

# THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

## Barriers to Access to Healthcare Services among Physically Challenged Persons in Gem Sub County, Siaya County, Kenya

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### **Abstract:**

*Despite Kenya's commitment to equal access to healthcare for all by the year 2030, and the increase in the number of services provided, physically challenged persons still meet difficulty accessing health services for reasons attributable to different factors. This descriptive cross-sectional study identified existing person-related factors hindering access to healthcare services by the physically challenged persons in Gem Sub-county, Kenya. Stratified and systematic random sampling was used to select 108 physically disabled persons. Data was collected using semi-structured questionnaire and analyzed using SPSS (v23). Descriptive statistics were used to summarize social-demographic and physical attributes of the participants, and  $\chi^2$  test was used to detect the relationship between relevant variables ( $\alpha= 0.05$ ). Out of 108 respondents, 65(male=33) had difficulty in accessing healthcare services. Participant gender, education, residential location and average monthly income, unemployment and environment inaccessibility to health facilities were found to significantly influence access of healthcare services ( $p<0.05$ ). The study highlights the importance of adequate monthly funding, health insurance and measures to ensure the rights of PWPDs to healthcare services are put in place and implemented under legislation and policy. Further research is required to explore ways to remove barriers to access to healthcare.*

**Keywords:** Access, barrier, Gem sub-county, healthcare, personal, physical disability

### **1. Introduction**

Personal factors are internal factors, which 'may include gender, age, coping styles, social back-ground, education, profession, past and current experience, overall behaviour pat-tern, character and other factors that influence how disability is experienced by the individual' (WHO, 2001). Over a billion people 15% have some form of disability (WHO, 2018b) . According to WHO,2001 disability is the interaction between individuals with a certain health condition like cerebral palsy, down syndrome and depression and personal and environmental factors (for example negative attitudes, inaccessible transport and public buildings and limited social support). While some PWPd's health conditions result in extensive healthcare needs and poor health, some do not. In addition, all people with disabilities have same general healthcare needs and hence need access to conventional healthcare services. Despite the universal right to access the same

range, standard and affordable healthcare, PWPDS continue experiencing challenges in accessing these services (Maart & Jelsma, 2014).

Health is a basic need and every person has the right to the highest attainable standard of health, which includes the right to healthcare services, including reproductive healthcare (Gibson & Mykitiuk, 2012). United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) emphasizes that state parties should take all appropriate measures to ensure access for persons with disabilities to health services that are gender sensitive, including health related rehabilitation (Legge & Chung, 2016). Equitable access to healthcare is a major principle of national health system globally (Mannino *et al.*, 2018). However, persons with physical disabilities generally experience greater barriers in accessing healthcare than general population and these problems are further exacerbated for those with disabilities in rural areas. PWPDS in rural settings confront a wide range of informal, geographical and financial barriers to healthcare access. These barriers can lead to negative health disparities between PWPDS and the general population (Karampampa *et al.*, 2019). Disability is considered not just a problem for people with physical impairment, individuals and their families but also an economic liability for nations (WHO, 2018a, 2018b).

Previous studies have generalized barriers in accessing healthcare among all people with disabilities in rural areas. From the previous studies, it is noted that the convolution of the barriers which unfold throughout one's lifetime create complex situations and may prevent one from accessing healthcare services even if the services are available (Levesque *et al.*, 2013). Looking at each barrier independently without appreciating the connection between them may make us think that some of them are rather negligible. The interplay between the many different elements creates situations with significant obstacles. The amalgamation of factors creates barriers to accessing healthcare services among PWPDS that may be too challenging to overcome.

This study determined the combination of factors that influence access of healthcare among people with physical disability in Gem Sub County and describe how uniquely these factors influence PWPDS. This study used a cross sectional study design and incorporated individuals of ages between 18 to 70 years which would be useful when considering an intervention. Our results could inform Kenyan health authorities and members of the community on value of improving ease of access to healthcare services among PWPDS.

## 2. Material Studied

We selected 108 (men and women) participants between 18 to 70 years with notable physical disability residing within Gem Sub County and have sought healthcare services within that area. These participants were consented and interviewed to determine the access barriers to healthcare services by PWPDS. The participant had to have been residing in Gem for the past 12 months. Persons with hearing, visual, mental impairment and others were excluded, only focusing on people with physical disabilities (mobility). The study variables included gender, education and occupation related factors, cause of disability, type of assistive device and their preferential treatment when they visit healthcare institutions in their residential or workplace. Answers were given to all the questions.

## 3. Area Description

Gem Sub County is approximately 405.3 km<sup>2</sup> and it is divided into six locations namely; Yala Township, North Gem, South Gem, East Gem, West Gem and Central Gem. The Sub-county has 39 health facilities (Yala Sub County Hospital, 16 Health Centers, 12 Dispensaries, 10 private health facilities and 1 faith-based facility). According to the previous census (KNBS 2012), the number of people with disabilities in Siaya County was about 77,000 (5.3%). This sub-county was selected because it is in the county where there is higher concentration of people living with disabilities.

## 4. Methods

### 4.1. Sampling Procedures

Stratified sampling procedure was applied, where the study area was stratified into the existing 6 administrative wards. In each ward, the study purposively identified the healthcare facility with the highest patient turnover. Community units were used to stratify the community in order to sample CHVs from the community. The selected CHVs were requested to identify known PWPDS who were approached and their consent requested. To address internal validity, the study participants were selected at random and were given space to choose their responses without influence of a family member or the research assistants. External validity was ensured by conducting a pilot study and the results compared with real study. The study also ensured only a specific population was studied (people with physical disability in Gem Sub County). This makes the outcome of this study able to explain the difficulties people with physical disabilities experience in other rural settings.

### 4.2. Data Collection and Analysis

Data was collected using photo voice and questionnaires. The questionnaires were developed in English and translated into Dholuo (native language) with subsequent translation in English at a venue of the participant's choice. The data were checked for errors and were entered into excels spread sheet. Data collected was coded and tabulated on frequency tables, summarized using percentages and presented in pie charts, graphs and tables. Data analysis was conducted using Statistical Package for Social Sciences (SPSS v23) and excel. Chi-square analyses was used to detect differences and associations between variables relating to the individual PWPDS, descriptive analysis was conducted to present percentages and thematic analysis was performed to determine certain variables such as age, gender, cause of

disability, infrastructure and level of access. Qualitative component highlighted an array of barriers that prevented the PWPDs from accessing healthcare services. Data was also analyzed at a 95% confidence interval.

## 5. Results

### 5.1. Sociodemographic Characteristics of the Respondents

The participants' ages were categorized in 6 groups. Majority of the respondents 24(22.2%) were between 35-44 years old while only 18(16.7%) were 65 years old and above. The average age of respondents was 45 years with mean 45.3 and standard deviation of 16.1. In terms of sex, equal number of males and females were interviewed, that is, 54(50%) males and 54(50%) females. Majority of the respondents 52(48.1%) were married compared to 27(25%) who were widowed, 23(21.3%) who were single and 6(5.6%) divorcees. The study also found that majority 59(54.6%) of the respondents had not completed primary education. Only 8(7.4%) of the individuals had completed secondary education as 16(14.8%) of the individuals had no formal education. This shows that majority 96.3% of the people with physical disabilities interviewed had not completed tertiary education. The study noted that 70(64.8%) of the individuals were unemployed, 8(7.4%) were formally employed, 28(25.9%) were self-employed and only 2(1.9%) were students. Most respondents (99.1%) were Christians as shown on table 1.

| Variable        | Category                | PWPD | Remarks |
|-----------------|-------------------------|------|---------|
| Age (years)     |                         | n    | %       |
|                 | 18 - 24                 | 15   | 13.9    |
|                 | 25 - 34                 | 15   | 13.9    |
|                 | 35 - 44                 | 24   | 22.2    |
|                 | 45 - 54                 | 17   | 15.7    |
|                 | 55 - 64                 | 19   | 17.6    |
|                 | >65                     | 18   | 16.7    |
| Gender          |                         | n    | %       |
|                 | Male                    | 54   | 50.0    |
|                 | Female                  | 54   | 50.0    |
| Marital Status  |                         | n    | n       |
|                 | Single                  | 23   | 21.3    |
|                 | Married                 | 52   | 48.1    |
|                 | Divorced                | 6    | 5.6     |
|                 | Widowed                 | 27   | 25.0    |
| Education level |                         | n    | %       |
|                 | Primary completed       | 14   | 13.0    |
|                 | Primary not completed   | 59   | 54.6    |
|                 | Secondary completed     | 8    | 7.4     |
|                 | Secondary not completed | 7    | 6.5     |
|                 | Tertiary completed      | 4    | 3.7     |
|                 | None                    | 16   | 14.8    |
| Religion        |                         | n    | %       |
|                 | Christian               | 107  | 99.1    |
|                 | Muslim                  | 1    | 0.9     |

Table 1: Social Demographic Characteristics of Respondent

### 5.2. Causes of Physical Disability among the Respondents

In figure.1, 74(69%) of the disabilities among the respondents were caused by some form of sickness or disease. Only 12(11%) were born with the physical disability while 7(6%) were as a result of injection. This shows that majority (89%) of the respondents acquired their disabilities after birth.

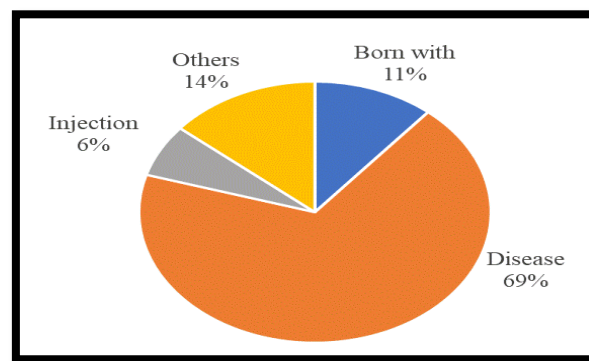


Figure 1: Causes of Disability among the Respondents

### 5.3. Person Related Factors That Influence Access to Healthcare

The study determined how personal related factors influence access to healthcare among people with physical disability. Gender, education, occupation and monthly income were captured as key person related factors.

#### 5.3.1. Gender Related Factors

Table 2 shows that gender was not significantly associated with difficulty in paying medical bills and staff attitude at the reception. A total of 54(100%) female respondents had difficulties paying medical bills as well as 51(94.4%) of the male respondents. In terms of staff attitude, 48(88.9%) of the females and 41(75.9%) males reported poor staff attitude at the reception during their visit to various clinics. In addition, gender was not found to have greatly influenced respondent's difficulty in obtaining doctor's appointment, satisfaction with quality of services and perception of whether disabled people give birth to disabled children and level ( $p < 0.05$ ) of satisfaction with quality of services offered.

| Variable  | Person with physical disability |   |      |     | Remarks |         |
|---|---------------------------------|---|------|-----|---------|---------|
|   | No                              | n | %    | Yes |         | n       |
| Gender  |                                 |   |      |     |         | p value |
| Difficulty in obtaining doctor's appointment    |                                 |   |      |     |         |         |
| Female  | 22                              |   | 40.7 | 32  |         | 59.3    |
| Male  | 21                              |   | 38.9 | 33  |         | 61.1    |
| Difficulty in paying medical levies             |                                 |   |      |     |         |         |
| Female  | 0                               |   | 0    | 54  |         | 100     |
| Male  | 3                               |   | 5.6  | 51  |         | 94.4    |
| Disabled people give birth to disabled children |                                 |   |      |     |         |         |
| Female  | 54                              |   | 100  | 0   |         | 0.0     |
| Male  | 54                              |   | 100  | 0   |         | 0.0     |
| Staff attitude at the reception                 |                                 |   |      |     |         |         |
| Female  | 6                               |   | 11.1 | 48  |         | 89.9    |
| Male  | 13                              |   | 24.1 | 41  |         | 75.9    |
| Distance to hospital in 30 minutes to 1 hour    |                                 |   |      |     |         |         |
| Female  | 10                              |   | 18.5 | 44  |         | 81.5    |
| Male  | 10                              |   | 18.5 | 44  |         | 81.5    |
| Satisfied with quality of services              |                                 |   |      |     |         |         |
| Female  | 36                              |   | 66.7 | 18  |         | 33.3    |
| Male  | 33                              |   | 61.1 | 21  |         | 38.9    |

Table 2: Gender Related Factors

#### 5.3.2. Distribution of the Respondent by Education Level

Figure 2 shows that the majority of the respondents had not completed primary education; 10 (9.3%) from East Gem and West Gem, 9 (8.4%) from Yala Township and 8(7.4%) from North Gem. Only 2(1.9%) respondents from Yala Township had completed tertiary education. South Gem had the highest number, 16(14.8%) of the respondents who had completed secondary education.

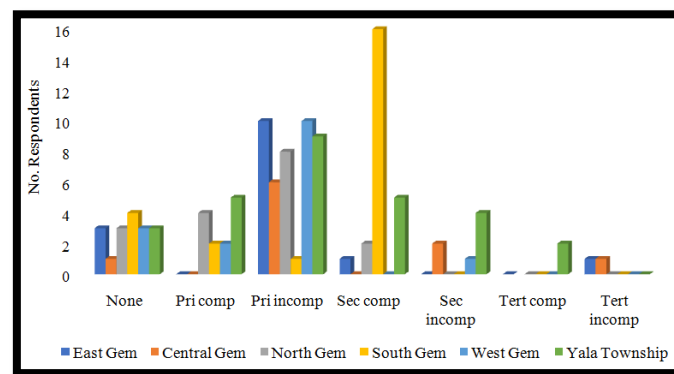


Figure 2: Distribution of the Respondent by Education Level

### 5.3.3. Education Related Factors

Table 3 shows that education significantly influenced difficulty in paying medical bills and access to medical devices ( $p < 0.05$ ). However, it was not found to greatly influence difficulty in obtaining doctor's appointment, staff attitude at the reception, satisfaction with the quality of service and access of the health facility in the past. All individuals who had not completed primary education, those who had completed, and those who had not completed secondary education indicated that they had difficulty in paying medical bills.

| Variable  | Person with Physical Disability |   |      |     | Remarks |         |
|---|---------------------------------|---|------|-----|---------|---------|
|   | No                              | n | %    | Yes |         |         |
| Education                                       |                                 |   |      | n   | %       | p value |
| Difficulty in obtaining doctor's appointment    |                                 |   |      |     |         |         |
| No formal education                             | 3                               |   | 18.8 | 13  | 81.2    | 0.008   |
| Primary completed                               | 6                               |   | 42.9 | 8   | 57.1    |         |
| Primary not completed                           | 28                              |   | 47.5 | 31  | 52.5    |         |
| Secondary completed                             | 1                               |   | 12.5 | 7   | 87.5    |         |
| Secondary not completed                         | 2                               |   | 28.6 | 5   | 71.4    |         |
| Tertiary completed                              | 3                               |   | 75.0 | 1   | 25      |         |
| Difficulty paying medical levies                |                                 |   |      |     |         |         |
| No formal education                             | 3                               |   | 18.8 | 13  | 81.2    | 0.095   |
| Primary completed                               | 1                               |   | 7.1  | 13  | 92.9    |         |
| Primary not completed                           | 0                               |   | 0.0  | 59  | 100     |         |
| Secondary completed                             | 0                               |   | 0.0  | 8   | 100     |         |
| Secondary not completed                         | 0                               |   | 0.0  | 7   | 100     |         |
| Tertiary completed                              | 1                               |   | 25.0 | 3   | 75.0    |         |
| Access medicine/devices difficulty              |                                 |   |      |     |         |         |
| No formal education                             | 1                               |   | 6.3  | 15  | 93.7    | 0.008   |
| Primary completed                               | 6                               |   | 42.9 | 8   | 57.1    |         |
| Primary not completed                           | 6                               |   | 10.2 | 53  | 89.8    |         |
| Secondary completed                             | 2                               |   | 25   | 6   | 75.0    |         |
| Secondary not completed                         | 0                               |   | 0.0  | 7   | 100     |         |
| Tertiary completed                              | 2                               |   | 50.0 | 2   | 50.0    |         |
| Staff attitude at the reception                 |                                 |   |      |     |         |         |
| No formal education                             | 0                               |   | 0.0  | 16  | 100     | 0.19    |
| Primary completed                               | 4                               |   | 28.6 | 10  | 71.4    |         |
| Primary not completed                           | 9                               |   | 15.3 | 50  | 84.7    |         |
| Secondary completed                             | 2                               |   | 25.0 | 6   | 75.0    |         |
| Secondary not completed                         | 4                               |   | 57.1 | 3   | 42.9    |         |
| Tertiary completed                              | 0                               |   | 0.0  | 4   | 100     |         |
| Satisfied with quality of services              |                                 |   |      |     |         |         |
| No formal education                             | 9                               |   | 56.2 | 7   | 43.8    | 0.071   |
| Primary completed                               | 13                              |   | 92.1 | 1   | 7.1     |         |
| Primary not completed                           | 38                              |   | 64.4 | 21  | 35.6    |         |
| Secondary completed                             | 4                               |   | 50   | 4   | 50.0    |         |
| Secondary not completed                         | 2                               |   | 28.6 | 5   | 71.4    |         |
| Tertiary completed                              | 3                               |   | 75   | 1   | 25.0    |         |
| Access health facility in the past three months |                                 |   |      |     |         |         |
| No formal education                             | 13                              |   | 92.9 | 1   | 7.1     | 0.019   |
| Primary completed                               | 9                               |   | 64.3 | 5   | 35.7    |         |
| Primary not completed                           | 33                              |   | 55.9 | 26  | 44.1    |         |
| Secondary completed                             | 5                               |   | 62.5 | 3   | 37.5    |         |
| Secondary not completed                         | 3                               |   | 42.9 | 5   | 57.1    |         |
| Tertiary completed                              | 1                               |   | 25   | 3   | 75      |         |

Table 3: Education Related Factors

### 5.3.4. Distribution of the Respondent by Monthly Income

In terms of monthly income, majority of the participants 102(94.4%) had average monthly income of less than KShs 5000 while 5(4.6%) had average monthly income of between KShs 5100 to KShs 10000 and 1(0.9%) individual monthly income greater than KShs. 15,000. Those with an income of less than KShs. 5100 had difficulty in paying medical levies and accessing medicine/ devices compared to those earning higher income (figure.3).

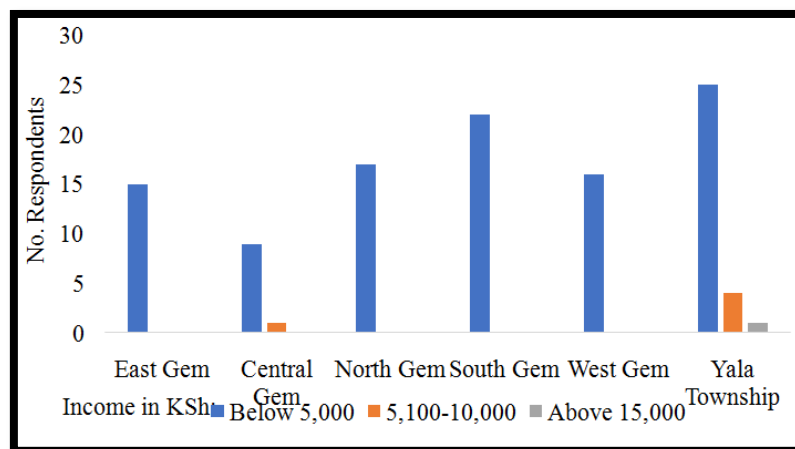


Figure 3: Distribution of the Respondent by Monthly Income

### 5.3.5. Occupation Related Factors Affecting People with Physical Disabilities

Table 4 shows that occupation significantly influenced access to medicine and paying of medical bills ( $p < 0.05$ ). Of those who were employed, 5(62.5%) had difficulties in accessing medicine and medical devices and 7(87.5%) had difficulties in paying medical bills. The study also found that those who were self-employed had difficulties in accessing medicine and assistive devices 24(85.7%) and also difficulty in paying medical bills 26 (92.9%). All students 2(100%) experienced difficulty in paying medical bills and accessing medicine. Occupation significantly influenced difficulty in paying of medical bills( $p < 0.05$ ).

| Variable                                      | Person with physical disability |     |       |       | Remarks |        |
|---|---------------------------------|-----|-------|-------|---------|--------|
|   | No                              | n   | %     | Yes n |         | %      |
| Occupation                                    |                                 |     |       |       | p value |        |
| Access to medicine/devices difficulty         |                                 |     |       |       |         |        |
| Employed                                      | 3                               |     | 37.50 | 5     | 62.5    | 0.0336 |
| Self-employed                                 | 4                               |     | 14.3  | 24    | 85.7    |        |
| Student                                       | 0                               |     | 0.0   | 2     | 100     |        |
| Others  | 10                              |     | 14.3  | 60    | 85.7    |        |
| Difficulty paying medical levies              |                                 |     |       |       |         |        |
| Employed                                      | 2                               |     | 2.0   | 100   | 98.0    | 0.0001 |
| Self employed                                 | 0                               |     | 0.0   | 5     | 100     |        |
| Student                                       | 1                               |     | 100   | 0     | 0.0     |        |
| Others  | 0                               |     | 0.0   | 0     | 0.0     |        |
| Access to healthcare in the past three months |                                 |     |       |       |         |        |
| Employed                                      | 62                              |     | 60.8  | 40    | 39.2    | 0.0313 |
| Self employed                                 | 2                               |     | 40.0  | 3     | 60.0    |        |
| Student                                       | 0                               |     | 0.0   | 1     | 100     |        |
| Others  | 2                               |     | 0.0   | 0     | 0.0     |        |
| Monthly income (KShs)                         |                                 |     |       |       |         | 0.0001 |
| < 5000  |                                 | 102 |       |       | 94.4    |        |
| 5100-10000                                    |                                 | 5   |       |       | 4.6     |        |
| >15000  |                                 | 1   |       |       | 0.9     |        |

Table 4: Occupation Related Factors Affecting People with Physical Disabilities

## 6. Preferred Treatment Expectations by PWPDS

Table 5 shows that majority of the respondents 20 (18.5%) prefer free food or medical devices and employment of more specialist's physiotherapist, orthopedic specialists and increase mobile clinics for people with disabilities as preferential treatments they would like so as to access quality healthcare. Some of the respondents 18(16.6%) also preferred they be provided with free assistive devices and be offered free repair for their devices whenever they get dilapidated. In addition, they also prefer that hospitals be equipped with adjustable beds and examination tables 11(10.25%) and accommodative transport and infrastructure 8(7.4%).

| Response   | Frequency | %    |
|--|-----------|------|
| Improve communication network coverage and roads/pathways for PWPDS                                      | 2         | 1.9  |
| Free registration by NCPD and NHIF in the nearest health facility.                                       | 7         | 6.5  |
| Accommodative transport/ infrastructure  | 8         | 7.4  |
| Free or affordable food/ medication/ devices   | 20        | 18.5 |
| Provide free devices and repair at no cost   | 18        | 16.6 |
| Improve signage post   | 1         | 0.9  |
| Creation of good rapport by healthcare providers (nurses, doctors, CHVs)                                 | 10        | 9.3  |
| Employ more specialists (physiotherapists, orthopedic specialists) and increase mobile clinics for PWPDS | 20        | 18.5 |
| Build accommodative toilets and bathroom   | 6         | 5.6  |
| Provide adjustable beds and examination tables   | 11        | 10.2 |
| Provide special units for PWPDS and geriatric wards  | 5         | 4.6  |
| Total  | 108       | 100  |

Table 5: Expected Preferential Treatment

## 7. Implications for Rehabilitation

- Over a billion people (15%) have some form of disability worldwide. Although people with physical disability face challenges accessing healthcare services, those in low-income countries like Kenya face greater challenges.
- The major challenges faced include low education levels, lack of assistive devices, distance to hospitals, unemployment, low average monthly income and environment inaccessibility to health facilities.
- Negative attitude of healthcare providers has been extensively reported as a barrier as they appear to be insensitive, whether on purpose or because of lack of knowledge about the need of PWPDS.
- Awareness physical disability creation and measures to ensure the rights of PWPDS to healthcare services are put in place and implemented under legislation and policy.
- Despite the existence of these challenges, the legislation and policy of Kenya has not been fully implemented to help eliminate the issues.

## 8. Discussion

This study revealed that both gender experiences the same challenges in their quest to access healthcare. Equal number of males and females were interviewed, that is 54 each, with a mean age of 45 years. This is a reproductive age group that needs outreaches for reproductive health services such as family planning, screening of both communicable and non-communicable diseases. The study revealed that 74(69%) of the disabilities among the respondents were caused by some form of sickness or disease. This concurs with a study in Brazil and India which found out that outreach teams follow up on patients with physical disabilities for example spinal cord injuries to address issues such as skin care, bowel and bladder management, joint and muscle problems, and pain management ( Legge & Chung, 2016).

Education plays an important role in life. This study showed that only 2(1.9%) respondents were students. People with physical disability have low expectations academically and career wise due to fear of discrimination and being subjected to bullying and negative attitudes. Education significantly influenced ability of the respondents to access healthcare. Those with higher education were more likely to pay their medical bills and buy required assistive devices as compared to those with little or no education. Majority 96.3% of the people with physical disabilities interviewed had not completed tertiary education and only 1(0.9%) respondent had tertiary education among all the respondents. This low percentage shows that majority of the people with physical disabilities lack adequate education in Gem Sub-county. This also concurs with WHO,( 2018a), teasing and bullying was also a problem from their peers which can also reduce parents desire to send their children to school and primary health services. Many families are unaware that people with physical disabilities can also participate in mainstream education and health promotion services. Lack of accessible communication and discrimination within justice systems makes getting justice for abuses against PWPDS very challenging (Moscoso-Porras & Alvarado, 2018).

On Economic factors, our study found out that a total of 54(100%) female respondents had difficulties in paying medical bills as well as 51(94.4%) male respondents. People with physical disabilities also struggle to access healthcare due to transport cost and poor road networks; lack of ambulance services, inadequate drug supply in health centers, inadequate and inaccessible health information. Digital technologies can also break down traditional barriers to information and communication technology (ICT), where this limited accessibility has contributed to healthcare exclusion. This corresponds with a study done in Bangladesh which demonstrated that people with physical disabilities have suffered from lack of access to healthcare services and safety nets. This lack of access has led to social and economic activities and in some cases, led to family members of PWPDS also having to give up schooling or employment to stay at home and provide assistance to the PWPDS. Global evidence suggests that these factors have translated into foregone GDP of about 5 to 7%(Armer et al, 2013).

The study noted that 70(64.8%) individuals were unemployed. This has made 26 (24.07%) people with physical disabilities interviewed unable to buy assistive devices for example artificial feet, scratches and wheelchairs which might help them move to the hospitals and also unable to purchase recommended medicine. A similar study was done by Parsons *et al.* (2015), who found that women and adolescent girls with physical disabilities are at high risk of economic exploitation for example family members have forced them to engage in begging on the streets, in turn this puts them at

risk of sexual abuses leading to diseases like HIV/AIDS and forced pregnancies. Also, mothers and wives of PWPDS may be seen as easy targets of exploitation.

The study found that most 102(94.4%) respondents had average monthly income of less than KShs 5000, in addition, they are unable to prioritize on quality health. This is consistent with a study done in rural northern Namibia which found that PWPDS find it difficult to walk to health centers for treatment due to lack of transport, money to pay for treatment and the distance is too far for people with lower-limb disabilities (Eide, *et al.* 2015). However, evidence from this study indicated that this has been more less a reference as persons with disabilities continue to experience difficulties when accessing healthcare services.

In the view of low education, occupation, unemployment and monthly income of less than 5,000 shillings means there is poverty and PWPDS beg to meet their needs throughout their lives. Most of them need food, assistive devices and their repair, transport fee and medications. They lack financial support from their immediate family, community and government, making it difficult for them to access healthcare services. This frequent begging for financial support has made them be abandoned by their families leading to more complications. This also concurs with a study done by Jevne, (2016) who asked "where is healthcare in health?". There should be adequate financial support to sustain their unmet needs and be involved in participation. All of them be registered by the concerned body and get monthly support, that is funding, including healthcare insurance among others. A study done in Colombia revealed that subsidized health insurance increased coverage for the poorest quintile of the population, which likely benefited people with physical disabilities because they are disproportionately represented in the bottom quintile. Some governments, like New Zealand, have targeted funding to primary care doctors and organizations to support healthcare of people with the great need (Field & Archer, 2019).

In terms of staff attitude, 48(88.9%) females and 41(75.9%) males reported poor staff attitude at the reception during their visit to various clinics. Negative attitude of healthcare staff and service providers have been extensively reported as the barriers as they appear to be insensitive, whether on purpose or because of lack of knowledge about the need of PWPDS, verbal, physical and mental abuses characterize the negative attitude reported which also concurred with a study done by Bunning *et al.*, (2017) in Kenya who studied the perception and challenges of physical disability by community groups. A similar study was done by UNICEF, (2018- 2021), who found that other challenges included understaffing and low levels of awareness on PWPDS rights, and inadequate training of medical personnel on PWPDS rights poses another great challenge.

Free registration by National Council for Persons with Disabilities (NCPD) and National Health Insurance Fund (NHIF) in the nearest health facility was mentioned by 7(6.5%) respondents. These barriers are inconsistent with similar access barriers experienced by people with physical disabilities in some parts of Kenya who found that the process of registration by NCPD was taking too long (approximately one year), given registration was only carried out in Nairobi. This is despite NCPD establishing regional offices whose main purpose is to collect forms and send to Nairobi at a cost of KShs 500-1500 (KNCHR, 2014).

The study also found that more than half of the respondents from North Gem 16(94.1%), West Gem 11(68.8%) and East Gem 14 (93.3%) had not accessed the nearest health facility in the previous three months. Distance has been identified as a major barrier, as transport costs are often too expensive, especially the extra cost of carrying assistive devices like wheelchairs, to add on, the access barriers to healthcare experienced by PWPDS corroborate what other researchers have reported (Eide, *et al.* 2015).

It is commendable that most of the Kenyan hospitals have invested in physical access though there is room for improvement. Ramps, wider doors, lowered door locks and parking space for persons with physical disabilities have been constructed in hospitals to enable easy access to services by patients, however, areas like washrooms and cashiers' counters are yet to be accommodative.

## 9. Conclusion

Evidence shows that PWPDS experience low education level, unemployment and low average monthly income, community physical disabilities unawareness, physical and environmental inaccessible healthcare institutions were frequently mentioned. The study highlights the importance of adequate monthly funding, health insurance, creation of awareness on physical disability and measures to ensure the rights of PWPDS to healthcare services are put in place and implemented under legislation and policy. Unfriendly infrastructure of the hospitals is a healthcare related factor that influences access of healthcare among people with physical disabilities. Kenya has specific obligations under legislative and person with disability Act 2003 to respect, protect and ensure the rights to health for PWPDS. Further research is required to explore ways to remove barriers to access healthcare.

## 10. Recommendations

There should be adequate financial support to sustain PWPDS unmet needs and be involved in participation. All of them should be registered by the concerned body and get monthly support, that is funding and healthcare insurance. It is necessary to ensure that healthcare providers are aware of the special needs of PWPDS through encouraging more active advocacy groups for PWPDS to educate the public on the causes of physical disability etiology of disease, and also allowing PWPDS to get formal education in order for them to get employment. Removing the barriers faced by PWPDS in the environment and infrastructure.



## 11. Competing Interests Statement

I, Owuocha Dorice Akoth, declare that I have no significant competing financial, professional or personal interests that might have influenced the performance or presentation of the work described in this manuscript.

## 12. Acknowledgement

The authors wish to thank the committee on human research, publications and ethics. we would also love to thank the university of Jaramogi Oginga Odinga University of Science & Technology for the study protocol prior to its implementations, granting us the opportunity to take a course in Masters of public health degree in Health Promotion. we must sincerely recognize support from the lectures and our peers at the. university extra-mural studies for the support and direction in any respect towards the completion of this manuscript.

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**Appendix**

*Photo Summary*



*Figure 4: Personal and Community Surrounding/Environment*

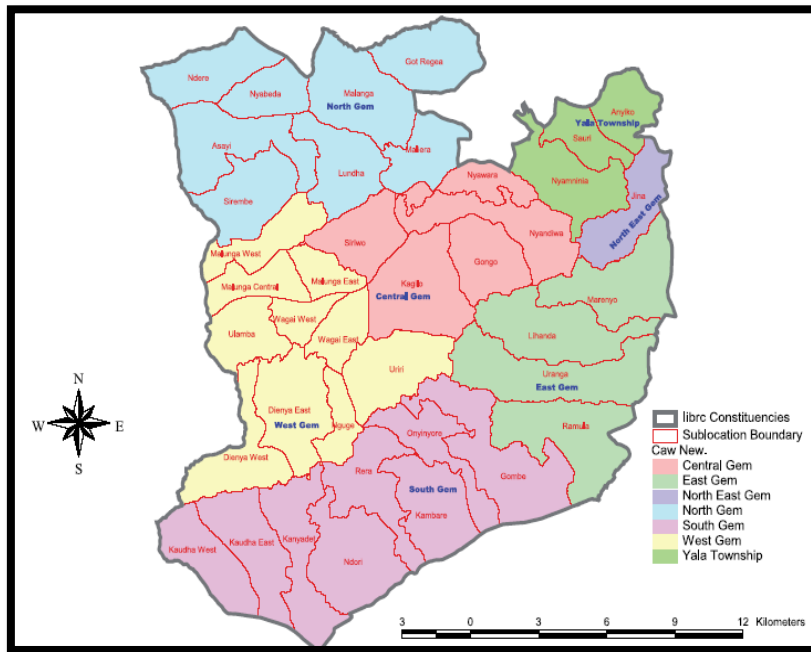


Figure 5: Map of Gem Sub- County, Siaya