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# Delivering PrePex Medical Male Circumcision Services Through a Mobile Clinic: The Experience From a Pilot Project in North West Province, South Africa

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**Abstract:** We describe the implementation of a pilot project to demonstrate the safety and feasibility of providing PrePex circumcision from a mobile clinic. We analyzed available project diary entries and staff meeting minutes to identify challenges encountered. The main challenges identified were (1) daily time constraints because of setting up procedures, (2) transportation logistics for clients when the mobile clinic had moved to a different location, (3) integration and coordination of staff responsibilities, and (4) recruitment for PrePex services in the mobile clinic. The provision of PrePex device circumcision through a mobile clinic was feasible but careful planning and review of operational procedures were needed to resolve the implementation challenges.

**Key Words:** male, medical, circumcision, mobile, devices

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## INTRODUCTION

In line with the World Health Organisation recommendations and guidelines for voluntary medical male circumcision (VMMC), South Africa has been providing VMMC services since 2010.<sup>1</sup> To achieve global targets for HIV prevention, the country needs to circumcise 4.3 million males aged 15–49 years by 2016.<sup>1</sup> By the end of 2013, 1.3 million men had been circumcised representing 31% of this target.<sup>2</sup> Barriers to the rapid and effective scale up of VMMC services in the country included shortage of adequately trained staff and equipped facilities required to perform circumcisions, especially in hard-to-reach areas.<sup>3</sup> In South Africa, only doctors are allowed to perform the minor surgical procedure required for circumcision, and there is no policy allowing

task-shifting to nurses. Another barrier has been the sub-optimal demand of VMMC service by men, with fewer of them accessing circumcision services because of fear of pain, reluctance to abstain from sex, and concerns about missing work during the recovery period.<sup>4–6</sup> The use of mobile VMMC clinics could enhance access to services in hard-to-reach areas and address challenges related to limited clinical staff, as nurses may perform the PrePex procedure. Additionally, the PrePex circumcision method takes into account concerns about pain, injections, and missing work.<sup>7</sup> There are limited data on the feasibility of providing VMMC services through mobile clinics and the challenges faced by providers in providing these services. We describe our experience of providing VMMC services using the PrePex device in the context of a pilot project implemented in Ngaka Modiri Molema district of the North West province in South Africa. Here, we present findings related to the feasibility of providing PrePex through a mobile clinic and the challenges encountered (primary safety outcomes of the evaluation to be presented elsewhere). Documenting these experiences, particularly the challenges, is helpful in informing the scale up of mobile MMC services.

## METHODS

### Description of the Pilot Project and Mobile Clinic

This PrePex pilot project was conducted in urban and periurban areas of Ngaka Modiri Molema district. Before implementation of this PrePex pilot project, surgical VMMC services had been provided by a team of providers rotating and operating at fixed Department of Health facilities in the district. The aim of the project was to evaluate the safety and feasibility of providing VMMC services using the PrePex device from a mobile clinic. The mobile clinic comprised 2 custom built vans (Fig. 1) designed to allow assessment of clients, provision of surgical and PrePex device circumcisions, and the follow-up of clients. The mobile clinic was deployed to move between 5 fixed department of health facilities, where there were no VMMC services available and that were within a 50-km radius from the central office, where it was parked at night. The mobile clinic would return to the same location to conduct surgical and PrePex device circumcisions for 1–3 days at a time depending on demand.

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**FIGURE 1.** Image of the mobile vans.

Before the mobile clinic moved to the next health facility, recruiters were deployed ahead of time to conduct community-based VMMC and PrePex circumcision awareness activities (which included presentations at health care facilities, companies, taverns, sporting events, community events, and door-to-door activities), recruit potential clients, and make bookings for circumcisions. When clients arrived at the mobile clinic, they were assessed for VMMC eligibility and given the option to be circumcised using the PrePex device or surgical circumcision. PrePex device circumcisions were conducted according to the set evaluation protocol, whereas surgical circumcisions were provided according to routine programmatic guidelines. To be eligible for PrePex device circumcision, male clients had to be aged between 18 and 49 years, HIV uninfected, previously uncircumcised, and have no contraindications for circumcision using the device. After device placement, clients were contacted telephonically on day 2 after placement for an interview and were reminded to return to the mobile clinic for review on day 4. Clients were also asked to return to the mobile clinic for device removal on day 7 after placement. If the mobile clinic had moved to another location, clients were transported from the location of the mobile clinic at their placement to the new location. No transport was provided for clients if removals were scheduled at the same location where placements took place. After device removal, clients were followed-up through 2 clinic visits (at days 14 and 42 after placement, respectively) and 3 telephone contacts (at days 21, 28, and 35 after placement) until complete epithelial healing or until day 70 after device placement, whichever came first. Transport was also provided for the days 14 and 42 after placement visits, when necessary. At the placement and removal visits, clients were provided with counseling on how to care for themselves with the device in situ and after removal. After placement or removal, care instructions were reinforced at every visit or contact with the client.

The pilot project was divided into 2 phases. The first phase was focused on training and was implemented under the supervision of a provider credentialed by the device

manufacturer as a master trainer. This phase was intended to last 2 weeks or to continue until 4 doctors and 2 nurses were certified as competent PrePex providers. The second phase of the pilot project was the evaluation of acceptability, safety, time to healing, and experiential feasibility and started a month after the training phase ended. The aim of this phase—intended to last 8 weeks—was to circumcise and follow-up 550 clients using PrePex to evaluate outcomes. During the second phase, PrePex device placements and removals were conducted by the 4 doctors and 2 nurses trained during the training phase. Two additional nurses, trained through another PrePex project, joined the team half way through the second phase. Each device placement or removal required 2 PrePex certified providers, where one provider conducted the placement or removal while the other provider assisted.

### Data Collection and Analysis

The project coordinator, a nurse and PrePex trained provider or her designee, was responsible for ensuring that project diary entries and logs were completed and that project meeting minutes were documented. For this analysis, we reviewed available project diary entries, screening and enrollment logs, and meeting minutes to identify documented challenges that occurred during PrePex VMMC implementation from a mobile clinic. A qualitative inductive approach was used to identify common key themes that emerged from the records and themes, which were then coded and summarized.

### FINDINGS

In total, 890 potential clients were assessed for eligibility and 641 (72%) clients had circumcision using the PrePex device. During the training phase, 150 clients were assessed and 90 (60%) clients were circumcised using PrePex, whereas 740 clients were assessed and 551 (74%) clients circumcised in the evaluation phase. Of the 60 assessed in the training phase but not circumcised with PrePex, 29 (48.3%) refused PrePex circumcision, whereas the remainder were not eligible for device placement because of contraindications to device placement; all 60 were referred for surgical circumcision. Of the 189 screened in the evaluation phase but not circumcised with PrePex, 79 (41.8%) refused PrePex circumcision, whereas the remainder had contraindications for device placement; all 189 were referred for surgical circumcision. All 641 (100%) clients who had the PrePex device placed returned to the mobile clinic for device removal. The follow-up rates for days 4, 14, and 42 (or healing status assessment visit) were 65.3%, 53.9%, and 72.4%, respectively. There were 18-weekly staff diary entries available for analysis out of 27 weeks of pilot project implementation and minutes from 10 team meetings were available for review. Some diary entries were missing because they were not entered and minutes were not documented. Most project diary entries were from the period April to July 2014, the first half of the evaluation phase.

Table 1 presents the main challenges documented by the team and identified in the analysis and the steps taken to resolve them. These challenges included the following: (1)

**TABLE 1.** Challenges Documented and Steps Taken to Resolve Them

Theme	Description of Challenge	Steps Taken to Resolve
Efficiency in setting up mobile units for the day and packing up at the end of the day	<ul style="list-style-type: none"> <li>• Because of security concerns, for mobile clinic while parked at night, staff loaded and offloaded mobile clinics with supplies daily</li> <li>• Packing and unpacking supplies for mobile clinic set-up at the start of the day resulted in delayed start times of 1–3 h (as late as 1100 h)</li> <li>• Repacking and transferring unused supplies from the mobile clinic to the office at the end of the day resulted in delayed end times of 1–4 h (as late as 2200 h)</li> <li>• Long days resulted in staff fatigue and delays for clients at the mobile clinic</li> </ul>	<ul style="list-style-type: none"> <li>• Kept left over supplies in the mobile vans overnight, despite the security concerns</li> <li>• Cleaned the mobile clinic vans and getting the supplies for the next day ready the night before</li> <li>• Ensured that only the equipment and supplies needed for the next day were packed in order to minimize time required and improve start and end times and client wait times</li> </ul>
Location of the mobile unit and moving of clients between locations	<ul style="list-style-type: none"> <li>• Location of mobile clinic based on a schedule prepared monthly and intended to balance demand for MMC in a catchment area with service supply considerations, including requirement of 2 visits for PrePex circumcision, for device placement and 1 wk later for removal</li> <li>• There were instances when clients who required follow-up had to be transported from the original location at placement to elsewhere, when the mobile clinic had transferred to a different location</li> <li>• Client transportation logistics may have resulted in missed visits as clients may have missed their transport</li> </ul>	<ul style="list-style-type: none"> <li>• A review of all locations and their respective demand or client load was done. Review was based on numbers who had received PrePex device circumcision as opposed to initial schedule, which was based on surgical VMMC numbers</li> <li>• A review of demand for surgical VMMC at other potential locations, where surgical VMMC services had been previously provided was also done</li> <li>• Mobile clinic services at 2 of the most remote locations were discontinued and were instead provided at 2 static health facilities which previously had high numbers of surgical circumcisions</li> <li>• The 2 new locations minimized the need to transport clients between locations and associated costs</li> </ul>
Integration of PrePex circumcision with surgical MMC services and managing team dynamics	<ul style="list-style-type: none"> <li>• Mobile clinic provided both surgical and PrePex device circumcisions</li> <li>• Not all MMC providers were trained to use both methods</li> <li>• When there was high demand for surgical circumcisions, such as during school holidays, PrePex trained staff were called in to assist with surgical circumcisions. When demand for PrePex demand was higher, staff not trained in PrePex device circumcisions were not always willing to assist even with tasks that did not require PrePex certification</li> <li>• Two nurses who were certified PrePex providers performed only 7.7% of the device placements and 17.0% of device removals during the evaluation phase of the pilot. This was because they spent time on tasks such as after PrePex device placement or removal care counseling and were sometimes asked to assist with surgical circumcisions when demand peaked</li> </ul>	<ul style="list-style-type: none"> <li>• Better allocation of tasks and duties was performed</li> <li>• Project hired 3 additional staff to complete clinical records and provide counseling on after care instructions. This freed up PrePex providers and other clinical staff to provide direct care to clients</li> </ul>
Successful recruitment for PrePex services	<ul style="list-style-type: none"> <li>• Initially recruitment activities for surgical and PrePex circumcision was integrated, with VMMC recruiters going out into communities to encourage men to present for VMMC services in general but not a specific method; more information about the different methods and options was later provided at the mobile clinic</li> <li>• Lowest demand for PrePex services were observed in June and July (week 12–17) which coincided with the peak season for traditional (nonmedical) circumcisions in South Africa</li> <li>• In addition, there was slower than expected recruitment for services, resulting in a longer than expected project duration</li> </ul>	<ul style="list-style-type: none"> <li>• Project hired 3 peer recruiters (who had all been circumcised using the PrePex device) to assist with PrePex specific demand creation, by encouraging consideration of the PrePex method</li> <li>• Recruiters spoke to potential clients about PrePex procedure including time spent and follow-up visits and then referred interested men specifically for PrePex device circumcision, although they could still opt for surgical circumcision at the clinic</li> </ul>

daily time constraints due to set-up procedures; (2) transportation logistics for clients when the mobile clinic had moved to a different location at the time removal was required; (3) integration and coordination of staff responsibilities by circumcision method; and (4) recruitment for PrePex VMMC services in the mobile clinic.

Daily time constraints due to setting up procedures and the delays in daily set-up of the mobile clinic resulted in limited time to provide services and sometimes longer wait times for clients. To overcome this challenge, the team left supplies in the mobile clinics overnight despite the security concerns. Another solution that could have been adopted to overcome this challenge would be streamlining the inventory list for mobile clinics to minimize quantities which require packing.

Transporting clients between application and removal locations if the mobile clinic was no longer locally available at the time of removal was costly and complicated the logistical arrangements for the project. The need to transport clients between locations added to the total length of time clients spent to access the service. Although the team was not able to fully resolve this challenge, having separate teams doing removals and placement at different locations at the same time and staying in 1 location long enough to complete all removals were possible solutions that were attempted.

With respect to the integration and coordination of staff responsibilities by circumcision method, pilot project team comprised doctors, nurses, and other support staff who were not all trained to provide PrePex device circumcisions. This created challenges with allocating tasks when there was high demand for both device and surgical circumcisions. The team overcame this challenge by improving allocation of tasks and getting additional staff to assist with counseling and other administrative duties. Training of all staff in both surgical circumcision and PrePex device circumcision techniques is a possible solution the team could have used to ensure efficient use of available staff.

Regarding recruitment for PrePex circumcision, the team was unable to meet the 10-week goal for completing the number circumcisions required for the pilot project. In addition, the recruitment for PrePex fluctuated from week to week and was lowest during the period when the demand for circumcisions was expected to be highest. The use of peer recruiters (men who had been circumcised using the PrePex device) and implementing PrePex-specific recruitment activities were 2 strategies used by the team to improve demand. Because these interventions were implemented late in the pilot, it was not clear what impact they had on the number of device-based VMMCs done, although their use could be further evaluated in other programs.

## DISCUSSION

This article describes the experiences and operational challenges documented during implementation of a PrePex pilot project. The pilot project showed that although PrePex

circumcision can be successfully provided through mobile clinics, careful planning and continuous review of operational plans and challenges are required. The experiences described in this article are relevant to projects providing both surgical and circumcision with devices such as PrePex from mobile clinic settings and may not readily apply to other settings. Delays in setting up for the day and slow recruitment are challenges that could be experienced in mobile clinics providing VMMC services regardless of method used. However, providing PrePex device circumcision through a mobile clinic may be more challenging than providing surgical circumcisions in similar settings because of the need to coordinate device placements, device removals, and follow-up. As the pilot project required more frequent after circumcision visits than would be required in routine programmatic settings, some operational challenges encountered may not apply to routine programmatic settings. Finally, the incomplete documentation of project diary entries and project team minutes may have resulted in some challenges being undocumented and therefore missed.

In conclusion, providing VMMC using the PrePex device in a mobile clinic was feasible although there were a number of operational challenges that needed to be addressed. Careful planning and continuous review of operational plans and the challenges encountered are needed to manage logistical aspects of such projects and creating demand.

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