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Home Visitations, Referrals and Linkage by Community Health Volunteers in Supporting Maternal Health Care Services in Dadaab

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ABSTRACT

Background: There is an increase in the involvement of CHVs in healthcare in low and middle-income countries and the model is being used in refugee camps to enhance access to Primary Health Care including maternal health services. This is in line with the idea of optimizing health workers roles which targeted to address critical health worker shortage, by shifting downwards certain tasks to health workers with less training, such as from nurses to Community Health Volunteers (CHVs) to increase universal access to maternal healthcare. The public health adopted the community health strategy that employs CHVs in providing health care services for the refugees in Dadaab. The role of CHVs on maternal healthcare in the refugee camp has not been clearly described.

Objectives: The main objective of the study was to determine the roles of community health volunteers in home visitations, referrals, and linkage to promote maternal health care services in the Dadaab refugee camp, Kenya.

Methodology: This was a descriptive cross-sectional study with both qualitative and quantitative methods conducted at Ifo-1 camp, in the Dadaab Refugee complex. It targeted the CHVs and some Key Informants (KIs) involved in maternal health care services. The sample size for quantitative data was 74 CHVs selected by simple random sampling while for qualitative was 5 KIs selected purposively, making the study population 79. Data was collected using questionnaires and interviews; analyzed descriptively and thematically and presented in form of tables, graphs, charts, and narratives. Ethical consideration involved study approval by the University of Nairobi Kenyatta National Hospital Ethics Research and Ethics Committee; permission from relevant authorities in Dadaab and obtaining informed consent from the participants.

Results: The results showed that CHVs played a significant role in promoting maternal health care through home visitation and referrals. All the CHVs provided home visit services. Majority conducted more than two visits for Antenatal Care 66 (89%) and after delivery to deliver maternal health services. All the respondents conducted referral and follow-up services where 58(78%) identified pregnant mothers for referral; 51(67%) traced defaulters. There was, however, a weaker link after discharge from antenatal care clinics and no framework for implementing home visits and referrals or community maternal healthcare.

Conclusion: The CHVs are playing a significant role in promoting the uptake of maternal health services in the Dadaab refugee camp through home visitations and referrals and linkage between the health system and the refugee community.

Recommendations: There is a need to establish a framework for implementing community-based maternal health to guide and support, supervise CHVs, and strengthen monitoring of maternal health services in the community. Further, there should be more involvement of the CHVs by the antenatal care (ANC) clinic after discharging antenatal mothers from the clinic to continue with care and follow-up.

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Introduction

Education and deployment of community-based health workers as a more sustainable and responsive skills mix were recommended to address challenges on health workforce shortage; address needs for the Sustainable development Goals (SDGs) on health and Universal Health Coverage. This goes along with the strategy of task shifting that is critical in reducing maternal deaths and related complications is by promoting skilled birth for pregnant women with the help of a skilled birth attendant [1-3].

Improvements in maternal health targeted on the MDG 5 were hindered by shortage and poor distribution of health workers in many countries [4]. Reorganizing the health workforce through task shifting which allows CHVs to carry out certain tasks has been recommended to make use of the human resources already available in a more efficient and thereby expanding and

strengthening coverage of key health interventions [5, 6].

CHVs have provided a bridge between the community and the formal health systems Since Alma Ata. Their collaboration with mid-level health workers was imperative towards achieving the health-related MDGs, more so the childhood diseases and maternal mortality. There has been an increasing emphasis on expanding the role of CHVs to address health workforce deficiencies and were regarded as critical contributors to achieving the MDGs for maternal and child health. National and international decision-makers are turning to CHVs to strengthen Primary Health Care and to support post-MDGs. There has been the establishment of training programs for CHWs and the programs are transforming to cater for of large populations growing healthcare needs [7-9].

The home visitation strategy in Primary Health Care is primarily a vehicle for delivering care and education during pregnancy, improving neonatal care, and recognizing early signs of maternal and neonatal illness [10]. CHWs are the key players in this strategy, which takes care right to the doorstep of the mother and child. Outreach services and home-based strategies have been recognized as effective means of meeting the PHC needs of populations especially in terms of maternal and child care. Such services complement facility-based care especially in rural and remote areas by increasing access to health service providers [11]. Studies in Africa south Asia have shown conclusively that CHVs home visitations during the pregnancy and puerperal periods can improve the demand for and use of ANC, hospital delivery, PNC services, and reduce maternal and newborn deaths by at least 15–20%. CHVs are increasingly being institutionalized in the healthcare workforce in Africa and South Asia through enhanced training and incentive packages [12].

For both healthy pregnancies and at-risk pregnancies, home visits by CHVs in the prenatal and postnatal period to provide newborn care, counseling to mothers, and facilitate referral may promote early detection of complications and lead to appropriate referrals [13].

The CHVs in Kenya fall under level/tire one of the health services within the health system and Kenya Essential Package for Health where they identify the sick at the household level, treat minor illnesses, and conduct referrals to higher levels of the health system [14, 15].

Theoretically, the CHW model can be applied in refugee settings to facilitate access to PHC [16]. At the refugee camp, they are part of the health workforce required for the provision of essential primary health care. They play an indispensable role in maternal healthcare, which involves: identification of pregnant women and referral for antenatal, delivery, and post-natal care [17, 18].

Few studies have investigated the use of CHVs in refugee settings. Even though the evaluation processes for implementation of CHVs have not been completely explored and not well elucidated, there is sufficient evidence suggesting that there is a need to increase reliance on local resources, particularly CHVs, to sustain health in refugee camps [16].

There is an effort to improve health through programs such as community cases management childhood illness; communicable and non-communicable disease prevention and treatment; and community maternal and neonatal health. Many of these have succeeded. Lack of sufficient documentation on community-based maternal care services in refugee set up, among other issues presents a gap of reference. This study purposes to determine the role of the CHVs in home visitations, referrals, and linkage to promote uptake of maternal health care services in the Dadaab refugee camp.

Research Methodology

The study design was a descriptive mixed method that used both quantitative and qualitative data. It was conducted in the IFO-1 camp of the Dadaab Refugee Camp. The Dadaab refugee camp complex is located in Dadaab town, North Eastern region of Kenya in Garissa County, Kenya. The camp is home to refugees from many east and central African countries namely South Sudan, Congo, Burundi, Eritrea, Somalia, Uganda, and Ethiopia. Over 90% of the population is made of Somali refugees and the population of the camp was about 209,183 registered refugees as per 2019 UNHCR statistics.

The target population was all the CHVs working in the IFO-1 camp. 109 CHVs were serving the 4 community health units of Ifo1which has a population of over 80,000 according to the community health statistics from IFO-1. It also targeted key informants (KIs) comprising of maternity midwife, community health focal person, Reproductive health coordinator and Maternal Child Health (ANC/MCH) nurse who interact with the CHVs in the course of their work in Ifo-1. The sample population was 96 made up of 91 CHVs and 5 KIs.

The quantitative study used a simple random sampling in the selection of CHVs. For qualitative study sampling was purposive in selecting the key informants since these were well informed, knowledgeable, and experienced persons and conversant with the activities of the CHVs as far as maternal health care services are concerned.

The study gathered quantitative and qualitative data using questionnaires and interview guides respectively. Quantitative data was analyzed descriptively. Thematic analysis was used for qualitative data obtained from the KIs. Data was presented in form of frequency tables, graphs, charts, and narratives.

Approval for this study was sought from the University of Nairobi and Kenyatta National Hospital Ethics and Research Committee. Further approval was obtained from the Refugee Affairs Secretariat (RAS) Dadaab as the custodian of the refugees; UNHCR Health Unit Dadaab Sub office which oversees all health services in the refugee complex and Kenya Red Cross Society – Dadaab Refugee Operations (KRCS-DRO) which runs all the health care services in IFO-1 refugee camp. The respondents were also consented to participate in the study.

Results

The general response rate was 82.3%, that is, 74 (81.3%) CHVs and 5(100%) KIs. The CHVs were male-dominated (75.7%), middle-aged (mean age of 29 years), and literate, 91% having a level of formal education.

Role of CHVs in Home Visitations

Majority of the respondents had pregnant mothers in their blocks and all of them conducted home visits to these mothers homes. The visitations were conducted as a routine by 58 (78%); for follow-up 61 (82%) and when called upon by the mothers as indicated by 27 (36%) of the respondents. The home visits are conducted both during pregnancy and after delivery. Regarding the number of visitations, the majority 66 (89%) of the respondents conducted more than two home visits, 2(3%) conducted two visits while 6

(8%) conduct one home visit during pregnancy. After delivery, majority 48 (65%) of the respondents visited the mothers more than twice, 5(6%) visited twice while 21(28%) had just one visit after the mothers had delivered.

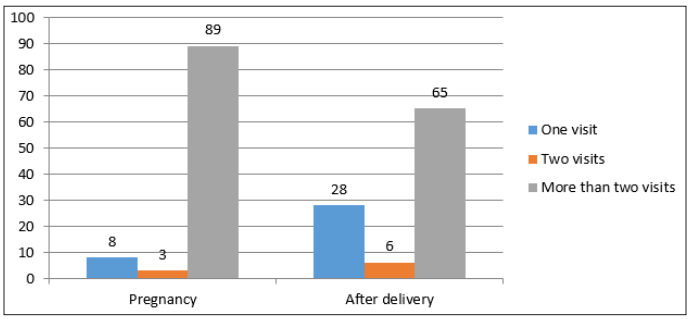

Figure 1: Number of Home Visits during Pregnancy and After Delivery (n=74)

Table 1: When CHVs Visited Pregnant Mothers

Type of Home Visit	n	Percentage (%)
Routine home visits	58	78
Home visits for follow up	61	82
Home visits when called	26	35

Activities Conducted During Routine Home Visitations

The CHVs were asked about activities they carried out during their first and second antenatal home visits. The activities given by respondents include initiation of ANC clinic if has not started, assess health status through complaints raised, referral to the hospital for the sick, check ANC defaulter and refer to the health post, check previous ANC records and review compliance with treatment, review the progress of those attending the high-risk clinic and refer defaulters, provide health education and check birth plan.

"*The CHVs identify new pregnant mothers in the blocks; provide health education to the pregnant mothers and the members of the community; refer mothers to the health facilities: follow up of pregnant mothers in the blocks; identify home deliveries and referring mother and baby to the health facilities besides other activities unrelated to maternal health*" (**KI No.1**)

Table 2 summarizes the activities carried out during the antenatal home visits as given by the respondents.

Table 2: Activities carried out by CHVs during ANC Home Visits

Activities	n	Percentage (%)
Initiation of ANC	63	85
Refer ANC and other defaulters	59	79
Refer sick mothers	52	70
Check for danger signs	46	62
Check previous ANC record	39	52
Assess compliance	26	35
Go through the birth plan	33	45
Provide health education and counseling	51	69
Assess home environment	32	43
Promote hospital delivery	48	65
Provide emergency contact for "mama taxi"	33	45
Remind of the next TCA	32	43
Check the progress of those attending the high-risk clinic	18	24
Check HB from clinic records	28	38

Role of CHVs in Referral and Linkages

All the respondents have a role in referring mothers to the health facilities for various services. Those who had referred a mother in labor were 69 (93%); 54 (73%) indicated that they had referred a mother with a danger sign in pregnancy; all 100% have referred a sick pregnant mother; 69 (93%) referred a new antenatal mother to initiate ANC clinic; 66 (89%) indicated that they had referred a neonate with danger sign and finally 54 (73%) have referred a case of home delivery. Figure 4.8 summarizes the referrals conducted by the respondents.

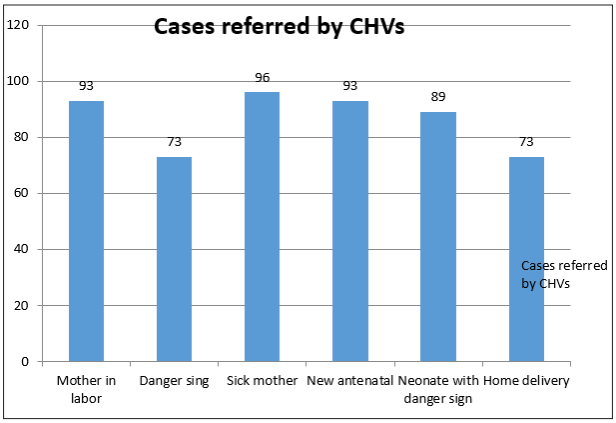

Figure 2: Cases Referred by CHVs (n=74)

The CHVs referred pregnant mothers to the maternity and ANC clinic for different services. They identified new pregnant mothers, sick mothers among others, and referred them by either accompanying the mothers to the health facilities, giving referral notes, or called an ambulance to take the mother to the hospital.

"*The ANC clinic receives referrals from CHVs ranging from sick mothers and newly identified pregnant mothers reluctant to start ANC. They come with referral notes given by CHVs while others come accompanied by the CHVs especially the defaulters and absconders*." (Key Informant No.4).

On methods of referral, the respondents indicated several ways through which they conduct their referrals. Those who escorted the mothers to the health facility were45 (61%), 55 (74%) indicated that they gave referral notes to the mothers; calling an ambulance was indicated by 51 (69%) of the respondents.

The CHVs created a direct link between ANC clinic and maternity for mothers at risk or those with health issues. The ANC clinic attached the mothers at risk or those with health problems to a CHV after discharge from the ANC clinic for a close follow-up to ensure they deliver at the hospital.

"*After we discharge a mother from the ANC clinic, it is noted on the MCH booklet and on the birth plan form which the mother is expected to carry to the maternity when labor begins. The mothers at risk or those with health issues, we attach to the CHVs for close follow up and make sure they go to deliver at the hospital*." (**Key Informant No.3**).

"*The CHVs only receive prior information on the mothers discharged from ANC but have predetermined risks such as abnormal lie and mal-presentation or at-risk mothers. These are attached to CHVs by ANC for close follow up and to ensure they get to the hospital in time or for delivery*." (**Key Informant No.1**).

There was no direct link provided by CHVs between ANC clinic and maternity for the rest of the mothers who had normal pregnancies after discharge from ANC clinic with no health issues term. These only called or involved the CHVs when labor starts and in most cases, it was either too late or home delivery had occurred.

"*For the rest, CHVs mainly come in when they are informed that a mother is in labor if the mothers dont go to the hospital on their own and many of the notifications are coming when it is also too late to get to the hospital or when the mother had already delivered at home*" (**Key Informant No.1**).

"*The CHVs only bring or refer mothers with health issues; they dont directly link the rest as compared to those at risk whom they are attached t upon discharged from ANC. The ANC also dont supply the maternity with figures or information on the mothers who have reached term in order to anticipate a particular number of deliveries within a given time* (**Key informant No. 2**)

"*There are no direct referrals by CHVs to the maternity unless serious cases which are either brought by ambulance or accompanied by the CHV. The CHVs mainly refer the mothers to the ANC from where they can be referred to the maternity if need be. So they do an indirect referral*." (**Key Informant No. 3**).

The majority 58 (78%) of the respondents were able to identify mothers who were due for deliveries within the month. This they could do in a number of ways. Of those who were able to identify the mothers, 57 (77%) relied on the MCH booklet, 9 (12%) received an alert from the health post, 17 (23%) received an alert from the mothers themselves while 13 (18%) indicated that they checked the ANC register.

When not accompanying the mothers to the health facility, the respondents had ways of confirming that the referred mothers actually reached the health facility and got attended to. They checked the treatment rec as indicated by 66 (89%) of the respondents; 53 (73%) indicated that they call the clinic while 24 (32%) indicated that they receive information from the facility. Others did a home visit to follow up while others called fellow CHVs at the clinic to inform them of the referred mothers.

Regarding ANC defaulters, majority 50 (93%) of the respondents had been contacted by the ANC clinic that a pregnant mother in their block had absconded ANC clinic to follow up.

There was a high rate of defaulting for ANC services and those attending the special mother at risk clinic. Both the maternity and ANC clinic relies heavily on the CHVs to trace the defaulting mothers and follow up the mothers at risk to provide them specific interventions at the blocks.

"*The default rate is very high at the ANC clinic. There are averagely between 300 to 400 registered antenatal mothers in every health post with a defaulting rate of 50-60%. There are also mothers attending at-risk mothers clinic who need to be followed up in the blocks*." (**Key Informant No. 4**).

"*We give the CHVs the details of the defaulters every week to look for the mothers and bring feedback every Monday. The CHVs also get feedback from the clinic in the course of the week on the defaulters who have reported to the clinic and those still missing. Eventually, a majority would finish the clinics or do four or more visits*." (**Key Informant No.5**).

The CHVs intervened when mothers refused or declined life-saving interventions such as C/S and blood transfusion. They talk to them into accepting the interventions and at times involve other leaders such as block leaders and religious leaders to help talk to the mothers.

"*The maternity encounters mothers who decline care very frequently, more than 5 cases a week. For instance, admitted mothers who abscond; mothers who refuse to consent for blood transfusion, induction, or C/S delivery. For absconders, the CHVs look for them in their blocks and bring them back. For those who decline consent, the CHVs are called to talk to them into accepting care. They believe more when talked to by the CHV*." (**Key Informant No. 2**).

"*Usually there is a stand by CHV at the hospital to intervene in such cases as decline or absconders. They just talk to them or involve the relatives, sheikhs and block leaders to help and eventually they accept though sometimes too late*." (**Key Informant No. 1**).

CHVs can play a critical role in addressing delay one by bridging the gap between the health system and the community.

"*The delay one which basically originates from the community accounts for about 80% of the maternal morbidity and mortality at the maternity and the CHVs can play a great role in addressing it through promoting individual birth plan and actively identifying mothers with problems or who are due for prompt referral thereby bridging the gap between us and the community*." (**Key Informant No. 2**).

Home Deliveries and Referrals

The majority of the respondents 54 (73%) have had one or more cases of home deliveries with 17 (23%) indicating that they have never had a case of home delivery in the last six months and 6 (11%) had more than three cases within the last six months.

Regarding ANC defaulters, majority 50 (93%) of the respondents had been contacted by the ANC clinic that a pregnant mother in their block had absconded ANC clinic to follow up.

Job Aids

The respondents were asked if they had some of the basic job aids for community maternal health service and the response is summarized in Table 3

Job aid	n	Percentage (%)
CHV manual for maternal health care	0	0
CHV maternal Health Register	0	0
CHV Referral forms	74	100
Mobile phones	69	93
Education/Counselling cards/ materials	53	72
Thermometers	57	77
Sport light	54	73

The CHVs work under the CHP where they undertook several interventions some of which were related to maternal health care at the community level. There was no specific program for Community Maternal and Neonatal Health (CMNH) on its own or as a specific component of Community Health or Reproductive Health (RH) programs. The CHP incorporated the maternal and child health services within their activities and are implemented by the CHVs just like any other roles within the community health strategy while RH uses CHVs through the CHP.

There is no specifically designed program for community maternal and neonatal health. The CHVs work under the CHP and they carry out maternal and child health interventions in the community. These are incorporated within the CHP just as other activities within the community health strategy framework." (Key informant No. 1).

"The reproductive health program does work with CHVs but we work more with the safe mothers when it comes to pregnant mothers." (Key Informant No. 2)

Discussion

The study found that the CHVs were generally of middle age; male-dominated and literate. These parameters were however not within the scope of the study. All the CHVs were formally employed as a CHV with remunerations. This was unlike many parts of Africa, where community health workers are regarded as informal volunteer workers and not paid for their service as was found by [19, 20]. The provision of monthly remuneration was a motivation for the CHVs and has enabled them to deliver their services.

The study established that the CHVs carried out antenatal home visits in the blocks during which they promote various maternal health services. The visits were a routine activity; for follow-up or when called upon by the mothers. In total, the majority of the CHVs visited the mothers at least four times antenatally and twice after delivery; during which they initiated ANC, referred defaulters, referred sick mothers, provided health education and counseling among other roles. A study by supports that CHWs were able to improve ANC clinic attendance through home visits [21]. This finding is also supported by that of, which showed that CHWs home visits during antenatal and post-natal periods could improve health services use in fragile and conflict-affected areas such as Afghanistan [12]. In the study, CHWs conducted home visits during the antenatal and post-natal period during which they provided health promotion messages and supporting hospital delivery and neonatal care. In another study, showed that through home visits, trained CHWs could identify sick newborns and young infants and improved health care-seeking practices in low - and middle-income countries [22]. The CHWs identified sick children from the community and referred them to the facility for treatment. Though conducted as part of routine services in community health, home visit in maternal health care is important as it helps to address problems caused by delays in identifying health problems and making the decision to seek healthcare. When CHVs visit the mothers antenatally or postnatally, they may identify health problems and prompt necessary actions thus promote early diagnosis and intervention. From the study, it can be deduced that with support such as training and supervision, CHVs can conduct antenatal and post-natal home visitations to support maternal health care services.

The study has shown that the CHVs play a key role in promoting antenatal clinic attendance, defaulter tracing, follow up, and intervening when the mothers decline lifesaving procedures such as C/S, blood transfusion, induction, or admission.

On referrals, the CHVs referred women to the health facilities, that is, either to the health posts or the hospital for different health services. All the respondents had referred a mother to the health facility at one point. Among those referred by the CHVs included: mothers in labor; sick pregnant mothers; new antenatal mothers; mothers with danger signs; clinic defaulters and home deliveries. When referring, they would escort the mothers to the facility more so the defaulters and absconders; provide the mothers with filled referral forms or call an ambulance. This means they used one or more methods to refer the mothers depending on the case being handled. After referral, the CHV would track the referrals to find out the general outcome of the referral by checking treatment records; calling the clinic, or receiving information from the facility. The facilities also gave feedback to the CHVs through the MCH booklet, giving instructions on the referral note and during morning meetings with the CHVs. These results were in concordance with findings of Save the Children (2013) studies on the role of CHWs in referrals in Nepal, Malawi, Bangladesh, and Uganda. These studies showed that the CHVs were able to identify danger signs and conduct referrals mainly by providing referral notes while some accompanied the patients to the clinic. They also tracked the referrals with the facilities using the referral slips with feedback sections and counter-referrals using cell phones or written notifications. In addition to this, they also promoted referral compliance through counseling. Also supports the findings in this study [23]. In their study, CHWs were found to be key in linking community with the healthcare system; they identified pregnant mothers and referred them for antenatal care and deliveries; they provided referral slips which were also used to track and follow up referrals. These findings show that the CHVs are actively involved in referring pregnant mothers to the health facilities thereby creating a linkage between the community and health care system as well as creating demand for uptake of maternal healthcare services.

The study also showed that the CHVs were able to identify the pregnant women who were at term nearing delivery from the MCH booklet or alerts by the mothers in labor. There was no direct link between ANC and maternity through CHVs. Only the mothers with health concerns or high risk were attached to CHVs to ensure they delivered at the hospital. For the others, the CHVs would come in if they visited the mothers or if called that a mother is in labor, and in most cases, it would be too late or when the mothers had already delivered at home. On this question on the linkage by CHVs between ANC clinic and maternity, the study did not find similar studies at that time. Statistics on skilled delivery showed a discrepancy between mothers enrolled for ANC and those delivering at the hospital. In addition majority of mothers

coming for hospital, delivery arrived in or after the second stage of labor, which could be too late, indicating the need for linkage of term mothers and the maternity.

On defaulter tracing and follow-up, there were about 300 to 400 registered ANC mothers in every health post with a defaulting rate of 50-60%. This, in addition to results from the CHVs on ANC defaults, showed that the rate of default was very high. The study established that the CHVs were utilized to follow up the defaulting mothers. The CHVs were given details of the defaulters and they were going after them in the blocks and then send to the facility. Some would accompany the patients to the clinic. The CHVs received feedback from the facility on those who have reported and those still missing. The result of this intervention is that majority would go for four or more ANC clinic visits as indicated by the respondents. On follow-up, the clinics usually attach the mothers with chronic illnesses or generally mothers at risk to a CHV who would be sent to go and find out how they are doing especially when they skip an appointment.

Besides follow-up, the CHVs play an important intervention when mothers decline care like those who refuse blood transfusion; decline to consent for C/S; refuse admission or admitted, and then decide to abscond. Such cases were very common so the maternity utilized the CHVs to talk them into accepting the treatments. They would talk them into accepting the intervention and would go as far as involving the safe mothers, CHC, block leaders, and religious leaders to convince the mothers. Majority would accept early enough while a few delayed until it would be too late.

Conclusion

The CHVs conducted home visitations to the womens residents or in the blocks to provide various maternal health services. Most of the activities carried out by the CHVs such as education, birth plan assessment, follow up or defaulter tracing was implemented during these home visitations.

The study found a strong role in the linkage between the health system and community through identifying pregnant mothers for referral; tracing defaulters; following mothers at risk and intervening to help accept the lifesaving intervention such as blood transfusion and C/S. The study also found that the CHVs were not adequately involved by the ANC clinic after discharging mothers from the clinic to ensure all mothers discharged were followed till delivery to ensure skilled delivery.

The study has found that the CHVs are promoting maternal health care services in the community by implementing community-based interventions through the above roles in the Dadaab refugee camp. However, community maternal health care does not exist as a specific component with a framework to guide and monitor this important part of health care.

Recommendations

1. The study proposes an establishment of community maternal and neonatal health care as a component within Community Health or Reproductive Health programs or as a component of its own in the provision of maternal health care services to provide a framework within which can be implemented and monitored
2. The study suggests that the CHVs should be linked with the mothers when they are discharged from the ANC clinic for the follow-up to ensure they deliver at the hospital. It was found that the mothers are discharged from ANC and the CHVs would be called sometimes when it is too late or when the mother has delivered at home.

Suggestions for further Studies

1. The study determined the roles of the CHVs but not how effective they were in carrying out these roles. The study suggests that future research aimed at determining the effectiveness of using CHVs to deliver MHC services within the refugee camp
2. The study suggests implementation research on the Community Maternal and New-born Health package within a refugee set up through training CHVs on the CMNH package, supervision on its implementation, and be evaluated to determine how well they can implement CMNH in a refugee setting.

References

1. Dolea C (2009) Increasing access to health workers in remote and rural areas through improved retention. World Health Organization 2: 2-4.
2. OMS (2016) Global strategy on human resources for health: Workforce 2030. https://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf.
3. WHO (2018) Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting. www.who.int/reproductivehealth.
4. WHO (World Health Organization) (2010) Increasing access to health workers in remote and rural areas through improved retention Geneva Switzerland WHO (Internet). http://whqlibdoc.who.int/publications/2010/9789241564014_eng.pdf?ua=1.
5. WHO/PEPFAR/UNAIDS (2008) Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines. Geneva Switzerland WHO (Internet). http://apps.who.int/iris/bitstream/handle/10665/43821/9789241596312_eng.pdf?sequence=1&isAllowed=y.
6. WHO (World Health Organization) (2012) Optimizing health worker roles to improve access to key maternal and new-born health interventions through task shifting. Geneva Switzerland WHO (Internet). http://www.who.int/iris/bitstream/10665/77764/1/9789241504843_eng.pdf.
7. AMREF (2014) AMREF Position Statement on Community Health Workers, Position Statements. https://amref.org/position-statements/amref-health-africa-position-statement-on-community-health-workers/.
8. Shaw BI (2016) Perceived quality of care of community health worker and facility-based health worker management of pneumonia in children under 5 years in Western Kenya: A cross-sectional multidimensional study. American Journal of Tropical Medicine and Hygiene 94: 1170-1176.
9. Panday S, Bissell P, van Teijlingen E, Simkhada P (2017) the contribution of female community health volunteers (FCHVs) to maternity care in Nepal: a qualitative study. BMC Health Serv Res 17: 623.
10. Aboubaker S, Qazi S, Wolfheim C, Oyegoke A, Bahl R (2014) Community health workers: A crucial role in newborn health care and survival. J Glob Health 4: 020302.
11. Roodenkebe E, Aurelie Rouzaut, Fidele Bana (2011) Outreach services as a strategy to increase a ccess to health workers in remote and rural areas: Incresing Access to health workers in rural and remote areas. Swetzeland https://www.ncbi.nlm.nih.gov/books/NBK310729/.
12. Edmond KM, Khaksar Yousufi, Zelaikha Anwari, Sayed Masoud Sadat, Shah Mansoor Staniczai, et al. (2018) Can

community health worker home visiting improve care-seeking and maternal and newborn care practices in fragile states such as Afghanistan ? A population-based intervention study. BMC Medicine 16: 1-13.

13. Lassi ZS, Kumar R, Bhutta ZA (2016) Community-Based Care to Improve Maternal, Newborn, and Child Health. https://pubmed.ncbi.nlm.nih.gov/27227219/.
14. Ministry of Health (2007) Linking Communities with the Health System: The Kenya Essential Package for Health at Level 1. A Manual for Training Community Health Workers 3: 1-83.
15. Ministry of Health (2014) Kenya Health Sector Referral Strategy 2014-2018. Government of Kenya. http://www.cpc.unc.edu/measure/pima/referral-systems/referral-strategy-insert.
16. Baier K (2016) The Community Health Worker Model: A Grass-Roots Approach for Measles Prevention in Refugee Camps Save the Children, 2013. Facilitated Referral for New-borns with Danger Signs: The role of community health workers. https://www.healthynewbornnetwork.org/hnn-content/uploads/Role-of-CHWs-in-case-detection-and-referral_Final.pdf accesed on 31.07.2019.
17. UNHCR (United Nations High Commissioner for Refugees) (2007) Handbook for emergencies, Geneva Third Edition February. https://www.refworld.org/pdfid/46a9e29a2.pdf.
18. UNHCR (2016) Kenya comprehensive refugee program (KCRP) document 2016 https://reliefweb.int/sites/reliefweb.int/files/resources/2016-KCRP5.13fv.pdf.
19. AMREF (Africa medical research foundation) (2017) CHWs–A call for integration into the formal health workforce (Internet). https://amref.org/blog/chws-call-integration-formal-health-workforce/.
20. AMREF (Africa medical research foundation) (2018) Amrefs campaign for community health workers. (Internet). https://amref.org/dearminister/wp-content/uploads/2018/10/Dear-Minister-by-Community-Health-Workers.pdf.
21. Lema IA, Sando D, Magesa L, Machumi L, Mungure E, et al. (2014) Community health workers to improve antenatal care and PMTCT uptake in Dar es Salaam, Tanzania: a quantitative performance evaluation. J Acquir Immune Defic Syndr 67: S195-201.
22. Tripathi (2016) Home visits by community health workers to improve identification of serious illness and care seeking in newborns and young infants from low- and middle-income countries. Systematic Review. Journal of Perinatology 36: S73-S81.
23. Celso Give, Sozinho Ndima, Rosalind Steege, Hermen Ormel, Rosalind McCollum, et al. (2019) Strengthening referral systems in community health programs: a qualitative study in two rural districts of Maputo Province, Mozambique. BMC Health Services Research 19: 263.