Perceptions of Stakeholders on Community Health Volunteers' Contribution to Immunization Uptake in Pokot South Sub-County, Kenya

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Summary

BACKGROUND

In developing countries, community health volunteers (CHVs) are instrumental in increasing immunization uptake. In Kenya, reports indicate that basic vaccination coverage reduced from 77% in 2008 to 71% in 2014 and the proportion of children fully immunized in West Pokot is only 31%. Little is known about the contribution of CHVs in the uptake of immunization services in Pokot South, Sub-County. The study, therefore, sought to establish the perceptions of CHVs contribution to the uptake of immunization services in Pokot South, Sub-County of West Pokot County.

MATERIALS AND METHODS

A mixed-methods approach was adopted in the study. The study employed a multi-stage sampling method to select villages, community units and households. The sample size was calculated using Yamane's formula, resulting in 184 CHVs and 356 caregivers. Data were collected using structured questionnaires and key informant interview schedules. Quantitative data were analysed using SPSS, version 21.0. Odds ratios with a 95% confidence interval were calculated to test the significance of the association between each independent and the dependent variable. P-value ≤ 0.05 was considered statistically significant. Qualitative data were analysed thematically.

RESULTS

Nearly all (96.2%) of the CHVs were recruited between 2008 and 2015. Moreover, the majority of the members of the community (92.1%) knew their CHVs. Over half (57.3%) were satisfied with the work done by the CHVs. The major challenges faced by CHVs in their work are poor community support (104, 31.2%) and poor transport (79, 23.7%). From the interviews, the community positively perceives the role of CHVs in the promotion of health in the study area.

CONCLUSION

The community in Pokot South Sub-County of West Pokot believes that CHVs have made positive contributions to health care in the area. Recognition and respect for CHVs at the community level motivates them to play more active roles in community health interventions, despite the harsh environment in which they volunteer their services.

RECOMMENDATION

There is a need to strengthen further the partnerships between health facilities and CHVs. The MOH and CHEWs should also adhere to the recommended number of days for targeted and continuous training for CHVs and improve quality supervision and monitoring of CHVs.

Keywords: *Immunization, Contribution, Community Health Volunteers, Pokot south sub-County*

[***Afr. J.*** *Health Sci*. 2022 35(3): 298 - 306]

Introduction

According to the World Health Organization (WHO), a child is said to have received all the basic vaccinations when the child gets: a BCG vaccination against (TB) and tuberculosis; 3 doses of DPT vaccine to prevent diphtheria, Pertussis and Tetanus (or 3 doses of the vaccine Pentavalent, which includes DPT and vaccinations against both hepatitis B and Haemophilus Influenza type B); at least 3 doses of the polio vaccine and one dose of measles vaccine including one dose of vitamin A [1]. All these must be administered during the first year of life [1]. Immunization is one of the major public health strategies to avoid childhood illnesses and mortality [2]. Without the same, more than five million children would die each year because of diseases that are preventable through vaccination [3].

Immunization has become the safest and most effective measure for preventing and eradicating various communicable diseases globally [4]. Yet, a glaring gap exists between developing and industrialized countries regarding immunization, with developing countries still striving to provide basic immunization to their children [5]. Globally, full immunization coverage for children aged 12-23 months reached 83% in the year 2011 [1]. WHO reports that immunization coverage has been 96% in the Western Pacific region, 96% in Europe and 90% in the Americas; however, the coverage was reported to be low in Eastern Mediterranean at 82%, in the South-East Asia Region at 77%, and in Africa at 75% [1].

The most effective means of promoting immunization uptake is through community health volunteers (CHVS) [6]. In Kenya, full immunization coverage for children aged 12-23 months stood at 75% in the year 2011 and there has been a continuous decline in immunization coverage levels across regions of Kenya with worse trends documented in marginalized areas [7]. According to KDHS, basic vaccination coverage reduced from 77% in 2008 to 71% in 2014.

The use of CHVs has been identified as one of the strategies to address the growing shortage of health workers, particularly in low-income countries [8]. CHVs provide such a vital and important connection to health systems and are a strong force for promoting healthy lifestyles in resource-intensive environments [9]. UNICEF adds that over the last decade, there has been an explosion of indications and interest regarding CHVs and their potential to improve the health of populations where the resources of health workers are limited.

In Kenya, CHVs were adopted into the Kenya National Health Sector Strategic Plan Two (NHSSP II), 2010-12 as a component of cost-effective strategies in addressing the health care needs of underserved communities [10]. Community Health Strategy (CHS) is a CHV-directed Primary Health Care (PHC)programme in Kenya. The CHS aims to promote the health status of Kenyan citizens by increasing the CHVs' capacity to provide primary health care services, improving the social linkages with

health facilities and strengthening the population to slowly recognize their rights to access quality healthcare and to demand transparency from health facility-based services [10]. The CHS policy framework calls for the development of Community Units (CUs) as the foundation for the delivery of PHC programmes. The service providers in the CU are well-trained CHVs and Community Health Extension Workers (CHEWs).

CHVs are community members chosen by the group and qualified to represent the same neighbourhoods they come from while CHEWs are licensed health professionals. Each CHV is required to deliver PHC services to 50 households. The roles of CHEWs are: to monitor and control CHVs (each CHEW is expected to supervise up to 25 CHVs); to promote learning in the community, and to provide a connection between CHVs and health facilities [10]. CHVs offer tier one support where it applies to the whole community-based portion of the Kenya Essential Health Program [11].

Community health volunteers are often employed as a key element of the community-based approach to the rural population of low- and middle-income countries [12]. Although CHVs have been supporting health programmes for a long time, their demand increased following the implementation of the Kenya Community Strategy. Lately, this activity has been reinvigorated in some developing countries due to the increased double burden of poverty-related illnesses and ill-health linked with a lifestyle change and has been described as one of the solutions to tackle the problem of lack of trained health professionals [13]. A review was done focusing on the contribution of community health volunteers (CHVs) in the delivery of essential health services [14]. It became evident that CHVs have the potential to supplement the formal health system in the struggle to achieve UHC in low- and middle-income countries. CHVs demonstrated positive results in encouraging immunization adherence and enhancing outcomes of acute respiratory infections [15].

The main role of CHVs is to promote community group meetings where villagers gather and discuss health issues [16]. CHVs also refer children for immunization and health checks. They must maintain a database of medical events and communicate to local health services. Increasing the use of CHVs in the delivery of health care to the rural population implies that recognizing the opinions of CHVs is critical [15]. This is because the design of CHV programmes and policies involves the sharing of information, which incorporates the views of people involved in the health care system. Nevertheless, little is understood about the views and experiences of CHVs and how they are perceived and encountered by service users and local health professionals [17]. Available evidence on the efficacy of methods used at the sub-national level to improve immunization coverage point to the need for interventions to support CHVs in disseminating information on increasing demand for immunizations, getting immunizations nearer to the population, and finding those who need immunization.

Therefore, the broad objective of the study was to determine the contribution of CHVs in immunization uptake among children under two years in Pokot South Sub-County of West Pokot, Kenya. This paper will thus inform relevant County policies to improve immunization coverage levels in the study area.

Materials and Methods

Study design and setting

This study used a cross-sectional research design with a mixed approach. It aimed at rapidly assessing the contribution of the community health volunteers. The location of the study was the Pokot South sub-county of West Pokot County, Kenya.

Study population and sampling

The study targeted the residents of Pokot South Sub-County in West Pokot County. The respondents of the study were Community Health Volunteers (CHVs). Caregivers of the children were the most common users of immunization services, and the Ministry of Health officials (CHEWs) were the key informants (KIIs). The inclusion criteria were: mothers or caregivers with children aged two years who lived within the Pokot South Sub-County area and who consented to participate in the study, CHVs who have been working in the area for more than nine months and CHEWs who have been supervising CHVs in active community units. The Sub-County was selected purposively. A multistage sampling technique was adopted to select the wards in the Sub-County and the units served by the CHVs. At the ward level, CHVs were purposively identified and households that took part in the interview were identified using simple random sampling by use of the register of households as the sampling frame. CHEWs were also purposively identified. The total numbers of community health volunteers in the 13 functional units in the sub-county were 344. The sample size calculation was based on Yamane's formula [18]. The formula yielded a sample size of 185.

Data collection

Data were collected using structured questionnaires for quantitative data and key informant interview schedules for qualitative data.

Data analysis

Quantitative data were analysed using SPSS Version 21.0. Odds ratios with a 95% confidence interval were calculated to test the significance of the association between each independent and the dependent variable. P-value ≤ 0.05 was considered statistically significant. Qualitative data was processed by analysing themes from key informant interviews. The information from the two methods was triangulated into a single document.

Ethical considerations

Beneficence was ensured by explaining to participants that the study was low risk and was free from physical, psychological and social harm. Questions were framed in a non-judgmental way. Respect for human dignity was achieved by treating participants as independent agents. They were allowed to ask questions at any stage of the interview. The researcher also administered informed consent and asked participants to voluntarily take part in the research without coercion. Confidentiality was maintained throughout all the phases of the research process.

Results

Contribution of Community Health Volunteers to Immunization Uptake

Table 1 presents the research findings on the contribution of the community health volunteers to immunization uptake. As part of background information, CHVs were asked when they were recruited as CHVs and nearly all (96.2%) were recruited between 2008 and 2015, compared to those recruited in 2015 who were few (3.8%). Community strategy was rolled out in the country in 2008 while free maternal services were introduced in 2013. Mass recruitment of CHVs in West Pokot was done between 2013 and 2015.

Stakeholders' Perceptions on Contribution of CHVs to Immunization **Uptake**

Table 1 presents stakeholders' perceptions on the contribution of CHVs in increasing immunization uptake. Nearly all of the respondents (92.1%) knew their CHV.

This was verified by one of the respondents who said:

Seventy-five per cent (75%) of the population in this community know their CHVs……They cherish them for the work that they offer to the community members……..community usually refer to them as the village doctors therefore this is an indication that they are trusted by the community (KII, 3).

More than half (57.3%) were satisfied with the work done by the community health volunteers in contrast to some, 152(42.7%), who were dissatisfied. This level of satisfaction with CHVs was high in the study area. One of the CHEWs had this to say concerning community members and the CHVs:

Community members do value CHVs very much especially when there is a problem and CHV's referring them immediately……. Community members trust someone who shares information about health matters that will improve the community's wellbeing (KII 1).

The caregivers reported perceived challenges faced by the CHVs in their duties to include: lack of community support (104, 31.2%), lack of transport (79, 23.7%), lack of motivation (75, 22.5%) and lack of supervision (31, 9.3%).

Table 1:
Contributions of CHV in Immunization Uptake

Report by CHVs	Categories	n	%
The year started working as CHV	2008 – 2015	177	96.2
	≥2016	7	3.8
Recruited by	Community	176	95.7
	MoH	6	3.3
	NGO	2	1.1
Number of households assigned	10 – 19	4	2.2
	20 – 29	68	37.0
	30 – 39	60	32.6
	≥40	52	28.3
Mean age ± SD (Range)		32±10 (10 – 50)	
Key roles	Sharing health messages	46	25.3
	Defaulter tracing	18	9.9
	Referral of children	32	17.6
	Home visiting	86	47.2
Number of households visited last month	None	15	8.2
	<10	90	49.2
	≥10	78	42.6
Actions are taken when visiting households	Advice on immunization	11	6.0
	Breastfeeding	12	6.5
	Defaulter tracing	26	14.1
	Hospital delivery	15	8.1
	Hygiene and sanitation	86	46.7
	Referral	34	18.5
Number of clients referred last month for immunization services	None	63	34.4
	Only one	17	9.3
	2 -5	79	43.2
	6 and above	24	13.1
Action is taken when referring to severely sick children	Write a referral note	159	86.9
	Help arrange transport	14	7.6
	Other (specify)	10	5.5

Lack of means of transport was thus a major challenge facing CHVs. One of the key respondents pointed out thus:

Community health volunteers in this unit do not have proper means of transport to move around while they do their daily work…. They walk on foot which is made more difficult by the harsh terrain. It takes a CHV up to three hours to move from one household to the other… this has reduced the number of households to be reached with health messages…. When they want to use a motorbike the roads are in a bad state and therefore the fare is very high, CHV cannot afford to hire a motorbike daily so they decide to walk on foot (KII, 7).

Discussion

The study highlighted that a higher proportion of the caregivers were satisfied with the work done by the community health volunteers, 204(57.3%) while 152(42.7%) were dissatisfied. This indicated that acceptance of CHV services by the caregivers would improve their performance. The level of satisfaction was high at 57.30%. The study findings showed that the community respected the CHVs, which stood at 71.6%, which was an indication that CHVs are recognized and valued.

Public appreciation and acknowledgement were motivating factors that should increase the efficiency of CHVs. The result is supported by another work that revealed that recognition and respect at the community level and the status of a health volunteer motivates volunteers to take part in community health interventions [19]. Ting'aa and Kaprom also reported almost similar results on the perceptions of the community towards the health community workers in their study on the perceptions and attitudes of health workers working in West Pokot County [20].

Lack of recognition as a factor influencing the performance of CHVs has been reported by another past work [21]. In their study, 33.7% of the respondents declared that they did not prefer going to the CHV before going to the other services, including immunization, suggesting a lack of recognition of CHVs by some community members. Therefore, individual, organizational and community level recognitions and values encouraged CHVs to effectively carry out their work in the community. Financial and non-financial rewards to the CHVs by the stakeholders have been shown to have a positive impact on the actions and conduct of CHVs in the delivery of health services including immunization services [22].

Table 2:
Perceptions of Stakeholders (Caregivers) on CHVs' Contribution to Immunization Uptake

Report by caregiver	Categories	n	%
Knowns CHV assigned to work in the household	Yes	328	92.1
	No	28	7.9
Caregiver satisfied with CHV services	Yes	204	57.3
	No	152	42.7
Rating of satisfaction with CHV services	High (≥6)	204	57.30
	Low (<6)	152	42.70
Caregiver's perceived biggest challenges faced by CHVs	Lack of transport	79	23.7
	Poor remuneration	44	13.2
	Lack of motivation	75	22.5
	Lack of community support	104	31.2
	Lack of supervision	31	9.3

Limitations of the Study

This study faced several limitations. The self-reports from CHVs on their roles could have been exaggerated. However, attempts were made to corroborate this information with reports from their supervisors. The study also did not address the availability of vaccines which could have affected CHVs performance. In addition, questions related to the type of terrain CHVs were covering were not asked to elicit challenges that they might have been facing that could lead to underperformance.

Conclusion

The study concludes that the community living in Pokot South Sub-County of West Pokot believes that CHVs have made positive contributions to health care in the area. Recognition and respect for the CHVs at the community level motivate these volunteers to play more active roles in community health interventions, despite the harsh environment in which they volunteer their services.

Recommendations

Based on perceptions of CHVs contribution to immunization, this study recommends that the Community Health Committees (CHC) should look for other ways to further motivate and support CHVs to continue offering key health services to the community. Again, the County Government, through its Health Department, should find strategies to reward CHVs with incentives and transport. The study recommends that further research be conducted on the contribution of CHVs in immunization programming in the wider West Pokot County where comparison can be made between sub-counties with better performance on immunization uptake and those with poor performance.

Acknowledgement

We thank the members of staff of the Department of Nursing Research, Education and Management at Masinde Muliro University of Science and Technology for enabling this research to be undertaken and published. We also thank the respondents who willingly provided the information needed to address the study problem.

Author Contributions

Lopar Samuel Kipunaa was the lead researcher. Ting'aa Simeon Lotulya (PhD) contributed to the study by providing a local perspective on the state of immunization in West Pokot. He also helped to refine the research project and to draft the paper for publication.

Source of funding

The research project was individually funded by the lead researcher. The cost of publication of this article has been met by the contributions of both authors of the article.

Conflict of interest

There are no conflicts of interest to declare concerning the research or this paper.

Availability of data

The data for the study can be accessed within the Masinde Muliro University of Science and Technology library. This paper represents just a slice of the entire work done in the study project.

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