

Original Research Article

Understanding the Context of Healthcare Access among the Elderly in Informal Settlement Kibera, Nairobi, Kenya

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ABSTRACT

Access to healthcare is fundamental to health. Access is the ability to get the required medical care from the health service providers when in need. The proportion of the elderly is increasing rapidly in informal settlement, Kenya. This comes up with many health problems. Whether the healthcare is prepared to take care of this elderly has not been extensively investigated. This was a descriptive cross-sectional study, targeting both elderly men and women aged 60 years and over, in Kibera informal settlement of Kenya, to identify enabling factors of access to healthcare by the elderly. The study adopted a mixed method approach encompassing qualitative and quantitative methods and multistage sampling approach based on probability proportional to size while at the village level sampling was systematic. Quantitative data was analyzed using Statistical Package for the Social Sciences version 20.0 while Manifest content analysis was used for qualitative data. The study found that access to healthcare services was low (40.4 %). Marital status, type of house, education were statistically significant in relation to access. The odds of access increased with those who lived in permanent houses (OR: 30.699, 95% CI 1.827-515.927 P<0.017) when compared against those who lived in temporary houses. Availability of equipment & drugs, services at level one, and perception of healthcare services were significantly. The likelihoods of access increased among those who had never experienced lack of equipment (OR 0.093, 95% CI -0.017-0.503), P value=0.006) against those who were regularly affected. The odds of access decreased among those who had never been served by Community Health Worker (OR 4.467, 95% CI (1.164-17.146), P value=0.029) and those served occasional (OR 3.757, 95% CI (1.096-12.878), P value=0.035) compared to those regularly by CHWs. The findings denote availability and acceptability as major challenge to access of healthcare among the elderly. Friendly policy and services framework need to be developed to mitigate availability and acceptability concerns. Special and/or additional training for health workers in the area of geriatric health is paramount.

Key words: Healthcare access, elderly people.

INTRODUCTION

Access to health care is fundamental to health and a major issue among the elderly whose globally population has been increasing at an alarming rate. ⁽¹⁾ The elderly is cohort five

(60+) years. The global annual growth rate of the older population was 2.6 per cent compared to 1.2 per of the total population in 2005-2010. ⁽²⁾ Projections suggest that the annual net gain will continue to exceed 10 million over the next decade which is

more than 850,000 each month. ⁽³⁾ By 2025-2030, projections indicate that the population aged 60 or over will be growing about 4 times as rapidly as the total population, at an annual growth rate of 2.8 per cent compared to 0.7 per cent for the total population. ⁽⁴⁾ The trend is replicated in urban areas of less developed regions. For example, in 2005, more than half (51.5 per cent) of the world's older population lived in urban areas while in developing countries over one fourth of older persons (25%) lived in the urban areas. ⁽⁴⁾ In Kenya, the number of elderly people has grown rapidly from 385,000 in 1950, ⁽³⁾ to about 1,396,125 ⁽⁵⁾ in 2010. With the current population growth rate of 2.6% annually the total elderly population by 2030 will be 3,473,000. ⁽⁴⁾ Kibera an area characterized by lack of access to basic services, like the rest of Peri urban/slum areas in developing countries hosts' majority of the senior residents in Kenya. ⁽⁶⁾

Disparity in access to health care among elderly Kenyans is less well documented and mostly likely to report having unmet health care needs than the rest of the population. ⁽⁷⁾ Like the rest of World, Kenya adopted the Madrid International Plan of Action on Ageing, during the Second World Assembly. The Plan focuses on three priority areas: older persons and development; advancing health and well-being into old age; and ensuring enabling and supportive environments. ⁽⁸⁾ This was domesticated through National Health sector Strategic Plan 2 (2005-2012) and the draft Kenya health strategic and investment plan (2013-2017). ⁽⁹⁾ Kenya health sector strategic and investment plan adopts a broader approach that entails moving from the emphasis on disease burden to the promotion of healthy life styles of individuals, with attention to the various stages in the human life cycle. The health services received by the elderly in Kenya today are part of the standard services provided for the all life cohort, without strategic attention to geriatric

health requirements including physical, social and emotional needs. Whether the healthcare is prepared to take care of the elderly has not been extensively investigated. ^(10, 11) The available studies such as Ladha *et al*, Paxton, Waweru *et al*, conducted in Kenya, South Africa and Pakistan respectively focused on finance, family support, physical inaccessibility of health service providers and trained health personnel has the major factors deterring older people from seeking healthcare services. ⁽¹²⁻¹⁴⁾ However limited studies have assessed the role of institutional factors in access of health care among the elderly. ⁽¹⁵⁾ This study explored the role of institutional factors has a fundamental pathway to access of health services among the elderly.

MATERIALS AND METHODS

The study adopted a population based descriptive cross-sectional design and mixed method approach encompassing qualitative and quantitative methods The study was conducted in Kibera sub county of Nairobi, Kenya. Kibera is the largest slum in Kenya, and the second largest urban slum in Africa. It is situated 5 kilometers from the city centre. The 2009, Kenya Population and Housing Census reports that Kibera's elderly population was 170,070. ⁽⁷⁾ The inclusion criteria for the survey were mental stable elderly people and had lived in Kibera slums for at least one year preceding the study. Multi-stage sampling method was applied to select participating units starting with division, locations then sub-locations. Fishers *et al.*, formula guided the sample size. ⁽¹⁶⁾ Systematic random sampling using sampling frame adopted from ministry of planning-Kibera office was used at household level to select participating clients. The study participants were 399 who were aged 60 years or older.

Access is a broad term with different dimensions and many factors combine together to affect the access of health care service among individuals and

communities. Whether people have access to healthcare services or not, is determined by their circumstances and environment. According to Reibling, little agreement has been reached on how to define access. There are two models of investigating access of health care. ⁽¹⁷⁾ Medical sociological approaches analyze care-seeking behaviour of individuals while comparative studies assess characteristic of health care systems that determine access. ⁽¹⁷⁾ The debate is centered between potential access which is individual and institutional factors enhancing the potential of access and realized access which is factual utilization. This study embraced the former and a composite variable (access) was developed from three World Health Organization, health service factors; availability, affordability and acceptability. ⁽⁸⁾

Data analysis

Quantitative data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20.0. The results are reported descriptively and inferentially with an alpha value of 0.05. Unadjusted models for each factor and a model containing all of the variables together to evaluate independent associations were computed. Odds ratios (ORs) and 95% confidence intervals (CIs) for all models were reported. Manifest content analysis was used for qualitative data by merging codes from key emerging issues to categories then to themes from which conclusion and generalization were formulated reflecting on the study objectives.

RESULTS

Extent of access to healthcare by the elderly

The results are derived from 399 respondents. Of these 229 (57.4%) were male, 231 (57.9%). married, 229 (57.4%) educated while 31 (7.8%) were still on professional employment and only 14 (3.6%) lived in permanent houses. Cumulatively, the access rate of health care services among the elderly was 40.4%. The healthcare services were affordable 330 (82.7%) but unavailable 355 (89.0%) and unacceptable 239 (59.9%). This finding on availability and acceptability of services was corroborated by qualitative finding which established that there are no specific service tailored made for senior citizen. One KII informant candidly commented “*Well as you may know this is a general facility, we strive to serve all Kenyans subject to resources. There is no services specifically designed for the elderly but we serve them with great humility and decorum*”. Another KII informant echoed this sentiments- *This is a public facility, my staff serve indiscriminately however the elderly deserve unique attention which are out of our scope due to competing demands.*

Predisposing Characteristics and enable variables

Age, gender, marital status and number of children as demographical variables were not significantly associated with access. However, level of education ($\chi^2=9.517$, $df=3$ $p=0.023$) and type of house ($\chi^2=7.069$, $df=2$ $p=0.029$) as economic traits were statistically significant while occupation was not. The likelihood of access increased with those who lived in permanent houses (OR: 30.699, 95% CI 1.827-515.927 $P<0.017$) compared to those who lived in temporary houses.

Table 1: Type of house in relation to access

Demographic factors	Access to health care (n=399)		Multinomial analysis	
	Yes n (%)	No (%)	OR (95% C.I.)	P value
Type of house				
Permanent	4 (28.6)	10 (71.4)	30.699(1.827-515.927)	0.017
Semi-permanent	30 (34.1)	58 (65.9)	2.880 (0.899-9.232)	0.075
Temporarily	121 (40.7)	176 (59.3)	Reference	

Abbreviations: n, total number of respondents; CI, confidence interval; *Column percentages; OR, odds ratio; Significant odds ratio values (unadjusted) in bold

Against 399 respondents, 30 (7.5%) were very satisfied with the healthcare services they received, 131 (32.8%) satisfied, 131 (32.8%) dissatisfied, 69 (17.3%) indifferent and 38 (9.5%) strongly dissatisfied. Perception of received health care services was significantly ($\chi^2=257.326$, $df=4$ $p<0.001$) at bivariate level when exposed to multinomial analysis, respondents who were very satisfied and satisfied were associated with access {unadjusted OR 0.008, 95% CI (0.001-0.091), p value=0.000 and OR 0.005, 95% CI (0.001-0.026), P value=0.000} compared to the indifferent respondents. Similar results were reported with respondents' satisfaction with the health worker providing the services ($\chi^2=117.383$, $df=4$ $p<0.001$) however the parameters were indifferent at multinomial analysis. The World health report 2006: working together for health recognizes shortages of professional health workers as one of the key ingredients in the growing

human resource crisis, particularly in low-income countries. The report advocates for a review and subsequent delegation of tasks to the "lowest" category who can perform them successfully and it is in this context that the concept of using community health workers (CHWs) has gained momentum (8). A CHW is designed to provide basic health service; promotive, preventive and simple curative services to the community. The current study aimed to assess the role of this group of health workers in facilitating basic health care services to the elderly. The contribution of CHWs was well documented in this study captioned by one administrator who said "The role and contribution of CHWs cannot be overemphasized, since their enrolment we have witnessed tremendous changes in health indicators in this community. However, they have no clear defined role in provision of service to the elder".

Table 2: Perception of Health care services and health workers provider

	Access to health care services (n=399)		Multinomial analysis	
	Yes n (%)	No n (%)	OR (95% C.I.)	P value
Satisfied with h/care services				
Very satisfied	28 (93.1)	2 (6.7)	0.008 (0.001-0.091)	0.000
Satisfied	114 (87.0)	17 (13.0)	0.005 (0.001-0.026)	0.000
Dissatisfied	9 (6.9)	122 (93.1)	2.339 (0.527-10.383)	0.264
Very dissatisfied	4 (10.5)	34 (89.5)	2.018 (0.288-14.122)	0.479
Neither	6 (8.7)	63 (91.3)	Reference	
Services by CHWs				
None	37 (29.6)	88 (70.4)	4.467 (1.164-17.146)	0.029
Sometimes	93 (44.3)	117 (55.7)	3.757(1.096-12.878)	0.035
Regularly	31 (48.4)	33 (51.6)	Reference	
Equipment				
None	93 (60.4)	61 (39.6)	0.093 (0.017-0.503)	0.006
Rarely	56 (33.9)	109 (66.1)	0.217 (0.044-1.077)	0.062
Regularly	12 (15.0)	68 (85.0)	Reference	

Abbreviations: n, total number of respondents; CI, confidence interval; *Column percentages; OR, odds ratio; Significant odds ratio values (unadjusted) in bold

CHW services to the elderly was high, 274 (68.6%) respondents reported to have been served by CHWs however the frequency varied, with 201 (52.6%) served occasionally and 64 (16%) regularly. Services by CHWs was significant ($\chi^2=9.092$, $df=2$ $p<0.011$) in relation to access. The odds of access decreased among have never been served by CHW (OR 4.467, 95% CI (1.164-17.146), P value=0.029) and those served occasional

(OR 3.757, 95% CI (1.096-12.878), P value=0.035) against those regularly by CHWs. The average distance to health facility was 1-2 kilometers. Proximity to health facility was significantly associated with access ($\chi^2=4.442$, $df=2$ $p=0.0108$). Lack of equipment was a major element to access. Significant number of respondent 145 (61.4%) said they missed treatment due to nonexistence of equipment. Equipment was statistical significant

($\chi^2=48.871$, $df=2$ $p<0.001$). The odds of access increased among those who have never been experienced by lack of equipment (OR 0.093, 95% CI -0.017-0.503), P value=0.006) against those who were regularly affected. Similar results were reported in qualitative study. For example, One KII candidly commented....” *This is government facility; we rely on government supply which is dogged with a lot of bureaucracy. This means that we offer services limited to the resources available.*

Drugs availability was commonly reported in this study 290 (72.7%) and this was statistical significant ($\chi^2=39.031$, $df=2$ $p<0.001$) but indifferent at multinomial regression. This finding agrees with

qualitative study which was crowned by a KII candidly who commented....”*The hospital has limited drug supply; this is due to inconsistent supply by Kenya medical supply agency*”. Public facility was the facility choice by many 304 (76.2%). The choice of facility ($\chi^2=11.051$ $df=3$ $p=0.011$) and the predisposing reason were significant ($\chi^2=11.943$ $df=3$, $P=0.008$), so was, reasons for seeking medical attention for a particular condition ($\chi^2=11.0$, $df=3$ $p=0.008$).The odds of seeking services due to affordability, was high {unadjusted OR 14.758, 95% CI 1.533-142.259, p values =0.020} against those seeking treatment due to payment system.

Table 3: Reason for seeking treatment Multinomial analysis

	Accessible to health care services (n=399)		Multinomial analysis	
	Yes n (%)	No n (%)	OR (95% C.I.)	P value
Reasons for specific facility				
Affordability	98 (40.5)	144 (59.5)	14.758 (1.533-142.259)	0.020
Quality services	54 (48.6)	57 (51.4)	1.045(0.109-10.019)	0.969
Proximity	7 (23.3)	23 (76.7)	4.716 (0.474-46.927)	0.186
payment system	2 (12.5)	14 (87.5)	Reference	
Reasons prompting treatment				
Symptoms of illness	83 (52.9)	74 (47.1)	0.370 (0.069-1.971)	0.244
Frequency of illness	32 (40.0)	48 (60.0)	0.178(0.034-0.947)	0.043
Seriousness of illness	43 (30.3)	99 (69.7)	0.597 (0.093-3.814)	0.585
Previous experience of illness	3 (15.0)	17 (85.0)	Reference	
Medical condition				
Diabetes	30 (48.4)	32 (51.6)	0.925 (0.500-1.708)	0.802
Hypertension	36 (36.4)	63 (63.6)	1.599 (0.939- 2.724)	0.084
Arthritis	11 (24.4)	34 (75.6)	2.372 (1.245-5.997)	0.012
Cardiovascular	7 (26.9)	19 (73.1)	2.368 (0.924-6.063)	0.072
None	77 (46.1)	90 (53.9)	Reference	

Abbreviations: n, total number of respondents; CI, confidence interval; *Column percentages; OR, odds ratio; Significant odds ratio values (unadjusted) in bold

Half the respondent 192 (49.1%) desired medical attention in last three months preceding the study. A 47 (11.8%) frequently, 141 (35.3%) moderately and 4 (1.0%) rarely. Medical attention services was significant ($\chi^2=19.429$ $df=3$, $P=0.000$). On a practical perspective, 231 (57.9%) sought medical attention on monthly, 67 (16.8%) weekly and 21 (5.3%) on a daily basis. The demand for medical attention was significant ($\chi^2=11.940$ $df=3$, $P=0.008$). Majority 232 (58.1%) were sick with chronic diseases. These illness included hypertension 99 (24.8%), diabetes 62 (15.5%), arthritis 45 (11.3%) and cardiovascular 26 (6.5%).

Diagnosis with chronic was significantly ($\chi^2=11.295$ $df=4$, $P=0.023$). Those respondents who suffered from arthritis had less significant association with access {unadjusted OR 2.372, 95% CI (1.245-5.997), p value=0.012 when compared with no chronic condition.

DISCUSSION

The extent of access to healthcare by the elderly

The results show that access to healthcare services among the elderly is low. This finding concurs with Antonio *et al.* in accessibility to health care facilities in Montreal and an application of relative

accessibility indicators from the perspective of senior and non-senior residents who found that accessibility to health care in Montreal Island tends to be lower precisely among the seniors. ⁽¹⁸⁾ This result may be attributed to several factors such as perception and theories. One theory is the hardiness theory. Bushy, defines hardiness as the state of being hardy; a capacity for sustaining hardship and the capability of surviving under unfavorable conditions; courage; boldness; and audacity. ⁽¹⁹⁾ It is known that elderly and rural people delay seeking healthcare, (hardiness theory); with the first onset of symptoms resulting in deteriorating condition by the time health care is eventually sought. ⁽²⁰⁾ This hardiness theory may account for a sicker population among the elderly, resulting in an increased risk of vulnerability for some elderly populations. ⁽²¹⁾ Affordability was not a challenge among the respondents however; the services were unacceptable and unavailable. This denotes unfriendly and unreliable services which may be attributed to uncommissioned services which may explain the low access. This corroborates well with Reibling, who says that access should be differentiated from utilization. ⁽¹⁷⁾ This is premised on the consideration on Andersen's behavioral model, that enabling factors for the entry into a health organization refer to having access while gaining access is operationalized by the use of professional healthcare. ⁽¹⁷⁾

Access enabling factors

Enabling factors which determine access exist in two levels according to Andersen's behavioral model. ⁽²²⁾ The first is individual characteristics of the person which influence whether and how people seek healthcare. Secondly, institutional and provider traits that determine the utilization of health services. The interaction of the two is very weighty. In this study, age was not statistically significant in relation to access; however; respondent aged 60-69 years and those

over 80 years were associated with access respectively than those aged 70-79 years. This may be because the former are still enjoying perks from retirement package and family support respectively while the latter are struggling with many competing interest which may make healthcare a secondary need. This finding contrast with Fitzpatrick *et al.* who reported that age was related individually and independently to access problem when controlled for race and each other. ⁽¹⁾ Gender was not significant indicating no major difference among elderly men and women in relation to access to health care. This finding contrast with Hall *et al.*, in a socio-demographic study among the elderly which reported gender has a strong influence on healthcare access. ⁽²³⁾ However, this finding is consistent with Suominen *et al.* which reported no gender differences in self-reported health care use. ⁽²⁴⁾ This shows that elderly men and women have same commonality in how to react to common bothersome symptoms, diseases and conditions. Marital status was statistical significant. In many countries divorced, separated and widowed persons tend to use more health services, whereas never married persons use fewer services than married people. ⁽²⁵⁾ The results from this study were in accordance with this statement. More singles and widowed/separated were associated with access than married elderly. This means that change of one's marital status impacts on socioeconomic status of individual which can as well explain the difference in marital status and health service access.

There was no association between the relative the respondent lived with and access to health care. However respondents who lived with spouse and children were two and three times respectively less likely to be associated with access than those who lived with extended relatives. This finding shows that the elderly people living with spouse and children have competing interests which cause delays in seeking appropriate and

approved treatment. For example, those who live with spouse and children may have family responsibilities and often health care is secondary to basic needs. These results are congruent with ⁽²⁶⁾ that elderly living alone or with other relatives are more likely to see a doctor than others. Type of house was statistically significant in relation to access with respondents who lived in permanent houses four times less likely to be associated with access compared with those who resided in temporary house. This may be because participants living in temporary house are contended with available local health care services whereas those residing in permanent houses strive for high level services. This finding conforms to Mwanyangala *et al.*, who detected an association between residential socioeconomic status and health care utilization. Level of education was significantly. ⁽²⁷⁾ This may be because the study respondents were of the same cohort with similar education trends. This finding is in agreement with Schneider *et al.*, who reported that evidence is accumulating that education may affect the health care services received by individuals aged 65 years and older. ⁽²⁸⁾ With this result, it is easy in this study to reinforce the hypothesis that individual health is improved by education, possibly due to having greater access to information on health, better eating habits and self-care. While low education levels are linked with poor health, more stress and lower self-confidence. ⁽²⁷⁾

The number of children of the respondent was not significant to access. However, more respondent with over ten children and those with less than three children were associated with access. In this scenario, those with fewer or more children may be well enlightened people exposed to many avenues of resources whereas the rest with moderate number of children, are average Kenyans struggling with life. These results are inconsistent with a study by Ahmed *et al.*, which found

that family responsibilities prevent individuals from obtaining health care. ⁽²⁹⁾ Similarly, occupation of the respondent was no significant. However, the respondents who had jobs were accessors than those without. This shows that employment generate income which in turn facilitate access to care. This concurs with Fitzpatrick *et al.* which reported that income is a strong predictor of access to health care in the elderly, independent of race. ⁽¹⁾

Perception of health care services was significantly associated with access. This result agrees with the statement that satisfaction with provider services may impact perceptions of access to health care and clinical outcomes. ⁽³⁰⁾ Satisfaction of healthcare services could be because user services likeability can be influenced by a combination of system, provider and receiver variables such as waiting time, aesthetic value and charges. Similar results were obtained from perception of the healthcare provider. There was consistent trend of access with the most occurring from those who were very satisfied and the least from the very dissatisfied. These findings agree with Fitzpatrick *et al.* which revealed that an elderly person's perception of the physician's lack of responsiveness was a greater disincentive to seeking care than more tangible barriers. ⁽¹⁾ Issues of trust have been documented in other studies. A qualitative study of Angina found that patients felt physicians were busy and that patients did not like to bother them with their own conditions. ⁽³¹⁾ Lack of satisfaction has also been found to be associated with more symptoms and lower medication compliance in patients, ⁽³²⁾ whereas greater satisfaction has been associated with better outcomes. ⁽³⁰⁾ Interpretation of the study finding suggests that the psychological impact of perceptions of about the provider may translate into barriers for seeking future health care.

Services at level (commonly known as Community Health Worker

services) were significant in relation to access. Those served regularly were associated with access than those served occasionally. This shows that services at level one are among important factors that interact to facilitate use of healthcare services. This is consistent with a statement that quality services, the perception of the provider, and the past experience with the health care provider influence access and acceptability of health care services. ⁽³³⁾ Distance to health was significantly associated with access. Distance has been shown to matter in previous research. Firoozeh, in a qualitative study titled condition affecting the elderly primary health care in urban health care centers of Iran reported limitation of distance to health as a barrier of utilizing health care centres by the elderly. ⁽³⁴⁾ Alone as a barrier, however, distance does not fully explain accessibility. ⁽³⁵⁾ Several reasons exist why distance to health facility has been identified as a contributing factor; transportation and mobility factors such as poor weather conditions and lack of wheelchair accessible van. Equipment availability in health facility was statistically significant. This concurs with Firoozeh, that unsuitable physical environment and lack of necessary facilities affected elderly primary care and health care access. ⁽³⁴⁾ Normally, equipments are synonymous with diagnosis. Similarly drugs availability was statistically significant. This finding are supported by a study that reported attitudes toward the health care system, stocked facilities, familiarity with the health-care system, and confidence in the health-care system influence access and utilization. ⁽³⁶⁾ Social security was not associated with access. This is inconsistent with several studies which have shown that usage of health care services is affected by the ownership of health insurance. ⁽³⁷⁻³⁹⁾ Awareness and willingness to join a social security were associated with access. On the other hand reasons for and against joining social securities were associated

with access. The type of facility and reasons for seeking medical attention for a particular condition were statistically significant. Those who sought treatment due to symptoms of illness were more accessors when compared with those who sought treatment due to previous experience. This findings contrast with a study which found that the reasons for seeking services at specific facility were significant in relation to access of health care. ⁽³⁶⁾ Source of hospital funds (person paying hospital bills) was statically significant in relation to access. This chimes with findings by Firoozeh *et al* that financial support is an important factor on health care behaviours among the elderly. ⁽³⁴⁾ Social support networks that is greater support from families, friends and communities is linked to better health. ⁽³⁴⁾ Desire to have health care services was not significant in relation to access. Frequency of demand for medical attention in the last three months was significant. Proportion of access increased as the days of seeking medical attention increased. For instance, those who sought medical care monthly were associated with access compared to those who sought care daily/frequently. Ailing with chronic diseases was significant. Those respondents who suffered from hypertension were more accessors than those who suffered from cardiovascular cases. This was also true for those with at least one chronic health condition, those with diabetes, and those in fair/poor health, who have a greater need for medical care. This finding concurs with Suominen-Taipale *et al.*, who found that the use of services increased markedly with the deterioration of self-rated health. ⁽²⁴⁾

CONCLUSION

Accessibility of healthcare services by the elderly was low. Services availability and acceptability were major challenges. Individual factors such as marital status, type of house and level of education are important to access.

Perception of facility services & of provider, services by CHWs; distance to health facility, the type of facility, equipment in health facility & availability of drugs were significantly associated with access. Elderly friendly policy and services framework need to be developed to mitigate availability and acceptability concerns. Special and/or additional training for health workers in the area of geriatric health are necessary. Services acceptability was low, therefore there is need to undertake a qualitative research to ascertain the underlying reasons. This study was carried out in an informal settlement therefore there is need to undertake similar research in urban and Peri urban for comparison.

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