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# Financing Voluntary Medical Male Circumcision through Private Medical Aid Schemes in Namibia



**PRIMER**

**Summary:** In 2011, the Strengthening Health Outcomes through the Private Sector (SHOPS) project proposed a standardized fee for voluntary medical male circumcision to the Namibian Association of Medical Aid Funds, the regulatory authority responsible for overseeing private medical aid plans. This primer describes the global and country context for encouraging the adoption and scale-up of the procedure and explains the method for creating the standardized price. The primer concludes with the outcomes of the intervention and its potential application in other country contexts.

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**Keywords:** Africa, Botswana, HIV, HIV counseling and testing, male circumcision, medical aid, Namibia, South Africa

**Recommended Citation:** Stevenson, Montana and Ilana Ron Levey. 2014. *Financing Voluntary Medical Male Circumcision through Private Medical Aid Schemes in Namibia*. Bethesda, MD: Strengthening Health Outcomes through the Private Sector Project, Abt Associates.

**Cover photo:** Jessica Scranton

**Project Description:** The Strengthening Health Outcomes through the Private Sector (SHOPS) project is USAID's flagship initiative in private sector health. SHOPS focuses on increasing availability, improving quality, and expanding coverage of essential health products and services in family planning and reproductive health, maternal and child health, HIV and AIDS, and other health areas through the private sector. Abt Associates leads the SHOPS team, which includes five partners: Banyan Global, Jhpiego, Marie Stopes International, Monitor Group, and O'Hanlon Health Consulting.

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For more than 30 years, millions of people have suffered from HIV and AIDS and billions of dollars have been spent to curb new infection rates and treat those living with the disease. Although significant progress has been made in thwarting the spread of HIV, approximately 2.3 million people worldwide contracted the virus in 2012 (Joint United Nations Program on HIV/AIDS, 2013). Maximizing the effectiveness of HIV prevention efforts remains critical to global public health.

Evidence shows that voluntary medical male circumcision (VMMC) reduces female-to-male HIV transmission by up to 60 percent and provides a protective effect to men who are circumcised (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007). This evidence, in addition to earlier observational studies suggesting a correlation between male circumcision and a decreased likelihood of contracting HIV, led the World Health Organization (WHO) and the Joint United Nations Program on HIV and AIDS (UNAIDS) to recommend the scale-up of VMMC as part of broader HIV prevention strategies in countries with low rates of male circumcision and high rates of heterosexually transmitted HIV infections (World Health Organization and Joint United Nations Programme on HIV/AIDS, 2007). All 14 of the countries recommended for scale-up are located in sub-Saharan Africa and the majority are in Southern Africa.



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Modeling by the Health Policy Initiative forecasted that reaching an 80 percent circumcision rate among adult and newborn males in these sub-Saharan African countries would result in a significant public health impact measured in new infections averted and cost savings realized (Ncube et al., 2012; Bollinger and Stover, 2009). In 2011, WHO and UNAIDS published the Joint Strategic Action Framework to Accelerate the Scale-Up of VMMC for HIV Prevention in Eastern and Southern Africa. The framework articulates ambitious goals, including (1) a circumcision rate of at least 80 percent among 15- to 49-year-old males, and (2) sustainable national programs that provide VMMC to all infants up to two months old and at least 80 percent of male adolescents. At the close of 2011, male circumcision scale-up efforts had resulted in about 1.5 million VMMCs in all age groups, representing about 7 percent of the more than 20 million male circumcisions needed to reach 80 percent prevalence among 15- to 49-year-old males (Ncube et al, 2012)<sup>1</sup>. Thus, a considerable gap remains between the current situation and the rate of circumcision needed to reach the desired public health impact.

<sup>1</sup> As countries are not yet consistently reporting VMMCs performed by age, it is not possible to determine the proportion of these circumcisions performed among men 15 to 49 years old.

## THE NAMIBIAN VMMC CONTEXT

In Namibia, a persistent, generalized HIV epidemic continues to affect the quality of life of many citizens, even though the country leads an effective response with strong government leadership and donor support (U.S. President's Emergency Plan for AIDS Relief, 2012). With a high HIV prevalence of 13.4 percent of the population (World Bank, 2011) and a relatively low rate of male circumcision (Namibia Ministry of Health and Social Services and Macro International Inc., 2008), UNAIDS and WHO recommended Namibia for VMMC scale-up. In 2010, the Namibian Ministry of Health and Social Services (MOHSS) developed a policy on VMMC to complement the national HIV and AIDS prevention strategy. In the policy, Namibia set a goal of increasing the prevalence of VMMC from 21 percent in 2010 to 80 percent across all age groups by 2015 (Namibia Ministry of Health and Social Services, 2010).

While the VMMC policy was an important step in the ramp-up effort, another important consideration was the health sector's capacity to provide VMMC. From 2009 to 2010, Namibia performed 1,980 male circumcisions in the public sector (World Health Organization and Joint United Nations Programme on HIV/AIDS, 2011). In 2011, Namibia reported over 6,000 male circumcisions in the public sector, more than doubling the previous two years' efforts and bringing the three-year total to 8,110 (Ncube et al., 2012). While the rate of public sector VMMC provision has increased, 8,110 represents only 2.5 percent of the VMMC procedures needed to reach the 2015 goal of 80 percent prevalence among males ages 15 to 49. A lack of doctors in the Namibian public health sector is a barrier to rapid VMMC scale-up. The private health sector, which employs more doctors, presented an opportunity for overcoming this supply-side constraint.

### Namibia's Private Health Sector

The Strengthening Health Outcomes through the Private Sector (SHOPS) project looked at the potential of the private sector to contribute to VMMC scale-up in Namibia. The Namibian private health sector employs approximately 47 percent of the country's health care workers, including approximately 75 percent of the doctors—currently the only medical cadre that can provide VMMC in Namibia (O'Hanlon et al., 2010). The private health sector has significant service capacity<sup>2</sup>

and the resources to cover a portion of the costs for those services. Private medical aid<sup>3</sup> accounts for 22 percent of total health expenditures and approximately 300,000 Namibians are covered under private medical aid schemes. A significant percentage of those covered are members of the private medical aid scheme for public sector employees, which is financed by the Ministry of Finance (Namibia Ministry of Health and Social Services and Health Systems 20/20, 2008; Namibia Financial Institutions Supervisory Authority, 2012). There are 10 medical aid schemes in Namibia and all are regulated by the Namibian Association of Medical Aid Funds (NAMAF). Each year, NAMAF sets standard reimbursement fees (or tariffs) for recommended medical procedures that are covered by the Namibian schemes.

Given the private sector's resources and untapped potential, USAID/Namibia looked to the SHOPS project to consider ways to increase private provision of VMMC. SHOPS estimated that if 50 percent of medical aid schemes covered VMMC as an HIV preventive benefit and if 100 percent of insured men had the procedure, 93,600 men could be circumcised in the private health sector. These 93,600 men represent 23 percent of the total required to reach the MOHSS goal of 80 percent prevalence across all age groups.<sup>4</sup>

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<sup>2</sup> The private health sector operates 66 percent of the medical facilities in the country, although many are small, including one-room clinics operated by nurses (O'Hanlon et al., 2010).

<sup>3</sup> This primer references medical aid, a health financing product that is similar to but not synonymous with health insurance. In Southern Africa, medical aid is a common form of health care financing in which individuals contribute to a pool of funds that is used to cover their medical expenses. Medical aid plans are offered through formal employers and, in some cases, schemes are open to anyone—not just employees.

<sup>4</sup> This model was developed by SHOPS resource partner Professor Frank F. Feeley (Boston University School of Public Health) using conservative estimates for future workforce growth and medical aid coverage levels.

## Using the Tariff Structure for VMMC

Before 2012, NAMAf did not issue a recommended tariff for VMMC and medical aid schemes in Namibia did not offer the service as an HIV preventive benefit. Schemes only covered the procedure as a medical treatment and mostly under costly general anesthesia. Without coverage, men who subscribed to medical aid and wanted to undergo the procedure as an HIV preventive measure could not receive any reimbursement from their scheme. These men either paid out of pocket or sought VMMC from a public or nonprofit service delivery point.

Informal conversations with private providers and 2011 NAMAf actuarial data indicated some degree of private sector experience in providing male circumcision as a non-HIV-related treatment procedure. SHOPS received preliminary data from NAMAf that 1,074 male circumcisions were performed by private providers before a standard VMMC tariff was implemented in 2012. These data confirm that private providers conducted male circumcision procedures before 2012, but mainly to treat infections and not as an HIV prevention strategy. The rates charged by private providers for circumcisions were not standardized before 2012.

A 2011 survey of private providers conducted by SHOPS found that the prices quoted by providers for the procedure ranged widely, from \$10 to \$200, as did the prices quoted for follow-up visits.

With the approval of the MOHSS Male Circumcision Technical Working Group, USAID/Namibia funded the SHOPS project to work with South African actuaries on an independent and credible cost analysis that could be used as the basis for a proposed VMMC tariff for NAMAf. The actuaries from Deloitte & Touche used local anesthesia in their costing model, as it is the clinical procedure for VMMC endorsed by the MOHSS and WHO. Using local anesthesia for the procedure increases the number of facilities that can perform VMMCs while minimizing the health risks from general anesthesia. Using local anesthesia is also less expensive than general anesthesia.

After the actuarial work was concluded and an accurate reimbursement rate was determined, SHOPS submitted an application to NAMAf in July 2011 that included a clinical justification and a proposed tariff for VMMC as an HIV preventive benefit. The tariff was accepted by NAMAf in



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Doctors at Oshakati State Hospital prepare for surgery. SHOPS worked with the HIV Clinicians Society to train these providers in voluntary medical male circumcision.



October 2011 and went into effect in January 2012, making Namibia the first country to systematically cover VMMC under medical aid as an HIV preventive benefit.

The following section details the costing method employed by actuaries at Deloitte to arrive at the proposed tariff. SHOPS provided inputs on clinical assumptions made in the costing model. The inputs included the percentage of men likely to receive each the three types of male circumcision procedures commonly practiced in Namibia (clamp, dorsal slit, and surgical excision). An assumption about the ratio of cases to procedure type allowed the model to account for price variation between the procedures.

This primer comprises three sections:

- Costing analysis
- Emerging results
- Replicating the intervention

It concludes with considerations for replication.

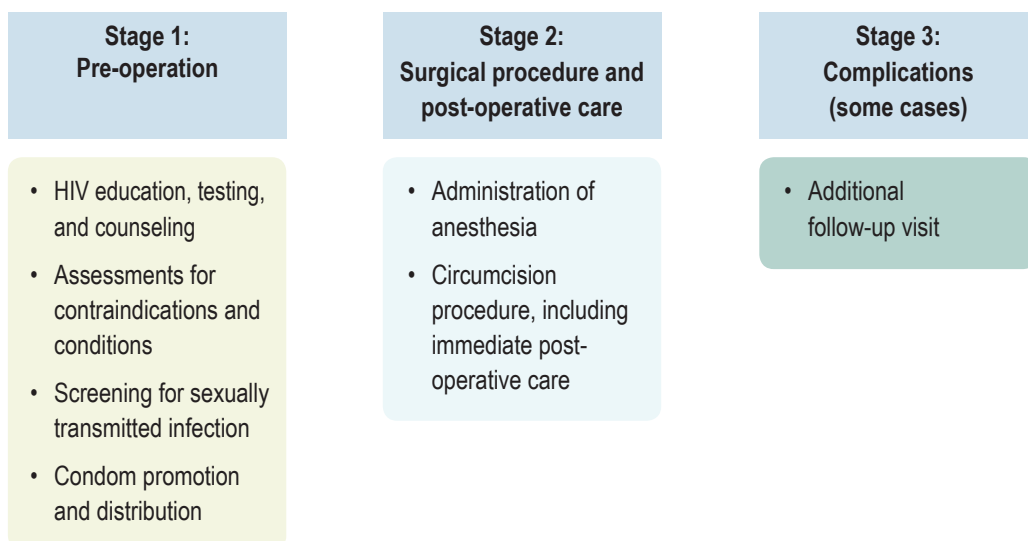
## COSTING ANALYSIS

Figure 1 presents the stages of the VMMC procedure considered in the costing analysis. In each stage, private providers take vital clinical steps to prevent HIV and mitigate pain and complications.

The SHOPS team hypothesized that private providers would be motivated to perform the procedure if the costing analysis was based in a comprehensive scenario. For the analysis, the actuaries employed an activity-based costing method,<sup>5</sup> which allows for more accurate accounting of direct and indirect costs of a medical procedure. The method divides the procedure into separate components and computes the costs associated with the resources for performing each part. The costing exercise looked at the three stages of the male circumcision procedure, including all associated activities. The costing exercise also included a margin for error to account for unpredicted costs or wasted medical materials.

<sup>5</sup> Activity-based costing models start with the resources used for all activities within an organization and then distribute the costs based on how the resources are actually consumed, thereby estimating direct costs and indirect overhead costs.

**Figure 1. Stages of the VMMC Procedure Considered in Costing Analysis**



## Stage 1: Pre-Operation

The pre-operation stage was broken into four discrete activities required by WHO guidelines and the Namibian MOHSS before the VMMC procedure can be performed. SHOPS identified costs associated with each activity—primarily the costs of labor and consumables (goods that must be replaced regularly, such as gloves, alcohol swabs, and chase buffer solution) associated with the procedure (see Table 1 for a detailed breakdown of costs).

### HIV education, testing, and counseling

The first activity included the labor cost of providing information, counseling, and testing services and the cost of consumables used for the HIV testing. For the costing analysis of the HIV testing, SHOPS used the rapid test algorithm, which is a Namibian MOHSS-authorized parallel testing system in which two rapid tests are done simultaneously. If the tests yield contradictory results, the provider conducts a third tie-breaker test. For the analysis, SHOPS assumed the providers would use the Unigold and Determine products for the simultaneous tests and the HemaStrip product for the tie-breaker if necessary. If doubt still remained following the tie-breaker, SHOPS assumed the provider would draw a blood sample for an enzyme-linked immunosorbent assay (ELISA) test.

The analysis used the current price of the Unigold and Determine products and related consumables. For the tie-breaker and ELISA tests, SHOPS multiplied the cost of the tests by the estimated proportion of cases that would require these extra tests to determine HIV status. This meant that only a fractional cost of these tests was included in the tariff, since most cases would not require the additional tests. Based on research that has proven the effectiveness of rapid testing techniques in establishing HIV status, SHOPS estimated that an ELISA test would only be necessary in 5 percent of the cases.

In Namibia, non-medical staff can carry out HIV testing if trained and certified by the Namibia Institute of Pathology. Based on this policy, SHOPS assumed a counselor, as opposed to a doctor, would carry out the HIV testing, education, and behavioral counseling. SHOPS assumed the counselor would carry out the testing and then provide the behavioral

counseling and HIV education while waiting for the client's test results. In settings where qualified full-time counseling staff is not available, doctors may perform these tasks. However, the preferred and more efficient method for distributing testing and counseling services is through a dedicated counselor. The costing model uses a counselor's monthly salary divided by an estimated number of sessions offered in a month (assumed to be eight patients a day for 20 days a month, for a total of 160 sessions per month) to calculate the per circumcision cost of these services.

### Assessments for contraindications and conditions

Following HIV testing and counseling, physicians assess potential patients for contraindications to surgery and conditions that need treatment or referral. The costs for this activity included the time a physician would spend with a patient and the related consumables (such as gloves) associated with the assessment. NAMAf provided the unit cost of the consultation.

### Screening for sexually transmitted infection

Based on research and consultations with clinical practitioners and medical experts, SHOPS determined that very few cases would require pathological testing to identify an active sexually transmitted infection (STI). Most practitioners have the knowledge to immediately identify these infections. For the purposes of the tariff calculation, SHOPS assumed that during the pre-surgery assessment, the physician would also diagnose any STIs. SHOPS did not include treatment for any active STIs in the tariff because a patient with an untreated STI should not undergo VMMC and the patient should seek treatment for the STI regardless of whether they choose to undergo circumcision at a later time. Given the rare need for a pathological STI test, SHOPS also chose to exclude the cost of such testing from the tariff. Instead, the project opted to only include the cost of the STI screening service as part of the 15-minute pre-operative assessment conducted by the physician.

### Condom promotion and distribution

As the final part of the pre-operative stage of the costing model, SHOPS considered the costs associated with condom distribution and promotion, one of the recommendations made by WHO and the MOHSS. The project assumed that the initial HIV behavioral counseling would include a discussion of the benefits of condom use, so it did not add

an additional cost to the tariff for this activity. The costs of condoms are not accounted for in the tariff, given the widespread availability of free condoms in public and NGO facilities, as well as the wide market choice for condoms in private pharmacies. Table 1 summarizes all costs associated with pre-operation activities that were used in the costing analysis.

**Table 1. Costs Associated with Pre-Operation Activities (in U.S. Dollars)**

Input	Units required	Cost per unit	Proportion of cases	Subtotal
<b>HIV education, testing, and counseling</b>				
Unigold parallel test	1	\$1.44	1	\$1.44
Determine parallel test	1	\$4.23	1	\$4.23
Hemastrip parallel test	0.01	\$10.85	0.01	\$0.11
Unigold chase buffer solution	1	\$0.11	1	\$0.11
Determine chase buffer solution	1	\$0.10	1	\$0.10
Capillary tubes	1	\$0.11	1	\$0.11
Gloves (x 2)	1	\$0.15	1	\$0.15
Lancets	1	\$0.20	1	\$0.20
Alcohol swabs	1	\$0.02	1	\$0.02
Cotton wool	1	\$0.02	1	\$0.02
Hand wash	1	\$0.07	1	\$0.07
ELISA Test	13.30	\$1.60	0.05	\$1.06
Staff costs	1	\$724.50	0.00625	\$4.53
<b>Subtotal</b>				<b>\$12.16</b>
<b>Assessments for contraindications and conditions</b>				
Consumables: gloves	1	\$0.15	1	\$0.15
Staff costs (general practitioner consultations)	15	\$2.17	1	\$33.91
<b>Subtotal</b>				<b>\$34.06</b>
<b>Total: Pre-operation activities</b>				<b>\$46.22</b>

Notes: Numbers may not add due to rounding.

Amounts are based on an average exchange rate of Namibian dollars to U.S. dollars of 0.1449 from May 1 to July 19, 2011, when the tariff costing analysis was completed.



## Stage 2: Surgical Procedure and Post-Operative Care

In the second stage of the costing analysis, SHOPS looked at the activities associated with the actual circumcision procedure and immediate post-operative care.

### Administration of anesthesia

The MOHSS policy recommends that the procedure occur under local anesthesia, which expands the number of facilities capable of offering it. Actuaries calculated an average procedure time based on Deloitte's claims database, and used that time to identify NAMAF's recommended tariff for the

provision of anesthesia for a 19-minute procedure (see Table 2 for a detailed breakdown of costs).

Following the administration of anesthesia, the patient undergoes one of three types of circumcision procedures—clamp, dorsal slit, or surgical excision. NAMAF provides recommended tariffs for each procedure. Medical practitioners choose the type of procedure depending on personal choice and the patient's unique condition. To determine a realistic distribution of procedure types, SHOPS used estimates provided by its partner, Jhpiego. Jhpiego assisted WHO in developing an instruction manual for performing male circumcision under local anesthesia in resource-limited settings.

**Table 2. Costs Associated with the Surgical Procedure and Post-Operative Care (in U.S. Dollars)**

Input	Units required	Cost per unit	Proportion of cases	Subtotal
<b>Anesthetics</b>				
Basic fee	3	\$7.63	1	\$22.89
Time fee	6	\$7.63	1	45.78
<b>Procedure</b>				
Clamp	25	\$1.44	0.6	\$21.65
Surgical excision other than by clamp or dorsal split	60	\$1.44	0.2	\$17.32
Dorsal split	17	\$1.44	0.2	\$4.91
<b>Consumables and equipment</b>	1	\$34.08	1	\$34.08
<b>Staff costs for procedure</b>				
General practitioner consultation for procedure (first 30 minutes)	15	\$2.26	1	\$33.90
General practitioner consultation for procedure (next 15 minutes)	6.70	\$1.93	1	\$12.93
General practitioner consultation for follow-up care	12	\$2.28	1	\$27.32
<b>Total: Surgical procedure and post-operative care</b>				<b>\$220.76</b>

Note: Numbers may not add due to rounding.

Amounts are based on an average exchange rate of Namibian dollars to U.S. dollars of 0.1449 from May 1 to July 19, 2011, when the tariff costing analysis was completed.

### **Circumcision procedure, including immediate post-operative care**

Using Jhpiego's global expertise with implementing the three types of circumcision procedures, SHOPS identified the NAMAf-recommended tariffs for each procedure type and multiplied the individual cost of each procedure by Jhpiego's frequency of occurrence estimates—60 percent for clamp, 20 percent for dorsal slit, and 20 percent for surgical excision. With these estimates, SHOPS created an aggregate cost that accounted for variance in procedure types. SHOPS also included the cost of consumables associated with the procedure based on the Deloitte database of medical claims (consumables for all procedures were assumed to be the same).

SHOPS assumed that from start to finish (sterilization, patient prep, administration of anesthesia, circumcision procedure, and a 5- to 10-minute post-operative check), the procedure would require 30 to 40 minutes of a general practitioner's time. Based on that estimate, SHOPS used NAMAf's recommended tariffs for general practitioner consultations to calculate the cost of the labor required to perform the procedure. Finally, SHOPS included the cost of an additional 15-minute follow-up consultation a few days after the surgery to ensure proper wound healing. Table 2 summarizes all costs associated with the circumcision procedure and post-operative care used in the costing analysis.

### **Stage 3: Complications**

The final stage of the costing analysis looked at the potential costs associated with managing complications following surgery. SHOPS assumed that the general practitioner would identify complications during the follow-up visit, and calculated the cost of the consumables associated with treating the wound and the pain medication prescribed to the patient. The project also assumed that complications would require a second follow-up visit to ensure proper wound healing and included that cost (see details in Table 3).

SHOPS did not include any further costs associated with major complications likely requiring hospitalization. In such rare cases, the tariff would cease to apply and the patient would be covered under the hospital benefit of their medical aid scheme.

Once SHOPS aggregated the costs associated with complications treatable by the doctor at his or her facility, the project estimated the number of cases that would require additional care. Jhpiego suggested that an appropriate percentage for complications would typically be 2 to 4 percent. SHOPS used the conservative assumption and included 4 percent in the overall tariff. Table 3 presents this conservative assumption and summarizes all the costs associated with potential complications used in the costing analysis.

### **Finalizing the Tariff**

After aggregating all costs associated with the three stages of the procedure, SHOPS included a 3 percent margin to account for any unforeseen costs or wasted medical materials. SHOPS submitted the tariff calculations, along with an explanation of the costing analysis to NAMAf. The project also submitted a written request to include the VMMC tariff in the 2012 NAMAf list of recommended benefits. Table 4 summarizes all of the tariff inputs, by type.

**Table 3. Costs Associated with Potential Complications (in U.S. Dollars)**

Input	Units required	Cost per unit	Proportion of cases	Subtotal
<b>Consumables</b>				
Gloves	1	\$0.14	1	\$0.14
Alcohol swabs	1	\$0.02	1	\$0.02
Cotton wool	1	\$0.02	1	\$0.02
Hand wash	1	\$0.07	1	\$0.07
Dressing or gauze	1	\$2.90	1	\$2.90
<b>Ibuprofen (2 tablets, 3 times a day for 5 days)</b>	1	\$0.87	1	\$0.87
<b>Follow-up general practitioner consultation</b>	12	\$2.28	1	\$27.32
<b>Risk of complications</b>	1	\$0.04	1	\$0.04
<b>Total: Complications</b>				<b>\$31.25</b>

Notes: Numbers may not add due to rounding.

Amounts are based on an average exchange rate of Namibian dollars to U.S. dollars of 0.1449 from May 1 to July 19, 2011, when the tariff costing analysis was completed.

**Table 4. Summary of Tariff Inputs (in USD)**

Pre-operation activities	\$46.22
Surgical procedure and post-operative care	\$220.76
Potential complications	\$31.25
Margin for waste (3%)	\$8.05
Final Tariff	\$276.28

Amounts are based on an average exchange rate of Namibian dollars to U.S. dollars of 0.1449 from May 1 to July 19, 2011, when the tariff costing analysis was completed.



## EMERGING RESULTS

The tariff submission for VMMC was accepted by NAMAf in October 2011. The tariff was included in the official 2012 NAMAf benefit list and could be used by medical aid schemes for reimbursement of VMMC for HIV prevention. By January 2012, 9 out of 10 medical aid schemes in the country had included the tariff in their packages for male circumcision as an HIV preventive benefit. This quick and positive uptake surpassed SHOPS expectations and indicated a strong desire by the medical aid industry to expand access to VMMC for HIV prevention. However, the crucial health outcome stemming from the tariff will ultimately be determined by the number of men who choose to undergo male circumcision now covered under private medical aid.

While NAMAf's approval of the tariff and its acceptance by the vast majority of medical aid schemes in Namibia is an important milestone in expanding access to the procedure through the private sector, the tariff is ultimately a supply-side intervention. Demand creation efforts in both the public and private sectors are crucial for the full realization of the tariff benefit. In addition, achieving a better understanding of the most effective approach for private provider provision of VMMC is an important step toward increasing uptake. For instance, a smaller number of private providers networked together to provide safe, branded, and high quality VMMC services may yield greater use of the private sector for VMMC than the current Namibian model of dispersed solo practitioners offering the service.

Following acceptance of the tariff, SHOPS began to pursue additional, complementary activities to improve the quality of privately provided VMMC, recognizing that quality control in the private sector continues to be a concern for the Namibian government. USAID/Namibia funded SHOPS to work with the MOHSS to ensure that private providers have access to VMMC training that follows MOHSS guidelines and meets the needs of private

providers. Jhpiego worked with the MOHSS Male Circumcision Technical Working Group to conduct an assessment of private provider training needs. The nonprofit adapted the public sector training curriculum for male circumcision developed by WHO for private sector providers in Namibia. For instance, Jhpiego made the timing of the training more flexible for private providers, recognizing that time away from their clinics translates to lost income.

In June 2014, the SHOPS team in Namibia, in collaboration with the HIV Clinicians Society and other public and private sector stakeholders, trained 10 private doctors on voluntary medical male circumcision. During the practical session of the training, the doctors circumcised 50 males who had been on the public sector's male circumcision

waiting list in Oshakati in the Oshana region. Oshana is one of the PEPFAR priority regions for male circumcision for HIV prevention.

SHOPS brokered a partnership between NAMAf and the MOHSS to implement a system in which NAMAf annually reports the number of circumcision procedures for HIV

prevention completed in the private sector. These statistics—and their annual submission—will help the government of Namibia better understand the availability and uptake of VMMC through the private sector. This data-sharing precedent has led to additional SHOPS-brokered service statistic agreements between NAMAf and the MOHSS. Some relate to HIV counseling and testing performed in the private health sector.

While considerable progress has been made in a short time period covering and financing VMMC through the private sector in Namibia, and sharing service statistics between the public and private sectors, national delays in launching a demand creation campaign for VMMC and training private providers in the procedure will likely yield limited use of the tariff in the short term.

**Demand creation efforts in both the public and private sectors are crucial for the full realization of the tariff benefit.**

## REPLICATING THE INTERVENTION

The Namibia tariff experience has a number of implications for people interested in increasing access to private health care in general and specifically for HIV prevention services like VMMC.

The VMMC tariff was formulated, submitted, and accepted in less than one year. Namibia's unique policy environment encourages private providers to operate and there is a large private sector through which people can access health care. A highly regulated medical aid industry under one regulatory body, NAMAf, contributed to the establishment of the tariff. The public sector's robust disease management system likely made the MOHSS more supportive of the tariff proposal and interested in a brokered service statistics sharing system with NAMAf. Finally, Namibia's classification as an upper-middle-income country designated for transitioning the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) funding increased USAID/Namibia's interest in leveraging the private health sector. As part of the transition process, PEPFAR

has emphasized country ownership of the national HIV response and the shared responsibility of the public and private health sectors to contribute to HIV services. The tariff intervention increased the availability of private financing for a priority HIV intervention, an outcome that PEPFAR may be interested in replicating elsewhere.

## Botswana and South Africa

Two particularly opportune countries for this type of intervention are Namibia's neighbors—Botswana and South Africa. Like Namibia, both are priority countries for scaling up VMMC and have a robust private health sector. In both countries, significant portions of the population are covered under private medical aid schemes. Finally, both Botswana and South Africa are PEPFAR transitioning countries due to their upper-middle-income statuses and economic growth rates.

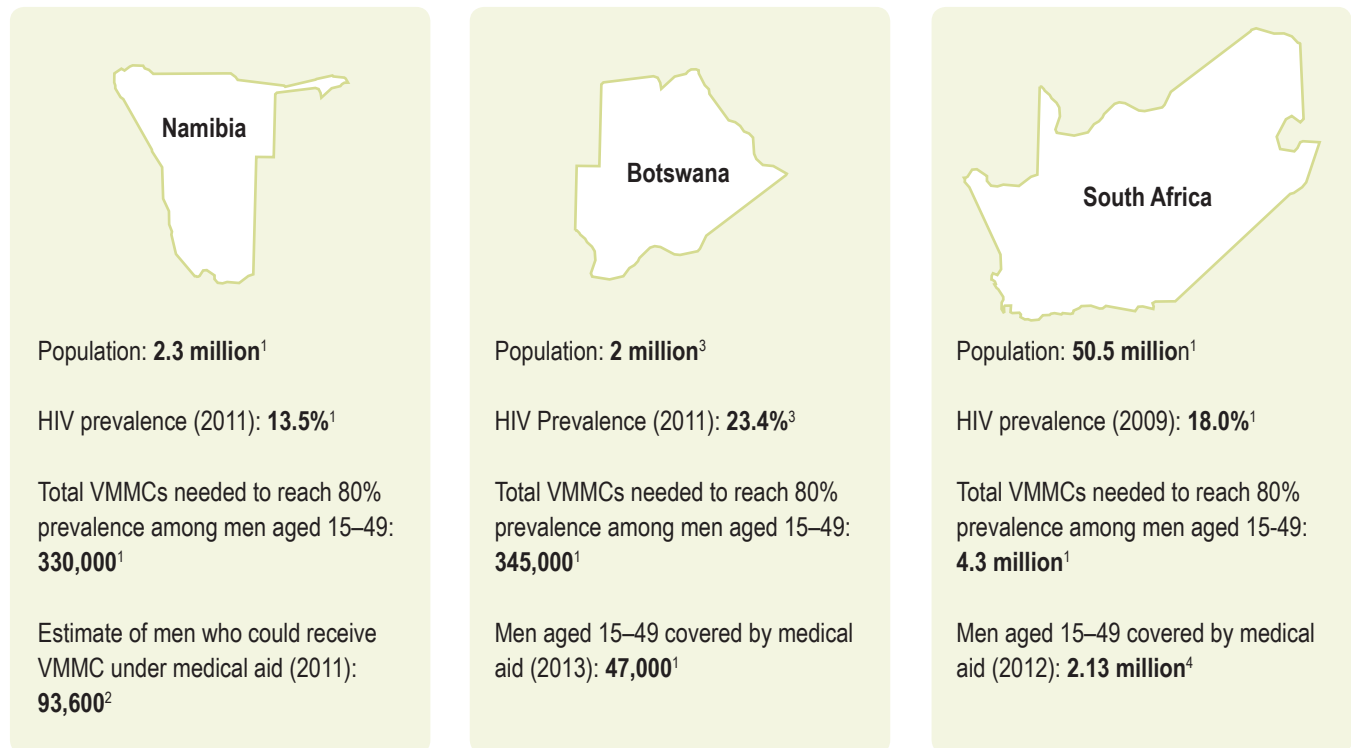
Figure 2 on the following page presents data on the VMMC and medical aid landscapes of Namibia, Botswana, and South Africa.



*A training session for private doctors in voluntary medical male circumcision.*

Crystal Beukes

**Figure 2. VMMC and Medical Aid Profiles for Namibia, Botswana, and South Africa**



<sup>1</sup> World Health Organization and Joint United Nations Programme on HIV/AIDS, 2011

<sup>2</sup> Number is based on a model developed by Frank F. Feeley at Boston University's School of Public Health. The model used conservative estimates for future workforce growth and insurance coverage levels.

<sup>3</sup> Callahan, 2013

<sup>4</sup> Council for Medical Schemes, South Africa, 2012 data. Includes the Government Employees Medical Scheme.

In **Botswana**, approximately 345,000 VMMC procedures are required to reach 80 percent prevalence in the priority age range of 15- to 49-year-olds. No more than 26,000 had occurred by the end of 2011 (UNAIDS and World Health Organization, 2011).<sup>6</sup> According to a SHOPS 2013 private sector assessment in Botswana, 47,000 Botswana men aged 15 to 49 are covered under private medical aid. Furthermore, private providers across Botswana have been trained in VMMC and have participated in annual VMMC campaigns as contractors hired by campaign organizers, such as the African Comprehensive HIV/AIDS Partnership. Leveraging the private sector to deliver VMMC to privately insured men by implementing a standardized tariff could relieve the public and NGO sectors of those clients. Covering the procedure at a standard rate under medical aid would also provide insured men with the opportunity to access VMMC through a familiar service delivery point.

Currently, three of the nine medical aid schemes in Botswana offer the procedure as a medical benefit, but there is widespread dissatisfaction among private providers with the current reimbursement rates provided by those schemes. A detailed and independent actuarial analysis could potentially provide a more accurate estimate of the cost of the VMMC procedure in Botswana, as well as encourage a greater number of schemes to cover the service.

<sup>6</sup> As countries are not yet consistently reporting VMMCs performed by age, it is not possible to determine the proportion performed among men 15 to 49 years old.



**South Africa's** large population makes a compelling case for this type of intervention. In South Africa, more than 4 million VMMCs are required to reach 80 percent prevalence among males aged 15 to 49, and about 400,000 have occurred among men of all ages since 2008 (World Health Organization and Joint United Nations Programme on HIV/AIDS, 2011). In terms of costs and health outcomes, a recent study concluded that male circumcision, in addition to providing antiretroviral treatment to those who qualify, should be prioritized over the recently heralded “game-changer” in HIV prevention: early initiation of treatment as prevention. The study found that scaling up VMMC and providing antiretroviral treatment to those who qualify is just as effective for preventing HIV mortality and morbidity in South Africa as providing treatment as prevention, while also being much more cost effective (Bärnighausen, Blooma, and Humaira, 2012). South Africa has much to gain from expanding VMMC, and the private sector could play an important role in offering and financing the service.

Approximately 8.7 million people are covered under private medical aid schemes in South Africa, and 2.2 million are men between the ages of 15 and 49 (Council for Medical Schemes, 2013). The Council for Medical Schemes, which regulates the medical aid industry, mandates certain prescribed minimum benefits. According to the South Africa Medical Schemes Act, testing for HIV and treatment for AIDS and opportunistic infections are included in the prescribed minimum benefits, but VMMC for HIV prevention is not. Some medical aid schemes, such as Discovery Health, Bestmed, and Genesis, will cover medical male circumcision for medical reasons but not for HIV prevention.<sup>7</sup> Discovery Health allows members to pay for circumcision out of their medical savings account, but this expenditure is not reimbursed by the medical aid scheme and is equivalent to the patient paying out of pocket.

South Africa is in the midst of a major debate over the pricing of private health services. Recent, politicized National Health Insurance deliberations are designed to re-engineer primary health care, decentralize many health services (including HIV services) and centralize funding. Previous efforts to create tariff guidelines for providers and reimbursement guidelines for medical aid schemes have been contentious and were eventually deemed anti-competitive (South Africa Department of Health

and Council for Medical Schemes, 2010; Health Professions Council of South Africa, 2012; and High Court of South Africa, 2010). The Council for Medical Schemes, which regulates the medical aid industry, has suggested that a tariff schedule for reimbursement rates be created with input from a variety of stakeholders—medical schemes, provider associations, and the South African government (South Africa Department of Health and Council for Medical Schemes, 2010). The South Africa example shows that the decision to move forward with a tariff for VMMC cannot be isolated from general public-private health sector dynamics. Rather, the ease with which a tariff can be proposed and accepted is likely indicative of general levels of public-private cooperation for expanding health services through the private sector.

A credible costing analysis, coupled with public confirmation of the costing results by the Council for Medical Schemes and the South African Department of Health, could potentially increase the likelihood that South African medical schemes would expand coverage to include VMMC as an HIV preventive benefit. However, understanding how this tariff fits within the generally contentious negotiations over private health service prices is essential.

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<sup>7</sup> Information on Discovery Health provided by Stephen Pietre, email messages to author, November 1, 2013. Information on Bestmed provided by Siyasanga Magaqa (administrative officer, Client Services, Bestmed Medical Scheme), email message to author, November 6, 2013. Information on Genesis provided by Ayesha Cornelius (sales consultant, Genesis Medical Scheme), email message to author, November 6, 2013.

## CONSIDERATIONS FOR REPLICATION

Given the relative simplicity of the costing methodology for the VMMC tariff, this intervention could be replicated in other countries—particularly those with more developed and expanding private health insurance industries—and potentially for other types of curative or preventive health interventions such as HIV treatment and HIV counseling and testing. The cost of hiring actuaries to run the analysis is relatively low but requires that some members of the costing team have significant knowledge of the local context for medical service provision. In Namibia, the costing was made easier by the existence of standardized costs for products and services, such as anesthesia and general practitioners' time.

However, the tariff on its own will not improve uptake of VMMC. Ideally, the supply-side tariff intervention should be combined with robust demand-side and quality assurance activities to raise national demand for the service and to ensure that private providers are adequately trained to offer high quality VMMC services, as in Botswana. Success in deploying the tariff approach is most likely when there are high levels of cooperation between the public and private health sectors, particularly around pricing and offering health services.

The relatively low cost of the tariff intervention should be weighed against the payoff in terms

of potential HIV infections averted if more men choose to undergo VMMC under private medical aid. In countries like Botswana and South Africa, the potential certainly exists for significant numbers of men covered by private medical aid to receive the procedure. Although similar on many levels, Namibia, Botswana, and South Africa each experience unique challenges and circumstances that may limit VMMC uptake in the private sector in the short term.

Through this first country experience of employing a standardized tariff to cover VMMC as an HIV preventive benefit under private medical aid, SHOPS is able to present detailed methodological steps for replicating the tariff in other countries and potentially for other health services. Although a tariff alone is not sufficient to significantly improve VMMC uptake, this relatively simple and inexpensive financing intervention is an important and promising element of a national HIV prevention strategy that expands accessibility of VMMC and engages the private health sector in a spirit of shared responsibility.

This primer concludes by offering a series of considerations for determining whether a tariff approach is an appropriate strategy for a particular country or health service (see text box). The SHOPS project looks forward to expanding on this initiative in Namibia by continuing to track and report the number of annual circumcisions performed in the private sector and financed by private medical aid.



## Considerations for Completing a Tariff Submission

### Identify a Gap in Health Service Delivery

- Is lack of private health insurance or medical aid coverage for the service an issue?
- Does medical aid already cover the service? Even if some schemes cover the service, is the reimbursement rate accurate and fair?
- Are some elements of a service covered, but not others (e.g., covering HIV testing but not counseling)?

### Understand Your Audience

- Who will receive your costing analysis?
  - Determine who (an individual or organization) will have the authority to implement a policy change based on your analysis within the local context.
  - Consider whether you will need that individual or organization's buy-in before completing the analysis and begin building a relationship.
  - Is private health insurance centrally regulated and are reimbursement rates centrally set?
  - What is the current level of cooperation and agreement on health service pricing between the public and private sectors?
- What do you expect that individual or organization to do with the analysis?
  - When you submit your costing analysis to a regulatory authority or government ministry, include a clear explanation of the policy change you aim to achieve through the analysis.
  - Ensure that you have adequate clinical expertise to support the assumptions made in the submission.

### Clarify the Service to be Costed

- What are the generally accepted local clinical guidelines for the service?
- What are the global guidelines?
- Defining what activities the service will include helps ensure your costing exercise is focused and that the tariff you create accounts for various costs that service providers will incur. In some cases, you may include activities that are not yet generally accepted but are encouraging behavior change (e.g., the inclusion of local anesthesia rather than general anesthesia in the Namibian VMMC tariff).

### Hire Actuaries to Assist in the Costing Analysis

- Having independent actuaries participate in the costing analysis will increase the accuracy of the final tariff.

### Solicit Input from Local Experts

- Ground any assumptions you make about the service in an understanding of the local context. This will help ensure that you do not leave out important costs.



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## REFERENCES

- Auvert, B., D. Taljaard, E. Lagarde, J. Sobngwi-Tambekou, R. Sitta, and A. Puren. 2005. "Randomized, Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk: The ANRS 1265 Trial." *PLOS Med* 2 (11): e298. doi:10.1371/journal.pmed.0020298.
- Bailey, R. C., S. Moses, C. B. Parker, K. Agot, I. Maclean, J. N. Krieger, C. F. Williams, R. T. Campbell, and J. O. Ndinya-Achola. 2007. "Male Circumcision for HIV Prevention in Young Men in Kisumu, Kenya: A Randomized Controlled Trial." *Lancet* 369 (9562): 643–656. doi:10.1016/S0140-6736(07)60312-2.
- Bärnighausen, T., D. E. Bloom, and S. Humaira. 2012. "Economics of Antiretroviral Treatment vs. Circumcision for HIV Prevention." *Proceedings of the National Academy of Sciences*, 109 (52): 21271-21276. doi: 10.1073/pnas.1209017110.
- Bollinger, L., and J. Stover. 2009. *The Potential Cost and Impact of Expanding Male Circumcision in 14 African Countries*. Washington, DC: Futures Group, Health Policy Initiative.
- Callahan, S., T. Pandit-Rajani, I. Ron Levey, and T. van Bastelaer. 2013. *Botswana Private Health Sector Assessment*. Bethesda, MD: Strengthening Health Outcomes through the Private Sector Project, Abt Associates Inc.
- Council for Medical Schemes. 2013. *Council for Medical Schemes Annual Report, 2012-2013*. South Africa: Council for Medical Schemes, p. 228–229.
- Gray, R. H., G. Kigozi, D. Serwadda, F. Makumbi, S. Watya, F. Nalugoda, N. Kiwanuka, L. H. Moulton, M. A. Chaudhary, M. Z. Chen, N. K. Sewankambo, F. Wabwire-Mangen, M. C. Bacon, C. F. Williams, P. Opendi, S. J. Reynolds, O. Laeyendecker, T. C. Quinn, and M. J. Wawer. 2007. "Male Circumcision for HIV Prevention in Men in Rakai, Uganda: A Randomized Trial." *Lancet* 369 (9562): 657–666. doi:10.1016/j.lancet.2011.03.031.
- Health Professions Council of South Africa. 2012. "Board Notice: Proposed Guideline Tariffs for Medical Practitioners and Dentists." Accessed October 4, 2013, [http://www.hpcsa.co.za/downloads/service\\_fees-tariff/proposed\\_guid\\_tariffs\\_comment\\_med\\_dent\\_services\\_nov\\_2012.pdf](http://www.hpcsa.co.za/downloads/service_fees-tariff/proposed_guid_tariffs_comment_med_dent_services_nov_2012.pdf).
- High Court of South Africa. 2010. "Hospital Association of South Africa Ltd v Minister of Health and Another." Accessed October 4, 2013, <http://www.saflii.org/za/cases/ZAGPPHC/2010/69.html>.
- Joint United Nations Program on HIV/AIDS. 2013. *Global Report: UNAIDS Report on the Global AIDS Epidemic 2013*.
- Namibia Financial Institutions Supervisory Authority. 2012. *Annual Report*. Windhoek, Namibia: NAMFISA.

Namibia Ministry of Health and Social Services. 2010. *Policy on Male Circumcision for HIV Prevention*. Windhoek, Namibia: MOHSS.

Namibia Ministry of Health and Social Services and Health Systems 20/20. 2008. *Namibia National Health Accounts 2001/02–2006/07*. Windhoek, Namibia and Bethesda, MD: Health Systems 20/20 and Abt Associates Inc.

Namibia Ministry of Health and Social Services and Macro International Inc. 2008. *Namibia Demographic and Health Survey 2006–07*. Windhoek, Namibia and Calverton, MD: MOHSS and Macro International Inc.

Ncube, B., F. Lule, E. Asamoah-Odei, G. and G. Obita. 2012. *Progress in Scaling Up Voluntary Medical Male Circumcision for HIV Prevention in East and Southern Africa: January–December 2011*. World Health Organization.

O'Hanlon, B., F. Feeley, I. de Beer, S. Sulzbach, and H. Vincent. 2010. *Namibia Private Sector Assessment*. Bethesda, MD: Strengthening Health Outcomes through the Private Sector, Abt Associates Inc.

South Africa Department of Health and Council for Medical Schemes. 2010. "Discussion Document: Determination of Health Prices in the Private Sector."

U.S. President's Emergency Plan for AIDS Relief. 2012. *Namibia Operational Plan Report FY 2011*.

World Bank. 2011. "Prevalence of HIV, total (% of population ages 15-49)." Accessed March 14, 2013, <http://data.worldbank.org/indicator/SH.DYN.AIDS.ZS>.

World Health Organization and Joint United Nations Programme on HIV/AIDS. 2011. *Progress on Scale-Up of Male Circumcision for Prevention in Eastern and Southern Africa: Focus on Service Delivery*. Geneva, Switzerland: World Health Organization.

———. 2007. *New Data on Male Circumcision and HIV Prevention: Policy and Programme Implications*. Geneva, Switzerland: World Health Organization. Accessed September 26, 2012.

The Strengthening Health Outcomes through the Private Sector (SHOPS) project is a five-year cooperative agreement (No. GPO-A-00-09-00007-00) funded by the U.S. Agency for International Development (USAID). The project focuses on increasing availability, improving quality, and expanding coverage of essential health products and services in family planning and reproductive health, maternal and child health, HIV and AIDS, and other health areas through the private sector. SHOPS is led by Abt Associates Inc., in collaboration with Banyan Global, Jhpiego, Marie Stopes International, Monitor Group, and O'Hanlon Health Consulting. The views expressed in this material do not necessarily reflect the views of USAID or the United States government.

**For more information about the SHOPS project, visit: [www.shopsproject.org](http://www.shopsproject.org)**



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