

Original Research Article

Determinants of health data needs of community members in Nyando Sub-County, Kisumu, Kenya

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ABSTRACT

Background: Health data is key in healthcare. There exist gaps between the available data and data needs of the community members. The objective of this study was to establish the determinants of health data needs of community members in Nyando Sub-County, Kenya.

Methods: This was a 12-month interventional cohort study. 330 participants were selected a population of 1,200 using Yamane's formula. Chi-square test was used to determine association between categorical variables (health data needs of the participants and socio-demographic and economic variables). Cramér's Phi statistics indicated the strength of associations between categorical variables demonstrating significant associations at chi-square.

Results: The study established the existence of a significant association between gender and need for health data on prevention of malaria and health rights [chi-square; (χ^2), $p=0.0001$]. Similarly, marital status was significantly associated with need for health data on health rights ($p=0.011$), however, the association was weak; Cramér's Phi; Φ_c of 0.142. The results showed a significant association between gender and need for health data on disease outbreaks in all the assessed socio- demographic and economic features. Similarly, marital status was significantly associated with need for health data on psychosocial support ($p=0.001$), whereby the association was moderate; Cramér's Phi; Φ_c of 0.212.

Conclusions: In conclusion, the study revealed that the community members have health data needs some of which are unmet. Gender and age are key determinants on the type of health data needed by community members.

Keywords: Community, Data, Decision, Health, Needs

INTRODUCTION

Improving community health outcomes is a global agenda. It is anchored on the six building blocks of a health system which include: health service delivery; health workforce; health information system, access to essential medicines; health systems financing; leadership and governance.¹ Health information system is a necessity for any health system.² In Kenya, the community health strategy- "taking the essential package for health to the community, a strategy for the delivery of level one services"- is in use since 2006 and was revised in 2014 and 2020. The strategy emphasizes the community-based

approach as the mechanism through which households and communities take an active role in health and health-related development issues.³ Although its implementation has been faced by resource challenges, it prioritises community-based health information system (CBHIMS) as a tool to empower the community through collection and use of health data for decision making. Similarly, the use of the data is critical to understanding progress towards universal health coverage (UHC) and achieving Sustainable Development Goals in Kenya.⁴ The study established the health data needs of the community members in Nyando sub-county. Various studies define health data needs of community members with some

identifying health data needs in the context of reproductive health and clinical decision making.⁵⁻⁷ A study on data use for decision making in Ethiopia found that access to quality, timely and relevant data at each level of health systems can improve the efficiency and quality of healthcare delivery. Another study at Kenyatta National Hospital (KNH) on health data needs of healthcare providers established that increasing demand for health services is critical to the operations within the modern health service industry.⁸⁻¹⁰ However, identifying community health data needs and the determinants to help inform their daily decision making remains a challenge. Thus, the objective of this study was to establish the determinants of health data needs of community members in Nyando Sub-County, Kisumu, Kenya.

METHODS

This was a longitudinal interventional study (pre-post study) design study in Nyando-sub-County for a period of 12 months between 1st December 2021 and 30th November 2022. A cohort of community/households was selected at the start of the study with similar characteristics. The inclusion criteria included adults who were heads of households, residents of Nyando sub-county who gave informed consent and those who committed to stay continuously for at least one year in Nyando Sub-County during the time of the study. The exclusion criteria included: residents who had major disabling medical conditions at the time of the study hence were unable to cooperate and those who declined to participate in the study at any stage during the study.

Baseline data was collected to establish the community's health data needs, which also informed the design of a behaviour change intervention on data use for decision making and monitored for 12 months.

Sampling was statistically determined from a population of 1,200 households using Yamane's formula giving a sample of size of 363 households; and a confidence coefficient of 95%.⁹

$$n = \frac{N}{1+N(e)^2}$$

n= Sample size

N = The size of the population

e = Level of precision (error margin) = 0.05

1 = Unity (constant)

A reliability coefficient of at least 0.80 was acceptable.¹⁰ Systematic random sampling was used for the study. Key informants for the study were selected through purposive sampling using a criterion. Both quantitative and qualitative data were collected. Quantitative data on

various health needs of the participants were analyzed using both descriptive and inferential statistics. For descriptive statistics, frequencies and proportions were used to summarize the various health needs of the participants. For inferential statistics, Pearson chi-square test was used to determine association between categorical variables (health information needs of the participants and socio-demographic and economic variables). Binary logistic regression was used to derive odds ratio (OR) indicated the strength of associations between categorical variables demonstrating significant associations at chi-square. In addition, Pearson Chi-square was further used to analyse the association between participant's health data needs and health data received state and non-state actors. Binary logistic regression was used to derive odds ratio (OR) indicated the strength of associations between categorical variables demonstrating significant associations at chi-square. Statistical significance was determined at $\alpha \leq 0.05$. Qualitative data was triangulated with quantitative data to enhance validity and reliability of findings. Thematic content analysis was used to "make replicable and valid inferences from data to their context".¹¹ For inferential statistics, Pearson chi-square test was used to determine association between categorical variables; and Cramér's Phi statistics to indicate strength of associations between categorical variables. Statistical significance was determined at $\alpha \leq 0.05$.

Ethical approval was obtained from the Maseno University School of Graduate Studies, Maseno University ethics review committee and the National Commission for Science, Technology and Innovation.

RESULTS

A total of 330 of the targeted 363 respondents (90% response rate) participated in the study with 258 (78.2%) and 72 (21.8%) being female and male respectively. Majority, 118 (34.8%) were aged 31-40 years and only 5.2 were aged above 60 years. A total of 313 (94.8%) of the participants reported that they were married. On education, more than average, 195 (59.1%) had completed primary school, 122 (37.0%) had completed secondary school with only 13 (3.9%) having not completed primary school. The mean number of children in the participants households was 4.9 ± 0.832 children.

At baseline 153 (46.4%) the respondents reported that they had received the following services from state and non-state actors implementing community based initiatives in Nyando Sub-county: health awareness services, 228 (69.1%) received trainings, 160 (48.5%) received economic empowerment services, 184 (55.8%) received educational awareness services, none (0.0%) received orphan support service, 227 (68.8%) were accorded sanitation and hygiene support, none (0.0%) received HIV and AIDS support, and 59 (17.9%) received commodity support (food and uninform) services.

Table 1: Association between gender and need for health data on prevention of malaria and other diseases.

HDN: Prevention of malaria and other diseases						
Characteristics	Yes (n=61) (%)	No (n=269) (%)	Total (n=330) (%)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	10 (3.0)	66 (20.0)	76 (23.0)	5.821	0.213	0.133
31-40	23 (7.0)	95 (28.8)	118 (35.8)			
41-50	9 (2.7)	56 (17.0)	65 (19.7)			
51-60	15 (4.5)	39 (11.8)	54 (16.4)			
Above 60	4 (1.2)	13 (3.9)	17 (5.2)			
Gender						
Male	34 (10.3)	38 (11.5)	72 (21.8)	50.474	0.0001*	0.391*
Female	27 (8.2)	231 (70.0)	258 (78.2)			
Marital status						
Married	53 (16.1)	260 (78.8)	313 (94.8)	14.402	0.001*	0.209*
Single	3 (0.9)	7 (2.1)	10 (3.0)			
Separated	5 (1.5)	2 (0.7)	7 (2.1)			
Education						
Under primary	2 (0.6)	11 (3.3)	13 (3.9)	0.344	0.842	0.032
Primary	38 (11.5)	157 (47.6)	195 (59.1)			
Secondary	21 (6.4)	101 (30.6)	122 (37.0)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient.**Table 2: Association between gender and need for health data on cost of treatment.**

HDN: Cost of treatment						
Characteristics	Yes (n=61) (%)	No (n=269) (%)	Total (n=330) (%)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	52 (15.8)	24 (7.3)	76 (23.0)	8.268	0.082	0.158
31-40	67 (20.3)	51 (15.5)	118 (35.8)			
41-50	43 (13.0)	22 (6.7)	65 (19.7)			
51-60	25 (7.6)	29 (8.8)	54 (16.4)			
Above 60	9 (2.7)	8 (6.0)	17 (5.2)			
Gender						
Male	31 (9.4)	41 (12.4)	72 (21.8)	10.193	0.001*	0.176*
Female	165 (50.0)	93 (28.2)	258 (78.2)			
Marital status						
Married	191 (57.9)	122 (37.0)	313 (94.8)	6.684	0.035*	0.142*
Single	3 (0.9)	7 (2.1)	10 (3.0)			
Separated	2 (0.7)	5 (1.5)	7 (2.1)			
Education level						
Under primary	7 (2.1)	6 (1.8)	13 (3.9)	0.587	0.746	0.042
Primary	119 (36.1)	76 (23.0)	195 (59.1)			
Secondary	70 (21.2)	52 (15.8)	122 (37.0)			
Religion						
Protestant	155 (47.0)	105 (31.8)	260 (78.8)	0.558	0.757	0.041
Catholic	36 (10.9)	27 (8.2)	63 (19.1)			
Others	5 (1.5)	2 (0.6)	7 (2.1)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient

In regards to health data needs, none of the participants needed information on; HIV and AIDS prevention, care, and support, tuberculosis (TB) prevention and management, water hygiene and sanitation (WASH), service availability and accessibility, and orphans and vulnerable children (OVC) care and support. On the other

hand, 61 (18.5%) needed health data on prevention of malaria and other diseases, 196 (59.4%) needed data on cost of treatment, 272 (82.4%) needed data on health rights, 118 (35.8%) desired data on immunization, 107 (32.4%) needed data on updates regarding disease outbreak.

Table 3: Association between gender and need for health data on health rights.

HDN: Family planning						
Characteristics	Yes (n=61) (%)	No (n=269) (%)	Total (n=330) (%)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	1 (0.3)	75 (22.7)	76 (23.0)	5.457	0.244	0.129
31-40	1 (0.3)	117 (35.5)	118 (35.8)			
41-50	0 (0.0)	65 (19.7)	65 (19.7)			
51-60	44 (13.3)	10 (3.0)	54 (16.4)			
Above 60	14 (4.2)	3 (0.9)	17 (5.2)			
Gender						
Male	39 (11.8)	33 (10.0)	72 (21.8)	50.761	0.0001*	0.392*
Female	233 (70.6)	25 (7.6)	258 (78.2)			
Marital status						
Married	262 (79.4)	51 (15.5)	313 (94.8)	8.985	0.011*	0.165*
Single	7 (2.1)	3 (0.9)	10 (3.0)			
Separated	3 (0.9)	4 (1.2)	7 (2.1)			
Education level						
Under primary	11 (3.3)	2 (0.6)	13 (3.9)	0.644	0.725	0.044
Primary	158 (47.9)	37 (11.2)	195 (59.1)			
Secondary	103 (31.2)	19 (5.8)	122 (37.0)			
Religion						
Protestant	215 (65.2)	45 (13.6)	260 (78.8)	0.598	0.742	0.043
Catholic	52 (15.8)	11 (3.3)	63 (19.1)			
Others	5 (1.5)	2 (0.6)	7 (2.1)			
Income						
Employed	226 (68.5)	41 (12.4)	267 (80.9)	6.148	0.046*	0.136*
Farming	6 (1.8)	4 (1.2)	10 (3.0)			
Business	40 (12.1)	13 (3.9)	53 (16.1)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient**Table 4: Association between gender and need for health data on immunization.**

HDN: Immunization						
Characteristics	Yes (n=61) (%)	No (n=269) (%)	Total (n=330) (%)	χ^2	P value	Cramér's Phi; Φ_c
Age						
18-31	28 (8.5)	48 (14.5)	76 (23.0)	4.167	0.384	0.112
31-40	40 (12.1)	78 (23.6)	118 (35.8)			
41-50	28 (8.5)	37 (11.2)	65 (19.7)			
51-60	19 (5.8)	35 (10.6)	54 (16.4)			
Above 60	3 (0.9)	14 (4.2)	17 (5.2)			
Gender						
Male	11 (3.3)	61 (18.5)	72 (21.8)	16.815	0.0001*	0.226*
Female	107 (32.4)	151 (45.8)	258 (78.2)			
Marital status						
Married	113 (34.2)	200 (60.6)	313 (94.8)	0.318	0.853	0.031
Single	3 (0.9)	7 (2.1)	10 (3.0)			
Separated	2 (0.6)	5 (1.5)	7 (2.1)			
Education						
Under primary	6 (1.8)	7 (2.1)	13 (3.9)	2.653	0.265	0.090
Primary	63 (19.1)	132 (40.0)	195 (59.1)			
Secondary	49 (14.8)	73 (22.1)	122 (37.0)			
Religion						
Protestant	94 (28.5)	166 (50.3)	260 (78.8)	4.064	0.131	0.111
Catholic	24 (7.3)	39 (11.8)	63 (19.1)			
Others	0 (0.0)	7 (2.1)	7 (2.1)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient

Table 5: Association between gender and need for health data on disease outbreaks.

HDN: Disease outbreak updates						
Characteristics	Yes (n=61) (%)	No (n=269) (%)	Total (n=330) (%)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	23 (7.0)	53 (16.1)	76 (23.0)	4.732	0.316	0.120
31-40	40 (12.1)	78 (23.6)	118 (35.8)			
41-50	17 (5.2)	48 (14.5)	65 (19.7)			
51-60	18 (5.5)	36 (10.9)	54 (16.4)			
Above 60	9 (2.7)	8 (2.4)	17 (5.2)			
Gender						
Male	29 (8.8)	43 (13.0)	72 (21.8)	2.592	0.107	0.089
Female	78 (23.6)	180 (54.5)	258 (78.2)			
Marital status						
Married	98 (29.7)	215 (65.2)	313 (94.8)	5.300	0.071	0.127
Single	4 (1.2)	6 (1.8)	10 (3.0)			
Separated	5 (1.5)	2 (0.6)	7 (2.1)			
Education						
Under primary	3 (0.9)	10 (3.0)	13 (3.9)	1.096	0.578	0.058
Primary	67 (20.3)	128 (38.8)	195 (59.1)			
Secondary	37 (11.2)	85 (25.8)	122 (37.0)			
Religion						
Protestant	81 (24.5)	179 (54.2)	260 (78.8)	1.019	0.601	0.056
Catholic	23 (7.0)	40 (12.1)	63 (19.1)			
Others	3 (0.9)	4 (1.2)	7 (2.1)			

HDN: Health Information Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient**Table 6: Association between age categories and need for health information on management of chronic diseases.**

HDN: Management of chronic diseases (cancer and diabetes)						
Characteristics	Yes (n=61)	No (n=269)	Total (n=330)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	29 (8.8)	47 (14.2)	76 (23.0)	12.648	0.013*	0.196*
31-40	45 (13.6)	73 (22.1)	118 (35.8)			
41-50	16 (4.8)	49 (14.8)	65 (19.7)			
51-60	21 (6.4)	33(10.0)	54 (16.4)			
Above 60	12 (3.6)	5 (1.5)	17 (5.2)			
Gender						
Male	46 (13.9)	26 (7.9)	72 (21.8)	27.904	0.0001*	0.291*
Female	77 (23.3)	181 (54.8)	258 (78.2)			
Marital status						
Married	114 (34.5)	199 (60.3)	313 (94.8)	3.622	0.164	0.105
Single	4 (1.2)	6 (1.8)	10 (3.0)			
Separated	5 (1.5)	2 (0.7)	7 (2.1)			
Education level						
Under primary	4 (1.2)	9 (2.7)	13 (3.9)	0.691	0.708	0.046
Primary	76 (23.0)	119 (36.1)	195 (59.1)			
Secondary	43 (13.0)	79 (23.9)	122 (37.0)			
Religion						
Protestant	94 (28.5)	166 (50.3)	260 (78.8)	1.478	0.478	0.067
Catholic	25 (7.6)	38 (11.5)	63 (19.1)			
Others	4 (1.2)	3 (0.9)	7 (2.1)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient, (%).

Table 7: Association between gender categories and need for health information on psychosocial support.

HDN: Psychosocial support						
Characteristics	Yes (n=61)	No (n=269)	Total (n=330)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	11 (3.3)	65 (19.7)	76 (23.0)	4.045	0.400	0.111
31-40	22 (6.7)	96 (29.1)	118 (35.8)			
41-50	9 (2.7)	56 (17.0)	65 (19.7)			
51-60	14 (4.2)	40 (12.1)	54 (16.4)			
Above 60	4 (1.2)	13 (3.9)	17 (5.2)			
Gender						
Male	33 (10.0)	39 (11.8)	72 (21.8)	47.334	0.0001*	0.379*
Female	27 (8.2)	231 (70.0)	258 (78.2)			
Marital status						
Married	52 (15.8)	261 (79.1)	313 (94.8)	14.798	0.001*	0.212*
Single	3 (0.9)	7 (2.1)	10 (3.0)			
Separated	5 (1.5)	2 (0.7)	7 (2.1)			
Education level						
Under primary	2 (0.6)	11 (3.3)	13 (3.9)	0.228	0.892	0.026
Primary	37 (11.2)	158 (47.9)	195 (59.1)			
Secondary	21 (6.4)	101 (30.6)	122 (37.0)			
Religion						
Protestant	46 (13.9)	214 (64.8)	260 (78.8)	0.582	0.748	0.042
Catholic	12 (3.6)	51 (15.5)	63 (19.1)			
Others	2 (0.6)	5 (1.5)	7 (2.1)			

HDN: Health Data Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient, (%).**Table 8: Association between age categories and need for health data on family planning.**

HIN: Family planning						
Characteristics	Yes (n=61)	No (n=269)	Total (n=330)	χ^2	P value	Cramér's Phi; Φ_c
Age (in years)						
18-31	1 (0.3)	75 (22.7)	76 (23.0)	245.319	0.0001*	0.862*
31-40	1 (0.3)	117 (35.5)	118 (35.8)			
41-50	0 (0.0)	65 (19.7)	65 (19.7)			
51-60	44 (13.3)	10 (3.0)	54 (16.4)			
Above 60	14 (4.2)	3 (0.9)	17 (5.2)			
Gender						
Male	14 (4.2)	58 (17.6)	72 (21.8)	0.099	0.753	0.017
Female	46 (13.9)	212 (64.2)	258 (78.2)			
Marital status						
Married	57 (17.3)	256 (77.6)	313 (94.8)	0.094	0.954	0.017
Single	2 (0.6)	8 (2.4)	10 (3.0)			
Separated	1 (0.3)	6 (1.8)	7 (2.1)			
Education level						
Under primary	2 (0.6)	11 (3.3)	13 (3.9)	0.080	0.961	0.016
Primary	36 (10.9)	159 (48.2)	195 (59.1)			
Secondary	22 (6.7)	100 (30.3)	122 (37.0)			
Religion						
Protestant	48 (14.5)	212 (64.2)	260 (78.8)	0.107	0.948	0.018
Catholic	11 (3.3)	52 (15.8)	63 (19.1)			
Others	1 (0.3)	6 (1.8)	7 (2.1)			

HIN: Health Information Need, *significant Pearson chi-square test, *Cramér's Phi (Φ_c) coefficient

We have many partners working in this area especially in HIV/AIDS. We received this information. However, we need more information on treatment, and WASH because of the floods (KII1, Nyando sub county hospital).

As shown in Table 1, the study established the existence of a significant association between gender and need for health data on prevention of malaria and other diseases [chi-square; (χ^2), $p=0.0001$, Cramér's Phi; Φ_c of 0.391]. Similarly, marital status was significantly associated with need for health data on prevention of malaria and other diseases ($p=0.001$), whereby the association was moderate as evidenced by a Cramér's Phi; Φ_c of 0.209.

As shown in Table 2, the study established the existence of a significant association between gender and need for health data on cost of treatment ($p=0.001$, Cramér's Phi; Φ_c of 0.176). Similarly, marital status was significantly associated with need for health data on cost of treatment ($p=0.035$, Cramér's Phi; Φ_c of 0.142).

As shown in Table 3, the study established the existence of a significant association between gender and need for health data on health rights ($p=0.0001$), whereby the association was strong; Cramér's Phi; Φ_c of 0.392. Similarly, marital status was significantly associated with need for health data on health rights ($p=0.011$), however, the association was weak; Cramér's Phi; Φ_c of 0.142.

As shown in Table 4, the study established the existence of a significant association between gender and need for health data on immunization ($p=0.0001$), however, the association was weak; Cramér's Phi; Φ_c of 0.226.

As shown in Table 5, the study established the existence of a significant association between gender and need for health data on disease outbreaks all the assessed socio-demographic and economic features.

As shown in Table 6, the study established the existence of a significant association between age categories and need for health information on management of chronic diseases; cancer and diabetes ($p=0.013$), however, whereby the association was moderate; Cramér's Phi; Φ_c of 0.196.

As shown in Table 8, the study established the existence of a significant association between age categories and need for health data on family planning ($p=0.0001$), whereby the association was strong; Cramér's Phi; Φ_c of 0.862.

DISCUSSION

Majority of the participants, who were also caregivers were female 258 (78.2%), which coincides with the study by Kanini et al and by Katana et al, that majority of caregiving is provided by women, 5 respectively.^{12,13} This means women indispensable service providers that need to be prioritized in community level health programming.

The study shows that 182 (55.1%) of the participants were widows which was contributed by the programme beneficiary enrolment criteria that considered vulnerability of the programme beneficiaries, prioritizing widows that provided care to orphans and vulnerable children.¹⁴

Community health workers, health facilities and community gatherings were the key sources of health data in Nyando sub-county. They are the front runners in mobilizing community members to participate and own their health; while positioning them as key actors of primary healthcare as originally intended by the Alma Ata Declaration in 1978.^{14,15} State and non-state actors staff were also other key sources of information enabling them to better understand the community health data needs.

Participants received different services from state and non-state actors. These, although they were integrated in programmes, they were in line with views by Pakenham-Walsh that community level interventions consider provision of community level services for all that includes strengthening their capacities and strengthening their linkages with the health facilities to achieve the accessible and quality care.¹⁶

A study by AMREF cautions that organizations should not provide data to communities if they do not need it.¹⁴ This may pose a challenge in ownership or overloading the community with health data or cause confusions. Understanding their needs before interventions will reduce the chances for this to occur.

The interventions by state and non-state actors on strengthening the community, community health providers were possible by first establishing the health data needs. Baseline data showed there was evident health data needs compared to the data provided by these actors.

The results show that understanding the needs of the community provides the opportunity to understand: their preferences and when and how to provide the health data, enables in the prioritizing of community needs and their respective responses.¹⁷

While the study brings forth key determinants, a case control study is recommended for the further study.

CONCLUSION

In conclusion, participants received health data they needed in HIV/AIDS awareness and orphans and vulnerable children. However, there were unmet health data needs in water sanitation and hygiene, health rights, family planning, management of chronic health conditions, malaria prevention and the types of health services available; and HIV/AIDS treatment costs. Age of the participants was highly associated with the health data they needed.

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REFERENCES

1. WHO. Monitoring the building blocks of health systems: A handbook of indicators and their measurement strategies. Geneva: WHO; 2020. Available at: <https://iris.who.int/bitstream/handle/10665/258734/9789241564052-eng.pdf>. Accessed on 17th May 2024.
2. Koumamba AP, Bisvigou UJ, Ngoungou EB, Diallo G. Health information systems in developing countries: case of African countries. *BMC Med Inform Dec Mak*. 2021;21(1):232.
3. Ministry of Health. Kenya Community Health Strategy 2020-2025. 3rd Ed Edition; 2020. Available at: https://chwcentral.org/wp-content/uploads/2021/07/Kenya_Nat'l_Community_Health_Strategy_2020-2025.pdf. Accessed on 14th May 2024.
4. Regeru RN, Chikaphupha K, Bruce Kumar M, Otiso L, Taegtmeyer M. 'Do you trust those data?'- a mixed-methods study assessing the quality of data reported by community health workers in Kenya and Malaw'i. *Health Policy Plan*. 2020;35(3):334-45.
5. March MA, Vaikosen HA, Akporoghene EA. Information needs and seeking behaviour of nurses at Rivers state university teaching hospital (RSUTH), Port-Harcourt. *Inform Impact J Inform Knowledge Manage*. 2020;11(3):63-74.
6. Gama LC, Chawinga WD, Chipeta GT. Information needs and sources of health professionals in Malawi. *Health Inform Libr J*. 2024;41(4):404-17.
7. Sadeghi H, Nowkarizi M, Tajafari M. Information needs, sources and seeking behaviour of physicians and residents during clinical decision-making and patient care process: a qualitative study. *Inform Develop*. 2025;41(2):403-16.
8. March MA, Vaikosen HA, Akporoghene EA. Information needs and seeking behaviour of nurses at Rivers state university teaching hospital (RSUTH), Port-Harcourt. *Inform Impact J Inform Knowledge Manage*. 2020;11(3):63-74.
9. Madukwe AI, Osonwa JO. Information needs and seeking behaviors of communal frontline health workers in Anambra State. *Lib Phil Pract*. 2021;1A-20.
10. Tilahun B, Teklu A, Mancuso A, Endehabtu BF, Gashu KD, Mekonnen ZA. Using health data for decision-making at each level of the health system to achieve universal health coverage in Ethiopia: the case of an immunization programme in a low-resource setting. *Health Res Polic Syst*. 2021;19(Suppl 2):48.
11. Oreni KB, Andre Y, Otieno OG, Iwaret OM. Data Quality in Health Management Information Systems at Kenyatta National Hospital in Nairobi City County, Kenya: influence of technological factors. *Issue 3 Ser. I*. 2021;10.
12. Karijo EK. Determinants of utilization of routine data for decision making in health facilities in Kitui County, Kenya. University of Nairobi; 2014.
13. Katana V. A Caregiver's manual for being prepared for that call in the night. LinkedIn. 2017. Available at: <https://www.linkedin.com/pulse/caregivers-manual-being-prepared-call-night-katana-abbott-cfp-csa/>. Accessed on 10th May 2024.
14. Omega Foundation. (2015). Quarterly Report to Comic Relief April 2015. Omega Foundation. 2015.
15. AMREF. Community Based Health Management Information Systems. Nairobi: Africa Medical and Research Foundation; 2012. Available from: <https://amref.org/wp-content/uploads/2017/05/Annual-Report-2012.pdf>. Accessed on 22 December 2024.
16. WHO. Declaration of Alma-Ata. Geneva. World Health Organisation; 2019. Available at: <https://www.who.int/publications/i/item/declaration-of-alma-ata>. Accessed on 14th May 2024.
17. Pakenham-Walsh N, Bukachi F. Information needs of health care workers in developing countries: a literature review with a focus on Africa. *Hum Res Health*. 2009;7(1):30.

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