A model for research evidence-based policy engagement in Kenya: Key accelerators.

Beverly Marion Ochieng*, Dan Clement Owino Kaseje

Department of Health Sciences, Tropical Institute of Community Health (TICH), Kisumu, Kenya

Abstract

Collaborative approach to research involving policy makers and research institutions provided a pathway for getting evidence into the design of Kenya's community health strategy. This article describes research to policy strategies applying both pull and push approaches, with an emphasis on the "pull" through collaborative research, which took advantage of policy windows surfacing intricacies of research to policy engagement. The article summarizes key accelerators of the research to policy processes. Methods: This was a longitudinal case study applying implementation science, which started in 2000 and continued to 2014. Four phases are identifiable in the process all of which attempted a tripartite collaborative engagement with policy makers, researchers and communities. We tested effectiveness of the Community Based Primary Health Care model in western Kenya with decision makers playing an advisory role. The strategy was further tested in different socio-demographic contexts, with decision makers joining the research team as co-investigators. Results: The first accelerator was the co-creation of evidence by researchers working in partnership with policy makers through collaborative research. This created sustained interest among decision makers to engage throughout all phases and stages of research. A cluster of accelerators that created policy windows included the transitions from the old to the new Kenyan constitution, emphasizing devolution of the management of health services to the counties governments and change of leadership in the Ministry of Health. The research evidence informed the decision to adopt the community health strategy as a policy for delivery of primary health care services as well as its design. The research process influenced creation of a Technical Working Group on operations research as a structure to strengthen the engagement of research teams in the policy cycle. Conclusion: Collaborative research involving policy makers, communities and researchers is possible and effective in influencing policy. The case study provides an example of how to plan and implement collaborative research involving key stakeholders in strengthening the health system by influencing policy towards sustainable improvement of health outcomes as a continuous iterative process.

Keywords: Evidence Based, Policy Making, Community Based health, Collaborative Research.

Introduction

Global ideologies and values held by actors such as the Christian Medical Commission of the World Council of Churches, the World Health Organization and UNICEF led to the Primary Health Care (PHC) Declaration on health for all by the year 2000 [1]. Following the Declaration, many researchers demonstrated the effectiveness of Comprehensive Community Based Primary Health Care (CBPHC). Kark [2] and Rhyne et al. [3] showed that respectful dialogue and partnership with communities enlarged their choices. They demonstrated the effectiveness of inclusive governance structures designed to link the community with the health systems, for joint decision making, planning and action. Other researchers described the importance of the two-way strategy, involving supply and demand sides, in improving utilization of key interventions [4].

CBPHC was taken up by many Sub-Saharan African (SSA) countries post-Alma Ata declaration by engaging communities in their own health care initiatives [5]. In many SSA countries, it was the non-governmental organisations (NGOs), rather than Governments, that supported CBPHC activities yet they proved quite effective in improving health outcomes [6]. Scaling up of the initiatives was hindered by lack of national policy frameworks.

In Kenya, more formal recognition of CBPHC by the public sector occurred during the development of the second Health

***Correspondence to:** Beverly M. Ochieng, Department of Health Sciences, Tropical Institute of Community Health (TICH), Kisumu, Kenya, E-mail: beverly_ochieng@yahoo.com

***Received:** 30-Jul-2022, Manuscript No. AAPHPP-22- 71106; **Editor assigned:** 04- Aug-2022, PreQC No. AAPHPP-22- 71106(PQ); **Reviewed:** 17-Aug-2022, QC No. AAPHPP-22-71106; **Revised:** 22-Aug-2022, Manuscript No. AAPHPP-22- 71106(R); **Published:** 29-Aug-2022, DOI: 10.35841/aaphpp-6.8.136*

***Citation:** Ochieng BM, Owino Kaseje DC. A model for research evidence-based policy engagement in Kenya: Key accelerators. J Public Health Policy Plan. 2022;6(8):136*

Sector Strategic Plan 2005-2010 [7], which incorporated community health strategy. The objective of the national community health strategy was to provide health care services for all life cohorts and socioeconomic groups at household and community levels. The community health strategy was developed against the backdrop of a persistently weak national health system coupled with weakness in implementation of health sector policies and poor resource allocation in the sector [7]. While the country's health policy documents and strategic plans had consistently emphasized issues of access and equity, adequacy in human resources remained a challenge, characterized by mal-distribution, particularly in the rural and hard to reach areas (MOH 2005) [7].

It was evident that the Health for all focus of PHC had been lost, partly due to the neoliberal reforms that had devastating impacts on resourcing social services in Africa, driven by the debt crisis [8]. This led to the worsening of health indicators at the turn of the century, documented by a series of demographic health surveys [9,10]. These trends renewed interest in comprehensive CBPHC and thus made our research to policy engagement timely, in the light of the Millennium Development Goals (MDGS) and the Kenyan Development Vision 2030 [11]. This article reports our experience in collaborative research to generate evidence on the effectiveness of CBPHC that started with the traditional approach in which researchers produce results, then try hard to package and communicate them to policy makers, "the push system" [12], an approach that failed to influence policy.

We changed from the traditional approach to research a collaborative model, involving decision makers, health service providers, communities and researchers, to facilitate getting evidence into policy. We share our experience on how the collaborative model informed design of Kenya's community health strategy to improve the performance of the health system. We reflect on the intricacies of research - to - policy and practice processes, and the iterative and interactive nature of co-creating knowledge with decision makers.

The Methodological Approach

We applied a case study methodology combined with implementation science design, which allows the investigators to retain the holistic characteristics of real-life events in the prevailing context of research [13]. We document contemporary set of events that illuminates how and why certain decisions were taken, how they were implemented and with what results [14] as a case study. The study benefited from previously developed theoretical propositions, such as the policy cycle and collaborative research, to guide data collection and analysis, providing a logical plan from research questions to conclusions.

Three phases emerged in the study. In the first phase the researchers and communities were engaged in knowledge generation to inform the development of the CBPHC model, while policy makers played an advisory role. In the second phase policy makers became bona fide partners in knowledge generation and application and eventually took over leadership of implementation research process in the third phase. The focus of the study was to test the effectiveness of CBPHC interventions in real world using a quasi-experimental design [15,16] consisting of CBPHC intervention in selected sites and matching with control sites and assessing selected indicators before and after the intervention [17] in order to influence policy change. We generated a mix of evidence through surveys, applying quantitative and qualitative approaches to data collection.

Phase 1: (2003-2007) Engaging decision makers in the design, testing and adoption of the CBPHC model, as advisors

We commenced the design of the study in 2003 by convening a workshop bringing together the national directors of Health Services from Kenya, Uganda, and Tanzania and WHO representative from Kenya Country office, to participate in the design of a CBPHC model and a study to test its effectiveness. They also shared their experiences with CBPHC implementation in their countries. It emerged that the health indicators in Kenya had worsened from early 90s [7]. This realization became a powerful incentive for the involvement of Kenyan policy makers in designing the project, to generate evidence to guide the decision on CBPHC policy. Those who attended the workshop formed a Technical Advisory Group (TAG) for the study. Several meetings of TAG were held led by the MOH and WHO representatives to guide the design and testing of the model. WHO, UNICEF, Community representatives and the ministry of health became strategic allies in influencing policy change, and were involved throughout the process as advisors.

The focus of the CBPHC intervention was forging respectful linkages between the communities and the health system. The linkage structures consisted of: community health units, community and health facility committees, identification and training of CHWs to support households in improving health seeking behavior and disease prevention, as well as to maintain the village register. The village register provided community-based information on indicators targeted for improvement such as health facility delivery, antenatal care, water treatment, use of insecticide treated nets and family planning services. The information collected in the household registers was updated every six months. The information was analyzed and displayed on chalk boards within the communities. We used results from analysis for quarterly dialogue meetings that were attended by all stakeholders.

The dialogue process included reflections on the data clearly depicting the health situation in the community. This assessment framework was informed by the work of Donabedian [18], who suggested that health system assessment consists of assessing structures, processes, and outcomes [19]. He pointed out that indicators for assessment must include outcomes that all stakeholders care about. In addition to routine community based information we carried out cross sectional surveys in 2004 and 2007 at intervention and non-intervention sites in the study districts to assess performance using the assessment framework. Data was analysed highlighting key findings which included improvement priority indicators identified

by the TAG [20,21]. Dialogue sessions became an influential policy interface as they generated local solutions based on data through the evidence based decisions.

The Technical Advisory Group meetings were often held at study sites for members to observe dialogue days in order for them to gain insights into practical aspects of the intervention process. This was part of the iterative process bringing together researchers, managers, service providers and communities into dialogue.

Phase 2 (2008-2012): Policy makers and Managers joined the research team as co-investigators

The questions set the stage for the next phase of our research to policy engagement, since these questions were not addressed in the original study. It is because of the importance of these questions to the policy makers that they were interested to be Co-Principal Investigators in this phase. The joint research team designed a new phase of the study to address the questions: uptake and effectiveness of the strategy in different contexts, the cost-effectiveness of the model, the appropriateness and sustainability of task-shifting to community health volunteers and the validity of data collected by community health volunteers in different socio-demographic contexts of Kenya, Nomadic, rural and urban slums, (See table 1). Our collaborative study focused on Western and North-Eastern Kenya, areas with the worst child mortality rates according to KDHS 2008 [22].

The study design was quasi-experimental with 3 intervention districts and three control districts representing the main socio-demographic contexts in which the strategy was being implemented. The methodological details have been described by Olayo et al. [16]. Three health facilities in each site were purposively selected. For each selected health facility, one community health unit was randomly selected for inclusion in the cross-sectional surveys before and after the intervention. Random cluster sampling method was used to select 300 households for each health facility selected, using a modified WHO method for EPI coverage for establishing sample size, of 30 clusters of 10 households each with children under five [23].

Dialogue Days remained part of the intervention and provided a platform for all stakeholders to engage with the research team and the community to discuss results. This involved consumers in refining the research process and using of results in formulation of policy propositions. This added new dimension of involving research users in formulation of policy propositions in the policy cycle.

Phase 3 (2013-2014): Policy makers and Managers took over the leadership of the Research activities and established a Research Unit at the MOH, while the Researchers functioned as advisors

Involvement of stakeholders in the research design, data generation, analysis and use of the research findings to inform policy fostered interaction and partnership in devising workable solutions. It strengthened the CHS as a permanent approach to service delivery in Kenya. The research unit within the ministry of health led CHS research. They commissioned researchers from the University of Cape Town, Nagasaki University and the Tropical Institute of Community Health (TICH) (supported by JICA) to provide technical support and ensure research rigor. The MOH prioritized three issues for further research in scaling up of CHS: Human resources, Cost estimation and financing, and Service delivery. Each of these issues received technical support from, TICH, University of Cape Town, and Nagasaki University, respectively. The aim

Table 1. *Key steps.*

Key actions, steps	Participants	Accelerators
2000 Review of CBHC in the region	TICH research team, UNICEF	Funders (UNICEF, Rockefeller Foundation) Friendly Policy makers
2002 Design of Collaborative study	Research team, Policy makers from Kenya, Uganda, Tanzania, WHO Country Representative	DMS WHO Country representative
2003-2006 Implementation of Collaborative research to test the effectiveness of CBHC	Research Team, Policy Makers, Managers, as TAG , Communities through representation	Funding Interested DMS Charismatic PMO WHO Country representative
2005 KHSSP II, recognizing Community Level of care and the need to bridge the community - Health System interface	MOH Policy Makers	Charismatic DMS ready for actions beyond the box Ethiopia, Ghana, Malawi providing models of nationwide CBHC
2006 Results from research demonstrating effectiveness Policy briefs at TAG meetings	Research Team, Policy Makers, WHO Country representative, Communities Chair Parliamentary Committee on Health	TAG with strong horizontal and vertical relationships (Community, District, Regional, National and International)
2006 CBHC adopted and launched as national strategy TICH commissioned to develop implementation guidelines and Training materials	Research Team, Policy Makers, WHO Country representative,	A Charismatic DMS Charismatic expert with International Stature, who pioneered CBHC in Kenya
2007/8 Development of Collaborative Study in Which Key policy maker is Co-PI, with MOU with MOH	DMS, Director of PHC as Co-PI, Canadian Co-PI to strengthen research rigor	GHRI, IDRC, CNHR (MRC, Welcome Trust, DFID) providing funding
2008-2014 Implementation Research for evidence based adjustment of policy	Research Team, Policy Makers, WHO Country representative, Communities	GHRI, IDRC, CNHR , JICA funding Creation of dedicated Public Health Ministry
2008-2014 Participation in MOH, ICC	MOH Research Team, Policy makers, JICA	DMS, Director of PHC
2010 MOH established own research unit to continue operations research	MOH Research Team, Policy makers, JICA, TICH, Nagasaki, UCT Advisors	JICA
TWG established to sustain research to policy engagement	MOH Research Team, Policy makers, JICA, TICH, CNHR, KEMRI	JICA

Citation: *Ochieng BM, Owino Kaseje DC. A model for research evidence-based policy engagement in Kenya: Key accelerators. J Public Health Policy Plan. 2022;6(8):136*

was to ensure that the scaled up model was the most cost-effective and equitable in the different socio-demographic contexts in Kenya.

The research unit ensured involvement of key decision-makers and key influencers in the policy process, building credibility on the quality of research for decision making. The unit was best placed to maintain the interest and support of the MoH at national and provincial levels. It solidified the policy into the structures of the MOH. The element supported by the TICH research team sought to ascertain the most appropriate professional to be assigned the work of a community health extension worker in the different socio-demographic contexts. The study adopted a cross-sectional design using qualitative and quantitative methods of data collection. This phase of the study led to the land mark development of schemes of service for community health personnel by the Department of Personnel Management, a great breakthrough for community health services, to provide the required human resource for implementation of the policy.

Findings

In this section we present what we found to be the accelerators and entry-points for research to policy knowledge translation.

Entry-points in the policy cycle for knowledge translation

The process was intricate, dynamic, multi-layered, iterative, bidirectional and not simple and unidirectional. The first entry-point was early collaboration by the different stakeholders in research, defining the policy issue. The overview of the health situation and trends presented at the study development workshop justified the Community Based Primary Health Care (CBPHC) policy agenda. The discussion led to the joint development of the study, including the research questions. This ensured relevance and ownership of findings, facilitating a deeper appreciation and enhancing their application towards continuous health status improvement and policy making.

The policy implementing intervention sites showed greater improvement in indicators than control districts, indicating that the CHS improved the performance of the health system. This result contributed to overcoming mindsets among policy makers by demonstrating success, helping people see that change was possible through a reflective process based on research evidence, iteratively to sustain the change process.

Accelerators of knowledge to policy translation

The Technical Advisory Group (TAG): Stakeholders identified policy spaces jointly through interaction and exchange between policymakers and researchers engaged as the technical advisory group (TAG), which included policy makers from Uganda and Tanzania. Kenyan policy makers were thus more likely to listen to their peers from the other countries than to researchers at the beginning of the change process. These external policy-makers became powerful opinion influencers. The involvement of policy makers from neighboring countries that were performing better than Kenya, as well as the engagement of experts from World Health Organization (WHO) drove home the point that change was urgent. The TAG gave policy makers an upper hand in key decisions in the study and policy proposition processes.

The Kenyan new constitution, a policy window

The Kenyan new constitution provided a unique opportunity for the research team to push the scaling up of the policy uptake in the county decentralized structures for health service delivery. Following the implementation of the new constitution in Kenya in 2013, in which governance was devolved to Counties. Research team undertook a series of County dissemination workshops in an effort to accelerate the implementation of the policy by the Counties. The workshops brought together the County Governors, Members of the County Assemblies, the County Ministers of Health, County Health Management Teams, Service providers and consumers. The team developed messages that were short, simple and clear based on evidence and reinforced by statistics and live testimonies. Instead of policy propositions by research team, the propositions were generated by workshop participants. Public awareness was enhanced by a documentary that was shot during the policy dialogue workshops. These county workshops culminated in a national symposium in 2014 bringing together all counties, supported by the Ministry of Health, to share their implementation progress and emerging innovations.

The Constitutional transition provided an added momentum and enabling environmental for achieving rapid progress towards the goals of access to health by all towards desired health outcomes. Key stakeholders at county and national levels were committed to the operationalization of the decentralized system, and the Community Health Strategy (CHS) became particularly relevant in such a context, that was also promoted by the media.

The transition from one strategic plan period to the next, a policy window

Transition from one strategic plan period, the Kenya Health Sector Strategic Plan (KHSSP I, 1999) to another (KHSSP II, 2005) provided an opportunity for thinking without the box. The end of the first Health Sector Strategic Plan in 2004 provided a critical policy window, accompanied by change in leadership from traditional to charismatic and visionary.

Millennium Development Goals (2000), a policy window

The positive environment for the CHS policy initiative described in this chapter was contributed to by: the Millennium Development Goals that defined priorities for improvement depicting the current trends as unacceptable; revitalization of PHC and renewed interest in community based health initiatives, a determination by government to shift paradigm by involving the communities more in addressing the unacceptable health indicators. Crucial was the role played by a progressive director of Medical Services, who when confronted by reversal of health outcomes, based on Kenya Demographic Health Surveys (KDHS) reports took lead in the search for a solution.

Public, consumer, community engagement

Disseminating the research results through mass media such as our research documentary that was aired on national television and social media platforms influenced public opinion and put pressure on the leaders to spearhead change. Research users were involved in highlighting local priorities ensuring relevance of research to local context, as required in implementation research. The collaborative implementation research approach optimized the means by which the research itself acted as an instrument for capacity building for both the individuals involved and their institutions. People to be involved in policy implementation or to be affected by it were engaged through the deliberative processes in order to ensuring its applicability in the local context.

Embedding research to policy engagement in permanent structures of the MOH

The TAG influenced the creation of a Technical Working Committee on operations research as a structure in the MOH to strengthen the engagement of research teams in the policy cycle, being embedded in the policy making structures of the MOH and thus enhance ownership of research findings by the policy makers. It built credibility on the relevance of research for decision making. Thus, policy makers were not target audiences but allies and leaders in knowledge generation, to advance the policy process. They defined their roles in the processes. The research unit at the MOH maintained the interest and support of the leaders at national and provincial levels. It solidified the policy into the structures of the MOH.

Realities involved in the process

Challenges in this research into policy process included numerous programs competing for the attention of service providers, managers and policy makers, which made them, miss meetings or appoint representatives rather than attending in person. These programs diverted attention of personnel from their core functions including the study. Activities that had more funds and allowances to staff tended to take priority. However, there were a few champions who remained to support the study process.

At the time of adoption, the MOH had not budgeted for the implementation of the strategy and tended to expect donor partners to finance it. It emerged that policy development takes time, often out of pace with research processes. Often results were too late, but having a policy maker as co-investigator enabled greater understanding of such delays and hence tolerance. This underlines the importance of making policy engagement an iterative process that needs to be mutually reinforcing.

Discussion

Policy process often occurs in stages which include problem identification and agenda setting; policy formulation; implementation as well as monitoring and evaluation. Evidence should play a role at all the four stages of the policy cycle [24,25]. Our steps in influencing policy process followed in general the policy cycle [12,26,27]. Key concepts and themes that emerged from this experience can be explained in relation to the existing policy development theories. The study process and findings highlight some of the concepts in the theory and practice of policy formulation and implementation.

The "policy window"

The concept around the “window” of opportunity described by Kingdom [28] is explicit. Kingdom uses a political science approach to propose “Policy Windows” where changes in policy can be made because of opportunistic circumstances or available windows of opportunity where components of the policy process are connected, for example, the policy solution and the political climate surrounding the issue. The windows of opportunity may be defined by environmental factors, gaps in achieving desired policy objectives, or availability of effective interventions not included in contemporary policies and or charismatic leaders. In this study, the main windows of opportunity included the indication that existing health sector policy was no longer meeting desired objectives as demonstrated by reversal in indicator trends demonstrated by Kenya Demographic Health Surveys [9,10] which demanded urgent policy action as well as charismatic leadership. Policy cycle and evidence use throughout the process is described, and finally, the research uptake theory around push and pull factors as described by Lavis [12], presented as accelerators and entry-points, as they featured in this experience.

Co-creation by the TAG

Collaborative approach in the research to policy process, co-creation of evidence, enhanced research knowledge uptake. For instance, engagement of key stakeholders played a major role in the success of this study, and led to key outcomes: first, there was improved performance in service delivery and uptake of health services at community level; secondly, the collaborative research and advocacy between the different stakeholders led to policy uptake exemplified by the adoption of the CHS as the country’s approach for improving the health of communities. The collaboration with policy makers was in the form of a 4-pronged engagement between communities, health systems managers, government policy makers and research institutions. Each of the 4 entities was engaged at different levels of the health system and displayed different strengths and qualitative engagement based on their context. Over the period of the study, roles of the stakeholders changed where TICH as the initial lead researcher built the capacity of the MoH, that in turn became the lead researcher and TICH took a supportive role. The MoH broadened support beyond TICH based on their perception of the support they needed to lead the research process.

Our approach is consistent with the Power Elites Theory [29], which states that change is achieved by working directly with those who can influence decisions. The theory supposes that key allies should be engaged and that the focus should be on incremental policy change. In this study, the focus was on working with key decision makers as co-investigators. In this way they internalized the findings better and were able to defend the policy throughout the policy cycle. Furthermore, internal capacity to generate and use research knowledge was being created through training opportunities and engaging with policy influencing officials.

The MoH engaged another funding partner to facilitate internal capacity building to ensure understanding of findings in order to feed new information into policy review processes and practice. Our findings are consistent with other research findings which have shown that training decision-makers on knowledge use can enhance their leadership skills and strengthen organizational or community capacity to use research more effectively [30]. Increasing awareness of policymakers and stakeholders is a fundamental requirement for creating a climate that supports evidence-based policy making [31].

Such interactions between research producers and users have been shown to increase the prospects for research use by policymakers. This approach is noted to be becoming more common, and more recognized as a strategy for supporting the decision making process for policymakers. The activities included preparation of briefs with tailored policy-relevant messages from evidence arising from their research. Involving local policy makers and other stakeholders provided additional benefits such as better local ownership of decisions and improved policy implementation [32]. Policy briefs have been shown to be useful in policy making [33]. Research syntheses contextualizing evidence and ensuring the applicability to context have been shown to increases the likelihood for evidence to be used by policymakers [28,31,33]. Engagement of all three partners, including the community was the driving shaft of both the implementation of the intervention and data collection and use. Involving local policy makers and other stakeholders provided additional benefits such as better local ownership of decisions [34].

Researchers interested in influencing policies have demonstrated that early collaboration on health systems research is important [35,36]. This includes the joint development of research including the questions to ask, and how to answer them; this strengthens research relevance, facilitating a deeper appreciation of research findings at the policy level [12,30], and enhances the application of findings towards continuous health status improvement and policy making. This approach creates a common purpose for the research, and frames the research to support decisions of interest to all partners, thereby generating action-oriented results of interest to all parties [37]. In this study, the decision makers and other actors participated actively as co-creators of knowledge.

The new constitution

The new constitution [38] devolving responsibility for health service provision to the counties introduced political will to facilitate change and CHS became an agenda in national health forums. Key stakeholders such as politicians, sector decision makers and the media were willing to engage in policy change. The policy issue was important enough, in many counties and was talked about by the public in a way that demanded urgent action, in the light of reversal in health status indicator trends.

The planning and leadership transitions

The Kenya Health Sector Strategic Plan II [7] presented a determination by government to shift paradigm by involving the communities more in addressing the unacceptable health indicators. Crucial was the role played by a progressive director of Medical Services, who when confronted by reversal of health outcomes, based on Kenya Demographic Health Surveys (KDHS) reports [9,10] took lead in the search for a solution. High decision maker interest in addressing major health systems issues created demand for evidence on best options. In addition, regional competition among countries and the fact that Kenya, with slightly better economy than most of the countries in the region, but lagging behind in CBPHC, created an impetus for change in the country. Carrying out research within the framework of the Kenya Health Sector Strategic Plan KHSSP II [7], captured and sustained the interest of the end users in the MoH policy, management, and service delivery levels, as they saw the research project to be providing answers to questions they were asking. Therefore, the end of the first Health Sector Strategic Plan in 2004 provided a critical policy window.

Millennium Development Goals (2000)

The positive environment for the CHS policy initiative we have described was contributed to by: the Millennium Development Goals [39] that defined priorities for improvement depicting the current trends as unacceptable; revitalization of PHC [40] and renewed interest in community based health initiatives. Furthermore, there was the need to meet not only national health targets, but also international commitments such as the MDGs by 2015 [39]. This realization created a policy window and thus CBPHC strategy was available as a policy solution. This knowledge guided when and how to leverage the efforts of key stakeholders. In this study, the identified problem was the declining health indicators that needed to be addressed urgently. Kenya needed to renew its health strategies and policies to address health service governance, management and delivery.

Public, consumer engagement

Reporting in the mass media such as the documentaries we used can influence health policy. It is a way in which the general public who are the end users of the policies become involved in health policy development [12]. Our initiative illustrates how research users can advise research teams not only on local priorities but also on the cultural and contextual relevance of knowledge generated [30], and act as fulcrums for change, expansion and scaling up, most relevant in implementation research [12,35,36]. Continuous linkage structures act as levers for change [41] that translate new knowledge and skills into action and policy change. It is critical to engage those locally involved in, or affected by a policy decision, through the deliberative processes. Although contextualizing the evidence and ensuring its applicability increases the likelihood of its use by policymakers and managers [42,43], single strategies are rarely adequate to bridge the "know-do" gap.

Sustaining research to policy efforts

Participation of the research team in the inter agency coordinating committee, a policy making body in the Ministry of Health (MOH), as members, created opportunity for sustained engagement with the policy processes beyond

the Technical Advisory Committee (TAG). In addition, the Technical Advisory Committee influenced the creation of the Technical Working Group (TWG) on research to policy, which provided another sustainable mechanism for research into policy engagements. Several organizations particularly NGOs became members of the TWG and shared evidence from several studies. Data from the studies were fed continually into these mechanisms to enable continuous adaptation of the policy guidelines as contexts changed with geography and time.

Bilateral organizations particularly UNICEF, WHO, USAID and JICA were crucial actors in the research process. They provided funding and technical support, and also brought in experiences and evidence from global consultations on the work of community health workers who were key in this strategy. In particular, WHO/UNICEF guidelines for community-based health care including the guidelines on integrated case management for childhood illness were useful during the development and review of the community health strategy implementation guidelines. This case study has demonstrated the critical role played by strategically positioned individuals and persisting or worsening health indicators contributing to policy windows that researchers should pay attention to.

During the study community partner not only remained critical, but they had developed capacity to collect reliable data [21], analyze and interpret that data, and conduct local level dialogues about the findings for health decisions and actions. Community health workers identified the management of a community based information system as a task they felt could be shifted to them [44]. Linking policy and knowledge generation processes is essential since policy is a statement of direction that should result from a decision-making process that applies reason, evidence and values in public or private settings. The collaborative approach creates a common purpose for the research, and frames the research to support decisions of interest to all partners [33].

Conclusion

The study demonstrated that an iterative and collaborative research approach involving policy makers, health services providers, communities and research institutions is possible and effective in influencing policy change. Each partner contributed to the research process at all stages and according to their unique and shifting capacities and perspectives. The study yielded information on policy influencing mechanisms that changed the way that health services were being planned for and offered to households. We were thus able to accelerate the implementation of the community based health care approach supported by communities and strategic partners.

Involvement of stakeholders in the research design, data generation, analysis and use of the research findings to inform policy fostered interaction and partnership in devising workable solutions that were acceptable to all decision makers. The implementation research has provided an example of how to strengthen a country's health system by engaging key players at the different levels in a combined consultative, action and research process for achieving health outcome.

List of abbreviations

CBPHC - Comprehensive Community Based Primary Health Care.

CHVs - Community Health Volunteers

CHW Community Health Workers

CBHIS – Community Based Health Information System

CHS – Community Health Strategy

MOH - Ministry of Health

PHC- Primary Health Care

TAG - Technical Advisory Group

Ethics Approval and Consent to Participate

All participants provided written consent to participate in the study. The study protocols were reviewed and approved in Kenya, by Great Lakes University of Kisumu (GLUK) Ethics Review Board. All methods were performed in accordance with relevant guidelines and regulations of Kenya that protected the research subjects.

Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on request.

Authors Contribution

BMO: Participated in the development and design of the research process, collected data, supervised the collection of data and research teams, and analyzed the data. Participated in the analysis of data, development of the analysis framework, and synthesized the contributions from peer reviewers into the manuscript. Drafted the first draft of the manuscript and further engaged actively in the revision of the manuscript in response to critiques from peer reviewers and took the lead in editing the manuscript based on internal peer reviewers' comments.

DCOK: Designed the study, managed the research process, supervised all aspects of the study and the team members, participated in the analysis of data, development of the analysis framework, and synthesized the contributions from other authors into the manuscript. He supervised the development and writing of the manuscript.

Acknowledgements

The research work was funded and supported by Rockefeller Foundation, United Nations Education Organization (UNESCO), Consortium for National Health Research (CHNR), USAID, World Health Organization, UNICEF, Global Health Research Initiative, Canada (GHRI, IDRC), Medical Research Council, (Welcome Trust, DFID) Japan International Cooperation Agency (JICA) and Tropical Institute of Community Health and Development (TICH).

References

1. World Health Organization, Primary Health Care Declaration, 1978.

2. Kark SL, Kark E. An alternative strategy in community health care: community-oriented primaryhealthcare. Isr J Med Sci.1983;19(8):707-13.

3. Rhyne R, editor. Community-oriented primary care: health care for the 21st century. Amer Public Health Assn; 1998.

4. Sinn JS, Morrow AL, Finch AB. Improving immunization rates in private pediatric practices through physician leadership. Arch Pediatr Adolesc Med. 1999;153(6):597-603.

5. Kaseje DC, Sempebwa EK. An integrated rural health project in Saradidi, Kenya. Soc Sci Med. 1989;28(10):1063-71.

6. Haines A, Sanders D, Lehmann U, et al. Achieving child survival goals: potential contribution of community health workers. Lancet. 2007;369(9579):2121-31.

7. Ministry of Health – Government of Kenya – Health Sector Reform Secretariat. "The National Health Sector Strategic Plan (NHSSP II) 2005–2010 – Reversing the trends". Nairobi. 2005.

8. World Bank, World Development Report: Investing in health, Oxford, Oxford. 1993.

9. Kenya CB. Ministry of Health (MOH) (Kenya0, ORC Macro. Kenya demographic and health survey. 2003. Calverton, Maryland: Central Bureau of Statistics, Ministry of Health, ORC Macro; 2004.

10. Kenya National Bureau of Statistics, ICF Macro: Kenya Demographic and Health Survey 2008–2009. Calverton, Maryland: Kenya National Bureau of Statistics, ICF Macro; 2010.

11. Kenya Government Development Report 2010.

12. Lavis JN, Lomas J, Hamid M, et al. Assessing country-level efforts to link research to action. Bull World Health Organ. 2006;84(8):620-8.

13. Yin RK. Case study research: Design and methods. SAGE; 2009.

14. Schramm W. Notes on Case Studies of Instructional Media Projects. Working paper for Academy of Educational Development, Washington DC. 1971.

15. Kaseje D, Olayo R, Wafula C,et al. The impact of Community dialogue in improving the performance of the District Heath Systems. Glob Public Health J. 2010.

16. Olayo R, Wafula C, Aseyo E, et al. A quasi-experimental assessment of the effectiveness of the Community Health Strategy on health outcomes in Kenya. BMC Health Serv Res. 2014;14(1):1-3.

17. Creswell JW, Hanson WE, Clark Plano VL, et al. Qualitative research designs: Selection and implementation. Couns Psychol. 2007;35(2):236-64.

18. Donabedian A. Quality assessment and monitoring: retrospect and prospect. Eval Health Prof. 1983;6(3):363-75.

19. Donaldson SK. Symmetric spaces, Kahler geometry and Hamiltonian dynamics. Translations of the American Mathematical Society-Series 2. 1999;196:13-34.

20. Akinyi C, Nzanzu J, Kaseje D, et al. Cost-effectiveness analysis of utilization of community health workers in promotion of maternal health services in Butere District, Rural Western Kenya. Universal Journal of Medical Science. 2014;2(Suppl 3):36-44.

21. Otieno-Odawa CF, Kaseje DO. Validity and reliability of data collected by community health workers in rural and peri-urban contexts in Kenya. BMC Health Serv Res. 2014;14(1):1-6.

22. Kenya National Bureau of Statistics, ICF Macro: Kenya Demographic and Health Survey 2008–2009. Calverton, Maryland: Kenya National Bureau of Statistics, ICF Macro; 2010.

23. Lemeshow S, Robinson D. Surveys to measure programme coverage and impact: a review of the methodology used by the expanded programme on immunization. World Health Stat Q. 1985;38(1):65-75.

24. Golden-Biddle K, Reay T, Petz S, et al. Toward a communicative perspective of collaborating in research: the case of the researcher-decision-maker partnership. J Health Serv Res Policy. 2003;8(2_suppl):20-5.

25. Buse K, Mays N, Walt G. Making health policy. McGraw-hill education (UK); 2012.

26. Tarlov AR. Public policy frameworks for improving population health. Annals of the New York Academy of Sciences. 1999;896(1):281-93.

27. Lawrence R. Research dissemination: actively bringing the research and policy worlds together. Evidence & Policy. 2006;2(3):373-84.

28. Kingdon JW. Agendas, alternatives, and public policies 2nd edition.

29. Powers M, Faden RR, Faden RR. Social justice: The moral foundations of public health and health policy. Oxford University Press, USA; 2006..

30. Lavis JN, Posada FB, Haines A, et al. Use of research to inform public policymaking. Lancet. 2004;364(9445):1615-21.

31. Bennett S, Agyepong IA, Sheikh K,et al. Building the field of health policy and systems research: an agenda for action. PLoS Med. 2011;8(8):e1001081.

32. Green A, Bennett S. Sound choices: enhancing capacity for evidence-informed health policy. Geneva, World Health Organization; 2007.

33. Lomas J, Culyer T, McCutcheon C. Conceptualizing and combining evidence for health system guidance. Canadian Health Services Research Foundation. 2005.

34. Edwards N, Webber J, Roelofs S. Development of a Business Plan for establishing an International Community Health Nursing Research Internship. Proposal submitted

(funded) to Health Canada Office of Nursing Policy. University of Ottawa, 2004.

35. Innvaer S, Vist G, Trommald M, et al. Health policy-makers' perceptions of their use of evidence: a systematic review. J Health Serv Res Policy. 2002;7(4):239-44.

36. Oliver K, Innvaer S, Lorenc T, et al. Barriers and Facilitators of the Use of Evidence by Policy makers: an updated systematic review Second Conference on Knowledge Exchange in Public Health Holland Fuse Conference. Noorwijkhout, Netherlands: How to get practice into science. 2013.

37. Estabrooks CA, Thompson DS, Lovely JJ, et al. A guide to knowledge translation theory. J Contin Educ Health Prof. 2006;26(1):25-36.

38. Kenya Constitution. 2010.

39. Millennium Development Goals Report, 2000.

40. World Health Organization, Primary Health Care: Now, more than ever. World Health Report. 2008.

41. Sabatier, Paul A. Theories of the Policy Process. Boulder, CO: Westview, 1999.

42. Graham ID, Logan J, Harrison MB, et al. Lost in knowledge translation: time for a map?. J Contin Educ Health Prof. 2006;26(1):13-24.

43. De Savigny D. Fixing health systems. IDRC; 2008.

44. Ochieng BM, Akunja E, Edwards N, et al. Perceptions of health stakeholders on task shifting and motivation of community health workers in different socio demographic contexts in Kenya (nomadic, peri-urban and rural agrarian). BMC Health Serv Res. 2014;14(1):1-3.

Citation: *Ochieng BM, Owino Kaseje DC. A model for research evidence-based policy engagement in Kenya: Key accelerators. J Public Health Policy Plan. 2022;6(8):136*