Evaluation of Barriers and Facilitators Influencing the Uptake of Male-Friendly Clinical Services Offered in Coalane, 24 de Julho, and Maquival Sede Health Facilities in Zambézia Province, Mozambique

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Contents

List of Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
ART	Antiretroviral Therapy
AYFS	Adolescent and Youth Friendly Services
CDC	Centers for Disease Control and Prevention
CIBS-Z	Institutional Health Ethics Committee of Zambézia
DDS	District Health Directorate
DGHT	CDC Division of Global HIV & TB
DHS	Demographic and Health Survey
DMC	Differentiated Model of Care
DPS-Z	Direcção Provincial de Saúde de Zambézia (English: Zambézia Provincial Health Directorate)
EC	Ethics Committee(s)
ES	Emergency Services
FGH	Friends in Global Health
FGD	Focus Group Discussion(s)
FP	Family Planning
HBP	High Blood Pressure
HF	Health Facility
HIV	Human Immunodeficiency Virus
IDI	In-depth Interviews
IEC	Information, Education and Communication
IRB	Institutional Review Board
IMASIDA	National Immunization Malaria and HIV/AIDS Indicators survey
MFC	Male-Friendly Clinic
MFS	Male-Friendly Services
MISAU	Ministério de Saúde
MOH	Ministry of Health
NIOZ	Operational Investigation Committee of Zambezia
NGO	Non-Governmental Organization
PI	Principal Investigator(s)
PITC	Provider-Initiated Testing and Counseling
PLWH	Persons Living with HIV
PSS	Psychosocial support
SDSMAS	District Services for Health, Women and Social Action
SRH	Sexual and Reproductive Health
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infections
TB	Tuberculosis
TPT	Tuberculosis Preventative Treatment
UNAIDS	Joint United Nations Programme on HIV and AIDS
VUMC	Vanderbilt University Medical Center
WHO	World Health Organization

Summary

Introduction

Gender inequalities and harmful gender norms are key determinants of the HIV epidemic and can be considerable obstacles to an effective response to the epidemic itself and the specific needs of persons living with HIV. Programmatic data in Mozambique have shown that access to health services and chronic disease treatment outcomes are better among women than men. In 2018, the Ministry of Health (MOH) of Mozambique published *Guidelines for Male Engagement in Health Care* with the intention of "guiding the implementation of interventions aimed at engaging men and boys in the use of health services, at the community, workplace and health facility levels." To attain male involvement, a differentiated model of care centered on men was introduced in Zambézia province, developed in collaboration by Friends in Global Health and the Provincial Health Directorate of Zambézia (DPS-Z). This model includes the provision of male-friendly services (MFS) and was launched in 2018. In Quelimane, the capital city of Zambézia province, MFS were provided through male-friendly clinics (MFC), dedicated to male patients, where predominantly male health care providers offered care through a one-stop model outside of routine clinic operation hours. The implementation of the MFS intervention began in 2018, and this evaluation was conducted in 2021 to assess the facilitators and barriers influencing the uptake and utilization of such services.

Methods

The evaluation was conducted between February-April 2021 at three health facilities providing MFS in Quelimane, namely the Coalane, Maquival Sede, and 24 de Julho health facilities. In addition, evaluation activities were conducted at two local companies and within the communities in the catchment areas of the three health facilities included in the evaluation. All participants were selected via convenience sampling. In-depth interviews (IDI) were conducted among male and female patients who are persons living with HIV (PLWH) as well as their health care providers. Focus group discussions (FGD) were performed with male community members and male employees of two companies based in Quelimane. Sessions were conducted in Portuguese or Chuabo (a local language). All recordings were transcribed in Portuguese and coded by two independent investigators. Thematic analysis was performed.

Results

Eighty-three IDI (41 male and 24 female patients, 18 health care providers) and five FGD (three involving community members [n=25], two involving company employees [n=13]) were conducted. Barriers to uptake of MFS included: not knowing such services were available; poor health care seeking behavior; competing priorities (e.g., work responsibilities); perception that poor quality care would be received; and prolonged wait times at the health facility. Health care providers highlighted perceived barriers such as limited human resources, equipment (e.g., sphygmomanometers) or infrastructure (e.g., confidential space), and long distances (for patients and providers) from home to the health facility, which could compromise one's safety after dark. Among the facilitators for MFS uptake, all groups mentioned the provision of extended clinical hours at the MFC, one-stop-model for service delivery, and the availability of male providers as key program elements which increased patient comfort and willingness to share personal/confidential information.

Conclusions

Male friendly services are an acceptable means of offering male-centered care, especially for patients not able to visit the health facility during routine operating hours. Demand creation messaging, however, is needed to improve awareness of MFS in the communities. Given the acceptance of the model, MFS could potentially include screening and management of infectious diseases (e.g., HIV/AIDS) as well as non-communicable diseases (e.g., other important and common chronic medical conditions such as diabetes mellitus and hypertension).

Program Background

According to the World Health Organization (WHO) Bulletin, health indicators performance remain substantially lower for boys and men than for girls and women.[1] This gender-based disparity in health indicator performance has received little attention from health care providers, and when new health policies are designed, few strategies have been developed to address these inequalities.[1]

In many cultures, the stereotype of the male model presents men as being active, strong, capable of physical and hard work, productive, competitive, and oriented to the outside world. Therefore, admitting the need for medical care and seeking it goes against their social role and their awareness of what it means to be a man.[2-4] Male socialization implies that men must have a multiplicity of masculine qualities, including emotional repression. This may be one of the reasons why men tend to complain less and only seek help when they cannot perform their routine functions.[4]

Gender inequalities and harmful gender norms are important drivers of the HIV epidemic and can be major obstacles to an effective response. Although access to HIV services for women and girls is still suboptimal, evidence shows that men and boys have even more limited access to these services.[5] Current efforts to make progress in gender equality issues such as sexual reproductive health (SRH) and human rights, as key elements of the response to HIV, do not adequately reflect the way in which harmful gender norms and practices negatively affect men, women, and adolescents. This, in turn, increases these groups' vulnerability and risk to HIV.[6]

Studies show that one of the factors that can contribute to retention in health services by the male population is related to the provider's ability to offer services that take the singularities of this group into account, knowing and respecting their satisfactions and dissatisfactions with the services provided to them.[7]

Mozambique, a sub-Saharan African country, also faces enormous challenges in engaging men and boys in HIV prevention and testing services, and in retaining males in HIV care. A 2021 study in Mozambique estimated that 25% of seropositive males were not aware of their HIV status (compared to an estimated 11% of seropositive females).[8] Studies have found that Mozambican males are less likely than their female counterparts to have initiated antiretroviral therapy (ART) and to be retained in care following ART initiation.[8, 9]

In this context, in 2018, the Ministry of Health (MOH) of Mozambique published its *Guidelines for Male Engagement in Health Care* with the intention of "guiding the implementation of interventions aimed at engaging men and boys in the use of health services, at the community, workplace and health facility levels".[10] The MOH hopes to improve male health outcomes, while also having a favorable impact on the health of adolescent girls and women.

Friends in Global Health (FGH), an international non-governmental organization (NGO) and affiliate organization of the Vanderbilt University Medical Center (VUMC), developed in collaboration with the provincial health directorate of Zambezia (DPS-Z) a Male-Friendly Services (MFS) intervention in order to provide specific health services for boys and men, and to thereby also determine which specific components of MFS contribute most to improved health outcomes. The HIV prevalence in Zambézia province was estimated in 2015 at 15.1% among reproductive-aged adults (15-49 years of age), and when disaggregated

by sex, the prevalence was 16.8% among females and 12.5% among males.[11] The Mozambique Population-based HIV Impact Assessment, INSIDA 2021, reported that nationally, 68.5% of men living with HIV were aware of their status compared to 73.3% of women living with HIV.[12] Per the MOH National Program for the Control of STI/HIV and AIDS 2021 Report, men and young boys continue to have lower ART coverage than women and young girls.[13] The INSIDA 2021 report found that, nationally, men aged 15-24 years and 25-34 years had considerably lower rates of viral load suppression than age-matched women (42.4% and 43.3%, compared to 45.2% and 68.8%; respectively).[12]

The MFS intervention was proposed to promote enhanced male involvement by introducing a differentiated model of care (DMC) centered on men, designed to increase the number of men counseled and tested for HIV, enrolled into care, initiated on ART, and retained in longitudinal HIV care.

In Zambézia Province, the MFS project was piloted in Quelimane district, with a first phase implemented at Maquival Sede and Coalane health facilities (HF) starting in July 2018, and in a second phase at the 24 de Julho HF in 2019.

Male-Friendly Services Program description

The overall goals of the MFS program are to:

1. Directly raise men's awareness of health issues, in particular the importance of prevention, care and treatment for HIV, SRH issues, and chronic non-communicable diseases.
2. Offer differentiated care focused on men and men's health issues, thus creating a favorable context to improve HIV care and treatment outcomes at both the individual patient and community levels.
3. Indirectly, the intervention also aims to have a positive impact on the health of women and other family members since in this region men are commonly considered to be the head of the household and often are key decision makers for the entire family's health-related matters.

The specific objectives of the MFS project are to:

(i) Pilot a one-stop model of a Male-Friendly Clinic (MFC) with the following characteristics:

- Hours of operation from Monday to Friday from 13:00 to 20:00 (i.e., 1:00 PM to 8:00 PM);
- As much as possible, be staffed by male health care personnel;
- Provide a Reception/waiting area having the same opening hours as the clinic;
- Availability of essential medications (with open pharmacies having sufficient medication stock levels);
- Able to open patient clinical files (i.e., enroll a patient in care);
- In addition to HIV services, offer other services such as screening and treatment of high blood pressure (HBP), sexually transmitted infections (STI), family planning (FP) and others with an impact on male health (i.e., using a cross-cutting approach); and
- Have the support of the male peer educators known as "male champions" to raise awareness of these services, create demand for services as well as reflection/ normalization through community- and health facility-based lectures, guide discussion groups, show videos followed by interactive discussions, and facilitate the linkage for males to the MFS services;

(ii) Expose and address issues relating to male SRH, such as:

- Concepts of sexuality;
- Myths and facts related to sexuality;
- Penis size and penile health;
- Common clinical conditions of the penis;
- Erectile dysfunction;
- Premature ejaculation;
- Most common STI such as syphilis, chlamydia, herpes simplex virus, genital human papillomavirus (HPV), and gonococcal infections;
- Most common problems affecting the testicle(s);
- Most common problems affecting the prostate;
- Male circumcision and its benefits;
- Male engagement in SRH and its relation to the prevention of vertical HIV transmission; and
- FP (e.g., available methods, advantages and disadvantages of each).

(iii) Increase the number of men tested for HIV, knowing their HIV status, and for those diagnosed with HIV to be enrolled in and retained in ART services, where, in addition to all HIV-related aspects, issues related to co-infection with tuberculosis (TB) should also be addressed, such as:

- Signs and symptoms of TB;
- Risk factors for TB (and clinical manifestations) among males;
- How to prevent TB (e.g., TB preventive therapy [TPT]);
- Importance of early diagnosis of TB in PLWH;

(iv) Increase the number of men: 1) screened for hypertension and retained in care (with well-controlled blood pressure) among those diagnosed with HBP; 2) screened for diabetes mellitus and retained in care (with well-controlled diabetes) among those diagnosed with diabetes mellitus; and 3) who receive information on other medical conditions of interest (i.e., prostate infections/cancer, etc.), including such topics as:

- What is HBP;
- Risk factors for HBP;
- Classification of HBP;
- Clinical manifestations of HBP;
- Diagnosis of HBP;
- Potential complications of HBP;
- Treatment of HBP;
- What is diabetes mellitus (two types);
- Clinical manifestations of diabetes mellitus;
- Risk factors for the development of diabetes mellitus;
- Diagnosis of diabetes;
- Potential complications of diabetes mellitus;
- Diabetes prevention/screening measures;

- Treatment of diabetes mellitus.

After this project was presented to and approved by the DPS-Z, District Services for Health, Women and Social Action (SDSMAS), and the Centers for Disease Control and Prevention (CDC) in Mozambique and the CDC headquarters office of the Associate Director for Science in the U.S., in 2018, the District Health Directorate of Quelimane City in collaboration with FGH created a curriculum for the clinical training of health care providers. Curriculum topics were selected from MOH training materials concerning male health, including HIV/TB screening and care, SRH, mental health, as well as chronic medical conditions including arterial hypertension (i.e., HBP) and diabetes mellitus. Nurses, laboratory, pharmacy and medical technicians, health counselors and clinicians at Coalane and Maquival Sede HF were trained over the course of two afternoons (after normal clinic hours) on the provision of MFS.

The Coalane and Maquival Sede HF were selected as intervention sites for the MFS approach by the District Health Authorities, based on their geographic location, with one (Coalane) located in the more urban zone of Quelimane City District and the other (Maquival Sede) located in the more rural zone of Quelimane City District. These HF were also selected because they both have an emergency ward that is operational in the evening, offering uninterrupted HIV Counseling and Testing services.

The installation and operationalization of MFC requires considerable logistics as they require their own cabinet/clinic, hiring of human resources, among other aspects. For this reason, for the expansion of this MFS project, the provision of services during extended work hours (EWH) was adopted, adjusted to HF conditions and available human resources. In other words, the expansion of the MFS to new HF was not through MFC, but rather through the EWH, in this context 8 HF were added, namely: Health Center (CS) of Milange Sede, CS Mocuba Sede, CS Nicoadala Sede, CS Maganja Sede, Hospital Rural de Alto Molócuè, CS Gurué Sede, CS 24 de Julho and CS 17 de Setembro. These HFs were chosen among those that have an emergency room in operation in the evening, with staff there servicing large patient volumes, including in the evenings, and the HF had sufficient infrastructure (i.e., space) for the provision of these MFS. In 2019, healthcare providers at these HF received on-the-job (i.e., in-service) training on the MFS package and service delivery.

In these HF, the project did not cover the entire first specific project objective (i) above, because these HF do not have a specific office/cabinet to offer personalized services to men. This specific office/cabinet can only be found in Coalane and Maquivale Sede in MFC (see **Figure 1**). The 24 de Julho HF was additionally selected to be included in this evaluation, so that the evaluation could be comprehensive and inclusive of the EWH approach used in the MFS expansion phase.

Despite not having a specific cabinet, the MFS expansion HF, such as 24 de Julho HF, offer several components within the scope of the MFS project such as operating with extended clinical hours, from Monday to Friday from 15:00 to 20:00 (i.e., 3:00 PM to 8:00 PM) (see **Figure 1**). The services available during these hours included: reception, psychosocial support (PSS), clinical consultation, laboratory, pharmacy, and data entry, while the remaining services of the HF in the period after normal working hours continued to function as before, including provider-initiated testing and counseling (PITC), emergency ward, treatment room, and hospitalization, according to the needs of the patients at each HF.

Thus, the three HFs in this evaluation (Coalane, Maquival Sede, and 24 de Julho) offer MFS with all the features presented above, but only in two of them (Coalane and Maquival Sede) do these MFS include a specific one-stop office/cabinet to offer these services in the so-called MFC.

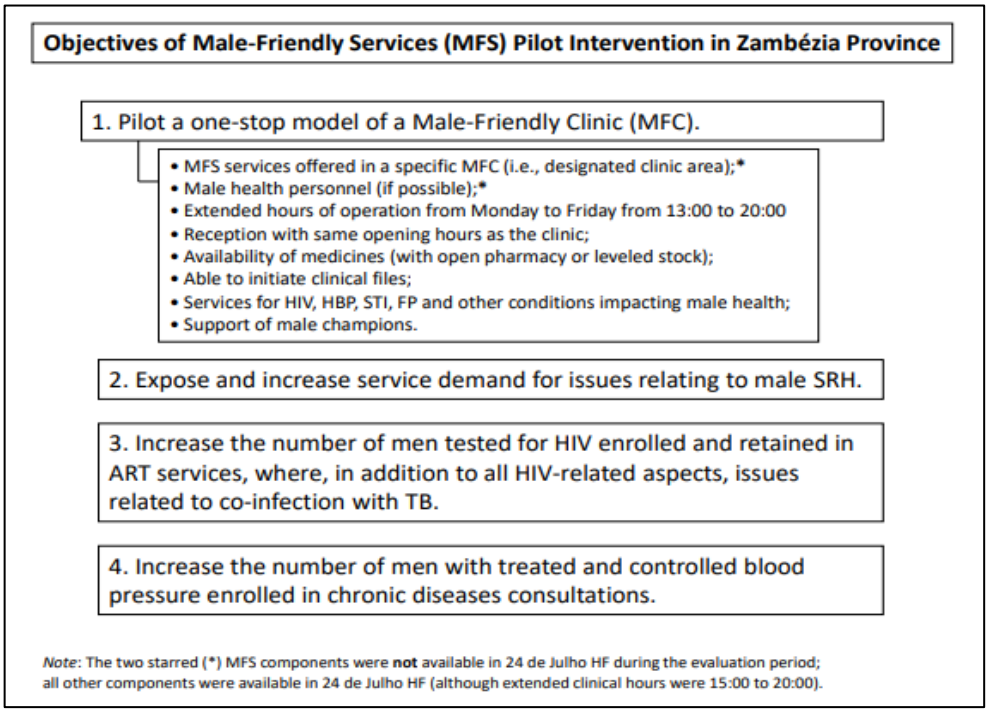

Figure 1. Overview of the objectives of the MFS pilot intervention in Zambézia Province, and MFS program components offered at participating health facilities.

In the HF where the MFS were implemented, regular monitoring of key Care and Treatment indicators, disaggregated by sex, was conducted. Results and trends were discussed during staff meetings, including the development of action plans for process/outcome measure performance improvement. The involved healthcare team members also continued to receive clinical mentoring on a consistent basis.

The communication strategy was intended not only to reach HF users and the community at large in order to create demand for the use of MFS, but also to reach the male employees of companies selected among the largest employers within Quelimane. The aim of reaching men in this context was to raise awareness about the importance of health care for men and address issues of masculinity and gender relations, with the goal of creating demand for the use of MFS at the implementing HF. Initially nine companies were selected from the list of the largest employers in Quelimane to host the awareness lectures. The companies were identified based on data collected with the support of the Provincial Work, Employment and Social Security Directorate of Zambézia, including characteristics such as their number of employees, location, and branch of work/activities (see **Appendix 16**). The selected companies were visited by MFS program leads who explained the novel services and coordinated to present informational/ demand-creation sessions to employees if the business owners/ managers agreed.

This evaluation aimed at investigating the usage of these MFS and was conducted within the three HF in Quelimane City district where MFS was implemented. The total cost of this evaluation was estimated at USD $8,191.00.

Purpose and Objectives of the Evaluation

The overall purpose of this evaluation was to identify factors that influence male attendance at the clinics implementing MFS.

Specific objectives were:
1. Identify facilitating factors that may encourage men to use MFS, including the MFC;
2. Identify barriers that may negatively influence or prevent the utilization of MFS, including the MFC;
3. Capture the experiences and opinions of health care providers regarding the MFS strategy including in relation to the MFC; and
4. Recommend social, structural and implementation strategies that may facilitate the uptake of and longer-term use of/ retention in MFS.

This evaluation was designed to gather information that can provide a better understanding of the opinions and experiences regarding the MFS and the MFC. This information can inform FGH and MOH to design/ tailor strategies to create demand for and improve the delivery of these services.

Design/ Methods/ Limitations

Evaluation type

A process evaluation (i.e., a type of formative evaluation) was conducted using qualitative methodology, whereby data was collected using in-depth interviews (IDI) and focus group discussions (FGD) to assess the barriers and facilitators for using MFS and the MFC.

Evaluation setting

The evaluation was conducted in the urban capital district of Quelimane City in Zambézia province, located in Central Mozambique.

The evaluation sites included:

a. **Health Facilities:** The three HF where MFS was initially implemented: Maquival Sede, Coalane, and 24 de Julho health centers, in effort to recruit participants who had already heard about and knew of the MFS services, as well as individuals who had already used these services at the time of the evaluation.

b. **Companies**: As the MFS program includes awareness-raising activities among male employees at select companies in Quelimane City in effort to increase men's HF service uptake, the evaluation also included two company sites: a company employing shift workers, and another where employees work during normal business hours.

c. **Community**: In order to capture potential barriers to the use of MFS, this evaluation also included community sites, whereby men who live in the surrounding neighborhoods of the selected HF and who had not made use of MFS at the time of the evaluation were invited to participate in FGD to understand their opinion regarding MFS services offered in these HF.

Stakeholder engagement

Collaborating partners/ investigators from DPS-Z, SDSMAS, FGH and VUMC were involved in this activity from the time of conception of the evaluation protocol. FGH was the main evaluation implementation partner, coordinating all data collection, management, and analysis activities. VUMC collaborators provided technical support for the evaluation design and data interpretation, reporting and dissemination of results. The DPS-Z provided technical and coordination support to the district involved in this evaluation and data analysis. Collaborators from the SDSMAS coordinated data collection activities with the HF involved in the evaluation and provided inputs in the data analysis phase, particularly with interpretation of the findings.

Evaluation population/ inclusion and exclusion criteria

This evaluation included the following groups:

a. Men aged 18 years and older in the HF;
b. Women aged 18 years and older in the HF;
c. Health care worker;
d. Male company employees (18 years of age and older); and
e. Men aged 18 years and older in the community.

Women attending services at the selected health facilities were included in this evaluation to gather their opinions on having health facility-based services focused on male attendance, to assess if these women would be supportive of offering services specifically tailored for men, and what barriers/ facilitators they would see in implementing such male-friendly services. As female adults who attend those HFs and living in catchment areas/neighborhoods surrounding these health facilities, they could potentially influence their male partners/ colleagues who, for the most part, may not frequent the HF and/or do not know that these services are available. Their opinions of these services could possibly influence men to attend (or not) these tailored health services.

Inclusion and exclusion criteria are shown in **Table 1**.

Table 1: Participant Inclusion and Exclusion Criteria

Participant	**Inclusion Criteria**	**Exclusion Criteria**
General (all groups)	• Being 18 years of age or older; • Having accepted and signed/ provided thumbprint on the informed consent form.	• Not being in a position to understand the content of the informed consent form or the process of providing informed consent, or not able to provide informed consent.
Males in the HF	Who used the services of the external consultations/ emergency services/ MFS/MFC of the HF under evaluation in the last 6 months.	n/a*
Females in the HF	Who used the services of the external consultations/ emergency services/ MFS/MFC of the HF under evaluation in the last 6 months.	n/a
Health Care Workers	Who provide services in the HF under evaluation, in the MFS/MFC/ external consultations/ Emergency services/ AYFS/ or who is a member of the HF management team.	Professionals allocated to work at the HF included in evaluation less than 3 months prior to evaluation start.
Male Company Employees/ Managers	Male employees of companies visited to raise awareness to use the MFS.	If more than 2 months had passed between the date the company had been visited to provide an information session and the date of data collection. Not accepting/consenting to the recording of the FGD.
Men in the community	• Did not use the services of the HF under evaluation in the past 6 months.	Men living less than 6 months in the neighborhoods surrounding the HF under evaluation. Not accepting/consenting to the recording of the FGD.

* N/a = not applicable

In general, the FGD technique was used to collect data from male employees who worked in one of the companies that opted to be included in the evaluation, and from males living in the communities who had not visited the HF included in the evaluation in the last six months before the day of data collection. In the health facility, only IDI were conducted with male and female patients and health care workers.

Sampling strategy

For both the IDI and FGD activities, the evaluation team utilized purposive sampling (at the HF, companies and in the community, respectively) to approach and recruit eligible participants from specific sub-groups for inclusion. Individuals available on the day of data collection who were interested were invited for review of inclusion/exclusion criteria and consent process.

Men and Women in the HF

All men and women 18 years and older seeking services in one of the selected HF, either specifically the MFS/MFC or for another service, during the period in which the evaluation team was collecting data in that HF, were considered eligible for this evaluation. All those considered a potential participant were referred to the evaluation team by health care providers. Then, the evaluation team informed about the evaluation and if determined to be eligible, invited the individual to take part. All who agreed to participate signed the informed consent form; if the individual was illiterate, their fingerprint was obtained in place of their signature and an independent witness signed the consent form as well.

People who did not agree to participate were dismissed without any intimidation and assured that they would not lose any rights as a user of the HF for declining to participate.

Health Care Workers

The managers of the selected HF were prior informed about the evaluation, and they assisted the evaluation team in identifying the eligible health care workers (18 years of age and older) to achieve the intended objectives. Once identified, the health care worker was informed about the evaluation and the average amount of time that the interview would take. If agreeing to the interview, he/she and evaluation team member agreed on the time and place for the interview, which for the majority were conducted outside his/her normal working hours. Only health care workers who signed the informed consent form participated in the interview.

Male company managers and employees

At the two companies agreeing to collaboration for the evaluation, the first contact by the evaluation team was with managers to inform them about the evaluation. The study team requested to provide an informational session with workers only, and the managers assisted the team in identifying potential male participants (18 years of age and older).

Workers were invited by managers to have this informational session with the evaluation team. In this session, the study team explained the general details of the evaluation, objectives and methods, and then those who were interested in taking part were invited to participate. Once identified, the potential participants received information regarding the purpose of the evaluation and the average amount of time that the FGD would take. The employees and evaluation team members agreed on the time and place of the discussion.

A total of 6 to 10 male employees who were available and eligible were invited for one FGD. The evaluation team was composed of three trained personnel, including a notetaker, a facilitator, and an observer. The informed consent form was read to the group loudly and slowly, in the preferred language of the group (Portuguese or Chuabo, the local language). After that, potential participants met privately with the evaluation team members to indicate their decision of whether or not to agree to participate in the FGD. All who agreed to participate were then asked to sign or put their fingerprint on (if illiterate) the informed consent form. In the latter cases, an independent witness observed the consent process and signed the consent form.

Men in the Community

Men aged 18 years and older who lived in one of the three selected neighborhoods (i.e., within the catchment areas of the three selected HF) were considered eligible for this evaluation. In the neighborhoods, the evaluation team went first to introduce themselves with the local administrative authorities and explained the purpose of the evaluation.

After receiving approval from the administrative authorities, evaluation team members were assisted by the administrative authorities in identifying the neighborhood blocks where they could conduct recruitment activities. Individual males encountered at these recruitment sites were informed by evaluation team members of the purpose of the evaluation and the average amount of time that the FGD would take. Those persons indicating interest and evaluation team members agreed on the time and place of the discussion. Each FGD was composed of 6 to 10 participants per neighborhood. During the conversation, the evaluation team was composed of three trained personnel, including a notetaker, a facilitator, and an observer. The informed consent form was read to the group loudly and slowly. After that, potential participants met privately with the evaluation team members to indicate their decision of whether or not to agree to participate in the FGD. All who agreed to participate were then asked to sign or put their fingerprint on (if illiterate) the informed consent form. In the latter cases, an independent witness observed the consent process and signed the consent form.

Procedures

Before any data collection, all participants signed (or provided their fingerprint on) the informed consent form. Data was collected using two qualitative method techniques (IDI and FGD). For each technique, specific instruments were used (all of which had been pretested with individuals from the populations of interest who were not later recruited/enrolled in the study). The IDI and FGD were conducted in Portuguese and/or the local language (Chuabo), as per preference of the participant(s). Evaluation instruments were developed in Portuguese and translated by the interviewer/facilitator during the conversation to local language as necessary.

In-depth Interviews (IDI)

The IDI were conducted with the health care providers, female patients, and male patients who were recruited using the strategies described above. Each interview took between 10 to 35 minutes to be completed, and the information was obtained using a semi-structured interview guide tool (for approved IDI guides used, see **Appendices 3-5** and **7** in the accompanying materials below, from protocol Version 1.1).

Among HCW participants, information related to general perceptions about MFS, its acceptability/ adaptation, and their experiences with working with this project were captured. Among patients, the interview questions were related to the individual's general knowledge about the MFS, and their experience with MFS and with MFC. For female patients, questions were also asked to understand their opinion about the availability of these male-friendly services, to understand if they think that this DMC is needed to serve men, and if they think that men (or women) would use MFS or not and why.

Prior to the start of the IDI, participant demographic data was collected to be able to better describe the subgroup composition. After demographic data collection, the IDI was facilitated according to evaluation procedures. Individuals were informed that they could decline to answer a question and/or end their participation at any time.

Focus Group Discussions (FGD)

The discussions were guided by a semi-structured FGD script and was carried out with men in neighboring communities and employees of selected companies (for approved FGD guides used, see **Appendices 8** and **9** in the accompanying materials below, from protocol Version 1.1). The discussions took between 1 hour to 1 hour and 20 minutes. The information was obtained using a method of discussing the topics raised, where the moderator created an environment in which everyone felt comfortable contributing. Participants sat down in a circle to permit seeing each other's faces, creating a good communication environment.

Participant demographic data was collected first to permit having an accurate description of the group composition. After this demographic data collection, the groups started the conversations capturing information related to reasons why men, in general, do not seek health services and concerns men may have about going to the HF. For the company employees, questions were asked regarding if at their company they had already heard about MFS and if they have ever used them. In the communities, the conversation was conducted to capture men's opinions regarding the use of health services. Individuals were informed that they could decline to answer a question and/or end their participation at any time without penalty.

Sample size

Over the evaluation period, a total of 83 IDI were conducted, 41 of whom were male patients; 24 were female patients, and 18 were health care providers. Additionally, five FGD were conducted, two involving male company employees three involving male community members. The sample distribution by group and site is shown in **Table 2** below.

Table 2: Distribution of Sample by Group of Participants (n=121)

Location	Health Facility			Companies	Community
	Male patients (≥18 years)	Female patients (≥18 years)	Heath Care Workers (≥18 years)	Male Employees (≥18 years) (# of groups. # of participants)	Males (≥18 years) (# of groups. # of participants)
	In depth Interview			Focus Group Discussion	
Coalane	17	9	6		1 (10)
24 de Julho	16	9	6		1 (7)
Maquival	8	6	6		1 (8)
Company 1				1 (7)	
Company 2				1 (6)	
Total by group	41	24	18	2 (13)	3 (25)
Totals	**IDI = 83**			**FGD = 5 (38)**	

Ethical considerations

The evaluation protocol and instruments were approved by the Institutional Health Ethics Committee of Zambézia (CIBS-Z, reference 060/CIBS-Z/20), the VUMC Institutional Review Board (IRB) (#200765), and was reviewed in accordance with the US Centers for Disease Control and Prevention (CDC) human research protection procedures and was determined to be research, but CDC investigators did not interact with human subjects or have access to identifiable data or specimens for research purposes. All participants gave written informed consent prior to data collection (for approved informed consent forms used, see **Appendices 1** and **2** in the accompanying materials below, from protocol Version 1.1).

Prior to contact with evaluation participants, all evaluation staff were trained in the protection of human subjects in research/evaluations. All personnel who had access to the evaluation data signed a contract regarding data use and confidentiality prior to any contact with the data. The Co-Principal Investigators (Co-PI) assume full responsibility for the ethical conduct of the evaluation, as well as activities and ensured that all team members completed the necessary training prior to initiating data collection. During the implementation of this evaluation adverse events were reported.

Deviations from the protocol

During the implementation of this evaluation, no cases of protocol deviation were reported.

Quality Assurance

Training

Before data collection, trainings were provided to evaluation team members on the evaluation protocol procedures. To ensure that the data were collected in a uniform manner by team members, an evaluation-specific standard operating procedure (SOP) manual was used throughout the training and as a reference guide during data collection. Each team member had their own copy of the SOP manual. This SOP manual provided detailed instructions for all evaluation activities, including the recruitment of evaluation participants, obtaining informed consent, data collection, data management, and communication and supervision structures and other guidelines as needed.

The training of the team members also included human subject research ethics training. Only the members who had obtained the certificate of ethics were allowed to be part of the evaluation team.

In addition, during the data collection, the team leader supervised the team members to ensure that the data collection complied with the approved protocol.

Monitoring and data safety

The IDI and FGD were conducted in places with maximal privacy to protect the confidentiality of the participants. The identity of the participants was protected by assigning them an individual unique identification number. For the FGD, the technique itself exposes each participant to the other FGD participants, and opinions/comments shared during the session are heard by/known to the other participants in that session. Each participant was informed of this during the consent process, and each was informed that by consenting to participate in the FGD they were agreeing and committing to not divulge the information and/or opinions shared by other participants during the session.

All IDI and FGD audio recording files were downloaded from the recorder to the evaluation supervisor's password-protected computer. Each recording was then transcribed into an electronic file, and the transcript files were also encrypted, and password protected. These data files were stored in secure folders on FGH's restricted access shared folder as well as backed up on the FGH secure server to ensure protection and the ability to recover the data files in the event of a data loss or corruption incident. The records, transcripts and sociodemographic data were encrypted and protected with a password (known only among the evaluation team members needing to access the audio files) and kept on the investigators' computer.

To ensure the quality of the data transcripts, at least 5% of these were verified by the evaluation coordinator and supervisor, listening to the recording, and simultaneously reviewing the transcript to ensure that the transcripts accurately captured the audio recording. Recordings were deleted after quality control of the transcript.

Participant demographic data were entered into evaluation instruments (paper documents) created for the collection of this data by a member of the evaluation team; the collected data were reviewed by another evaluation team member to ensure accuracy and quality of the data.

All paper documents related to the evaluation were transported to the main FGH office in Quelimane and kept in a locked office with restricted access by only members of the evaluation team. Interview and FGD participants names were only documented on their individual informed consent form, kept in a locked cabinet, separate from the other evaluation documents.

While the consent forms contain identifiable information (due to having participants' names written), the IDI and FGD recordings and session notes did not include any identifiable information (only unique study codes for each participant) and were kept separately from the consent forms in a locked file cabinet in the FGH Quelimane office.

Five years after the dissemination of evaluation results, the data collected during IDI or FGD (electronic audio and transcription files) will be destroyed. At that time, all paper documents of major volume will be destroyed using an incinerator, and the less bulky paper documents will be destroyed using shredding machines. All electronic/digital files will be deleted from the computers, shared secure folders and the server.

Data Analysis

The sociodemographic data was synthesized using descriptive text-based summaries and data display matrices. The transcripts were read and coded. Codes (themes) were identified by the reading of the transcripts cross-linked with the literature review. The texts were carefully read by the evaluation team members to identify recurring patterns and topics and to derive conclusions on issues related to the evaluation objectives. The coding was done by two evaluation team members who first worked independently to review all transcripts and encode them. After that, coding by both team members was compared and consensus obtained. All codification agreed between the two team members was considered for analysis. Data analysis was done with the support of MAXQDA 12® software.

Limitations of the evaluation

Data are not necessarily representative for the country, as the evaluation was only conducted in select sites in one province in Mozambique and among specific subgroups of the population.

The IDIs planned with managers of the companies were not carried out due to unavailability of the managers and/or not meeting the inclusion criteria. This was an unfortunate limitation as this group could have provided important information on barriers and facilitators to male employees' use of MFS from a company managers' point of view.

Though the evaluation team had submitted authorization request letters to all nine indicated companies for an evaluation-related information session by sending letters to each company, unfortunately, it was not possible to collect data in all contacted companies due to the non-response from the company management/administration to our request to collaborate/participate. This limited the diversity of company employees included and FGD responses.

Results

Overall, 121 individuals participated in the evaluation activities. The sociodemographic data for all participants is shown in **Table 3** below. Among patients and health care workers, 34 (41%) were women. Among all patients, about half (35, 54%) had a 7th grade or lower (i.e., "basic") education level, while among company employees, almost all had an education level of 10th grade or higher (11, 85%).

Table 3. Sociodemographic data (n=121)

	Patients (IDI) (n=65)	**Health Care Providers** (IDI) (n=18)	**Employees** (FGD) (n=13)	**Community** (FGD) (n=25)
Sex				
Female	24 (37%)	10 (56%)	NA	NA
Male	41 (63%)	8 (44%)	13 (100%)	25 (100%)
Age				
Median, years (IQR)	34 (26-43)	33 (26-38)	32 (27-51)	23 (21-27)
Mean, years (sd)	35 (10)	34 (10)	39 (16)	26 (9)
Educational level (2 missing data for HCW)				
No formal education completed	17 (26%)	0	1 (7%)	3 (12%)
Basic level (7th grade)	18 (28%)	0	1 (7%)	3 (12%)
Middle level (10th grade)	13 (20%)	3 (19%)	3 (21%)	6 (23%)
Pre-university level (12th grade)	13 (20%)	9 (56%)	5 (36%)	10 (41%)
Higher Level	4 (6%)	4 (25%)	3 (29%)	3 (12%)

* NA = Not applicable

1. General use of health care services

Patients (male and female) generally said that on the one hand, HF have some good and attractive qualities, and on other hand, also have some negative qualities. For males in the community, the majority mentioned more negative aspects of seeking care at the HF.

1.1. Reasons for seeking care at the health facility

Motivation to seek care at HF

The main motivation of patients (male and female) that led them to seek health services at the health facility was to receive their routine consultation, and a smaller portion reported they went because they were sick.

"Today I came to pick up my medications, which I do every three months: I finish two months at home and the third month I'm already coming here to pick up more…" IDI-Female patient-Coalane HF

"Yes, yes, first to come to the HF it's because I'm not feeling well, exactly, I'm not in good health (…) I have the flu, some headaches, dizziness, the second, I came to this one because it's closest to home, hmmmm, its closest to home." …" IDI-Male patient-Coalane HF

Patients were the group that contributed the most regarding the positive things that motivate them to seek health services at the health facility. The most frequently mentioned aspects were:

a) the fact that they have a HF close to their homes;
b) patients who already use MFS mentioned that they prefer the HF because it offers the MFS over other HF that do not have MFS;
c) others mentioned that they go to a specific HF because it was there where they opened their patient files, and because that is where they are used to getting their services; and
when present specific symptoms that they know will be solved at HF.

The participants from communities and companies pointed out some symptoms/diseases that, in general, lead men to seek care/services at health facilities, in particular:

- STI and other symptoms related with sexual health;
- Serious illness or in an advanced state of illness, when he depends on being carried by others;
- Malaria and headaches.

"For example, he starts to see a difference in his, in his genitals and sometimes he starts to feel that it worries him so much, but a headache, a small pimple, his foot hurts, he doesn't run right away in an emergency, only when it gets worse." FGD-Male-Company 1

1.2. *Reasons not to seek care at the health facility*

Two reasons not to seek care at a HF were frequently mentioned among the participants: weak predisposition of men to seek health services at all; and the fact that they prefer to seek health care elsewhere. It is important to highlight that among all participants, those who more frequently voiced these reasons were female patients, company employees and men in the community.

a) Men lacking predisposition to seek health services:

Mentioned frequently by participants, this barrier deserves attention because it is related to attitudes and behaviors that are socially normalized. Many female patients from Coalane Health Center, employees from Company number 1 as well as men from the communities around Coalane Health Center and Maquivale Sede Health Center spoke about this issue.

"Man is very brave, even though he feels pain, he stays at home in a situation that 'ahhh, it will pass, it will pass, it will pass'." FGD-Male-Maquivale Sede Community

"…Yeah, men don't like going to go to the hospital, I think it's his own male complex, an inferiority complex that in the midst of those people will defeat me because I'm sick." FGD-Male-Company 1

b) Easier to get medicine at a private pharmacy:

Many participants revealed that when they get sick, they prefer to self-medicate, some using pharmaceutical drugs. Even though this was a barrier mentioned by some men in the communities, it was mentioned much more frequently among the employees of the companies.

One of the reasons to not go to the HF that was provided is that it is easier to get medications themselves (e.g., from a pharmacy, etc.) rather than spending time going to the HF. The option put forward is to avoid going to a HF where they believe that it takes a lot of time to receive care.

"Because I haven't been to the hospital for 6 years, but I feel some pain, it's often a headache, but I self-medicate having a paracetamol then [it] goes away...." FGD-Male-Coalane Community

"I'll go for the first time, yes, if it's the fastest service, but if I'm going to stay there for more than two hours, then I'll escape [leave], I prefer to use a private pharmacy." FGD-Male-Company 1

Participants justified the fact that some choose to go directly to the private pharmacy instead of going to the HF because often HF pharmacies do not have medicines, so after spending some time to be attended at the HF they still have to look for a private pharmacy to obtain the prescribed medications.

"Another thing is, when we go to the hospital, we often don't have enough medicine, and that makes us waste time in the hospital while there is medicine at the pharmacy." FGD-Male-Company 1

The aforementioned lack of medicines that are available on prescription in the hospital adds to the fact that participants say that often at the HF, a diagnosis or analysis is not made based on the symptoms that the patient presents. This helped the participants justify the reason why they choose to go straight to the private pharmacy and buy medication for the symptoms they have. They explained that they do not see a reason to wait in the long lines at the HF, since there are no tests, and after being attended to, they must go to the pharmacies in search of medicines, so they think it's better to go straight to a pharmacy, saving their time.

"Maybe you go to the hospital (...) to make an appointment… You spend so much time in the queue and finally they will only give you paracetamol and amoxicillin (…) so they had to (try) to really know (…) why this is happening, when those symptoms appear… they [the health care providers] should try (to find out) …" FGD-Male-Company 1

c) Prefer or being advised to go to traditional services

In some cases, participants revealed that they sometimes turn to other places after having sought care at the HF several times and have not seen their problem resolved. Some participants' statements indicate that they are sometimes recommended by health care providers to seek services in traditional medicine.

> ***"…So, these things first have to be done in the hospital, so when you go to the hospital 2, 3, 4 times to make an appointment and it turns out to be negative, then you have to use the traditional part, yes."*** FGD-Male-24 de Julho Community

> *"**When…you look for [but]… malaria test doesn't reveal anything, you go again (to HF), nothing happens, suddenly diarrhea's there, sometimes even the doctor advises you to go to the traditional healer…**"* FGD-Male-Company 1

d) Understand that some diseases are self-treated

Some participants believe that there are some diseases that can be treated without having to seek health services, this contributes also to relatively less men seeking health services. Participants (male in community and companies) mentioned that there are some diseases that can be solved without the health care professional, this included:

- Illness for spiritual reasons;

  > ***"For a traditional healer, for example when things (illnesses) are done (caused) to someone´s life, released (sent) by other people, that person can go to the [traditional] healer … It may person acquires (symptoms that are) a bone issue, (or) it's his hair, (or) other body part."*** FGD-Male-Company 2

- Headaches, stomach aches and constipation;

The same group of participants reported these types of issues can be cared for at home in an average of 1 to 3 days; if after this time they are not better, they need to seek care at the HF. In addition to these most mentioned reasons, participants also spoke frequently about other reasons such as:

e) Carelessness and shame to be seen at the HF

This set of causes that are related to the individual himself, and/or to his level of interest and concern with his health, was mentioned with some frequency by some female patients, and many employees and men in the communities of Coalane and 24 de Julho. Participants pointed out these questions and recognized that men often do not seek care not because of external factors (i.e., factors not controlled by themselves), but because of more internalized factors, such as shame at being seen by others, or because of carelessness or ignorance.

"… It`s because men are not like women. Men, most men have this thing of being ashamed. They are ashamed, maybe if it were at night [maybe if it were a night clinic] … Maybe with that many men would go because the men who are most ashamed, they send their wives go to pick up pills for them." IDI-Female patient-Coalane HF

"But many are ashamed to go to the hospital, many are ashamed to go to the hospital because all the time when you go to the hospital sometimes even your own neighbor points at you that that one is always in the hospital, so what's the problem him huh, so when you find out they are talking to you, you will go less to the hospital." FGD-Male-Company 2

f) Lack of time

The issue of lack of time to go to the HF to seek care was mentioned among men recruited from the community, but mainly among company employees.

"Men have not had much time due to their professional occupation; much time spent at work and there is no time left to go to the hospital, only in serious cases, not because they repudiate something from the hospital." FGD-Male-Company 2

g) HF are not male-friendly

While not on the scale of frequently mentioned barriers, the perception that HF are not male-friendly was brought up, which is of interest as it specifically relates to men, and was mentioned mainly by employees and some male patients:

"On the other hand, …. When going to the health post sometimes, those who are working there, the doctors, have a way of looking and attending in a prickly way, they don't adhere, they don't give the man any time, so for me it would be feasible for there to have a clinic and distribution of cards at emergency services for this type of employees to better earn time…" FGD-Male-Company 1

"So, the disease even exists because many times, even in those times when there were those diseases, gonorrhea, syphilis, what, I mean a lot of the time the man felt sick, not like, not like going to the hospital why? Because when he arrives at the hospital, he finds a woman who is there to attend. How am I going to say that I have this type of disease, you see. It's a disease of the self… of, of, of gonorrhea, I have syphilis, I have what. So, he ended up really spoiling it for himself; but this because of what? Of complexity, perhaps, ignorance" IDI-Male patient-24 de Julho HF

h) Poor quality of health services

In addition, the fact that men do not use health services is not always related to factors exclusively related to men and their habits. Participants described that, in some cases, they already seek health care or have already heard experiences from other patients who, when seeking health care, had experiences that made

them not want to go back to the HF. They mentioned some factors that contribute negatively to the demand for health services:

(i) long waiting time caused by health providers who are talking to each other or are on the phone (mentioned more by female patients); and
(ii) some health professionals offered bad service (mentioned by male and female patients and company employees).

Participants talked about the issue of quality of health care, for example, a provider may not complete the necessary in-depth analysis to understand the reason for the patient's complaint, and simply prescribe a medication (as noted above) that only addresses their immediate symptoms. Participants noted this is associated with the fact that health professionals sometimes attend to patients while they are distracted by the phone or other distractions.

Another issue brought up by participants that is related to poor service is the lack of confidentiality. According to the participants, health professionals sometimes do not maintain confidentiality in relation to the condition of patients, and participants pointed out that men in particular do not like to have their personal lives exposed, as they need to preserve their image everywhere and especially in the place of work.

> ***"There is also something, now there is no longer professional confidentiality, that's why many men are afraid of going to the hospital. You sitting at home already tell you that so-and-so, so-and-so suffers from this, so where does this information come from, if I only leave the office with you, how come the others already know? …"*** FGD-Male-Company 2

2. Use of Male-Friendly Services

2.1. Facilitators to use MFS

Participants identified the factors below as the main facilitating/ enabling factors for using MFS, presented in order of most frequently mention:

a) Availability of health services in the afternoon time:

Mainly mentioned by male and female patients and by males in the communities, the availability of health care services offered in the afternoon/evening has been a contributing factor to MFS uptake, as it allows those who are workers/employees to also be able to go to the HF, without compromising their work/job due to absences and/or constant delays.

Most of the respondents considered the extended working hours to be the great differential of this project.

> ***"One of issues that could influence, was the extended hours, that for me was very important. Because there are… there are employers who think that their workers, when they ask for a hospital, rarely have access to it. So one of the issues that I think… here, essential for workers is the extension of working hours…, of the service."*** IDI-Male patient-24 de Julho HF

b) Good health care service and guaranteed confidentiality:

Quality of care was widely considered by participants as a key factor that can make patients want to return to the HF. This factor was also mentioned as related to the attitude of the HCW who assists you and whether they deal with/address your concern(s) in a confidential manner.

This facilitator was mentioned by all groups of participants and in all HF sites and communities and companies. Noting the difference that, on the one hand, the patients recruited at the MFS, especially those from Coalane and 24 de Julho HF, in their responses spoke with more propriety about quality of care they had experienced in MFS, and they returned because of that experience.

***"For example, I can call you here in Coalane because here in Coalane (...) it's the best place where you get good service (...) For this hospital, there are affection*.**" IDI-Male patient-Coalane HF

On the other hand, the patients who were recruited in Maquival Sede HF, in the community and companies, spoke more in the sense that if by chance the services are of good quality they will return for follow-up. Note that some participants heard about MFS for the first time during the conversations data collection.

"*But when you come to a good place, when you get there, be respectful, so you will go back always and you can invite your friends to go there, because you know this, this house, this house when I arrive they respect me well (...) because they provide good service.*" IDI-Male patient-Maquival Sede HF

c) Men being cared for by male health professionals:

According to the participants, this type of care allows men to be more willing to express their concerns without prejudice.

This was predominantly mentioned by male patients and males in the community in all sites.

> ***"I would look for it because knowing that I am making an appointment with a man just like me is, I take all my secret(s) to him and also to ask for an idea (of) what I can do in my life, how does it work, so it's very important."*** FDG-Male-Maquival Sede Community

d) One-Stop Model:

Within the MFS intervention, there is an effort made to offer all care services that a patient might need in a single HF consultation room, thus preventing a flow through the HF that requires the patient to go through many doors/sectors for all care aspects needed.

This model of care is well accepted among men because, according to the participants, it reduces the risk of exposure in the HF, when moving from one door to another. It was a facilitator more often mentioned by men in Coalane HF, the community around 24 de Julho HF, and some employees of Company 2.

"…So I would advise because you don't have that situation of going to the queue on the other side, on the other side there is the queue, so you go there, … finish there, so that's it, go home." IDI-Male patient-24 de Julho HF

2.2. Barriers to use MFS

In terms of barriers, participants talked about some factors that can contribute negatively to adherence to MFS, including:

a) Poor health care service

The barrier most mentioned among the participants was bad attitudes/ behaviors by the health professionals whom they described as sometimes staying on the phone or talking to each other instead of treating/attending patients in a timely manner.

This was felt by participants who directly used the services, but poor quality of services was also a barrier mentioned by those who had heard about MFS from others. This specific barrier was mentioned by all participant groups except men in the community, and it was much more frequently mentioned among the group of patients recruited to participate in the evaluation at Coalane and 24 de Julho HF, especially among men who reported using the MFS.

"For example, when everyone goes to a health center, they expect to be attended to, or they expect satisfactory service, so if the service is not satisfactory for the user, of course… they won't come back…" IDI-Female patient-24 de Julho HF

b) Lack of information about the existence of MFS

Another barrier to MFS use mentioned by participants is the fact that most people don't know that this service exists, which reduces their likelihood that they'll use it. The few participants who knew about MFS were those who reported having been invited to come use these services.

This barrier was mentioned even among the patients recruited to participate in the evaluation from other entry points at the HF (i.e., not through MFC), including in Coalane and 24 de Julho HF where the MFC services are in place, as well as by female participants who are a group that frequently uses the HF. Men in the Maquival Sede and 24 de Julho communities also referred to this issue as a barrier to be considered.

"Because sometimes it's complicated for men to go to the hospital, it's very complicated, so for us to know that it's a little difficult because… for example, I was approached in the hospital, and if this is limited only to the hospital, there are many people who will not have the opportunity to know just because it is limited only to the hospital." IDI-Male patient-24 de Julho HF

In general, many evaluation participants were unaware of the existence of these MFS/MFC services. Those who knew had usually heard about it while at the HF, or with their friends, and some had heard about it on the radio.

"The last time I came I arrived a little late it was almost 12 PM, she asked me why you didn't come early, I said … I was at work leaves a little late then she said if you can come next time you can come afternoon here they (are) also available in the afternoons, I said ok." IDI-Male patient-24 de Julho HF

c) Long distances from home to HF/ nighttime road safety

Long distances from home to the HF have been a barrier to seeking health services, and this situation is aggravated by the fact that many MFS services are offered in the afternoon and part of the night, where the danger of being threatened, attacked or robbed in the streets increases when traveling long distances, especially on foot. This issue was mentioned in each of the three evaluation site HF by male patients, as well as health professionals, some employees and female patients. This barrier was more frequently expressed by patients and health professionals of Maquival Sede HF.

"I always come here in the morning, I take that one and in the afternoon I usually leave, because where I live is far away." IDI-Male patient-Maquival Sede HF

"*There's no difference, just the difference, as I'm alone, I'm far away, I see it in the afternoon it doesn't help because to get my house it's late, while in the morning when you arrive home it's very early."* IDI-Male patient- 24 de Julho HF

"Yeah, aspect of this idea from 1PM to 8PM, it's negative when you leave at that time of 8PM, maybe, because it's time for robbery. Now if it's from 5PM to 6 PM at least, at least in that time the road is still busy. But when you leave here at 8 PM, close to 9 PM you are still going home, when you're alone you don't trust if you get home well or not." IDI-Male patient-Coalane HF

d) Lack of interest/negligence

Laziness, carelessness, and lack of interest are some individual-level barriers that were pointed out by the evaluation participants as being among the reasons that lead men not to seek MFS health services. They remarked that some men consider it a waste of time and are not interested or willing to spend their time on health issues.

"Let's see that many men do not adhere to the services, we can say that it is a lack of attention to their own health and also a lack of interest (…)" FDG-Male-Maquival Sede Community

e) Professional obligations/ lack of time/ boss does not allow

For participants who were employees or worked at some type of job, they described that they often face the barrier of not having time to go to HF due to reasons related to their professional duties. This barrier was also

mentioned among male patients, mainly those from Coalane and 24 de Julho HF, as well as employees from Company 1.

> ***"It has to do with worries, I don't have much time."*** IDI-Male patient-Coalane HF

3. Health Care Providers' Experiences and Opinions

Although the opinions in the previous sections include those of the health care professional participants, there were some specific opinions and perceptions regarding barriers to MFS use that were brought up by this subgroup, such as:

a) Human resources:

The health care professionals shared relevant observations related to MFS, including the need to increase and include more trained professionals to offer these targeted services**,** because (at the time of the evaluation) the services were being implemented by only one health care professional in each HF, and in the event that that MFS point person was on leave or absent for some reason, this limited the functioning of the MFS services/clinic. Health care professionals noted that providing the dedicated model increases the overall workload for providers, and they called attention to the need to increase human resources to provide better services overall. They suggested as well including the option for working in shifts to provide MFS.

> ***"Well, probably the disadvantage, well then, it will entail an additional effort, even if we don't have specific technical terms, we'll have to sacrifice that colleague to working until 8 PM, we'll have to sacrifice that counselor to working until 8 PM if we don't have a specific person for that, not only, as I said, that we may need another way of revitalizing that office, they are not even funds that we will have and even for us, the management of the center is also another service, we will get a report so there will be a lot to change when we have this service available, fully functional."*** IDI-HCW-Male-Maquival Sede HF

Additionally, the health professionals mentioned some dissatisfaction as they perceived that only one health team member was invited to participate in and benefit from the MFS training, as it is assumed that this person received incentive(s) which were not offered to others. Participants described the fall-out being that other team members do not support the MFS-specific work, claiming that the one who received the incentives will do the work alone.

b) Involvement/coordination with other sectors:

Some challenges related to the involvement of other sectors were reported by health care workers. They noted that the involvement and availability of all sectors is crucial to ensure that the one-stop model functions as intended. Participants noted that if not all necessary HF sectors that support a one-stop model are available at the time of MFS hours, sometimes the health care professionals have no alternative and must ask the patient to come back the next day to do a procedure or step in their care cascade that the patient was supposed to do/receive and complete on the same day.

"So communication was also one of the factors, this communication, lack of conditions that I mentioned here such as the functioning of the database, the functioning of the laboratory these factors also influence the work it would be necessary to start the work at night and finish the next day. There are times that the book is here at the reception there is a limit, maybe you have a positive case, but you forgot that a colleague from the database has already left and locked the reception and the pre-ART book did not allow you to assign the NID to the patient because you do not know what was the last NID, I had to ask the patient to come back here tomorrow morning, just to come get the NID and his card, so there are not even some constraints." IDI-HCW-Male-Maquival Sede HF

c) Privacy and conditions of room/cabinet:

One aspect of health service delivery that patients like, and it is no different with male patients, is the guarantee of privacy in care. At 24 de Julho health center, professionals expressed an interest in having a private room to offer these MFS, because they had been using a shared room, and they felt that this takes away the comfort of the patient.

"Well, barriers as such would be, we have the institutional barriers that are offered by our own building or the construction of our health unit that at some point due to problems or energy or I don't know that sometimes colleagues are forced to share the same room, sharing the same office because sometimes it's not a little comfortable and most of it is really institutional part. The institutional part that is a specific office for the care of the is or care for the implementation of these male-friendly services." IDI-HCW-Female-24 de Julho HF

Discussion

This qualitative evaluation found that the challenges affecting utilization of MFS in Zambézia Province are closely related to the challenges for the use of HF services in general, such as (i) receipt of poor health care; (ii) long distances from home to the HF; (iii) lack of interest on the part of the individual, and (iv) professional/work-related obligations.

Regarding the barriers for men to use health services, the lack of information on the existence of MFS was highlighted. This is an area that can be improved if technical/implementing team(s) work in partnership with the communication team. Some of the evaluation participants heard about MFS when they were included in the evaluation, and from there they gained interest and started to ask more questions about this service and expressed an interest in seeking care at the services.

Participants reported that long distances to the HF are a great challenge for patients, which is well-known barrier for many individuals seeking HIV services in sub-Saharan Africa,[14-17]. Participants pointed out that as the MFS offer the provision of services until 8:00 PM, this may only further aggravate the challenge of distance from one's home to the HF with the issue of lack of security during travel at night. Not only patients, but also health professionals run the same risk when traveling the long distances back home after work. As this barrier was mostly mentioned by patients and providers alike at Maquival Sede HF (the HF that is located in a more rural area compared to the other two HF in this evaluation), we hypothesize that this barrier could be felt more by individuals living in rural areas compared to those who live in areas with more urban characteristics, as urban neighborhoods often have better lighting on the streets which makes it safer to traverse at night, and in an urban area there is often more available options for a mode of transport to and/or from the HF (e.g., bike taxi, etc.).

The HF context and health system factors can influence the success or not of the MFS initiative. There is a need to assess the conditions (i.e., infrastructure, operations, staffing/human resources, and distances traveled by staff to HF) of the health facility and surrounding environment before implementing each facet of the strategy.

The evaluation indicates that men also have difficulties in seeking health services for health issues not considered serious: They tend to stay at home and self-manage at the beginning of the illness/disease and only seek care at the HF if this illness becomes serious. This categorization of types of disease, which is reflected in the demand or not for health services, deserves some attention as some issues/diseases considered "feminized" begin to appear; that is, the routine consultations for disease prevention and consultations for non-serious illnesses that are considered "not for men".

On the other hand, it has been found that women in sub-Saharan African countries such as Mozambique tend to seek health services more frequently and/or spend a longer amount of time seeking health services, even for prevention issues, non-serious illnesses and also for serious illnesses, this factor can have an important role in their prevention care or in the early identification of some diseases.[18, 19]

Men's health seeking behavior is often, consciously or subconsciously, influenced by their own and others' interpretations of the norms related to masculinity that surround certain diseases or health issues.[20] A study that addresses men renegotiating masculinity in relation to their experience of illness concludes that men

with depression believed that if their mental illness was made visible to others it would distinguish them from other men with less "feminized" illness or injury.[21] The theme of masculine norms operates at several levels that influence how men perceive and connect with the health care system.[22-24] Individual responses to illness severity and pain play a double role—as masculine indicators and to legitimize clinic visits. These findings highlight the complexity and nuances to be considered when designing health programming specifically for men.[25]

As a further example of gender influencing health seeking behavior, men tend to seek health care when they are already seriously ill; as the data show they manage the illness at home for a few days, after some time has elapsed without seeing improvement they choose to go to the HF, often when they are already gravely ill. As men resist seeking care for illnesses, it's often the case that seeking routine/preventive care is out of the question for this group, and several studies show that preventive care utilization is higher among women than men.[26] The majority of men did not engage in regular health check-up visits, representing a missed opportunity for preventative health care discussions. Lower consultation rates may translate into lost opportunities to detect and intervene with problems early and this is where men may be missing out compared to women.[27]

The extended working hours, good quality of health care services and guaranteed confidentiality were the most interesting factors that, according to the participants, could lead them to access MFS. Despite some concerns from participants related to traveling at night if utilizing/providing these extended hours services, care offered during extended working hours was seen as a very attractive facilitator in our context. A study done in 2017 in Australia, suggested that men think that health service delivery should adapt to people's work commitments, because in practice it has been a service where a lot of time is spent, due to waiting time.[28] Assessing uptake of these extended hours will need to take into account individuals' needs related to travel and safety considerations.

In Quelimane, with the interruption of the activities of the MFC of Maquival Sede health center, only Coalane's clinic remained open, but the initiative to extend the opening hours is expanding (currently in Zambézia province there are about 12 HF in nine districts that offer health care in extended working hours), supporting the results that extending opening hours can be beneficial.

The most interesting component of MFS mentioned by participants was the introduction of extended working hours. The evaluation found that the MFS/MFC package, as it is currently implemented in Coalane health center, is more complex and requires more human and material resources due to the specific clinic/sector where it is operating. At 24 de Julho health center where the MFS program only offers extended working hours but not an exclusive MFC cabinet/sector, men still reported benefits from having the option of the extended operating hours. This indicates that it is possible to adjust/adapt the MFS initiative so that the program may be expanded despite a health facility not necessarily having the infrastructural resources to support a specific MFC. The experiences shared from participants linked to the Maquival Sede health center showed that the MFS/MFC initiative may face more difficulties in serving its intended target group in rural areas due to the difficulty that users and professionals face in traveling at night to and/or from the HF. In December 2020, the Ministry of Health adopted the Extended Working Hours as one of the differentiated models of care, and expanded access to these alternative clinic operation hours have great potential to improve access to care in this region.

The provision of services geared towards men's health has been gaining prominence globally, where more initiatives such as the MFS have been created to accommodate the conditions and needs of men and encourage them to access health care. The results of some strategies focused on men have shown that, albeit timidly, men do begin to use some male-focused health services. Innovative public health strategies for men, formed by an understanding of gender, are being developed, allowing in a successful and creative way to involve men in health promotion activities.[29, 30]

A study in Zambézia province on patient satisfaction among those enrolled in HIV/ART services shows that a positive health worker's attitude, provision of undivided attention towards patients, and delivering accurate information about the patient's health increased satisfaction and retention in care.[31] This shows that the issue of good quality of care is crucial for patients to seek, adhere to and remain in health care. The patients in the study gave attention to the fact that this facilitator could become a barrier because if the patient is poorly attended, in addition to not returning, he may also influence others to not seek health care by telling them about his bad experience.

Some male participants in our evaluation mentioned that they prefer to be attended by male health care workers. This was put forward by men in the community, workers from the two companies as well as male patients in the HF. It may be challenging to operationalize this feature of MFS in the Mozambican context, where human resources are scarce, regardless of provider gender. The issue of preference for care by male health professionals is not a topic that has been studied much, however, in some literature, it is suggested that patients may have preference for health professionals with a gender they feel more comfortable with.[32]

Conclusions/ Recommendations

Male friendly services are an acceptable means of offering male-centered care, especially for patients who are not able to visit the health facility during routine hours. The MFS component mentioned with the greatest interest by participants was the introduction of extended working hours at the health facility. However, practical aspects need to be taken into consideration to ensure success of the model and safety of patients and health care workers, suggesting contextual preferences of differentiated models of care. While the Extended Working Hours model has recently been included in the national guidelines as a DMC option, there is still a need for community stakeholders and health communications team to collaborate in devising and delivering information at the community level. Such information, education and communication (IEC) initiatives are critical to improve awareness of and create demand for MFS and extended working hours, as demand creation is an essential step for program utilization. Given the overall acceptance of the model, MFS could also be leveraged to promote and provide screening and management services for infectious diseases (e.g., HIV/AIDS) as well as specific non-communicable diseases.

Dissemination Plan

Preliminary and final results have been discussed within a priority stakeholders' group of evaluation co-investigators and collaborators. The preliminary results have been shared with Provincial Health Directorate in Zambézia (DPS-Z) and discussed with health professionals at all three evaluation health facilities, including managers and staff.

Preliminary results were also presented and discussed as: i) an oral presentation at the 2021 *Jornadas Nacionais de Saúde* scientific conference in Maputo, Mozambique, ii) a poster exhibition in *INTEREST 2022 Conference* in Kampala, Uganda, and iii) an e-poster presentation at the *AIDS 2022 Conference* in Montreal, Canada.

Once approved by the funder (CDC) for dissemination, the final findings from this evaluation will be made publicly available through the posting of this report in a VUMC/FGH public website (https://www.vumc.org/friends-in-global-health/evaluations).

Acknowledgements

We wish to thank all participants for their involvement in this evaluation.

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Appendices

Appendices 1-15. Approved Protocol

Please see in the materials accompanying the submission of this report the approved protocol for this evaluation (Version 1.1), and included in this document, all instruments (Appendices 3-11 in protocol document), informed consent forms (Appendices 1 and 2 in protocol document), and conflict of interest statements (Appendix 14 in protocol document).

Additionally, please see here the summary of the approved protocol for this evaluation (Version 1.1):

PROTOCOL SUMMARY

According to World Health Organization (WHO), health indicators for boys and men remain substantially lower than for girls and women. This gender-based disparity in health indicators has received little attention from healthcare providers, and when health policies are designed, few strategies have been developed to reduce these inequalities.

According to a report from Joint United Nations Programme on HIV/AIDS (UNAIDS), men and boys are most likely to die from HIV/AIDS-related causes, representing 58% of deaths. This inequality is more pronounced in sub-Saharan Africa where, although men represent 41% of people living with HIV/AIDS, they account for 53% of deaths.

Gender inequalities and harmful gender norms are important causes of the HIV epidemic and can be major obstacles to an effective response to it. Although access to HIV services for women and girls is still worrying, evidence shows that men and boys have even more limited access to these services. Current efforts to make progress in gender equality issues such as sexual reproductive health (SRH) and rights, as key elements of the response to HIV, do not adequately reflect the way in which harmful gender norms and practices negatively affect men, women and adolescents. This, in turn, increases these groups' vulnerability and risk to HIV.

In this context, in 2018, the Ministry of Health (MOH) of Mozambique published Guidelines for the Engagement of Men in healthcare with the intention of "guiding the implementation of interventions aimed at engaging men and boys in the use of health services, at community, workplace and at health facility level". The MOH hopes to improve male health outcomes, while also having a positive impact on the health of adolescent girls and women.

FGH, an international non-governmental organization and affiliate organization of the Vanderbilt University Medical Center (VUMC), developed in collaboration with the Provincial Health Directorate Zambézia, a Male-Friendly Services (MFS) intervention in order to provide specific health services for boys and men, and to thereby also define which specific actions provide better health outcomes. It was proposed to achieve male involvement by introducing a differentiated model, centered on men, the MFS, in order to increase the number of men tested for HIV, enrolled and retained in combined antiretroviral treatment (ART) services.

As activities of this intervention had already started, the need also arose to evaluate these activities. It is in this context that the present evaluation protocol was designed, with the objective of capturing the factors that can prevent and those that can facilitate the use of the MFS by men and boys.

List of all appendices approved in Version 1.1 protocol:

Appendix 1: Informed Consent Form for Individual In-Depth Interviews

Appendix 2: Informed Consent Form for Focus Group Discussion

Appendix 3: Guide for in-Depth Interviews with health providers

Appendix 4: Guide for In-Depth Interview with Men in the HF

Appendix 5: Guide for In-Depth Interview with Women in the HF

Appendix 6: Sociodemographic Data Form for users (men and women) in the HF

Appendix 7: Guide for In-Depth Interviews with company managers

Appendix 8: Guide for Focus Group Discussion (FGD) for company employees

Appendix 9: Sociodemographic Data Form for FGD in the Companies

Appendix 10: Guide for Focus Group Discussion with men in the community (who never used the MFS)

Appendix 11: Sociodemographic Data Form for FGD with men in the community

Appendix 12: Timeline

Appendix 13: Budget

Appendix 14: Declaration of Conflict of Interest - Principal Investigators

Appendix 15: Bio-sketches of Principal Investigators

Appendix 1: Informed Consent Form for Individual In-Depth Interviews

For the Moderator: This informed consent document applies to adults 18 years of age or older. This document should be read aloud to the participants.

Age of the participant: _____ Evaluation location: _____

I. INFORMATION

Thank you for being with us today. We would like to ask you to take part in an evaluation that will take place in three health facilities, surrounding communities (or zones surrounding the health facilities) and two companies in the district of Quelimane in Zambézia. This form describes your rights, in case you choose to take part in the evaluation. We will read the form to you. Please do not hesitate to ask questions at any time. You can also ask questions after reading the form. All your questions will be answered. You will be provided with a copy of this form.

Your taking part in this evaluation must be of your own free will. If you agree to take part now, and in the middle of the conversation, for some reason, you feel uncomfortable, you have the freedom to decide to withdraw at that time. Even if you start n the evaluation, you do not have to complete it if you do not find it convenient. You can choose to answer all the questions or only the ones you wish to answer.

Purpose of the evaluation:

This evaluation is being carried out by evaluation team members from the Vanderbilt University Medical Center (VUMC), in Nashville, Tennessee, USA and Friends in Global Health (FGH), in Maputo and Quelimane, Mozambique together with the health authorities of Zambézia province (Provincial Health Directorate-Zambézia). We would like to understand the facilitators and barriers to using the Men-Friendly Services (MFS). For this evaluation, information will be collected on the levels of knowledge, satisfaction, acceptability, and experiences with the MFS. We feel that obtaining this information can help us design strategies to create demand and improve the supply of these services. We want to include you in this evaluation because we believe your opinions and experiences can help us understand how the MFS are perceived, what can boost them and what can bar their use and can also help us to improve them.

Evaluation procedures and how long they take:

If you agree to take part in this evaluation (through this interview), it will take about 30 to 45 minutes. The first questions we will ask will be regarding your personal information, after which we will ask questions to gather your experience and opinions regarding the MFS. Your answers will be recorded on a voice recorder. The recording is not mandatory, we will only record the conversation if you agree. To do the interview, we will choose a place where we can speak freely and with privacy, which can be in the health facility (or near it), in the company, or in a place identified by you.

We will give you an evaluation identification number, which will not be linked to your name or other personally identifiable information. We will keep the information from your responses and use it later to analyze all evaluation responses. The data will be safely stored. There is no problem if you feel you do not want to

answer some or a few questions of the evaluation. You can tell us when you do not want to answer a certain question. You can also withdraw from the evaluation at any time, without any problem.

Expected Costs: There will be no cost to participate, nor will you receive any amount to participate.

Possible discomfort and risks:

We are aware that we may ask some personal questions. Only trained members of the evaluation team will work with you during this evaluation. We would like you to contact us immediately if you feel any discomfort during your taking part in this evaluation. We will conduct our conversation in a private and safe place, in order to protect your privacy. Please feel free to talk freely about what you think about the MFS, your experiences with them, what you like best and what you like least about these services and your opinions about the MFS overall. No evaluation team members will share information about your participation in this evaluation with other people/strangers, nor will they comment about the content of our conversation.

Possible benefits:

There are no direct benefits for taking part in this evaluation. However, the information you share with us may help us to better understand the perceptions about the MFS (positive and negative aspects, facilitators and barriers to their use) and we will use this information to create strategies to improve the supply of these services.

Confidentiality:

We will make every effort to maintain the confidentiality or privacy of your personal information. The information collected during this evaluation will be stored in secure, password-protected files on the servers of the FGH offices in Quelimane and Maputo. The data can also be stored in a secure, password-protected database supported by VUMC. Five years after dissemination of the evaluation results, we will destroy the data files provided by you. No one else will have access to them.

Information about privacy:

The information will only be shared if we are required to do so by law. If this happens, your information may be shared with VUMC, or the governments of Mozambique and/or the United States of America (US). This includes, for example, the Ministry of Health of Mozambique, the Institutional Review Board of the VUMC and/or the US Federal Government Office for the Protection of Human Research.

Right to Refuse or Withdraw from the Evaluation:

Taking part in this evaluation is voluntary, which means that you have the option to taking part or not. You have the right to refuse to answer some or all of the evaluation questions. You have the freedom to stop taking part at any time, without any problem. You just need to indicate that you would like to withdraw from the evaluation, which you can tell us at any time. Withdrawal from evaluation will not have any negative consequences for you.

Contact information:

If you have any questions about this evaluation, please contact the coordinator of this evaluation, Mrs. Carlota Fonseca. She can be found at the FGH office in Maputo through the telephone numbers +258 21328310 or +258 823045709. We are also available if you need additional advice on the issues addressed during the evaluation.

For further information on consent or your rights as a person taking part in this evaluation, you may contact the National Health Bioethics Committee (CNBS – Comité Nacional de Bioética em Saúde) of Mozambique by calling +258 824066350. You may also contact the office of the Institutional Review Board (IRB) VUMC by calling +001-615-322-2918.

Do you have any questions?

For the Moderator: Answer the questions of the participant before proceeding to sign the consent.

II. CONSENT

You have already read the explanation about this evaluation and/or it was read aloud to you. You have received a copy of this form. You had the opportunity to ask your questions. Also, you know that you can refuse to take part. I will request your consent to take part in this evaluation which aims to evaluate the facilitators and barriers to the use of the MFS. By saying "yes", you are consenting to take part in the evaluation. By saying "no," you will be refusing to take part in the evaluation and will not be forced to participate. Do you agree to take part in the interview?

I agree to take part in the interview. [ ] YES [ ] NO

I agree to the recording of the interview [ ] YES [ ] NO

_____ _____

Printed Name of the Participant Date

_____ _____

Signature/Fingerprint of the Participant Date

_____ _____

Printed Name of the Witness Date

(in case a fingerprint is used)

_____ _____

Signature of the Witness Date

(in case a fingerprint is used)

For the Interviewer:

I explained the purpose and procedures of the evaluation to the participant and discussed all the potential risks involved. I answered the questions the participant had to the best of my ability.

Consent obtained by (signature of the moderator):

_____ _____

Printed Name Date

_____ _____

Signature Date

Appendix 2: Informed Consent Form for Focus Group Discussion

For the Moderator: This informed consent document applies to adults 18 years of age or older. This document should be read aloud to the participants.

Age of the participant: _____ Evaluation location: _____

I. INFORMATION

Thank you for being with us today. We would like to request your taking part in a discussion that will take place in three health facilities, surrounding communities (or zones surrounding the health facilities) and two companies in the district of Quelimane in Zambézia. This form describes your rights, in case you choose to take part in the evaluation. We will read the form for you. Please do not hesitate to ask questions at any time. You can also ask questions after reading the form. All your questions will be answered. You will be provided with a copy of this form.

Your taking part in this evaluation must be of your own free will. If you agree to take part now, and in the middle of the conversation, for some reason, you feel uncomfortable, you have the freedom to decide to withdraw at that time. Even if you start taking part in the evaluation, you do not have to go to the end if you do not find it convenient. You can choose to answer all the questions or only the ones you wish to answer.

Purpose of the evaluation:

This evaluation is being carried out by evaluation team members from the Vanderbilt University Medical Center (VUMC) and Friends in Global Health (FGH) together with the health authorities of Zambézia province (Provincial Health Directorate-Zambézia). We would like to understand the facilitators and barriers to using the Male-Friendly Services (MFS). For this evaluation, information will be collected on the levels of knowledge, satisfaction, acceptability, and experiences with the MFS. We feel that obtaining this information can help us design strategies to create demand and improve the supply of these services.

We want to include you in this evaluation because we believe your opinions can help us understand how the MFS are perceived, what can boost them and what can bar their use and can also help us to improve them.

Evaluation procedures and how long they take:

If you agree to take part in the evaluation, we will include you in a group to be part of a discussion group with others; on average 6 to 10 men will take part. The discussions will include issues related to the MFS and your suggestions on how to improve them. The group will be led by a member of the evaluation team, and in the group you have the freedom to comment according to your opinion on and experience with each subject discussed without any fear, since there is no right or wrong answer as everyone has his own experience and opinion and in this group this will be respected. In this session, the conversation will be recorded, but your name will not be recorded.

The discussion will last about 1h to 1h30 minutes. We will keep your data and your answers and use them later to analyze all the answers of the discussion. The data will be safely stored.

There is no problem if you feel you do not want to answer some or any question of the evaluation. You can tell us when you do not want to answer a certain question. You can also withdraw from the evaluation at any time, without any problem. There is no harm in refusing, and this decision will not have any negative consequences for you.

Expected costs and payments: There will be no cost to take part other than your time. You will not receive any payment for taking part.

Possible discomfort and risks:

We are aware that we may ask some personal questions. Only trained members of the evaluation team will work with you during this evaluation. We would like you to contact us immediately if you feel any discomfort during this evaluation. We will conduct the discussion in a private and safe place, in order to protect your privacy. Please feel free to talk freely about what you think about the MFS. No member of our evaluation team will comment with third parties about your taking part in this evaluation.

The fact that we are discussing certain topics in a group will allow participants in this group to hear the opinions of one another on the topics we discuss. You will hear what other participants share in the discussion, and they will hear what you decide to share with the group. This means that in the group discussion, each participant has some risk in sharing their personal opinions with all group members, including those who may not share the same opinion. We want to minimize any potential discomfort from this risk. If you agree to participate in the group discussion and sign this consent form, you are also agreeing and committing to not share any of the information or opinions that are expressed by others during this discussion. This means all participants agree to not share the information and opinions expressed with any third parties or in other forums. It will not be possible to link the information and/or opinions that are shared during the discussion with the person who shared them.

Possible benefits:

There are no direct benefits for taking part in this evaluation. However, the information you share with us may help us to better understand the perceptions about the MFS (positive and negative aspects, barriers and facilitators to the use of the MFS) and we will use this information to create strategies to improve the supply of these services.

Confidentiality:

We will make every effort to maintain the confidentiality or privacy of your personal information. We will give you an evaluation identification number, which will not be linked to your name or other personally identifiable information. We will not call you by name, but by a code that will be assigned to you here.

The information collected during this evaluation will be stored in secure, password protected files on the servers of the FGH offices in Quelimane and Maputo. The data can also be stored in a secure, password-

protected database supported by VUMC. FIve years after dissemination of the evaluation results, we will destroy the data files provided by you. No one else will have access to them.

Information about privacy:

The information will only be shared if you or another person is in danger or if we are required to do so by law. If this happens, your information may be shared with VUMC, or the governments of Mozambique and/or the United States of America (US). This includes, for example, the Ministry of Health of Mozambique, the Institutional Review Board of the VUMC and/or the US Federal Government Office for Human Research Protection of.

Right to Refuse or Withdraw from the Evaluation:

Taking part in this evaluation is voluntary, which means that you have the option to take part or not. You have the right to refuse to answer some or all of the evaluation questions. You have the freedom to stop at any time, without any problem. You just need to indicate that you would like to withdraw from the evaluation, which you can tell us at any time. Your withdrawal from this evaluation will not have any negative consequences for you.

Contact information:

If you have any questions about this evaluation, please contact the coordinator of this evaluation, Mrs. Carlota Fonseca. She can be found at the FGH office in Maputo through the telephone numbers +258 21328310 or +258 823045709. We are also available if you need additional advice on the issues addressed during the evaluation.

For further information on consent or your rights as a participant in this evaluation, you may contact the National Health Bioethics Committee of Mozambique (CNBS – Comité Nacional de Bioética em Saúde) by calling +258 824066350. You may also contact the office of the Institutional Review Board (IRB) at VUMC by calling +001-615-322-2918.

Do you have any questions?

For the Moderator: Answer participant questions before moving on to the next question.

II. CONSENT

You have already read the explanation about this evaluation and/or it was read aloud to you. You have received a copy of this form, if you want. You had the opportunity to ask your questions. Also, you know that you can refuse to take part. I will request your consent to take part in this evaluation about the facilitators and barriers to the use of the MFS. By saying "yes", you are consenting to take part in the evaluation. By saying "no," you will be refusing to take part in the evaluation and will not be part of the focus group discussion. Do you agree to take part in the focus group discussion?

I agree to take part in the focus group discussion [ ] YES [ ] NO

I agree to the recording of the focus group discussion [ ] YES [ ] NO

I agree and commited to not sharing the opinions of people who taking part on this discussion with third persons [ ] YES [ ] NO

_____ _____

Printed name of the Participant Date

_____ _____

Signature/Fingerprint of the Participant Date

_____ _____

Printed name of the Witness Date

(in case a fingerprint is used)

_____ _____

Signature of the Witness Date

(in case a fingerprint is used)

For the Moderator:

I explained the purpose and procedures of the Evaluation to the participant and talked about all the potential risks involved. I answered, as best I could, the questions posed by the participant.

Consent obtained by (signature of the moderator):

_____	_____
Printed name	Date
_____	_____
Signature	Date

Appendix 3: Guide for in-Depth Interviews with health providers

Evaluation ID [___ |___|___|___| ___|___]

Date of the interview: [___|___ /___|___/__2_|_0_|__/__]

Time of the interview: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Male [___] Female [___]

I. INTRODUCTION

(The interviewer reads aloud)

Thank you for taking the time to take part in this evaluation. The purpose of this interview is to gather information that can provide a better understanding of your opinions and experiences regarding the Male-Friendly Services and the Male-Friendly Clinic. Your answers will be very helpful in understanding how the implementation of these services can be improved. We hope to use this information to improve these services in the future.

To establish your eligibility to take part in this evaluation, we have two questions to ask you:

1. Are you 18 years or older?
2. Are you working in one of the three HF with MFS and MFC in Zambézia province?

(Participants are eligible to participate only if they answer "yes" to the above questions.)

This interview will last about 30 minutes. I would like to record your answers, to facilitate the flow of our conversation. However, if you prefer not to be recorded, we will not record this conversation, but only take notes. All information you share is confidential, and none of your answers will be disclosed to anyone who is not a member of the evaluation team. You can refuse to answer any of the questions without being penalized. We ask that all the answers you share be as honest as possible as this will help us understand these issues more accurately. Thank you for your availability.

CONSENT

(Instructions for the Interviewer)

- ☐ *Read the consent to the participant (or let him/her read if he/she prefers).*
- ☐ *Ensure the participant understands the potential risks of participation and agrees to be interviewed.*
- ☐ *Ensure that the participant documents his/her consent on the consent form with his/her signature or fingerprint.*
- ☐ *Give the participant a copy of the signed/marked consent form so that he/she can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we start the interview?"*

II. SOCIO-DEMOGRAPHIC DATA

1. How old are you?
   - ❑ _____ years
   - ❑ Doesn't know

2. Sex?
   - ❑ Male
   - ❑ Female

3. How long have you been working in this Health Facility?
   - ❑ _____ months
   - ❑ _____ years
   - ❑ Doesn't know

4. What is your function at this Health Facility?
   - ❑ Member of management team
   - ❑ Clinician
   - ❑ Medical Officer
   - ❑ Nurse
   - ❑ Counselor
   - ❑ Other, specify _____

5. Which sector have you been assigned to?
   - ❑ Management
   - ❑ YFS
   - ❑ Emergency Services
   - ❑ External ART Consultations
   - ❑ Male -Friendly Clinic
   - ❑ Other, specify _____

6. How long have you been working in this sector?
   - ❑ _____ months
   - ❑ _____ years
   - ❑ Doesn't know

7. Which are the languages you normally speak with the patients?
   - ❑ Portuguese
   - ❑ Chuabo
   - ❑ Other, specify _____

8. What is the highest level of schooling that you have?
   - ❑ No schooling
   - ❑ Basic level (7th year)
   - ❑ Mid-level (10th grade)
   - ❑ Pre-university (12th grade)
   - ❑ Higher

- ❑ Prefers not to say

III. DATA ABOUT THE MALE-FRIENDLY SERVICES

A. GENERAL PERCEPTION ABOUT THE SERVICES

1. The team of this HF was trained to provide differentiated care that is friendlier to men. Are you aware of this training?
   Explore:
   - What experience did he/she have with this new approach;
   - How was the training (how long did it last, was it sufficient, etc.);
   - Can he/she distinguish MFS from MFC;

2. Can you tell us what you think about the new strategy of providing the MFS implemented in this HF?

3. Is it important to involve other sectors even though there is a consultation room that provides services only for men?
   Explore:
   - If it would not be an exclusive activity of the MFC, do you really think that all sectors should adopt this approach?

4. What seems good about this approach?

5. What seems bad about this approach?

6. Do you think it is an ambitious or realistic project and why?

B. ACCEPTANCE/ADAPTATION TO THE MFS

9. What do you think has changed in the HF and in your work routine with the start of this intervention?
   Explore:
   - Has the workload increased?
   - Has efficiency and care decreased?
   - Has there been a reduction in the flow of users (especially for the emergency services, YFS and ART services)?

10. Based on the knowledge of the male users that you attend in this HF, do you think men are open to make use of the MFS, and to visit the MFC?

11. Do you have any information on how men in the community react to the existence of services and a clinic specifically for them?

12. From your point of view, as a health provider who has some knowledge about men in the communities neighboring the HF, what factors do you think can influence men to seek and use the MFS?

13. And what can influence them not to use the MFS?

Explore:

- Why do men not seek and not use the MFS?

C. EXPERIENCE OF WORKING IN THE MFC

14. Can you give us a brief description of the new MFS strategy pilot implemented by DDS supported by FGH? Can you briefly explain in your own words how the flow of patient care in these services is, particularly at the MFC?

15. As a health provider, who has been trained to provide this service, do you feel able to do your job attending and considering the needs of men?

16. What are the barriers that you face to provide these services?
    Explore:
    - Increased workload?
    - Difficulties to register?
    - Availability of care providers?
    - Availability of ancillary services (pharmacy and archive)?

17. What are the factors that facilitate your work?

18. What are your experiences with these services and a clinic focused on the care of men?
    Explore:
    - What is your opinion on the provision of care for men?
    - Which aspects of these services do you think are useful?

19. What comments have you heard from men who come in search of the MFS and those who use the MFC regarding these services?

20. What are some reasons why men join or do not join the clinic? Or why do you think men come to use the MFS and the MFC?

21. And why do you think they do not show up to use these services?

22. What message would you give to adolescents and adult men to join the MFS and MFC?

23. How would you like the MFS and MFC to be?
    Explore:
    - What do you think could be improved?

24. What are the advantages of having services and a clinic only focused on men?

25. What are the disadvantages of having MFS and a clinic to care for men?

26. In addition to the things we've already covered, is there anything about the MFS in general or the MFCs you would like to add?

Thanks for your taking part and for your time; your answers will be of great value for our evaluation.

Appendix 4: Guide for In-Depth Interview with Men in the HF

Evaluation ID: [___/___/___/___/___]

[Consecutive Nr/HF code/Service code/Sex code/Interview code] :

Date of the interview: [___|___ /___|___/__2_|_0_|__/__]

Time of the interview: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Male [___] Female [___]

I. INTRODUCTION

(The interviewer reads aloud)

Thank you for finding the time to to take part in this evaluation. The purpose of this interview is to gather information that can provide a better understanding of your opinions and experiences regarding the Male-Friendly Services and the Male-Friendly Clinic. Your answers will be very helpful in understanding how the implementation of these services can be improved. We hope to use this information to improve these services in the future.

To establish your eligibility to take part in this evaluation, we have two questions to ask you:

1. Are you a man aged 18 or more?
2. Did you receive care in this HF that offers MFS and has a MFC?

(The participants are only eligible to participate if they respond "yes" to the above questions.)

This interview will last about 30 to 45 minutes. I would like to record your answers, to facilitate the flow of our conversation, but if you prefer not to be recorded, we will not record this conversation, and take only notes. All information you share is confidential, and none of your answers will be disclosed to anyone who is not a member of the evaluation team. You can refuse to answer any of the questions without being penalized. We ask that all the answers you share be as honest as possible as this will help us understand these issues more accurately. Thank you for your availability.

CONSENT

(Instructions for the Interviewer)

- ☐ *Read the consent to the participant (or let him read if he chooses).*
- ☐ *Ensure the participant understands the potential risks of participation and agrees to be interviewed.*
- ☐ *Ensure that the participant documents his consent on the consent form with his signature or fingerprint.*
- ☐ *Provide the participant with a copy of the signed/marked consent form so that he can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we start the interview?"*

- ☐ *Explain that you will first have to collect the participant's socio-demographic data (use the specific form);*
- ☐ *You can then start the interview using this guide.*

II. GENERAL KNOWLEDGE OF THE AVAILABLE SERVICES

1. Why did you come to the health facility today?

2. Do you use this HF frequently? In addition to today, when was the last time you were here?

3. In general, what do you think of the services offered in this HF?

4. Do you know there is a MFS project in this HF?
   Explore:
   - How did you know about it, where did you hear about it, with whom, and what?

5. Do you know there is a MFC here?

6. If so, where, when and what did you hear about this clinic?
   Explore:
   partner, family, friends, community members/neighbors, health personnel, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, other "specify" etc.

III. EXPERIENCE WITH THE MALE FRIENDLY SERVICES (MFS)

7. Do you use this HF as a preference for having MFS, or just because it is the most accessible for you?
   Explore:
   Whether it is the closest to home or work, or whether it is a preference for the type of services offered there.

8. Do you feel any difference in the quality of services in this HF when compared to those offered in other HFs?

9. What do you think about the care offered by the healthcare providers? (doctors, nurses, counselors). Can you tell what experiences you had when using the services of this HF?

10. Do you think your friends would seek the services of this HF? Or, would you recommend these services to others including your friends?
    a. Why would you?
    b. Why would you not?

11. What could influence men to come and use the services of this HF?

12. What could influence men not to use the services of this HF?

IV. EXPERIENCE WITH THE MALE FRIENDLY CLINIC (MFC)

13. And what do you think about the specific clinic for men?

14. Have you ever used the MFC?

15. Do you feel any difference in the quality of the services provided in this clinic compared to the rest of the services in this HF?

    Explore:

    Even if you have never used it, do you have a general opinion about the idea of a clinic with special focus on men?

16. Do you think men identify themselves with this clinic?

17. What do you think of the MFC?

    Explore in terms of:

- Privacy (if they feel more at ease in this clinic);
- Attendance (if they receive better service in terms of quality, male providers);
- Accessibility (if it is easy to access them);
- Availability (if the schedule is best suited for most men).

18. What did you like most about this clinic?

19. Even if you have never used it, what do you think you might like most about this clinic services?
    Explore:
- Even if he has never used it, he may have an opinion on what seems to be most interesting to him.

20. What did you least like about the services of the clinic?

21. Even if you have never used it, what do you think you might like least about this clinic services?
    Explore:
- Even if he has never used it, he may have an opinion on what seems to be least interesting to him.

22. What do you think can be improved in the services of the clinic?

23. **For those who have already used the clinic,** would you use these services again?

24. What would be the factors that would make you use it again?

25. What would be the factors that would prevent you from using it again?

26. **For those who have never used it**, do you think you could use the services of this clinic?

27. What would be the factors that would make you use it?

28. What would be the factors that would make you not wanting to use it?

29. Would you recommend this clinic to others (friends, colleagues, neighbors)? Why?

30. What do you think can be done to get more men to visit the MFC?

31. What do you think about the use of the clinic for the care of women as well?
32. Is there anything you would like to add or change in the intervention of this clinic?

33. Is there anything about the MFS and MFC that I did not mention and that you would like to add or comment on?

Thank you for taking your time to talk to us. Your answers are of great importance to our evaluation.

Appendix 5: Guide for In-Depth Interview with Women in the HF

Evaluation ID: [___/___/___/___/___]

[Consecutive Nr/HF code/Service code/Sex code/Interview code] :

Date of the interview: [___|___ /___|___/__2_|_0_|__/__]

Time of the interview: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Masculine [___] Feminine [___]

I. INTRODUCTION

(The interviewer reads aloud)

Thank you for finding the time to take part in this evaluation. The purpose of this interview is to gather information that can provide a better understanding of your opinions and experiences regarding the Male-Friendly Services and the Male-Friendly Clinic. Your answers will be very helpful in understanding how the implementation of these services can be improved. We hope to use this information to improve these services in the future.

To establish your eligibility to participate in this evaluation, we have two questions to ask you:

1. Are you a woman aged 18 or more?
2. Did you receive care in this HF that offers MFS and has a MFC?

(The participants are only eligible to participate if they respond "yes" to the above questions.)

This interview will last about 30 to 45 minutes. I would like to record your answers, to facilitate the flow of our conversation, but if you prefer not to be recorded, we will not record this conversation. All information you share is confidential, and none of your answers will be disclosed to anyone who is not a member of the evaluation team. You can refuse to answer any of the questions without being penalized. We ask that all the answers you share be as honest as possible as this will help us understand these issues more accurately. Thank you for your availability.

CONSENT

(Instructions for the Interviewer)

- ☐ *Read the consent to the participant (or let her read if she chooses).*
- ☐ *Ensure the participant understands the potential risks of participation and agrees to be interviewed.*
- ☐ *Ensure that the participant documents her consent on the consent form with her signature or fingerprint.*
- ☐ *Provide the participant with a copy of the signed/marked consent form so that she can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we start the interview?"*

- ☐ *Explain that you will first have to collect the participant's socio-demographic data (use the specific form);*
- ☐ *You can then start the interview using this guide.*

II. GENERAL KNOWLEDGE ABOUT THE AVAILABLE SERVICES

1. Why did you come to the health facility today?

2. Do you regularly use this HF? In addition to today, when was the last time that you were here?

3. In general, what do you think of the services offered at this HF?

4. Do you know that there is a MFS project in this HF? Explore:
   - How did she know, where did she hear about it, from whom and what did she hear?

5. Do you know there is a MFC here?

6. If so, where and when and what did you hear about this clinic?
   Explore:
   partner, family, friends, community members/neighbors, health personnel, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, other "specify" etc.

III. GENERAL OPINION ABOUT THE AVAILABLE SERVICES

7. What do you think about the care offered by the health care providers? (doctors, nurses, counselors). Can you tell what experiences you had when using the services of this HF?
   Explore:
   Do you feel any difference in terms of care for yourself in this HF compared to another HF that does not have MFS?

8. And regarding the care of men, is the care in this HF equal to what they would receive in other HFs?

9. Do you think that men are usually served satisfactorily in this HFs?

10. Do you think men needed to be served in some differentiated way in different sectors of the HF?

11. Do you think that they (men) use these services here in this HF?
    Explore:
    If they have seen more men in this HF than in other HFs

12. What is your overall evaluation of these services?

13. Do you think your partner or your friends would seek the services of this HF? Or, would you recommend these services to others including your friends?
    a. Why would you?
    b. Why would you not?

14. What could influence men to come to use the services of this HF?

15. What could influence men not to come to use the services of this HF?

IV. EXPERIENCE WITH THE MALE-FRIENDLY CLINIC (MFC)

16. Do you think men need to have a specific service for them? Why?

17. Have you ever been seen at the MFC? Or would you like to be attended there? Why
    Explore:
    - Privacy (if they feel more at ease in this clinic);
    - Attendance (if they receive better service in terms of quality, providers that attend);
    - Accessibility (if it is easy to access them);
    - Availability (if the schedule is the best one for her).

18. Would you recommend the clinic to other people (friends, colleagues, neighbors)? Why?

19. Would you recommend the clinic to your partner?

20. Do you know if your partner ever used this service?
    Explore: If so, what did he think about it? And what do you think about this?

21. What could influence men to use the MFC?

22. What could influence men not to use the MFC?

23. What do you think can be done for men to visit the MFC?

24. What do you think about the use of the clinic for the care of women?

25. Is there anything about the MFS and the MFC that I did not mention and that you would like to add or comment?

Thank you for taking your time to talk to us. Your answers are of great importance to our evaluation.

Appendix 6: Sociodemographic Data Form for users (men and women) in the HF

Evaluation ID: _____
ID of the Interviewer: _____
Date: _____
HF where the Interview took place:

Coalane		Maquival Sede		24 de Julho	

Service: _____
(Emergency services; MFC, External consultations)

1. How old are you?
   - ❑ _____ years
   - ❑ Doesn't know

2. Sex?
   - ❑ Male
   - ❑ Female

3. Did you come with someone to the HF?
   - ❑ Yes
   - ❑ No

4. **If so,** whom did you come with?
   - ❑ Partner
   - ❑ Friend/Neighbor
   - ❑ Colleague
   - ❑ Other (specify) _____

5. Which HF is the nearest to your house?
   - ❑ Coalane
   - ❑ Maquival Sede
   - ❑ 24 de Julho
   - ❑ Other (please specify): _____
   - ❑ Prefers not to say

6. What is the average time you take from your house to the nearest HF with MFS?
   - ❑ Less than 5 minutes
   - ❑ 5 to 30 minutes
   - ❑ 30 to 60 minutes
   - ❑ 1 to 2 hours
   - ❑ More than 2 hours
   - ❑ Prefers not to say

7. What is your civil status?
- ❑ Single (without partner)
- ❑ Living together or officially married
- ❑ Separated or divorced
- ❑ Widower
- ❑ Other (please, specify): _____
- ❑ Prefers not to say

8. How many children do you have?
- ❑ 0
- ❑ 1-2
- ❑ 3-5
- ❑ 6-8
- ❑ >8
- ❑ Prefers not to say

9. What is the highest level of schooling that you obtained?
- ❑ No schooling
- ❑ Basic level (6th year)
- ❑ Mid-level (10th grade)
- ❑ Pre-university (12th grade)
- ❑ Higher
- ❑ Prefers not to say

10. Do you have a job?
- ❑ Yes
  - ❑ Paid (monthly salary)
    Specify your profession _____
  - ❑ Self-employed
    Specify your profession _____
- ❑ No
- ❑ Prefers not to say

11. **In case you have a job**, for how long have you been doing this job?
  - ❑ _____ months
  - ❑ _____ years
  - ❑ Doesn't know

12. What are the languages that you normally speak?
- ❑ Portuguese
- ❑ Chuabo
- ❑ Other, specify _____

Appendix 7: Guide for In-Depth Interviews with company managers

Evaluation ID [___ |___|___|___| ___|___]

Date of the interview: [___|___ /___|___/__2_|_0_|__/__]

Time of the interview: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Male [___] Female [___]

I. INTRODUCTION

(The interviewer reads aloud)

Thank you for finding the time to take part in this evaluation. The purpose of this interview is to gather information that can provide a better understanding of your opinions and experiences regarding the Male-Friendly Services and the Male-Friendly Clinic. Your answers will be very helpful in understanding how the implementation of these services can be improved. We hope to use this information to improve these services in the future.

To establish your eligibility to take part in this evaluation, we have two questions to ask you:

1. Are you aged 18 or more?
2. Are you working (managing or coordinating activities) in one of the companies visited in the scope of creating demand for the use of Coalane, Maquival or 24 de Julho's MFS and MFC?

(The participants are only eligible to participate if they respond "yes" to the above questions.)

This interview will last about 30 minutes. I would like to record your answers, to facilitate the flow of our conversation, but if you prefer not to be recorded, we will not record this conversation, but take only notes. All information you share is confidential, and none of your answers will be disclosed to anyone who is not a member of the evaluation team. You can refuse to answer any of the questions without being penalized. We ask that all the answers you share be as honest as possible as this will help us understand these issues more accurately. Thank you for your availability.

CONSENT

((Instructions for the Interviewer)

- ☐ *Read the consent to the participant (or let him/her read if he/she chooses).*
- ☐ *Ensure the participant understands the potential risks of participation and agrees to be interviewed.*
- ☐ *Ensure that the participant documents his/her consent on the consent form with his/her signature or fingerprint.*
- ☐ *Provide the participant with a copy of the signed/marked consent form so that he/she can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we start the interview?"*

II. SOCIO-DEMOGRAPHIC DATA

1. How old are you?
   - ❑ _____ years
   - ❑ Doesn't know

2. Sex?
   - ❑ Male
   - ❑ Female

3. What is your function within the company?
   - ❑ Member of the Board
   - ❑ Other, specify _____

4. How long have you been working in the company?
   - ❑ _____ months
   - ❑ _____ years
   - ❑ Doesn't know

13. What is the highest level of schooling that you obtained?
- ❑ No schooling
- ❑ Basic level (7th year)
- ❑ Mid-level (10th grade)
- ❑ Pre-university (12th grade)
- ❑ Higher
- ❑ Prefers not to say

III. DATA ABOUT THE MALE-FRIENDLY SERVICES

A. GENERAL PERCEPTION ABOUT THE SERVICES

1. The team of this company taken part in activities to create demand for the use of services that are specific/friendlier for men. Are you aware of this activity?
   Explore:
   - What experience did you have with this new approach in terms of interaction/coordination with health personnel;
   - How was this visit (how long did it take, was it enough, was it very long etc.);

2. Can you tell us what you think about the new strategy of providing Male-Friendly Services?

3. What was the main reason why your company hosted these awareness-raising activities?
   Explore whether it has added value from management's point of view or not, and why?

4. After the withdrawal of the team, is there some additional internal activity to reinforce or remind that there is such a service?

5. What seems good in this approach?

6. What seems bad in this approach?

7. As an employer, do you think this is an ambitious or realistic project and why?

B. ACCEPTANCE OF/ADAPTATION TO THE MFS AND MFC

8. Does the fact that there is a clinic for the care of men in the afternoon, specifically make it more favorable so that men don't have to miss work to go to the HF; do you feel any change?

9. Have your employees already started using these services?

10. Do you think that making this service available can have implications for the company's productivity?

11. Do you feel any difference in the availability of your employees at work in terms of delays or absences due to trips to the HF?

12. Do you have any information on how the men in your company respond to the existence of specific services and a clinic for them?

13. Based on the knowledge of your employees, do you think men would use the MFS, in particular the MFC?

14. How would you like the MFS and MFC to be?
    Explore:
    What do you think could be improved?

15. What are the advantages of having services and a clinic that are focused on men's health issues?

16. What are the disadvantages of having MFS and a clinic that are focused on men's health issues?

17. In addition to the things we have already covered, do you have something about the MFS in general or the MFC that you would like to add?

Thank you for your participation and for your time, your answers will be of great value for our evaluation.

Appendix 8: Guide for Focus Group Discussion (FGD) for company male employees

Evaluation ID: [___/___/___/___/___]

[Consecutive nr/code of the neighborhood or company/FGD] : [01/01/02]

Date of the FGD: [___|___ /___|___/__2_|_0_|__/__]

Time: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Male [___] Female [___]

I. INTRODUCTION

(The interviewer reads aloud)

First of all, we would like to thank you for agreeing to take part in this group interview and for the time you are making yourself available to answer/discuss some of the issues that we will present to all of you through a script/question guide.

As we have said before, we have contacted you and all have been invited to take part in this discussion group as men working in one of the companies involved in awareness-raising activities for the use of male-friendly services and male-friendly clinics in some HF where this service is available.

The main objective of this group interview is to better understand the opinions of male employees on the barriers and facilitators for the use of these new services, through a discussion in order to identify strategies that could improve the access, use and delivery of these services.

To establish your eligibility in this evaluation, we have two questions to ask you:

1. Are you a man aged 18 years or more?
2. Are you working in a company that was covered by the awareness-raising activities for the use of the MFS and MFC?

(The participants are only eligible to participate if they respond "yes" to question 1 and "no" to question 2 above.)

We would like to ask you to feel free and at ease to speak/contribute, we ask for your sincerity regarding the answers/opinions expressed by each of those taking part. There are no wrong or correct answers, everything you will share with us will be of great use to better understand the facilitators and the barriers to the use of MFS and MFC.

We also ask you to respect the opinions/responses of each of those taking part, even if you do not agree, do not cut off the reasoning of another person. Everyone should use the time allocated to him to present his opinion, even if it is contrary to the opinion of the majority.,

In order to be able to organize all the interventions, we would like to request that after each issue/question put by us, each one who wants to give his opinion first expresses their interest by raising his hand and when he is given the word, precedes his speech by the order number he will be assigned in this group. In this way, the interventions will be done in an orderly manner and with an opportunity for all participants to be able to give their opinion or share their perception about what is being studied. If everyone agrees, the conversation will be recorded using a tape recorder, to help registering all the interventions and to ensure that no contribution is lost.

As we explained individually to each of you during the process of obtaining informed and signed consent, your taking part is free and voluntary, at the same time we ask that everyone commits himself to guarantee the secrecy and confidentiality of the opinions of the others taking part in this discussion group.

All the information you share with us is totally confidential, no one outside this evaluation will know about those taking part in this group nor about the information given through your opinions/answers to the discussion topics.

CONSENT

(Instructions for the Interviewer)

- ☐ *Read the consent to the participants as they are seated in a group;*
- ☐ *Ensure that participants, even having understood the potential risks of their participation in the evaluation, agree to be part of the group;*
- ☐ *Find a private place so that each participant individually expresses his interest in being part of the group;*
- ☐ *Ensure that the participant who agrees to be part of the group, documents his consent on the consent form with his signature or fingerprint.*
- ☐ *Provide the participant with a copy of the signed / marked consent form so that he can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we join the larger group?"*
- ☐ *Explain that you will first have to collect the participant's socio-demographic data (use the specific form);*
- ☐ *You can then start the discussion group using this script.*

II. GENERAL KNOWLEDGE OF THE AVAILABLE SERVICES

1. Why do men, in general, not seek health services (not specifically for Coalane, Maquival Sede and 24 de Julho)?

   Explore:

   - There is no need, they do not have disease symptoms;
   - They already know the medication they should take when they are not well, they go directly to the pharmacy;
   - They visit another HF different from Coalane, Maquival Sede and 24 de Julho;
   - There are other places where health issues are treated, explore what these places are;

2. On average, how often is it normal for a man to seek health services?

3. What are the main concerns that can lead a man to go to the HF?
   Explore:
   If they should go only in the advanced stage of disease;
   How long they should be managing the disease at home before going to the HF;
   If there are certain diseases that men have perceptions that they need to be treated in the HF and other diseases that they think do not need treatment in the HF (but maybe treatment elsewhere) and which diseases these are.

III. EXPERIENCE WITH MALE-FRIENDLY SERVICES (MFS)

4. Have the men of this company already heard about the Male-Friendly Services?

These are health services specially designed for men, set up in the health facilities of Coalane, Maquival Sede, and 24 de Julho. In these HF, professionals have been given specific training to make the services friendlier to men. They are prepared to address men's health concerns, from general issues such as high blood pressure, HIV, tuberculosis, to issues related to men's sexual and reproductive health. In these three HF, in principle, services should be friendlier to men in all sectors offering services at normal times (7:30 to 3:30 Monday through Friday).

5. Where do people usually talk about these services?
   Explore:
   At work, partner, family, friends, community members/neighbors, health staff, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, others "specify" etc.

6. Why do you think that a lot of men, even having heard about these services, do not visit them?
   Explore if it is related to:
   - Privacy (if they do not think that specific services put them at ease);
   - Attendance (if they think that the personalized services take more time, or they don't like being served by male providers);
   - Accessibility (if access to these services is difficult);
   - Availability (if the schedule is not the most suitable one for most men).

7. Do you think that the quality of the services in the HF with MFS are better or worse than those offered in other HF?

8. Would you or your friends and colleagues seek the services of these HF that have MFS? Why?

9. Would you recommend these services to others including your friends?
   a. Why would you?
   b. Why would you not?

10. What do you think might influence men to come and use the services of this HF?

11. What do you think might influence them not to use the services of this HF?

12. Which message do you think should be conveyed in companies so that more men join these services? By what means would you like to know about these services?

IV. EXPERIENCE WITH THE MALE-FRIENDLY CLINIC (MFC)

13. Have you and the other men of the company already heard about the Male-Friendly Clinic?

These are health services specially designed for men, set up in the health facilities of Coalane, Maquival Sede, and 24 de Julho. In these HF, professionals have been given specific training to make the services friendlier to men. They are prepared to address men's health concerns, from general issues such as high blood pressure, HIV, tuberculosis, to issues related to men's sexual and reproductive health. The services are offered in a specific male-friendly clinic at special times from Monday to Friday, from 1:00 p.m. to 8:00 p.m.

14. Where do they usually speak about these services?
    Explore:
    At work, partner, family, friends, community members/neighbors, health staff, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, others "specify" etc.

15. In terms of schedules, to what extent do the opening hours of the MFC benefit you as employees?

16. And do you think the company's management has given the professionals the opportunity to leave in order to use these services?

17. Do you think this has helped professional men? To what extent?

18. What would be the factors that would make them use it?

    Explore if it is related to:

- Privacy (if they do not think that specific services put them at ease);
- Attendance (if they think that the personalized services take more time, or they don't like being served by male providers);
- Accessibility (if access to these services is difficult);
- Availability (if the schedule is not the most suitable for them as professionals).

19. What would be the factors that would make them unwilling to use them?

20. For those who have already used these services, have they felt that they are as good as they seemed when they talked about them? If not, what does not conform?

21. But can you also share what is very good?

22. Do you think men prefer to be attended by men or women? Or, when you go to the health facility, do you prefer to be attended by men or women? Why?

23. Given that some men do not like to go to the HF, because they think that a man does not get sick or is not in control when he is sick, what do you think of the afternoon schedule, is it good for men or not? And for working men, do you think it is necessary?

24. Could you, as men, use the services of this clinic?

25. Would you recommend the clinic to others (friends, colleagues, neighbors)? Why?

26. What do you think can be done so that more professional men visit the male-friendly clinic?

27. What do you think about the use of these clinics by women?

    Explore: Do they think that they too should have something similar but exclusively for them or can they use the MFC?

28. Is there something about the MFS and the MFC that I did not mention and that you would like to add or comment?

We would like to thank you once again for agreeing to participate in this discussion group, and to share your opinion / perceptions on the issues discussed with us in an open and sincere way.

We are aware that your information will be of great use to better understand what is happening and to design new strategies to improve care delivery in the MFS and MFC.

THANK YOU VERY MUCH!

Appendix 9: Sociodemographic Data Form for FGD in the Companies

ID of the Evaluation: _____
ID of the Interviewer: _____
Date: _____
Name of the Company: _____

1. How old are you?
   - ❑ _____ years
   - ❑ Doesn't know

2. Do you work near a HF (less than 30minutes walk)?
   - ❑ No
   - ❑ Yes
   - ❑ Prefers not to say

3. Which is the HF nearest your work?
   - ❑ Coalane
   - ❑ Maquival Sede
   - ❑ 24 de Julho
   - ❑ Other (please, specify): _____
   - ❑ Prefers not to say

4. And which is the HF nearest to your house?
   - ❑ Coalane
   - ❑ Maquival Sede
   - ❑ 24 de Julho
   - ❑ Other (please, specify): _____
   - ❑ Prefers not to say

5. What is the working schedule of most employees of your company?
   - ❑ In shifts
   - ❑ Normal Schedule
   - ❑ Both
   - ❑ Doesn't know

6. In which schedule do you work?
   - ❑ In shifts
   - ❑ Normal Schedule
   - ❑ Both

7. What is your position in the company?

   _____
   - ❑ Prefers not to say

8. For how long have you been working in this company?
- ❑ < 3 months
- ❑ 3-11 months
- ❑ 1-3 years
- ❑ 4-5 years
- ❑ >5 years
- ❑ Prefers not to say

9. What is your civil status?
- ❑ Single (without partner)
- ❑ Living together or officially married
- ❑ Separated or divorced
- ❑ Widower
- ❑ Other (please, specify): _____
- ❑ Prefers not to say

10. How many children do you have?
- ❑ 0
- ❑ 1-2
- ❑ 3-5
- ❑ 6-8
- ❑ >8
- ❑ Prefers not to say

11. What is the highest level of schooling that you obtained?
- ❑ No schooling
- ❑ Basic level (6th year)
- ❑ Mid-level (10th grade)
- ❑ Pre-university (12th grade)
- ❑ Higher
- ❑ Prefers not to say

12. What are the languages that you normally speak?
- ❑ Portuguese
- ❑ Chuabo
- ❑ Other, specify _____

Appendix 10: Guide for Focus Group Discussion with Men in the Community (who never used the MFS)

Evaluation ID: [Consecutive nr/code of the neighborhood or company/FGD] : [01/01/02]

Date of the FGD: [___|___ /___|___/__2_|_0_|__/__]

Time: Start [___|___: ___|___] End [___ |___: ___|___]

Initials of the interviewer: _____

Sex of the interviewer: Masculine [___] Feminine [___]

I. INTRODUCTION

(The interviewer reads aloud)

First of all, we would like to thank you for agreeing take part in this group interview and for the time you are making yourself available to answer/discuss some of the issues that we will present to all of you through a script/question guide.

As we said before, we have contacted you and all have been invited to take part in this discussion group as men who have not used the services of the HF with professionals trained to offer services that are friendlier to men or the male-friendly clinics.

The main objective of this group interview is to better understand the opinions of men who have never used the Male-Friendly Services on the barriers for the use of these new services, through a debate in order to look for strategies that improve the access, use, and delivery of these services.

To establish your eligibility in this evaluation, we have two questions to ask you:

1. Are you a man aged 18 years or more?
2. You have not received care in the Coalane, Maquival Sede and 24 de Julho HF in the past 6 months?

(The participants are only eligible to participate if they respond "yes" to question 1 and "no" to question 2 above.)

We would like to ask you to feel free and at ease to speak/contribute, we ask for your sincerity regarding the answers/opinions expressed by each of the others taking part. There are no wrong or correct answers; everything you will share with us will be of great use to better understand the facilitators and the barriers to the use of the MFS and MFC.

We also ask you to respect the opinions/responses of each of the others taking part, even if you do not agree, do not cut off the reasoning of anyone else. Everyone should use the time allocated to him to present his opinion, even if it is contrary to the opinion of the majority

In order to be able to organize all the interventions, we would like to request that after each issue/question put by us, anyone who wants to give his opinion first expresses their interest by raising his hand and when he is given the word, precedes his speech by the order number he will be assigned in this group. In this way, the interventions will be done in an orderly manner and with an opportunity for everyone to be able to give their opinion or share their perception about what is being studied. If everyone agrees, the conversation will be recorded using a tape recorder to help record all the interventions and to ensure that no contribution is lost.

As we explained individually to each of you during the process of obtaining informed and signed consent, your taking part is free and voluntary, at the same time we ask that everyone commits himself to guarantee the secrecy and confidentiality of the opinions of the others in this discussion group.

All the information you share with us is totally confidential; no one outside this evaluation will know about the participants of this group nor about the information given through your opinions/answers to the discussion topics.

CONSENT

(Instructions for the Interviewer)

- ☐ *Read the consent to the participants as they are seated in a group;*
- ☐ *Ensure that participants, even having understood the potential risks of their participation in the evaluation, agree to be part of the group;*
- ☐ *Find a private place so that each participant individually expresses his interest in being part of the group;*
- ☐ *Ensure that the participant who agrees to be part of the group, documents his consent on the consent form with his signature or fingerprint.*
- ☐ *Provide the participant with a copy of the signed / marked consent form so that he can keep it.*
- ☐ *Ask the participant: "Do you have any questions before we join the larger group?"*
- ☐ *Explain that you will first have to collect the participant's socio-demographic data (use the specific form);*
- ☐ *You can then start the discussion group using this script.*

II. GENERAL KNOWLEDGE ABOUT THE AVAILABLE SERVICES

1. In general, how are the health services offered in the HF?

2. Why do men, in general, not seek health services (not specific for Coalane, Maquival Sede and 24 de Julho)?
   Explore:
   - No need, they do not have disease symptoms;
   - They already know the medication they should take when not being well, they go directly to the pharmacy;
   - They visit another HF, different from Coalane, Maquival Sede and 24 de Julho;
   - There are other places where they treat health issues, explore what these places are;

3. On average, how often is it normal for a man to seek health services?

4. What are the main concerns that can lead a man to go to the HF?

   Explore:
   If they should go only in the stage of advanced disease;
   How long they should manage the disease at home before going to the HF;
   If there are certain diseases that need to be treated in the HF and others that do not need to get there and which ones those are.

III. ABOUT THE MALE FRIENDLY SERVICES (MFS)

5. Have the men in this neighborhood already heard about the Male-Friendly Services?

These are health services specially designed for men, set up in the health facilities of Coalane, Maquival Sede and 24 de Julho. In these HF, professionals have been given specific training to make the services friendlier to men. They are prepared to address men's health concerns, from general issues such as high blood pressure, HIV, tuberculosis, to issues related to men's sexual and reproductive health. In these 3 HF, in principle, services should be friendlier to men in all sectors offering services at normal times (7:30 to 3:30 Monday through Friday).

6. Where do they usually speak about these services?
   Explore:
   At work, partner, family, friends, community members/neighbors, health staff, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, others "specify" etc.

7. Why do you think that a lot of men, even having heard about these services, do not visit them?
   Explore if it is related to:
   - Privacy (if they do not think that specific services put them at ease);
   - Attendance (if they think that the personalized services take more time, or they don't like being served by male providers);
   - Accessibility (if access to these services is difficult);
   - Availability (if the schedule is not the most suitable one for most men).

8. Do you think that the quality of the services in the HF with MFS are better or worse than those offered in other HF?

9. Would you or your friends seek the services of these HF that have MFS? Why?

10. Would you recommend these services to others including your friends?
    a. Why would you?
    b. Why would you not?

11. What do you think might influence men to come and use the services of this HF?

12. What do you think might influence not to use the services of this HF?

13. What message do you think should be transmitted in the community so that more men join these services? By what means would you like to know about these services?

IV. ABOUT THE MALE-FRIENDLY CLINIC (MFC)

14. Have you and other men of this neighborhood already heard about the Male-Friendly Clinic?

These are health services specially conceived for men, set up in the health facilities of Coalane, Maquival Sede and 24 de Julho. In these HF, professionals have been given specific training to make the services friendlier to men. They are prepared to address men's health concerns, from general issues such as high blood pressure, HIV, tuberculosis, to issues related to men's sexual and reproductive health. The services are offered in a specific male-friendly clinic at special times from Monday to Friday, from 1:00 p.m. to 8:00 p.m.

15. Where do they usually speak about these services?
    Explore:
    At work, partner, family, friends, community members/neighbors, health staff, volunteer activists, peer educators, community radio, TV, posters, community theater, multi-mobile unit event, others "specify" etc.

16. What is said about these services?

17. Why do you think that many men did not visit these clinics, even though they have heard of them? Do you think men identify with these services?
    Explore if it is related to:
    - Privacy (if they do not think that specific services put them at ease);
    - Attendance (if they think that the personalized services take more time, or don't like being served by male providers);
    - Accessibility (if access to these services is difficult);
    - Availability (if the schedule is not the most suitable one for most men).

18. Do you think that men prefer to be attended by men or by women? Or, when you go to the health facility, do you prefer to be attended by men or by women? Why?

Given that some men do not like going to the HF, because they think that a man does not get sick or is not in control when he is sick, what do you think of the afternoon schedule, is it good for men or not?

19. Could you, as men, use the services of this clinic?

20. What would be the factors that would make you use it?

21. What would be the factors that would prevent you from using it?

22. Would you recommend the clinic to others (friends, colleagues, neighbors)? Why?

23. What do you think that can be done so that more men visit the male-friendly clinic?

24. What do you think about the use of these clinics by women?

    Explore: Do you think they should also have something similar but for their exclusive use or can they also use the MFC?

25. Is there something about the MFS and the MFC that I did not mention and that you would like to add or comment?

We would like to thank you once again for agreeing to take part in this discussion group, and to share your opinion/perceptions on the issues discussed with us in an open and sincere way.

We are aware that your information will be of great use to better understand what is happening and to design new strategies to improve care delivery in the MFS and MFC.

THANK YOU VERY MUCH!

Appendix 11: Sociodemographic Data Form for FGD with Men in the Community

ID of the Evaluation: _____
ID of the Interviewer: _____
Date: _____
Community neighboring the HF of:

Coalane		Maquival Sede HQ		24 de Julho	

Name of the neighborhood: _____

1. How old are you?
   - ❑ _____ years
   - ❑ Doesn't know

2. Which is the HF nearest to your house?
   - ❑ Coalane
   - ❑ Maquival Sede HQ
   - ❑ Other (please, specify): _____
   - ❑ Prefers not to say

3. On average, how long does it take from your house to the nearest HF with MFS (in minutes)?
   - ❑ Less than 5
   - ❑ 5 to 15
   - ❑ 15 to 30
   - ❑ 30 to 60
   - ❑ More than 60 minutes
   - ❑ Prefers not to say

4. What is your civil status?
   - ❑ Single (without partner)
   - ❑ Living together or officially married
   - ❑ Separated or divorced
   - ❑ Widower
   - ❑ Other (please, specify): _____
   - ❑ Prefers not to say

5. How many children do you have?
   - ❑ 0
   - ❑ 1-2
   - ❑ 3-5
   - ❑ 6-8
   - ❑ >8
   - ❑ Prefers not to say

6. What is the highest level of schooling that you obtained?

- ❑ No schooling
- ❑ Basic level (6th year)
- ❑ Mid-level (10th grade)
- ❑ Pre-university (12th grade)
- ❑ Higher
- ❑ Prefers not to say

7. Do you work?

- ❑ Yes
  - ❑ Paid (monthly salary)
    Specify your profession _____
  - ❑ Self-employed
    Specify your profession _____
- ❑ No
- ❑ Prefers not to say

8. **In case you have work**, for how long have you been doing this work?

- ❑ _____ months
- ❑ _____ years
- ❑ Doesn't know

9. Which languages do you normally speak?

- ❑ Portuguese
- ❑ Chuabo
- ❑ Other, specify _____

Appendix 12: Timeline

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Preparation of activities: POPs Design; Field Team Recruitment	X											
Coordination with DPS Coordination with local administrative authorities	X											
Training of field team		X										
Data Collection and Transcriptions		X	X	X	X							
Data Analysis												
Verification of Transcripts		X	X	X								
Interview Coding					X	X	X	X				
Report Writing								X	X	X		
Manuscript Writing and Dissemination										X	X	X

Appendix 13: Budget

Description	Unit price (USD)	unit	#	%	Total
1. Human Resources					
Interviewers (2 ppl, 10d data collection, 5d transcription to paper)	$35	2	15	100%	$1,050.00
Transcription (70 transcripts; 35USD per transcription)	$35	1	70	100%	$2,450.00
					$3,500.00
3. Training of protocol (8 qual + 4 surveyors + 8 eSMI + 1 DPS					
Training costs - see training template	$708	1	1	lumpsum	$708.47
					$0.00
					$708.47
4. Travel					
Training					
Travel costs air MPT-QLM Training (PI)	$0	1	1	100%	$0.00
Per diem/accommodation evaluation team training (1ps; 12 days)	$0	1	12	100%	$0.00
Data Collection and Supervision					
Travel air MPT-QLM supervision (Coordinator)	$0	1	1	100%	$0.00
Per diem/accommodation supervision Coordinator (1ps; 7 days)	$0	1	7	100%	$0.00
Per diem DPS Staff supervision visits (1ps; 2 days)	$35	1	2	100%	$70.00
Field work travel					
Car rental (1car; 20 days data collection + 5 days for supervision of quantitative)	$108	1	10	100%	$1,080.00
Fuel (356USD/month)	$356	1	1	100%	$178.00
					$1,328.00
5. Supplies and other direct costs					
IRB	$200	1	1	Lump sum	$200.00
Dissemination costs	$0	1	1	Lump sum	$0.00
Translation of consent forms Port - local language	$30	4	4	100%	$480.00
Translation costs Port-English (30USD per page; 25 pages)	$30	25	1	100%	$750.00
					$1,430.00
TOTAL					**$6,966.47**

Appendix 14: Declaration of Conflict of Interest - Principal Investigators

Declaration of Conflict of Interest – Carlota Fonseca

As the Co-Principal Investigator, I will be responsible for the relevance and quality of the project evaluation, and for the confidentiality and anonymity of the participants.

Statement of conflict of interests

I, Carlota Fonseca, as Co-Principal Investigator of the Project entitled "*Evaluation of barriers and facilitators for the use of the services offered in the MFC in Coalane, Maquival Sede and 24 de Julho health facilities in Zambézia Province, Mozambique*", declare that I am an employee of the non-governmental organization, Friends in Global Health (FGH) in Mozambique.

I am engaged in the interview and survey design process, the evaluation design approach, as well as in the production of the pilot intervention and evaluation protocol. I will also contribute in the analysis and presentation of the results of the above-mentioned evaluation, in collaboration with:

- VUMC's Institute of Global Health: non-profit entity committed to building capacity in low-resource settings through interdisciplinary global health educational and training programs, technical assistance to government and civil sector organizations, and implementation science and evaluation in order to improve health and equity.
- FGH: wholly-owned subsidiary of VUMC, which supports HIV/AIDS care and treatment programs (HIV adult and pediatric care and treatment, Prevention of Mother to Child Transmission (PMTCT), Counseling and Testing (CT) services, Tuberculosis (TB) program services and exposed child services (CCR) in 9 rural districts and the urban capital district within Zambézia Province.
- Provincial Health Directorate of Zambézia Province.

Finally, I would like to mention that the present pilot intervention and evaluation does not involve any personal financial benefits, nor is it a for-profit evaluation.

I declare that there are no conflicts of interest in the aforementioned Project:

Assinatura

Declaration of Conflict of Interest – Sara Van Rompaey

As the Co-Principal Investigator, I will be responsible for technical approaching of the evaluation contents; I shall also ensure the quality of the evaluation procedures and the confidentiality and anonymity of the participants

Statement of conflict of interests

I, Sara Van Rompaey, as Co-Principal Investigator of the Project entitled "*Evaluation of barriers and facilitators for the use of the services offered in the MFC in Coalane, Maquival Sede and 24 de Julho health facilities in Zambézia Province, Mozambique*", declare that I am an employee of the non-governmental organization, Friends in Global Health (FGH) in Mozambique.

I am engaged in the interview and survey design process, the evaluation design approach, as well as in the production of the pilot intervention and evaluation protocol. I will also contribute in the analysis and presentation of the results of the above-mentioned evaluation, in collaboration with:

- VUMC's Institute of Global Health: non-profit entity committed to building capacity in low-resource settings through interdisciplinary global health educational and training programs, technical assistance to government and civil sector organizations, and implementation science and evaluation in order to improve health and equity.
- FGH: wholly-owned subsidiary of VUMC, which supports HIV/ AIDS care and treatment programs (HIV adult and pediatric care and treatment, Prevention of Mother to Child Transmission (PMTCT), Counseling and Testing (CT) services, Tuberculosis (TB) program services and exposed child services (CCR) in 9 rural districts and the urban capital district within Zambézia Province.
- Provincial Health Directorate of Zambézia Province.

Finally, I would like to mention that the present pilot intervention and evaluation does not involve any personal financial benefits, nor is it a for-profit evaluation.

I declare that there are no conflicts of interest in the aforementioned Project:

Sara Van Rompaey

Appendix 15. Biographical Sketches of Principal Investigators

- 1. Biographical Sketch: Sara Van Rompaey

NAME: Van Rompaey, Sara

POSITION TITLE: National Quality Improvement Technical Advisor, Friends in Global Health Mozambique

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Leuven University, Belgium	MD	2001	Medicine
Institute of Tropical Medicine, Antwerp, Belgium	Certificate	2004	Tropical Medicine
Leuven University, Belgium	GP (Family Medicine)	2004	General Practice/Family Medicine
Basel University, Switzerland	MIH	2010	International Health

A. Personal Statement

I am a Medical Doctor and International Health Specialist with thirteen years of experience with health programmes in countries with limited resources, with a particular focus on infectious disease service delivery in sub-Saharan Africa. For the last 5 years I have been based in Mozambique, leading and developing quality improvement strategies within the 'Avante Zambézia' project. Funded primarily by the Centers for Disease Control and Prevention, I am also a co-investigator on Dr. Audet's funded R01 award, Partners-based HIV treatment in antenatal care services.

B. Positions and Honors

Positions

2001 - 2004 GP Registrar (Family medicine) in UK and Belgium

2004 - 2008 Médecins Sans Frontières Belgium: MD/coordinator of MSF projects in DRC, Haiti, Italy and Belgium

06/09 - 09/09 Medical Advisor for PMTCT, paediatric HIV care and nutrition programme in Kinshasa, Magna – Children at risk, DR Congo:

11/09 - 06/10 Medical Coordinator of the HIV project 'Protege a Tua Vida' Médicos do Mundo, Guinea-Bissau

06/10 - 12/10 International HIV/AIDS Evaluation Expert (Treatment, Care, and Support Activities) UNDP Tajikistan:

2010 - 2013 International Consultant: UNICEF Guinea-Bissau

2009 - 2014 Frequent part-time contracts as Expert Consultant in ART in low resource settings Institute of Tropical Medicine, Antwerp, Belgium

08/13 - 03/14 Expert Consultant Sexual and Reproductive Health Médecins du Monde France

02/15 - Pres Friends in Global Health/Vanderbilt University, Mozambique, 11th

02/15 - Pres National Quality Improvement Technical Advisor

Honors and Memberships

2001- present Member, ordre des medecins, Belgium

2004 – present Licensed in Belgium as General Practitioner

2010 – present Journal reviewer for AIDS Care and BMC Pregnancy and Childbirth

2015 – present Member of the technical working groups of Quality Improvement working group and of male engagement MoH central level Mozambique

C. Contributions to Science

1. **Studying approaches to improve male engagement in PMTCT services**, as Co-Investigator on Dr. Audet's funded R01 award, Partners-based HIV treatment in antenatal care services:
    a) De Schacht Caroline; Sara Van Rompaey; Ezequiel Barreto; Almiro Emilio, Arifo Aboobacar; Erin Graves; Carolyn Audet, Male engagement optimization in women´s care to answer Pre-Exposure Prophylaxis needs in serodiscordant couples: estimation based on preliminary data from a cluster randomized trial in Zambézia province, Mozambique. Approved as Oral Presentation at INTEREST - 13th International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings 14 May- 17 May 2019, Accra, Ghana
    b) Carolyn M. Audet, Erin Graves, Ezequiel Barreto, Caroline De Schacht, Wu Gong, Bryan E. Shepherd, Arifo Aboobacar, Lazaro Gonzalez-Calvo, Maria Fernanda Alvim, Muktar H. Aliyu,

Aaron M. Kipp, Heather Jordan, K. Rivet Amico, Matthew Diemer, Andrea Ciaranello, Caitlin Dugdale, Sten H. Vermund, Sara Van Rompaey, Partners-based HIV treatment for seroconcordant couples attending antenatal and postnatal care in rural Mozambique: A cluster randomized trial protocol. Contemporary Clinical Trials Volume 71, August 2018, Pages 63–69 https://doi.org/10.1016/j.cct.2018.05.020

2. **Assessing the effect of Quality Improvement interventions:** for the last five years I have been leading and developing strategies to improve quality of HIV care in over 200 health facilities supported by Vanderbilt University Medical Center's non-governmental Organization, Friends in Global Health (FGH) within the 'Avante Zambézia' project, under the President's Emergency Plan for AIDS Relief

   a) Mayra Melo, Caroline De Schacht, Themos Ntasis, José Tique, Julieta Matsimbe, Gael Claquin, Fernanda Alvim, Eurico Jose, Hamilton Mutemba, Antonieta Inácio, Anibal Naftal Fernando, Gustavo Amorim, C. William Wester, Sara Van Rompaey, Improved 12-months ART retention rates through intensive monitoring of key process measures in Zambézia province, Mozambique. Approved as Poster exhibition 10th IAS Conference on HIV Science, Mexico City, Mexico, 21 to 24 July 2019

   b) Mayra Melo, Caroline De Schacht, Julia Langa, Roque Pinto, Antonieta Inácio, Wilson Silva, Marzio Stefanutto, Puri Gonzalez, Jessica Greenberg Cowan, C. William Wester, Sara Van Rompaey, Implementing Quality Improvement in a large HIV clinic to improve the availability of pediatric viral load results for patient care in rural Zambézia, Mozambique. Approved as poster exhibition at INTEREST - 13th International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings 14 May- 17 May 2019, Accra, Ghana and the 10th IAS Conference on HIV Science, Mexico City, Mexico, 21 to 24 July 2019

   c) Erin Graves, Caroline De Schacht, Wu Gong, Sara Van Rompaey, Maria Fernanda Sardella Alvim, Gaël Claquin, Bryan E. Shepherd, Ann F. Green, Jose A. Tique, Eurico José, Hélio Machabane, Eusébio Maposse, Magdalena Bravo, Anibal Naftal Fernando, and C. William Wester, Effectiveness of short message service (SMS) reminders on timely pick-up of antiretroviral therapy (ART) among consenting HIV-positive adults in Zambézia province, Mozambique. Approved as Poster exhibition at INTEREST - 13th International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings 14 May- 17 May 2019, Accra, Ghana and the 10th IAS Conference on HIV Science, Mexico City, Mexico, 21 to 24 July 2019

   d) Sara Van Rompaey, Mayra Melo, Fernandes Bilhete, Ivan Tancredo, Wu Gong, C. William Wester, Caroline De Schacht, Improved viral suppression rates among HIV-positive adults receiving antiretroviral therapy (ART) via community adherence group (CAG) support in Zambézia province, Mozambique. Approved as Poster exhibition at INTEREST - 13th International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings 14 May- 17 May 2019, Accra, Ghana

   e) Sara Van Rompaey; Mayra Melo; Josh Viele; Ann Green; Hélio Machabane; Amina Muicha; Chimoio Magumisse; C. William Wester, Improving documentation of antiretroviral therapy (ART)

dispensation via electronic pharmacy barcode system in rural Mozambique. Poster presentation at IAS, July 2017 in Paris, France

3. **Assessing access and retention in HIV preventative and clinical services:** In DRC, Mozambique and as a member of an international community of practice I have contributed to the identification of factors that are fundamental for access to HIV preventative service and clinical care and retention.

   f) C. Audet, S. Van Rompaey, W. Gong, E. Graves, M. Bravo, F. Melo, J.E. Malinha, E. Chele, C. De Schacht, Improved services, health seeking behavior, and outcomes for gender-based violence survivors, including post-exposure prophylaxis (PEP) in rural Zambézia province, Mozambique. Poster presentation AIDS, July 2018 in Amsterdam, the Netherlands. http://programme.aids2018.org/Abstract/Abstract/1737

   g) Carolyn M. Audet; Lázaro González Calvo; Muktar H Aliyu; Meridith Blevins; Maria Fernanda Sardella Alvim; Sara Van Rompaey, Retention outcomes and mortality of lesbian, gay, bisexual and transgender intersex (LGBTI) versus heterosexual patients in HIV care in rural Mozambique. Poster presentation at IAS, July 2017 in Paris, France

   h) Sara Van Rompaey (presenter), Operational assessment of access to ART in rural Africa: the example of Kisantu in Democratic Republic of the Congo. Oral Presentation at the Pan-African/World Health Summit Satellite Symposium, Berlin, Germany, 20 October 2012.

   i) Bateganya, Moses; Zolfo, Maria; Kiyan, Carlos; Lequarre, Francoise; Dahal, Shishir; Van Rompaey, Sara; Van Griensven, Johan; Lynen, Lut and the (e)SCART alumni network. Tackling Retention in HIV Care: Communities of Practice an Online Learning event. Poster Exhibition Day 3, ICASA, Addis Abeba, Ethiopia, 7 December 2011. Abstract number: WEPE265.

   j) b) Van Rompaey, Sara; Kimfuta, Jacques; Kimbondo, Pierre; Monn, Cecilia and Buvé, Anne. Operational assessment of access to ART in rural Africa: the example of Kisantu in Democratic Republic of the Congo. AIDS Care. 2011 Jun; 23(6):686-93. PMID: 21390887. DOI:10.1080/09540121.2010.532538

2. Biographical Sketch: Carlota Fonseca

NAME: Fonseca, Carlota de Azevedo

POSITION TITLE: Senior Evaluator Officer, Friends in Global Health Mozambique

EDUCATION/TRAINING

	DEGREE	YEAR(s)	FIELD OF STUDY
Eduardo Mondlane University	Licentiate	2006	Geography
Eduardo Mondlane University	no	2013	Public health

*I do not have the public health diploma, concludes only the curriculum

A. Personal Statement

I have 15 years of experience in research/evaluations, in the last 11 years working specifically with heath programs research, particularly for HIV research which has given me an opportunity to be contribute to several evaluations since the protocol development phase until the implementation and dissemination of results.

B. Contributions to Science

During this time, I have opportunity to contribute to some publications in articles and to make some presentations of study results, below are the publications in which I participated:

a) *De Schacht C*, Lucas C, Mboa C, Gill M, Macasse E, Stélio AD, Bobrow EA, Guay L. Access to HIV prevention and care for HIV-exposed and HIV-infected infants: a qualitative study in rural and urban Mozambique. *BMC Public Health* 2014, 14:1240
b) *Caroline De Schacht*, Heather J. Hoffman, Nédio Mabunda, Carlota Lucas, Catharina L. Alons, Ana Madonela, Adolfo Vubil, Orlando C. Ferreira Jr, Nurbai Calú, Iolanda S. Santos, Ilesh V. Jani, Laura Guay High HIV seroconversion in pregnant women and low reported levels of HIV testing among male partners in Southern Mozambique: results from a mixed methods study. *PloS One* 9(12): e115014.
c) Caroline De Schacht, Carlota Lucas, Nádia Sitoe, Rhoderick Machekano, Patrina Chongo, Marleen Temmerman, Ocean Tobaiwa, Laura Guay, Seble Kassaye, Ilesh V. Jani. Implementation of Point-of-Care Diagnostics Leads to Variable Uptake of Syphilis, Anemia and CD4+ T-Cell Count Testing in Rural Maternal and Child Health Clinics. PLoS ONE 10(8): e0135744.
d) Caroline De Schacht, Carlota Lucas, Paula Paulo, Sara Van Rompaey, Anibal Naftal Fernando, Jalilo Ernesto Chinai, Noela Chicuecue, Wilson P Silva, Guita Amane, Thebora Sultane, Nely Honwana, Stanley Wei, Inacio Malimane, Aleny Couto, C. William Wester. Reaching

Men and Young Adults in a Pharmacy-Based HIV Self-Testing Strategy: Results from an Acceptability Study in Mozambique. AIDS Res Hum Retroviruse 38(8):622-630. doi: 10.1089/AID.2021.0116. Epub 2022 Jun 14.

e) Daniel E Sack, Caroline De Schacht, Paula Paulo, Erin Graves, Almiro M Emílio, Ariano Matino, Carlota L Fonseca, Arifo U Aboobacar, Sara Van Rompaey, Carolyn M Audet. Pre-exposure prophylaxis use among HIV serodiscordant couples: a qualitative study in Mozambique. Glob Health Actin. 2021 Jan 1;14(1):1940764. doi: 10.1080/16549716.2021.1940764.

Contributions for conferences

IAS 2016	M.A. Ouenzar, N. Hellmann, N. Mehta, C. Lucas, A. Nhanala, I. Ramiro. **Mobile Clinics for Scale-up of HIV Care and Treatment in Rural Mozambique**
IAS 2017	Mércia Sitoe, Ana Monteiro, Mariana Posse, Carlota Fonseca. **Institutional Barriers to Post-exposure Prophylaxis Access and Related Services Among Survivors of Sexual Violence in Gaza Province in Mozambique: A Qualitative Study**
INTEREST 2022	Carlota Fonseca, Paula Paulo, Rita Machado, Erin Graves, C. William Wester, Alzira de Louvado, Caroline De Schacht, Sara Van Rompaey. Barriers and Facilitators to Uptake of Male Friendly Clinical Services in Quelimane, Zambézia Province, Mozambique
IAS 2022	Carlota Fonseca, Paula Paulo, Rita Machado, Erin Graves, C. William Wester, Alzira de Louvado, Caroline De Schacht, Sara Van Rompaey. Barriers and Facilitators to Uptake of Male Friendly Clinical Services in Quelimane, Zambézia Province, Mozambique

Appendix 16. List of the largest employers in Quelimane

No.	Company	Location	Activities Sector	Number of Employees*
1	INCALA (National Footwear Industry)	Quelimane	Textiles and Footwear	80
2	ALIF QUÍMICA IND.	Quelimane	Chemical industry	84
3	MAZA (Madeiras da Zambézia)	Quelimane	Wood	50
4	KrustaMoz (Crustáceos de Moçambique)	Quelimane	Fishing	51
5	G4S	Quelimane	Private security	340
6	SÓ PROTECÇÃO	Quelimane	Private security	693
7	CORNELDER	Quelimane	Transportation and Freight	N/A

***** These data were collected with the support of the Provincial Work, Employment and Social Security Directorate of Zambézia, and confirmed during visits to the companies by evaluation team members. The numbers of employees reflect the number at the time of the development of the protocol for this evaluation (February 2017).

Note that FGH should have been part of this list, but was purposely excluded to avoid conflicts of interest in the evaluation results.

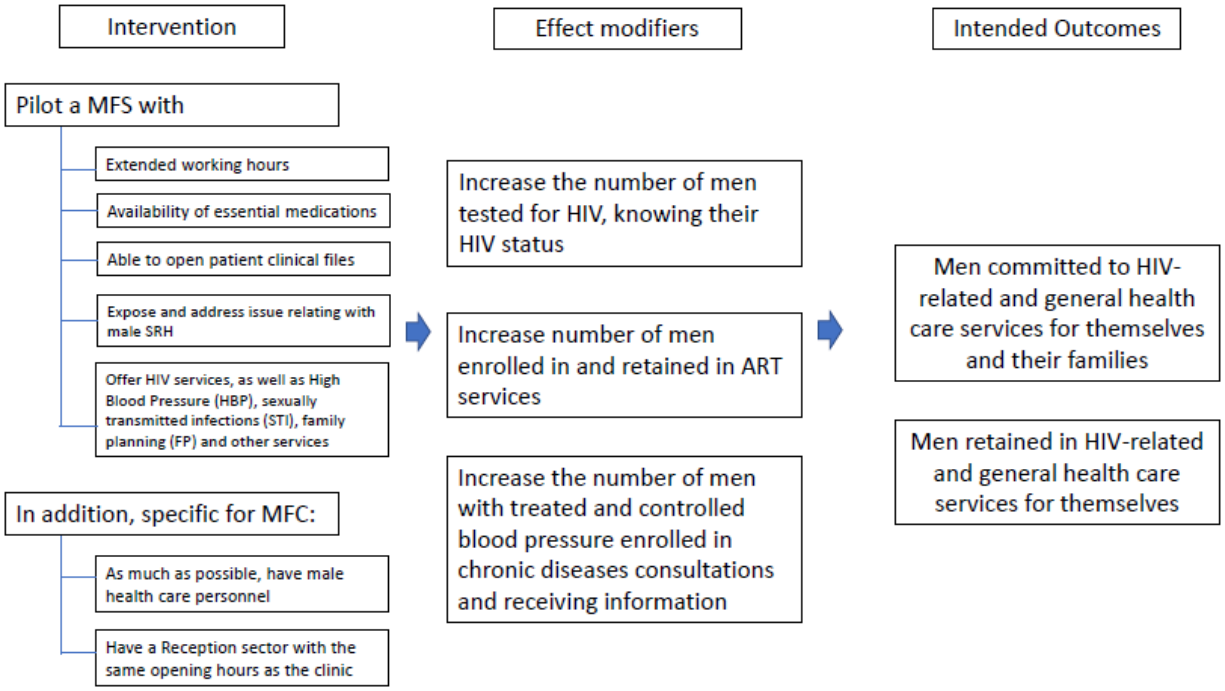
N/A = Not available.

Appendix 17: Evaluation Investigators and Collaborators and roles/responsibilities in this evaluation

Name	Organization	Function	Role in the evaluation	Responsibilities in the evaluation
Carlota Fonseca	FGH	Senior Evaluation Officer	Co-Principal Investigator	General coordination and technical evaluation supervision. Protocol development, supervision during data collection, participate in data analysis, manuscript writing, and dissemination of results.
Sara Van Rompaey	FGH	Quality Improvement Advisor	Co-Principal Investigator	Technical Assistance, general coordination and technical supervision during implementation and in interpretation of the main evaluation findings.

Name	Organization	Function	Role in the evaluation	Responsibilities in the evaluation
Alzira de Louvado	CDC	Senior Site Coordinator (SEV # 12733)	Co-Investigator	Contributions to protocol development, technical assistance to interpretation of results, development of the manuscript and dissemination of results.
Joaria Amissa	District Health Directorate - Quelimane	District Chief Medical Officer	Co-investigator	Coordination and supervision at district and HF level. Contribution to protocol design, to interpretation of results, report and manuscript writing and dissemination of results.
Francisco Américo	District Health Directorate - Quelimane	District Program Manager for STI/ HIV	Co-investigator	Coordination with the health facilities (HFs) and contribution to interpretation of results, report, manuscript writing and dissemination of results.
Caroline De Schacht	FGH	Evaluation Director	Co-Investigator	Overall supervision of all evaluation activities. Support with revision of all evaluation products.
Paula Paulo	FGH	Evaluation Officer	Co-investigator	Coordination of preparatory activities for data collection, participation in and supervision of data collection. Participation in data analysis, data interpretation and dissemination of results.
Rita Machado	Provincial Health Directorate (DPS) - Zambézia	Center for Operational Research in Zambézia (NIOZ) Investigator	Collaborator	Technical and clinical supervision. Coordination at provincial level.
Erin Graves	VUMC	Lead Program Manager	Collaborator	Administrative support. Support in interpretation of and dissemination of results.
C. William Wester	VUMC	Professor of Medicine	Collaborator	Assistance in the protocol design and interpretation of the findings.

Appendix 18. Logic framework



Appendix 19. Evaluation costs

The budget to support the evaluation included funding for surveyors/evaluation staff, training costs, travel for supervision visits, PPE protection materials, fabric masks (as incentives for participants), and other direct costs. The total cost of this evaluation was estimated at USD $8,191.00.