

**ASSESSING ACCESS TO COMPREHENSIVE HIV TREATMENT SERVICES FOR
MEN WHO HAVE SEX WITH MEN AND FEMALE SEX WORKERS IN THE
BAMENDA HEALTH DISTRICT**

BY

¹Fabien Sundjo and ²Pamella Fokam Ijang

²Technical Coordinator/DIC Manager, Cameroon Medical Women Association Bamenda

¹University of Buea- Cameroon, corresponding author

sundjofabien@rocketmail.com

Abstract

Having access to quality health and specifically access to comprehensive HIV treatment services is a human right for everyone irrespective of age, sex, gender and sexual orientation. Making HIV treatment services accessible to key populations with minimal social, legal and behavioral barriers will go a long way to curb the incidence among these groups, improve health outcomes as well as reduce HIV prevalence in the general population. The main objective of this research was to investigate the determinants of access to HIV treatment for Female Sex Workers and Men Having sex with Men in the Bamenda Health district. Specifically, the study aimed at investigating the drivers of non-accessibility to HIV treatment services for Men having sex with Men and Female sex workers and also to scrutinize the drivers of non-accessibility to HIV treatment services for Men having sex with Men and Female sex workers in the Bamenda Health district. To assess treatment access, 20 and 25 questionnaires were administered to HIV positive FSW and MSM respectively. Data was analyzed using descriptive statistics, Chi-square, Bivariate and Multivariate regressions. The descriptive analysis showed that 44.0% and 65% of MSM and FSW respectively have access to HIV treatment services. MSM and FSW with lower incomes face economic barriers though higher incomes at some point for the VIP FSW is instead a barrier to access CBOs for services. Another barrier to treatment is long distance to health facility for MSM as those who live further away are less likely to access HIV treatment services. Long waiting time at health facility was also found to be significant and hence a barrier to treatment access. None of the demographic factors were significant for FSW and MSM. Thus for access to be effective, actors should take these key issues into consideration.

Key words: *Access to HIV/AIDS Services, Key populations, Treatment.*

1. Introduction

Being able to attain an appreciable quality of health is the fundamental right of everyone. The Universal declaration of human rights in its Article 25(1) spells out that *“Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control”* (UN General Assembly, 1984). It is on this foundation that in 2000, the Millennium Development Goals (MDGs) goal number 6 was set aside to combat HIV, Malaria and other diseases, and its target 6B was to ensure that by 2010, there would be universal access to treatment for HIV/AIDS for all those who need it (MDGs, 2002). Building on the successes of the MDGs, the Sustainable Development Goals were introduced in September 2015 with a vision to have a world with equitable and universal access to quality education at all levels, health care, social protection, universal respect for human rights and human dignity, the rule of law, justice, equality and non-discrimination (United Nations General Assembly, 2015). Under the banner of the Sustainable development goal number 3, UNAIDS laid out 10 targets for 2016-2021 strategy. The 6th is that 90% of key populations have access to combination services, while the 8th is that 90% of people living with HIV, at risk of and affected by HIV report no discrimination especially in health, education and workplace (Interagency Coalition on AIDS and Development, 2016).

Key populations are a group of persons who due to their sexual behaviours, are exposed to HIV. According to the World Health organization (2016), Key populations are groups of persons who due to some risk behaviors, are at increased risk of HIV irrespective of the epidemic type or local context. These persons are faced with legal and social issues the increase their vulnerability. Some groups considered as key populations are men having sex with men, people injecting drugs, people in prison and other closed settings, sex workers and transgender people (WHO, 2016). In same

light, UNAIDS revealed that more than 90% of new infections in central Asia, Europe, North America, the middle East and north Africa in 2014 were among these persons and their sex partners who accounted for 45% of new infections worldwide (UNAIDS, 2016). From a meta-analysis carried out between 2007 and 2011 amongst 99,878 female sex workers in 50 countries. The overall prevalence was 11.8%-12% with variations in regions. This study also showed that, in 26 countries with medium and high background HIV prevalence, 30.7% of female sex workers were positive. The highest prevalence of HIV was in sub-Saharan Africa (36.9%), followed by Eastern Europe (10.9%), Latin America and the Caribbean (6.1%), and Asia (5.2%); the lowest rate was in the Middle East and North Africa (1.7%) (Baral *et al.*, 2012). For Men having Sex with Men (MSM), 2016 regional estimates indicated that, HIV prevalence among MSM ranged from 3.0% in the Middle East and North Africa to 25.4% in the Caribbeans, Kenya 20%, cote d'ivoire 18% while in other countries like china and Thialand the incidence is reported to be on a rise (UNAIDS, 2016). MSM accounted for 12% of new infections in 2015 with 6% in Sub-Saharan Africa and 22 % in regions outside Africa (UNAIDS, 2017).

Cameroon where the study area is located is presently reported to have a mixed generalized and concentrated epidemic(Cameroon Country Operational Plan,2016).The first case of HIV was diagnosed in 1985, and it progressively grew from 0.5% in 1987 to 11.8% in 2000, and only dropped to 5.5% in 2004(EDS/MICS, 2011).The last Demographic and Health survey found out that in 2011, the prevalence in general population for ages 15-49 years is 4.3%(EDS/MICS, 2011). Despite this decrease in general population in 2011, a study in 2011 gave an estimated prevalence among MSM at 25.5% in Douala and 44.4% in Yaounde (Park et al., 2013). According to the Country Operational Plan (2017), the estimated population size of MSM in Cameroon is 66,842 with HIV prevalence of 37.2%, In 2012, while adult prevalence was 4.5% HIV prevalence among female sex workers remained high at 36% (MISANTE, ONUSIDA, 2014; Cameroon Country

Operational plan, 2016). Estimated FSW population size in 2016 was 113,580 with overall prevalence of 36.5% (World Bank, 2016;COP, 2017).

According to USAID 2020 targets, 90% of all positive MSM an FSW should have access to HIV treatment. Several studies have consistently revealed that MSM and FSW face unique barriers in attempts to seek HIV treatment services. According to Songe Arreola *et al*, 2012, only about 40% of HIV positive MSM respondent in a global study covering 165 countries indicated having access to HIV treatment which is an indicator of a gap in treatment among MSM globally .A recent explorative qualitative study with 30 MSM living with HIV in Ghana to identify factors related to engagement in HIV treatment revealed that, fear of being seen in HIV related health facility, financial difficulties and other logistical issues acted as barriers to treatment access (Adedotun Ogunbajo, 2016). Another study in 2014 covering 3 African Countries namely Togo ,Burkina Foso and Cameroon to examine risk factors for HIV and access to service among FSW and MSM showed that structural barriers such as stigma and discrimination, inability to disclose sexual practice and health needs to health professionals , economic limitations to seeking services ,limited specialized CBOs and limited clinical capacity for experts providing HIV care and treatment to KPs limits access to treatment services. In same study, of 1606 MSM participants only 25.8% had revealed their sexual orientation to a doctor or nurse. Also, 7.5% of MSM participants were not able to recall one HIV service (Papworth et al, 2014). This study still revealed that among 1817 FSW participants , 64.2% of those who reported living with HIV were on treatment while only 78.9% of them were receiving treatment from the hospital while the rest were receiving from traditional doctors, while 65.2% never disclosed their HIV status to partners.

The government of Cameroon through the ministry of public health and other international organizations(Global Fund for AIDS, Tuberculosis and

malaria(GFATM)PEPFAR/USAID,WHO,UNICEF,WorldBank,CDC,UNESCO,UNDP,GTZ,CARE Cameroon, Catholic relief services and many others) have been combating HIV since 1986 through the development and implementation of several National Strategic Plans(NSP). The current NSP 2018-2020 has objectives to; reduce HIV related morbidity and mortality as well as the socio-economic impact of HIV (NSP-2018-2020).The plan is expected to reduce new HIV infections by 60%,reduce related deaths by 60%,improve quality of life by 50%,and increase governance on the national response. Responding to the HIV health needs of key populations in Cameroon started in 2011 with a project called the HAPP project sponsored by the United States Agency for International Development (USAID) through Care Cameroon. Key focus of this project was prevention of HIV among Female sex workers and Men having Sex with Men in 5 regions of Cameroon. Based on need to scale up interventions with key populations, the second phase of the project known as “Continuum of Prevention, Care and Treatment of HIV with most at risk populations in Cameroon”, was extended from 2014-2019. The program under the banner of the National strategic plan for HIV response also aims at reducing HIV/STI infections and related morbidity and mortality, and to ease the impact of HIV on the socioeconomic development of Cameroon, by improving the Government’s and civil society technical capacity to implement evidence based prevention, care and treatment for key populations. The Cameroon Medical Women Association is the implementing partner targeting Female sex workers, while Affirmative Action Cameroon is the implementing partner targeting Men having sex with men in the Bamenda health district. Health facilities such the Baptist Health Board provide HIV prevention, treatment and Care services as well as rehabilitation to female sex workers in Bamenda.

Despite the considerable efforts to provide interventions that can enhance service uptake by key populations and reduce the epidemic, the HIV prevalence among key populations in Cameroon still remains high while access to services is relatively low. Adult HIV prevalence in the general

population decreased from 7.7% in 1999 to 4.5% in 2012, but has remained high among FSW and MSM from 25%-36% for FSW and 36% for MSM during the same time period (Cameroon Country operational Plan, 2017). Bamenda health district where several interventions are being carried out has an estimated FSW population of 2,842 (CMWA mapping, 2017). While the region had an adult prevalence of 6.3% (EDS/MICS, 2011), FSW have an estimated prevalence of 32.8% and 3.8% for MSM (IBBS, 2016). With this high prevalence of HIV among FSW and MSM, it is unfortunately reported that coverage of HIV related services for key populations in Cameroon is limited. For instance, only 49.6% of HIV positive FSW and 29.0% of positive MSM were initiated on Antiretroviral therapy (ART) as compared to 70% for general population in 2016 (Cameroon Country operational plan, 2017).

To curb this high prevalence and negative impact of HIV on FSW and MSM as well as bringing an equilibrium in service uptake for all with no discrimination, HIV services should be made available, accessible and acceptable to key populations. This should be based on the principles of medical ethics, no stigma and discrimination and the right to health (WHO, 2014). Health care workers need to provide sensitive, appropriate, non-judgmental, non-discriminatory services to key populations (WHO, 2014). To attain the UNAIDS targets for 2020, 90% of the positives should be on treatment while 90% of those on treatment have viral load suppression. A study on Antiretroviral treatment coverage for MSM and FSW living with HIV in Cameroon in 2015 discovered that the greatest proportion of MSM living with HIV and on ART was 25% and the greatest proportion of FSW living with HIV and on ART was 16% though there was higher service provision among the general population (Claire E *et al.* 2015). Comparing the 90, 90, 90 targets of UNAIDS with the Cameroon Country report (49.6% and 29.0% FSW and MSM respectively for ART coverage) is an indication in a gap in access to HIV services for FSW and MSM. From the stated analysis, one can therefore ask that, what are the barriers to accessing HIV treatment

services for Key populations in the Bamenda Health district? .It will therefore be imperative to do an Assessment on Access to Comprehensive treatment services for Key Populations in the Bamenda Health district.

Objective of the Study

Main Objective

On the basis of the background and statement of the problem, the major objective of this study is:

To investigate into the determinants of access to treatment for FSW and MSM in the Bamenda Health district.

Specific Objectives

From the main objective, the specific objectives are:

1. To elucidate from the perspectives of Men having sex with Men and Female sex workers the barriers to HIV treatment services.
2. To scrutinize the drivers of non-accessibility to HIV treatment services for Men having sex with Men and Female sex workers.

The rest of the paper is arranged in four sections. Section two focuses on literature review while section 3 deals with the methodology of the research. Section four presents the findings and interpretation of results with section five rounding up with summary of findings, conclusion, and policy implication.

2. Empirical Literature

Some researchers over the years were interested in investigating the challenges to accessing treatment services for key populations. PAL, DEBOTTAM (2017), in his research on barriers to Antiretroviral Treatment among men who have sex with men in West Bengal India used focus

group discussion, in -depth interviews, Audio Computer-Assisted Self interview and AIDs clinical trial group questionnaire and homosexuality stigma scale. His analysis revealed social discrimination, poor health system responsiveness, fear to be known as MSM, depression, un-met basic needs and behavioral factors as barriers to access and adhering to ART. He found out that the more MSM were depressed due to stigma, the lower they adhered to treatment. He equally saw that risk behaviours like alcoholism reduced adherence as those who were less alcoholic were more likely than those who were alcoholic. Un-met basic needs was also a barrier to access and adherence to ART. However, he did not look at demographic factors and other support systems like family or peers that could affect access.

In Africa as well, Sonya Arreolla *et al*(2012) did a study on access to HIV prevention and treatment for men who have sex with men, using an online survey and focused group discussion with 5779 participants from 165 countries. The focus groups were conducted with 71 participants living with HIV in Pretoria, Johannesburg, Nairobi, Lagos and Abuja. They revealed structural barriers which included criminalization, stigma and discrimination, homophobia and poverty. Furthermore, the survey discovered that the structural barriers reduced trust, communication which negative affected the relationship between to health care providers and MSM. Misdiagnosis, delayed diagnosis, and delayed treatment, lead to poor health prognosis and higher risk of transmitting HIV and other sexually transmitted infections to partners and MSM with resulting effect of reduced health seeking behaviours. At individual level, limited work opportunities, sustainable income also contributed to lower access to treatment. (Sonya Arreola *et al*, 2012).Sonya's study had a broad perspective as it looked at the totality of environment (individual, community and structural) barriers that could affect access to ART. It also found out that when there is increased community and structural barriers, access to ART is reduced. However, it he did not look at demographic factors like age to find out if it had an impact on access. Another study by Adedotun Ogunbajo(2016) through an explorative qualitative study with 30 HIV-positive

Ghanaian MSM revealed that due to stigma and discrimination at the health facility, HIV positive MSM feared being seen in settings providing HIV healthcare, delayed treatment enrollment for 2 months after diagnosis as well as refilling prescriptions. He also found out that long waiting times for HIV medication, negligence on the part of physician and work conflicts were also some barriers to access treatment services. However, he can be criticized for not looking at factors like the policy and legal environment as well as other demographic factors that could be the cause of fear. Ruth Njambi (2014) in her study using primary and secondary data found out that, distance from health centers and well as awareness of comprehensive HIV/STI services that affect utilization of services reduce access to HIV treatment services. She further found out that it's the situation of being a sex worker that greatly influences utilization of services but did not look at demographic factors like age and income.

In Cameroon ,PEPFAR(2016) through a desk review and field based interviews with 16 MSM, 35 FSW and 45 CBO representative serving key FSW and MSM found out that fear to be seen as “gay” by health staff , fear of shared information were some barriers to accessing HIV treatment. It further found that fear of insults, refusal of service, judgmental counseling to convert to heterosexuals made participants to avoid some health centers. Female Sex workers indicated that they do not disclose their sex work profession when visiting health facilities due to fear of judgement and stigmatization .It also revealed that placing MSM who test positive on treatment was difficult because of fear of being seen taking regular medication. However, this study failed to look at other factors like economic limitations as well as demographic factors that could affect service uptake. Another study in Cameroon by Erin Papworth *et al* (2014) using the PLACE method and RDS method found that apart from stigma and discrimination, inability to disclose sexual practices to health professionals ,economic constrain was a factor that limited access to HIV treatment services. However, they did not also look at demographic and logistical issues and access to treatment.

3. Methodology

This section seeks to discuss the model specifications for treatment access, description of variables in the models, study design, the study population for this work, and inclusion criteria for target population. It further presents the sample size for both populations, and sampling techniques of the study, pre-testing, the data collection instruments, the analytical approach, validation of data for its acceptance as well as ethical consideration in regards to safeguarding participant's information and authorization for the study. It will describe how stigma and discrimination, economic constrain, distance for health facility as well as long waiting time will be measured.

Model specification

The model specification for treatment access is the concise description of how the variables relate to each other. The independent variables for treatment access include stigma and discrimination, economic constrain, logistical, confidentiality, Myths and fears about HIV and ARV medication, Lack of information about HIV and denial of HIV test results.

In order to confirm the objectives of this study as highlighted in the introduction, the following general notation was used;

$$TA = f(SD + E + L + C + MF + ID) \dots \dots \dots (1)$$

In regards to this general notation, the econometric specification is as follows:

$$TA = \beta_0 + \beta_1SD + \beta_2E + \beta_3L + \beta_4C + \beta_5MF + \beta_6ID + \varepsilon \dots \dots \dots (2)$$

Where TA stand for treatment access, SD stands for stigma and discrimination, E stands for economic constrains, L stands for logistical issues, C stands for confidentiality, MF stands for Myths and fears about HIV and ARV medication, ID stands for lack of information and denial of HIV status, β_0 and ε represents the constant and error terms respectively, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ represents coefficients associated to the variable.

Description of variables in the Model

The model gives the feasible description of variables of treatment access. It considers factors like stigma and discrimination, economic constrain, distance from health facility and long waiting time.

This study assumes that when there is no stigma and discrimination there is access to HIV treatment services and vice versa. The extent to which stigma and discrimination affects HIV treatment services is rated from 1-5 in line with each source of stigma and discrimination which could be self, peer, family, authorities, and health care providers. A score between 1 -3 means stigma and discrimination does not affect access to HIV treatment while a score of 4-5 means stigma and discrimination reduces access to HIV prevention services.

The researcher assumes that economic constrains means financial difficulties to meet up with treatment demands .Where there is economic constrain there is reduced access to HIV treatment services .On the other hand, where is no economic constrain, there is access to HIV treatment services. The approximate amount made monthly by a female sex worker is rate from 0-25, 25,>50 FCFA. The researcher assumes that if a FSW or MSM earns a monthly income of 0-25 means there is financial constrain and hence a barrier to access while above 25.000FCFA means finance is not a constrain and hence not a barrier to access.

Geographic distance refers to nearness to HIV treatment services. It is rated from 1-4.A score of 1 means the HIV treatment service is close by, and doesn't affect access to HIV treatment service while a score of 2 -4 means the treatment service is either far, very far or too far and thus reduces access to HIV treatment services.

Summarily, the researcher assumes that if the is decreased stigma and discrimination, reduced geographic distanced, low financial constrain means there are no barriers HIV treatment services

while increased stigma and discrimination, long geographic distance as well as high financial constrain means there are barriers to HIV treatment services.

4. Presentation and Discussion of Empirical Findings

The purpose of this section is to present the results of findings related to access to HIV treatment services. It focuses on data analysis, interpretation and presentation. The results are presented on the extent to which stigma and discrimination, economic constraints, logistical issues, myths and fears about HIV, geographic distance, denial of HIV test results determine access to HIV treatment services for MSM and FSW in the Bamenda health district. The questionnaire which was the research instrument was developed following the objectives of the study. Descriptive statistics and regressions were used in analyzing data on the determinants of access treatment for MSM and FSW. It wraps up by explaining the policy implication as related to access to HIV treatment services for MSM and FSW.

Presentation of demographic findings and interpretation

This section is concerned with outlining the socio demographic characteristics of respondents in terms of the distribution of respondent by age, level of education, occupation and average income.

Distribution of respondents by age

The majority (70%) of FSWs were of ages 26-35 years old. For MSM, participants of ages 19-25 (56 %) and 26-35 (40%) respectively were most represented. This shows that the greater proportion of FSW living with HIV are of ages 26-35 years while for MSM, all age group are affected (Table 2).

Distribution of respondents by educational level

More than two third (70%) of FSW had never attended or had primary education while almost all (80%) MSM had attended tertiary education. This indicates that majority of HIV positive FSW are not educated as opposed to MSM who are most educated (Table 2).

Distribution of respondents by occupation

As concerns occupation, over two third of FSWs (70%) were doing sex work plus other activities while 30% were engaged in sex work only. The majority (60%) of students were MSM while only 20% were sex workers. This shows that while some HIV positive FSW make a living from sex work and other activities to meet up with social needs and treatment demands, some are only into sex work. The result also show that MSM practice is not done to earn a living, but rather a sexual orientation or done for other purposes.

Table 1: Socio-demographic characteristics of participants

Variables	FSW		MSM	
	Frequency(20)	Percentages (%)	Frequency(25)	Percentages (%)
Age range (years)				
19-25	3	15.0	14	56.0
26-35	14	70.0	10	40.0
36-45	3	15.0	1	4.0
Educational Status				
None/Primary	14	70.0	0	0.0
Secondary	4	20.0	5	20.0
Tertiary	2	10.0	20	80.0
Occupation				
Student	0	0.0	15	60.0
Petit trading	7	35.0	5	20.0
Hairdresser/Tailor	7	35.0	0	0.0
Sex Work only	6	30.0	5	20.0
Average income/month				
Nothing	0	0.3	22	88.0
<50000	9	68.9	03	12.0
50-100,000	8	27.6	00	0.0
≥200,000	3	2.7	00	0.0

Presentation of findings based on objective two

The second objective of this study was to determine from the perspectives of Men having sex with Men and Female sex workers the barriers to accessing HIV treatment services for Female Sex

workers and Men Having sex with men in the Bamenda health district. To accomplish this the researcher raised some questions to HIV positive FSW and MSM related to their perspective on access to HIV treatment services. Results obtained are presented below following each question.

Access to HIV treatment services among FSW/MSM

Just over half (56.0%) of MSMs and two third (65%) of FSW believe they had access to HIV treatment services just like anyone in the general population (Figure 2). The major reasons advanced for lack of access to HIV treatment services for MSM were; [don't want to be identified (37.5%) and non - acceptance of status (31.3%)], while for FSW, their major reasons were; [still to accept status(28.6%), don't want their partners to know their status (28.6%) and that they don't believe their results (28.6%)] (Figure 3).

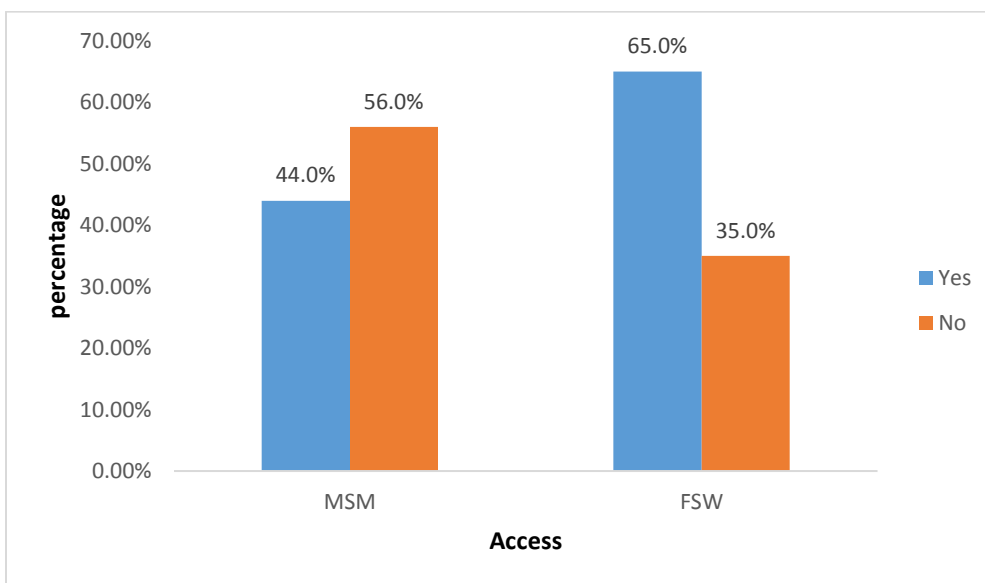


Figure 1: Have access to HIV treatment?

Reasons for lack of access to HIV treatment services

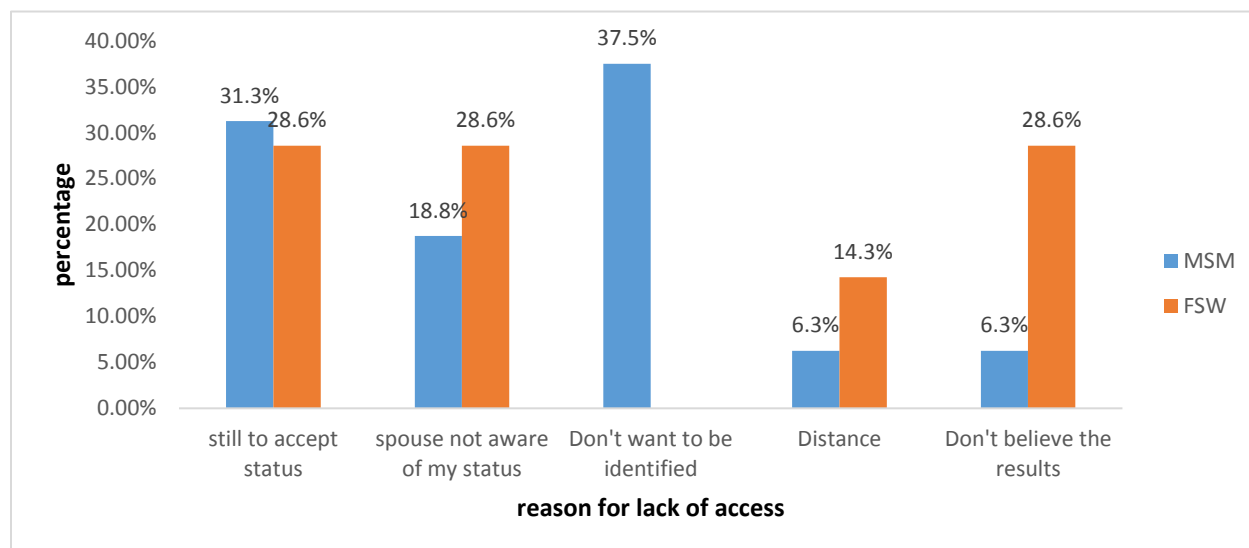


Figure 2: Reasons for not having access to HIV treatment.

Stigma and discrimination on access to HIV treatment services for MSM and FSW

Looking at stigma and discrimination, the results shows that more than two third (72%) of MSM felt their sexual orientation affected their access to HIV treatment which is not the case with FSW where by, the majority (75%) were not affected by their sexual practice. Over 45% and 60% of FSW and MSM respectively felt, they are not given quality HIV treatment services which prevented them sought care at health facilities. While just 20% of FSW are stigmatized to work in public places, over 72% of the MSM are scared in working in this places. Over two third of MSM faces the stigma of public insult, just over 30% of FSW are faced with this scenario. Friends also play a role in stigmatizing their peers as regards HIV treatment [88% of MSM and 60% of FSW indicate bad experiences from friends in accessing treatment]. While over 65% of FSW feel free to go for ART at health facility for treatment, over 76% of MSM don't feel free going for treatment in health facilities of their choice. This result generally show that MSM are more stigmatized at health facilities than FSW though all of them face stigmatization issues.

Table 2: Stigma and discrimination on HIV treatment among MSM/FSW

	FSWs	MSMs
--	------	------

Variables	Frequency (20)	Percentages (%)	Frequency (25)	Percentage (%)
Does your sexual orientation affects your access to HIV treatment?				
Yes	5	25.0	18	72.0
No	15	75.0	7	18.0
Ever felt you didn't receive the quality service you deserve?				
Yes	9	45.0	15	60.0
No	11	55.0	10	40.0
Are you scared to work in public places?				
Yes	4	20.0	18	72.0
No	16	80.0	7	18.0
Verbally insulted in a HF because of your status?				
Yes	6	30.0	17	68.0
No	14	70.0	8	32.0
Heard friends expressing bad experience in accessing HIV treatment?				
Yes	12	60.0	22	88.0
No	8	40.0	3	12.0
Do you feel free to go for ART in clinics?				
Yes	13	65.0	6	24.0
No	7	35.0	19	76.0

Economic Factor on access to treatment services

As concerns economic constrains, 40% of FSW and 48% of MSM respectively felt that their financial status affected their access to HIV treatment. In addition, 30% (FSW) and 20% (MSM) indicated they had other financial responsibilities they considered first before their HIV treatment. Furthermore, over 80% (FSW) and 74% (MSM) indicated they were respectively being assisted by CMWA and Affirmative Action to sought appropriate HIV care/treatment. And almost all FSW (85%) and MSM (81%) denied, they won't be able to continue treatment on their own if the above assistance is taken away. This generally shows that MSM and FSW are depending on these organizations for treatment access (Table 3).

Table 3: Economic constraints

Variables	FSWs		MSM	
	Frequency (20)	Percentages (%)	Frequency (25)	Percentages (%)
Does your financial state affect your ability to access treatment?				
Yes	8	40.0	12	48.0
No	12	60.0	13	52.0
Other financial responsibilities that you feel are more important than going for treatment?				
Yes	6	30.0	5	20.0
No	14	70.0	20	80.0
Any health organization assisting you in this services?				
Yes	16	80.0	16	74.0
No	4	20.0	9	36.0

Which organization is that?				
CMWA	16	100.0	0	0.0
Affirmative Action	0	0.0	16	100.0
Can you continue accessing this services on your own?				
Yes	3	15.0	4	19.0
No	17	85.0	21	81.0

Distance and waiting time at Health Facility

A majority of FSW (70%) indicated that they have average distance between their homes and health facilities. For MSM, distance was a major issue as 68% of them indicated that their distances were far or very far from treatment services. The problem of distance with MSM in the Bamenda health district is obvious because most of them are always between Bamenda and Bambili or Bambui where they school. (Table 4)

As concerns minimum time spent at health facilities majority of FSW (60%) and MSM (40%) indicated that they spend less than an hour at health facility. This means that waiting time is not a major issue. (Table 4)

Table 4: Distance and waiting time at Health Facility

Variables	FSWs		MSM	
	Frequency (20)	Percentages (%)	Frequency (25)	Percentages (%)
What is the minimum waiting time spent at HF for your drugs?				
≤60mins	12	60.0	10	40.0
61mins-120hrs	2	10.0	8	32.0
121mins-180mins	2	10.0	4	16.0
181mins and above	4	20.0	3	12.0
Does this waiting time affect your access to treatment?				
Yes	8	40.0	17	68.0
No	12	60.0	8	32.0
Distance of HF from your home?				
Close by	2	10.0	3	12.0
Average distance	14	70.0	5	20.0
Far	3	15.0	5	20.0
Very far	1	5.0	12	48.0

Trust of results, Myths and fear about HIV medications

The issue of trusting the HIV test results and how it affects ability to start treatment is as a major issue with both populations. A greater portion of MSM (88%) did not trust their test results and it is evident in 96% who did not start treatment immediately after diagnosis (Table 5)

Fear of HIV treatment (ART) as shown by the results is very critical as 70% of FSW and 72% of MSM noted that they were afraid of HIV medication because they felt it either destroys their body or because they will take it for life. (Table 5)

Table 5: Trust of results, Myths and fear about HIV medications

Variables	FSWs		MSM	
	Frequency (20)	Percentages (%)	Frequency (25)	Percentage (%)
Did you trust your result on the day you were diagnosed?				
Yes	10	50.0	3	12.0
No	10	50.0	22	88.0
Did this doubt affect your ability to start up treatment?				
Yes	8	40.0	24	96.0
No	12	60.0	1	4.0
Did you have any fear concerning HIV medication?				
Yes	14	70.0	18	72.0
No	6	30.0	7	28.0
If yes, why?				
Destroy my body	4	28.6	2	11.1
To take it for life	10	71.4	16	88.9
Has someone ever told you anything negative about HIV medicines?				
Yes	16	80.0	17	68
No	4	20.0	8	32
Are there other medicines for HIV?				
Yes	4	20.0	15	36.2
No	16	80.0	10	63.8

Socio-demographic factors affecting access to HIV treatment among MSM and FSW

Table 6 and 7 reveals the unadjusted and adjusted logistic regression analysis of socio-demographic and access to HIV treatment services among FSWs and MSMs. From the unadjusted logistic regression, factors eligible for the multivariate analysis were set at P-values ≤ 0.2 . At the

bivariate (unadjusted) level; FSWs carrying out only sex work were 0.2:1 (0.01-1.4) times less likely to access treatment compared to those who do sex work plus other little businesses though not significant (p=0.066). On the other hand, there wasn't any difference in treatment access between MSM who were employed and MSM who were students (1.1:1) (p=0.973). MSM and FSWs who were very educated (High school/University) were 3.9:1 (0.4-42.4) and 3.7:1 (0.3-41.1) times more likely to have access to HIV treatment compared to their counterpart. Thus, not been educated is a barrier to treatment access though not significant. Older MSM (>25yrs) and FSWs were 2.2:1 (0.4-10.8) and [4.9:1(0.3-17.8) and 3.9:1(0.1-11.9)] times more likely to have better access to HIV treatment compared to the younger age group. Thus being younger is a barrier to access treatment though not significant. As regards monthly income, MSM and FSW who earned 50000Fcfa or more were respectively 0.6:1(0.1-7.6) and 0.9:1(0.1-5.6) less likely to access HIV treatment compared to their counterparts who earn little or nothing. Thus higher income is a hindrance to access appropriate HIV treatment though the results were not significant [(0.693) and (0.888) respectively]. This can further be explained by the fact that, VIP rich positive FSW do not like to show up to local CBOs or prefer sending someone to pick-up their drugs. However, only one of the variables [occupation of FSW (p=0.066)] were eligible for multivariate analysis. Thus, though some socio-demographic factors affect treatment access, they could not stand as independent factors.

Table 6: Socio-demographic factors affecting access to HIV treatment services for MSM

Barriers to access to HIV services Socio-demographic factors	BIVARIATE			MULTIVARIATE	
	Proportion & percentages	OR (95CI)	P-Value	AOR/CI	P-Value
Occupation					
Student + MSM	7/11(63.6)	1			
Employed + MSM	9/14(64.3)	1.1(0.2-5.3)	0.973		
Education					
None/Primary/secondary	1/5 (20.0)	1			
High School/Tertiary	10/20(50.0)	3.9(0.4-42.4)	0.249		
Monthly income					
Nothing	10/22(45.5)	1			

≥ 50,000Fcfa	1/3(33.3)	0.6(0.1-7.6)	0.693
Age group			
<25 years	5/14(35.7)	1	
≥25 years	6/11(54.6)	2.2(0.4-10.8)	0.349

Table 7: Socio-demographic factors affecting access to HIV treatment services for FSW

Barriers to access to HIV services		BIVARIATE		MULTIVARIATE	
Socio-demographic factors	Proportion & percentages	OR (95CI)	P-Value	AOR/CI	P-Value
Occupation					
Sex work + other activity	11/14(78.6)	1			
Sex work only	2/6(33.3)	0.2(0.01-1.4)	0.066		
Education					
None/Primary/secondary	8/14 (57.1)	1			
High School/Tertiary	5/6(83.3)	3.7(0.3-41.1)	0.279		
Monthly income					
<50000Fcfa	6/9(66.7)	1			
≥ 50,000Fcfa	7/11(63.6)	0.9(0.1-5.6)	0.888		
Age group					
<25 years	2/3(66.7)	1			
25-34 years	4/14(28.6)	4.9(0.3-17.8)	0.237		
≥35 years	1/3(33.3)	3.9(0.1-11.9)	0.424		

Social factors hindering access to HIV treatment services

Table 8 and 9 reveals the unadjusted and adjusted logistic regression analysis of social factors and access to HIV treatment services among FSWs and MSMs. From the unadjusted logistic regression, factors eligible for the multivariate analysis were set at P-values ≤0.2. While stigma/discrimination wasn't eligible for MSM for multivariate analysis, FSWs who had not been verbally insulted and those who think their sexual orientation doesn't affects them, were 7.8 (0.3-15.1) and 7.4 (0.3-18.4) times respectively more likely to access HIV treatment compared to their counterparts though none was significant. While economic constraint wasn't an issue among FSW, MSMs who were financially viable were 28.1(1.6-51.1) times more likely to access treatment compared to those who were not financially viable and was significant (p=0.023). Thus, low financial status is a barrier to access HIV treatment among MSM.

As regards distance and waiting time at HF, both MSM and FSW who live further from the HF were respectively 0.2 (0.01-2.1) and 0.4 (0.01-1.2) times less likely to access HIV treatment compared to their counterparts who lived closer to the HF though none were significant ($p=0.149$ and 0.562 respectively). In addition, MSMs whom, complained of longer waiting time at HF were 0.2 (0.01-2.1) times less likely to access HIV treatment and the results was significant ($p=0.050$). Thus, longer waiting time is a barrier to sought HIV treatment among MSMs.

Table 8: Social factors hindering access to HIV treatment services for MSM

Stigma/discrimination					
Does your sexual orientation affects your access to HIV treatment?					
Yes	7/18(38.9)	1			
No	4/7(57.1)	2.1(0.4-12.3)	0.413		
Verbally insulted in a HF because of your status?					
Yes	8/17(47.1)	1			
No	3/8(37.5)	0.7(0.1-3.8)	0.654		
Economic Constraints					
Does your financial state affect your ability to access treatment?					
Yes	2/12(16.7)	1			
No	9/13(69.2)	11.2(1.6-76.8)	0.014	28.6(1.6-51.1)	0.023
Other financial responsibilities more important than your treatment?					
Yes	2/5(40.0)	1			
No	9/20(45.0)	1.2(0.1-8.9)	0.842		
Distance and waiting time at Health Facility					
Does waiting time affect your access to treatment?					
No	9/17(52.9)	1		1	
Yes	2/8(25.0)	0.3(0.1-1.9)	0.201	0.2(0.01-1.2)	0.050
Geographic distance of treatment center from your home?					
Close by/Average distance	6/8(75.0))	1		1	
Far/Very Far	5/17(29.4)	0.1(0.02-0.9)	0.043	0.2(0.01-2.1)	0.149
Trust of results, Myths and fear about HIV medications					
Have any fear concerning HIV medication?					
Yes	8/18(44.4)	1			
No	3/7(42.9)	0.9(0.2-5.5)	0.943		
Has someone ever told you anything negative about HIV medication?					
Yes	6/17(35.3)	1			
No	5/8(62.5)	3.1(0.5-17.5)	0.209	13.2(0.5-33.2)	0.118
Trust your test result on the day you were diagnosed?					
Yes	1/3(33.3)	1			
No	10/22(45.5)	1.7(0.1-21.2)	0.694		

Table 9: Social factors hindering access to HIV treatment services for FSW

Stigma/discrimination		
Does your sexual orientation affects your access to HIV treatment?		
Yes	2/5(40.0)	1
No		1

No	11/15(73.3)	4.1(0.5-16.4)	0.191	7.8(0.3-15.1)	0.176
Verbally insulted in a HF because of your status?					
Yes	2/6(33.3)	1		1	
No	11/14(78.6)	7.3(0.9-21.8)	0.066	7.4(0.3-18.4)	0.219
Economic Constraints					
Does your financial state affect your ability to access treatment?					
Yes	6/8(75.0)	1			
No	7/12(58.3)	0.5(0.1-3.3)	0.448		
Other financial responsibilities more important than your treatment?					
Yes	3/6(50.0)	1			
No	10/14(71.4)	2.5(0.3-18.1)	0.364		
Distance and waiting time at Health Facility					
Does waiting time affect your access to treatment?					
Yes	5/8(62.5)	1			
No	8/12(66.7)	1.2(0.2-7.8)	0.848		
Geographic distance of treatment center from your home?					
Close by/Average distance	12/16(75.0))	1		1	
Far/Very Far	1/4(25.0)	0.5(0.2-1.9)	0.088	0.4(0.1-1.7)	0.562
Trust of results, Myths and fear about HIV medications					
Have any fear concerning HIV medication?					
Yes	8/14(57.1)	1			
No	5/6(83.3)	3.7(0.3-16.1)	0.279		
Has someone ever told you anything negative about HIV medication?					
Yes	11/16(68.8)	1			
No	2/4(50.0)	0.5(0.1-4.2)	0.488		
Trust your test result on the day you were diagnosed?					
Yes	7/10(70.0)	1			
No	6/10(60.0)	0.6(0.1-4.9)	0.640		

Limitation of the study.

Financial limitation posed a major limitation to the research..The cost of producing questionnaires, administering, entering data and analysing was high. However, with help from my organization and family members, the burden was reduced.

Secondly, this research was done during the socio political crisis in the North West region where the research was being done. It greatly affected the completion time as questionnaires could not be administered in hotspots as planned due to the fact that the study population was scattered and difficult to find. However, with the respondent driven sample method used in administering the

questionnaires, respondent could take time to locate their peers. Well trained data collectors from CMWA and Affirmative Action facilitated the process.

Another limitation was that, this work conducted within the confines of the Bamenda Health District and could not to an extent provide enough results that can be generalized in Cameroon. Because key populations are very mobile, it is necessary that a continuous national research on access be conducted to support the design and implementation national programs targeting key populations.

5. Conclusion and Policy Implication

Access to treatment is the second 90 target of UNAIDS in the continuum of HIV care. MSM and FSW still face some barriers in attempts to seek HIV treatment services thus need for research in this area. This research reveals that key populations in the Bamenda Health district don't have the expected access to treatment services. From the results, it shows that in designing programs for FSW, there is need to include aspects of income generation as FSWs carrying out only sex work were 0.2:1 (0.01-1.4) times less likely to access treatment compared to those who do sex work plus other little businesses though not significant ($p=0.066$). However, higher incomes could also be barrier to treatment as shown by the results. MSM and FSW who earned 50000Fcfa or more were respectively 0.6:1(0.1-7.6) and 0.9:1(0.1-5.6) less likely to access HIV treatment compared to their counterparts who earn little or nothing. MSMs who were financially viable were 28.1(1.6-51.1) times more likely to access treatment compared to those who were not financially viable and was significant ($p=0.023$). Policy should also look at issues of distance to Health facilities for MSM and FSW who live further from the HF as those who were further away are less likely to access HIV treatment compared to their counterparts who lived closer to the HF though non were significant. In addition, MSMs who, complained of longer waiting time at HF were 0.2 (0.01-2.1)

times less likely to access HIV treatment and the results was significant ($p=0.050$). Thus, longer waiting time is a barrier to sought HIV treatment among MSMs.

The results of this work implies that, for institutions and governments wishing to design programs distance, fear of medication ,stigma and discrimination ,economic constrains should be prioritized.

REFERENCES

1. Adedotum, O. (2016). *Barriers , motivators ,facilitators related to Engagement in HIV care among Ghanian men who have sex with men(MSM) Living with HIV:A qualitative study.*
2. Baral, S., et al (2012).*Burden of HIV among female sex workers in Low-income and middle income countries: a systematic review and meta-analysis.P.1,Dio 10.1016/s1473-3099(12)70066-x*
3. Cameroon Country Operational Plan.(2016).*Strategic direction summary.P.10*
4. Claire ,E et al.(2015).*Access to HIV services at Non-governmental and Community – Based organization among men who have sex with men(MSM) in Cameroon: An integrated Biological and behavioral surveillance Analysis. Plos one/:10.1371/Journal.pone.012281*
5. DEBOTTAM PAL.(2017).*Barriers to Anti-Retroviral Therapy among Men who have sex with men in West Bengal, India*
6. Erin Papworth.,et al (2014) .*Examining risk factor for HIV and access to services among Female Sex workers and Men having sex with men in Burkina Faso,Togo and Cameroon.*
7. Institut National de la Statistique (INS) et ICF international. (2012). *Enquete demographique et de sante et a indicateurs multiples (EDS-MICS) 2011.* Calverton, Maryland, USA: INS et ICF international.
8. Interagency Coalition on AIDS and Development. (2016).*The sustainable development goals and the UNAIDS strategy. P.1-4 www.icad-cisd.com*

9. John Hopkins University Metabiota Cameroon.(2017.2016). *Integrated Biological and Behavioral survey among key populations in Cameroon: Female sex workers and Men who have sex with men.*
10. Park, JN *et al.* (2013). *HIV prevalence and factors associated with HIV infection among men who have sex with men in Cameroon. Journal of the international AIDS Society 2013,16(suppl.3): 18752*
11. PEPFAR .(2016). *Priority Areas Key Populations: Ensuring Human rights and leaving no one behind.*
12. PEPFAR Gender Analysis in Cameroon (2016). *Summary of Key Findings and Recommendations for key populations.*
13. PEPFAR.(2017).*Cameroon Country operational plan COP2017.Strategic Direction Summary .P 1-12*
14. Ruth N .(2014).*Factors Influencing effective utilization of HIV/STI Comprehensive Health services by sex workers in Nairobi ,Kenya.*
15. Sonya,A,. *et al*, (2012).*Access to HIV prevention and treatment for Men have sex with Men. Findings from the 2012 Global Men's Health and right study.*
16. The United Nations General assembly.(2015).*Transforming our world: the 2030 Agenda for sustainable development.*
17. UNAIDS.(2016).*Global AIDS updates P.10*
18. UNAIDS. (2017). *UNAIDS data 2017 P.9*
19. United Nations. (1948).*Universal Declaration of Human Rights.*
20. United Nations. (2015).*The Millennium Development Goal Report.*
21. WHO,2017.*Consolidated guidelines on HIV prevention, diagnosis ,treatment and care for key populations*
22. WHO. (2016).*Policy brief.(2016).Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations 2016 updates.P.2*
23. WHO.(2014).*Consolidated guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key populations*
24. World Bank. (2016).*Mapping and size estimation of Female sex workers in Cameroon. To inform HIV program Design and implementation: Executive summary .P.10*

