evaluate the research model. It was critical point in understanding the roles and motives of the various players in this partnership model. After understanding the model the exercise exposed the research team to the review of the implementation of the model in various contexts clearly the various contextual differences. This led to the identification of the measurable outcomes while comparing the various context implementation processes. By identifying the measurable outcomes the research team members were able to come up with the analysis plan for the research findings.

With the measurable outcomes identified the research team were able to monitor the and eventually evaluated the implementation progress of the project. Besides mapping the outcomes the outcome mapping exercise promoted the interest on stakeholder analysis for the successful implementation of the research project. This stakeholder analysis improved

the research teams understanding on the potential influence of the various stakeholders during the implementation and the findings dissemination phases. In addition the exercise identified various events that have great potential impacts on the final outcome of the study.

9.3 Other dissemination activities and engagement of research users in the study

- i. Training opportunities for DHMTs
- ii. Rising interest in the use of research findings by the research users (DHMTs, PHMTs and National – Eagerness to know and use the findings)
- iii. New partners joining the Kenya Health sector interested in Community Strategy Approach (CSA) – Sector Wide Approach (SWAp)
- iv. Large research users meetings used for sensitization.
- v. Performance review meetings at district, Province and National level-monthly, quarterly and annually are opportunity for uptake and roll out.

9.4 Indications of any uptake of findings

The government have currently implemented the program in various regions in the country an various NGO have followed suit in the implementation process to remain relevant.

9.5 Reflections on the capacity enhancement aspect of the project

The young researcher and the research users have learnt from the experienced researchers and have been able to understand the concept and principles of research. They were also privileged to conduct most of the research activities which provided them with good background and experience in the research process. This was especially realized in discussions of the research implementation phases and in country research progress briefings. The training on outcome mapping was a very significant training for the triad and especially in the designing of the implementation plan, data analysis and dissemination plan.

The opportunity for the various triads to meet and share their project progress and experiences was too another capacity building session that was very beneficial for the young researchers. The various Triads learnt from the successes and the challenges each triad was facing during their project implementation.

The first training was held in Cape town on 3rd -14th November 2008 that research teams had deepened their understanding of comprehensive primary health care (CPHC) and its practical implementation, and understood better the role of research and evaluation in contributing to a strong evidence base for CPHC. The research teams got an important experience in increasing their research and evaluation skills while developing and finalizing a CPHC-related research proposal. The training also allowed them to produce robust research protocols relevant to CPHC, ready for submission to obtain ethical approval

from a local research institution. There was an additional outcome of the creation of successful networks among colleagues in the region conducting CPHC-related research.

The second Research team training was also held in Cape town between 15-19th March 2010. The aim of this second training programme was to provide the research triads, who had successfully implemented their TC-funded research projects, with a collective opportunity in which they can learn about and share their experiences in relation to:

- The implementation of a researcher /research user partnership
- The preliminary results of the research initiative – along with any challenges the team was facing in relation to the analysis and interpretation of the data & their plans for write up
- Generating and using this new knowledge for program and policy change.

Research teams were given an opportunity to describe where they were with your research and also identify what advice /assistance they would have liked from the other research teams and questions around the practical issues associated with their research. There was also an opportunity for research teams presentation at the public seminar. In terms of the research team data analysis: The teams went to the workshop with a combination 'raw' data and data that had already been analyzed.

9.6 Trainings, mentoring within team, with region

The College of Health Sciences, Makerere University in conjunction with McMaster University held a four day training workshop from Tuesday, 31st August to Friday, 3rd September 2010 at the New Mulago Hospital Complex. Kampala Uganda. The workshop was funded under the International Research Chairs Initiative with a grant from the International Development Research Centre, Canada for capacity building in knowledge translation for doctoral students from the African region and McMaster University.

The Workshop Objectives were Provide a common understanding of key concepts of Knowledge Translation for Policy, Share research work experiences of doctoral students and the Uganda Country Office of the Regional East African Community Health (REACH) Policy Initiative and to Impart skills and techniques in production and evaluation of Knowledge Translation Strategies.

The Participants were PhD students and researchers from Great Lakes University Kisumu (Kenya), Muhimbili University (Tanzania), National University of Rwanda, Centre for Development of Best Practices in Health (Cameroon), McMaster University (Canada) and Makerere University (Uganda) participated in the meeting.

The Workshop Program and Activities were: The workshop covered the knowledge translation concepts, preparing and evaluating policy briefs, preparing and evaluating policy dialogues, database searching and participant work experiences.

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12.0 APPENDICES

Research instruments