Effectiveness of Community Based Health Information in Promoting Primary Health Care at the Household Level in Butere

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Abstract The main aim of the study was to understand issues surrounding access and use of information in rural Butere, and how women and health workers perceived and interpreted these issues. An interview schedule that consisted of open questions and one relating to health information critical incidents was used. A holistic inductive paradigm was adopted with a grounded theory analysis. The findings highlight a model of information behavior that was driven by the value and impact of information unlike previous information models, which have been driven by information needs. The value and effect of information on PHC was as experienced and reported by the interviewees. For example, information was valuable in the prevention and detection of diseases, management of illnesses, decision-making, improving knowledge and promoting health, administration, behavioral change, and community support. The need for and value of information in rural Kenya led to the institution of an informal mechanism of health information provision. It was, therefore, recommended that the local capacity should be built or strengthened to enable it to sustain health information provision; a participatory approach involving all stakeholders was suggested, more repackaging of information to suit the needs of rural health workers and the community.

Keywords Community Health, Community Based Information Systems, Dialogue

1. Introduction

Over the years, information related problems in the health sector have raised the concern of information professionals, health workers and social scientists¹. Some have suggested that in order to implement the planned health strategies, there is a need to improve not only the health information services but also the understanding of why and how to use the

information¹. To many African health professionals, information is available but not accessible; while to some, information is neither available nor accessible¹⁻². Therefore, although there is a need to produce more relevant information in Africa, the greatest challenge is to ensure that what is available so far, can be accessed and used.

Health Information Systems (HIS) are considered fundamental for the efficient delivery of high quality health care. However, a large number of legal and practical constraints influence the design and introduction of such systems¹. A major issue facing Africa is inability to quantify and analyze the situation it faces with credible data and to use in planning and managing service delivery. Establishing good information systems is essential to DHS performance improvement².

The persisting poor performance of the DHS in spite of decades of efforts to improve it is a problem to be addressed. The hypothesis is that poor performance is caused by inability to implement health systems improvement policies and strategies as a result of deteriorating socio-economic situation in the country, made worse by inadequate information system required for evidence based management of the health system³. In terms of data use, countries have been consistently poor at supporting health workers who are collecting data to use it locally for planning and management purposes. Some observers speculate that facilitating greater local use of data could improve data quality overall, as those doing the data collection should be more motivated⁴. Using a simple health care information system for health sector reform and health system management explores how to make data more user friendly for local use. It has been demonstrated scientifically that information from Demographic Surveillance Sites (DSS) fed into the District Health System for planning and resource allocation based on Burden of Disease (BOD) is effective in improving the performance of the service system as well as health outcomes⁵.

The development of effective information services for rural people, and the policies governing their implementation

and use, depends on ample knowledge of rural people's information environment and behavior. Hardly any empirical data exists on this topic in Kenya⁹. Focusing research on rural health workers, who are professionally isolated, is an important step in improving their information infrastructure. This would indirectly enhance information provision to the communities they serve⁴. At a local level, the study is important because the majority of Kenyan do not see high level health workers when they seek health care; it is provided within the family, community or health units run by nurses and clinical officers⁶.

Many information studies in the developed world have focused on information systems and retrieval³⁻⁴. However, the interest of an information researcher in a rural African setting can hardly be on such topics. Rather, the attention is on information in everyday life⁷. In a developing country situation of an African rural area, can the use of available information make a difference to the lives of rural people.

The main aim of the study is therefore to investigate the accessibility and use of health information by women and health workers, who are at the lowest level of Primary Health Care (PHC) service delivery in rural Kenya in Butere. This would advance the understanding of the role of information in the health sector and the information processes involved. Therefore, the main objective of this study is to understand issues surrounding access and use of information in rural Butere, and how women and health workers perceived and interpreted these issues.

2. Methods

The study was undertaken in December 2012 and January 2013 in Kakamega County. Kakamega County was implementing the government's Community Health Strategy since 2006. Butere is located in Kakamega County. The sites was purposively selected due to its long-term implementation of the Community Health Strategy and working relations with the Great Lakes University of Kisumu that provided community health training to health workers in the country. The study used a key informant questionnaire guide to collect information from 73 respondents consisting of five health facility in-charges were interviewed in Butere, 12 Community Health Workers, 6Community Health Extension Workers (CHEW) and 50 service consumers (women).

This was a purely qualitative study. The material for this study was gathered by key informant interview guides. The interviewees were purposefully selected from various public health facilities in Butere, a rural setting and altogether front-line and middle level health information users in the health system were interviewed. The data were organized and analyzed manually, grouping them into themes and categories. Categories were generated inductively after cross-case analysis and open coding was done for each question in the interview. This involved an analysis of each question, noting key remarks, concepts or categories,

cross-referenced to interview occurrences (interviewee number(s), interview question(s) and field notes. Cross-case coding of each question in the interview schedule meant that all the data in each question and from each interview was covered exhaustively.

There was no restriction concerning the number of codes assigned to a segment of text. The codes were collected into themes which had emerged from the interviews, and these themes constitute the different sections in the results.

Questions were asked that explored the knowledge, attitude and practice on the effectiveness of deliberative dialogue in increasing demand for information at the Community Health Unit levels. The questionnaire aimed to establish the current and future use of objective local health data and statistics to inform and guide dialogue and decision making in community settings.

3. Findings

Role of information

The meaning information made to people after being accessed, used and interpreted, and its significance and role as perceived, experienced and reported by the interviewees were conceptualized as the value people attributed to information. The interviewees, as users of information, judged the information they accessed and attributed, or did not attribute, value to it.

Interviewees reported, for example, that when they accessed information and used it, some of that information changed their states of knowledge, values, beliefs, attitudes and behavior. This led to the various actions that put the knowledge acquired into practice or applied the information gained in various ways, which improved and promoted health.

For example, when women received relevant health information, used it and found it valuable, they carried out various information dissemination sessions both formal and informal about, say, the causes and prevention of illnesses/diseases; so, they interacted with their networks to promote health. The value and impact of information also made health workers disseminate information to others in various ways (Dialogue days and action days).

Lessons learnt in using data for dialogue and decision making are: data is important forimprovement of health status, knowledge and attitudes of mothers on health practices e.g sanitation.

These information dissemination activities were driven by the value of information, and involved interaction with individuals, groups and communities in the case of women leaders interviewed; or fellow health workers and patients in the case of health workers.

Dialogue with Households

Community Health Workers (CHWs) in Butere were the ones who held dialogue with households and were also

perceived as responsible for conducting dialogue with households.

The sources of data for dialogue and decision making were the Community health Unit chalk boards, household registers, the CHW service delivery logs (Ministry of Health register 514). The household registers (Ministry of Health register 513) were used by the CHEWs to summarize data into the Ministry of Health form 515 and chalkboard (Ministry of Health form 516). The chalkboards and the CHW service delivery logs were considered as the most appropriate sources of data for dialogue and decision making. Alongside these tools, the tool for measuring Mid-Upper Arm Circumference (MUAC tape) to assess malnutrition of children was mentioned as providing data for dialogue.

"I learned about the importance of immunization and my children got immunized. Since then, they have been healthier... This reduces our medical expenses because they no longer get diseases like measles which used to disturb them" (woman).

The topics most discussed with households were nutrition, family planning, water treatment and sanitation, immunization, antenatal attendance and skilled attended delivery, exclusive breast-feeding, latrine use.

Respondents preferred the use of participatory methods, including demonstrations, drama, role plays and gallery walks to discuss health issues. Respondents noted that the variety of methods used allowed information to effectively reach the communities. CHEWs facilitated discussions using the data on chalkboards, followed with community discussions on the issues and the way forward on solving those issues.

According to the respondents the changes in health witnessed due to the use of data include increased use of ARVs, increased immunization uptake, decrease in infant deaths, Family planning, improvement of environmental health, improved hygiene, HIV/AIDS response, health practices e.g. breast feeding and reduced stigma,

Information was valuable in the prevention of illnesses through knowing their causes in a dialogue session. Knowledge of how diseases are caused and transmitted was reported to have led to the control of disease vectors, water borne diseases and health promotion in general.

*"I learned how to control the breeding of mosquitoes which transmit malaria, so I do everything possible to keep this home free from bushes and stagnant water where mosquitoes breed, and to close windows and doors before dark, sleep under a net... Since I started doing this, my household members take long to suffer from malaria; actually, we may spend almost a year without an attack, yet in the past, it was a frequent problem in this home"***Service consumer**

Changes in health in the community attributed to the use of data for dialogue and decision making

The majority of respondents mentioned that they conducted dialogue based on existing data. Participants during dialogue sessions were communities, CHEWs CHWs, CHCs, the local administration including chiefs, other stakeholders engaged with the communities in various health and development work and to a lesser extent, participation of the health workers from facilities. Respondents were asked about the changes in health in the community that they attributed to the use of data for dialogue and decision making. They indicated health practices had improved in the communities with particular changes in the use of latrines, treatment of water, nutrition and pregnant women having birth plans. There was less mention of skilled birth deliveries and immunization as having improved due to data use for dialogue and decision making. The use of data for dialogue and decision making was acceptable to CHWs:

"It is a good approach, with people owning their health"

"The system is good and we have been trained,...from data, communities realize the importance of health improvement".

"The system of using data for dialogue is good as data reflects the general health standard of the community"

"Data use has facilitated mobilization of communities and influenced health practices such as exclusive breastfeeding, and latrine construction".

4. Discussion

It is evident from the results that CHWs hold an important role in the demand and use of available data in the community especially when supported by either the CHEW of Health Facility in charge. The community members identified these two cadres as the main users of information through conducting dialogue in Butere. Information is used mainly through dialogue in Butere, however some challenges e.g. lack of resources and community attitude are faced in Butere.

The study findings indicate that there is need to align household dialogue by CHWs to focus on priority health issues as identified by evidence of data collected using various tools.

Community based information system was more established in the rural site Butere. It is evident from the results that CHWs hold an important role in the demand and use of available data in the community especially when supported by either the CHEW of Health Facility in charge. The community members identified these two cadres as the main users of information through conducting dialogue in both study sites. Information is used mainly through dialogue in both of the study sites, however some challenges e.g. lack of resources and community attitude are faced in the Butere. To increase the use of data, the respondents suggest training on data collection and simple analysis.

The value of information in this study was mainly at two levels, namely, the social level because it served communities, and an individual level. The two levels were, however, interdependent. Community Health workers shared their individual valuable experiences with the communities.

The value of information in the prevention of diseases and promotion of health as demonstrated in the findings agrees with the WHO report, which points out that: Both the public health and the personal care interventions have contributed to reversing the urban - rural differences in health status; better health among urban populations is due more to the application of improved knowledge than higher incomes in cities¹¹.

It therefore follows that although rural areas had low incomes, they could enjoy better health if they accessed information to enhance their knowledge. Hence, factors which negate information access and use in rural areas need to be addressed in order that rural communities may reap the benefits of improved health knowledge¹²⁻¹³.

The findings confirmed further the importance of providing timely information. In many situations therefore, information is available but not accessible; this leaves many health information needs unmet, which is a challenge to health information providers.

In some cases, there was conflicting information or advice and it was difficult to judge which one to use. Hence, the need for timely and appropriate information¹¹. Provision of the right information at the right time by the year 2000 was one of WHO's declarations, which seems to have remained on paper¹⁴. In rural Kenya, it was not easy to access the right information or information source at the right time.

5. Conclusions

The finding has illustrated that where appropriate information was available, accessible, used and applied, it solved emergency or critical health needs and saved lives, as well as promoting health; the reverse was true when health workers or women as care givers failed to access and use the required information.

In addition to supporting their professional work, well informed health workers, are a key element in informing the women's social network which was reported to be an important source of information, and hence a positive element in the promotion of health and the health care of rural families

The implementation and use of community based health information system seemed to be planned as an essential tool in strategic information management in the community units and health care facilities studied. The challenges in the use of information at community level can be mitigated through training of the relevant cadres of health professionals directly dealing with the information and availing resources that would aid in the collection, processing and dissemination of this information to various stakeholders in the community.

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