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Making voluntary medical male circumcision a viable HIV prevention strategy in high prevalence countries by engaging the traditional sector

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Abstract

Voluntary medical male circumcision (VMMC) has been rapidly accepted by global HIV policy and donor institutions as a highly valuable HIV prevention strategy given its cost-effectiveness, limited interactions with a health facility, and projected long-lasting benefits. Many southern African countries have incorporated VMMC into their national HIV prevention strategies. However, intensive VMMC promotion programs have met with limited success to date and many HIV researchers have voiced concerns. This commentary discusses reasons behind the less-than-desired public demand and suggests how inclusion of the traditional sector – traditional leaders, healers, and circumcisers – with their local knowledge, cultural expertise and social capital, particularly in the realm of social meanings ascribed to male circumcision, may improve the uptake of this HIV prevention strategy. We offer Lesotho and Swaziland as case studies of the integration of universal VMMC policies; these are countries with a shared HIV burden, yet contrasting contemporary socio-cultural practices of male circumcision. The similar hesitant responses expressed by these two countries towards VMMC remind us that the incorporation of any new or revised and revitalized public health strategy must be considered within unique historical, political, economic, and socio-cultural contexts.

Keywords

HIV/AIDS; traditional leaders; Lesotho; male circumcision; Swaziland

Introduction

In recent years, 14 countries in southern Africa have been identified as priority areas for voluntary medical male circumcision (VMMC) programs to address the HIV epidemic. The VMMC procedure requires only minimal engagement with the health system and does not require consistent negotiations of risk reduction. In settings with moderate or high HIV prevalence, VMMC has been established as a cost-effective HIV prevention strategy even when it has low coverage (Andersson, Owens, and Paltiel 2011; Kahn, Marseille, and Auvert

2006). Mathematical models indicate a reduction in HIV incidence by at least 1% per year, with a relative reduction in prevalence of 25-67% in different populations (Williams et al. 2006; Nagelkerke et al. 2007).

With such potential for success, the President's Emergency Plan for AIDS Relief (PEPFAR) accepted the challenge to provide 4.7 million VMMC procedures in a two-year period (2012-2013) (Reed et al. 2012). This target called for a four-fold VMMC program expansion in half of the time afforded previous male circumcision efforts. Such a challenge reveals just how invested the global health community is in supporting the expansion of the VMMC strategy throughout heavily burdened countries in southern Africa. PEPFAR met this target. Despite this success, global HIV prevention strategists asserted that the VMMC agenda had “reached only one-third of the 20.3 million interventions [VMMC procedures] needed to achieve maximum public health benefit” (MacDonald and Njeuhmeli 2014). The UNAIDS 2013 Global Report noted that in five countries where VMMC is stated to be a priority – Lesotho, Malawi, Namibia, Rwanda and Zimbabwe – coverage of VMMC for adults had achieved less than 10% of the targeted number (UNAIDS 2013). Such low coverage suggests that the promotion and implementation of VMMC as an HIV prevention strategy is proving more difficult than donors and public health experts anticipated.

In this commentary, we question why VMMC has not had the predicted uptake and desired effect to date in reducing population prevalence of HIV. Lesotho and Swaziland ground this discussion as these countries have the world's highest HIV population prevalence and yet contrasting socio-cultural biomedical and traditional male circumcision (MC) practices. In Lesotho, MC continues to be practiced as part of traditional puberty rites ceremonies, with 72% of men circumcised (MoH 2014). By contrast, Swaziland does not have a recent history of practicing MC, either as part of puberty rites ceremonies or as a biomedical procedure on neonates or adult males; most recent surveys estimate that between 16 and 20% of Swazi men are circumcised (Adams and Moyer 2015; SHIMS 2014). Neither country has been quick to respond to the VMMC agenda, with hesitance expressed at the levels of national government, traditional leadership, and the individual. Through this discussion of similarities and differences, we reveal the inequities inherent in global policy production and the omission of important voices, specifically those of the traditional health sector, which could offer a way forward in co-developing strategies for the integration of useful HIV prevention strategies.

Introducing and re-introducing male circumcision

Three randomized control trials (RCT) conducted in South Africa, Uganda, and Kenya showed a 60% reduction in HIV infection among circumcised men (Auvert et al. 2005; Gray et al. 2007; Bailey et al. 2007). These results have been sustained among original study participants (Gray et al. 2012; Mehta et al. 2013) and in non-study community members who opted for VMMC (Auvert et al. 2013). Considering the failures of behaviour change for prevention, treatment as prevention, pre- and post-exposure prophylactics, and vaccines, this level of effectiveness has generated great excitement in global HIV programming and donor institutions and propelled the VMMC approach to the forefront of HIV prevention programming. As argued by Bell (2014, p. 2), VMMC has essentially been “made into the

‘right’ tool for the job of reducing HIV transmission.” However, the promise of VMMC to reduce prevalence of HIV at the population level has not yet been achieved. The WHO notes that progress in the universal promotion of VMMC has been constrained due to “the shortage of surgically trained providers, the time required for the current conventional surgical circumcision method and *uncertain client demand*” (WHO 2013, p. 6, emphasis added). In Swaziland (and Lesotho), PEPFAR acknowledged that overcoming limited demand has proven considerably more difficult than addressing supply-side barriers (USAID 2013).

Given the lower than anticipated uptake of the VMMC approach, conversations have surfaced that suggest different messages are needed to address varying social groups and their unique concerns (Brooks et al. 2010; Gilliam et al. 2010; Sgaier et al. 2014). While tailored framing may prove useful in providing relevant and compelling information to convince the public of the advantages of VMMC (Brooks et al. 2010; Gilliam et al. 2010), this approach anticipates that individuals will act upon scientific evidence, has limited concern for alternative practices, rationalities, or barriers, and fails to consider that people employ multiple logics when avoiding risk.

Considering these multiple practices, logics and rationales, we must begin by recognizing that African societies can rather crudely be divided into three MC categories: those that continue the practice, those that used to conduct MC but abandoned the practice, and those whose majority populations never practiced MC. The Kingdom of Lesotho falls into the first category – MC is still routinely practiced. Most MC surgeries (69%) continue to be performed as a vital component of a traditional initiation school (*lebollo*) by a traditional circumciser (MoH 2014; Nyaka 2009). By contrast, Swaziland discontinued the practice in the early 1800s (Marwick 1940). Before the significant push to promote and provide VMMC, only 8% of Swazi men age 15-49 were circumcised (MoEPD 2008).

Despite the evidence suggesting that MC is protective against HIV and contrasting MC practices, both countries have high HIV burdens – Swaziland is currently recognized as having the highest prevalence of adult HIV (31%) in the world (Bicego, et al. 2013), with Lesotho falling not far behind (22.9%) (UNAIDS 2013). National data from both countries suggest that MC is not protective against HIV infection, with HIV prevalence higher in circumcised men (Lesotho: 21% compared to 16%, MoHSW 2009; Swaziland: 22% compared to 20%, MoEPD 2008). This relationship has also been observed in Malawi and Tanzania (Garenne 2008). More generally, data collected via Demographic and Health Surveys from large representative samples of national populations in 19 African countries suggest no difference in HIV prevalence by circumcision status (Garenne 2008; Way, Mishra, and Hong 2006). The more recent Swaziland HIV Incidence Measurement Survey found that circumcised men were statistically less likely to be HIV infected (16.4% compared to 25%; $p < .001$) (SHIMS 2014).

Explaining the contradictory findings, the 2006 Swaziland Demographic and Health Survey notes the potential limitations of national statistics cautioning that, “the relationship between male circumcision and HIV infection may be confounded by the fact that the circumcision may not involve the full removal of the foreskin” (MoEPD 2008, p. 235). A study conducted

among a sample of young adult men undergoing physical examinations during the Lesotho Defence Force recruitment process found that, of the individuals self-reporting MC completed by traditional circumcisers, only 28% had complete foreskin removal and almost half had no foreskin removed (Thomas et al. 2011). Furthermore, in Lesotho, traditional MC, and its modern replacement VMMC, only occur at or after puberty. Many circumcised men in both Lesotho and Swaziland are sexually active and therefore already exposed to HIV prior to the circumcision procedure (MoHSW 2009, SHIMS 2014). In Malawi, circumcising groups have higher rates of HIV than non-circumcising groups likely due to unique migratory labour practices that increase risk behaviours (Dionne and Poulin 2013). The conflicting findings of Demographic and Health Survey reports, RCTs, cohort studies of specific communities, and smaller studies of particular ethnic/religious groups in Africa, have stimulated an ongoing dispute between experts (Boyle and Hill 2011; Wamai et al. 2012). We have no intention of contributing to this polarized debate; instead, our aim is only to highlight that there are clearly multiple interpretations, perspectives, and knowledge systems that the public and government officials draw on to determine their level of engagement with VMMC. The relationship between MC/VMMC and HIV is complex when considered outside the controlled nature of trials and mathematical models, and the potential benefits of VMMC in reducing the population HIV burden remains unclear (Garenne 2010, 2013; Garenne, Giami and Perrey 2010; de Camargo et al. 2013, Vincent 2008).

In Lesotho, the low uptake of VMMC is both a result of inadequate services and low demand (Bulled 2013). Moderate efforts to offer VMMC surgeries have been in place in Lesotho since 2007 through a male clinic established in the capital city, Maseru, run by the Lesotho Planned Parenthood Association. VMMC procedures are also performed in government health facilities, hospitals, filter clinics or private surgeries at a cost that varies from 6-74 USD. International organizations (funded by PEPFAR, with the operational assistance of Jhpiego) provided six international medical doctors to perform VMMC procedures. The non-governmental organization, Population Services International (PSI), also launched VMMC efforts in collaboration with the Lesotho Defence Force. Recent adjustments in government leadership placed some of these programs on hold. A national assessment of MC estimated that approximately 4,000 to 6,000 VMMC are performed each year (MoHSW 2008). There is reportedly an expansive waiting list, and a UN website promoting VMMC displays images of long lines of men waiting their turn for surgery. Beginning in 2012, the Lesotho Ministry of Health launched a VMMC program to rapidly scale up services to reach 80% coverage by 2017, or a target of 317,215 men aged 15-49, per WHO projections (MoH 2014; WHO 2013).

While these efforts have been taken by both government and non-government agencies to address the supposed growth in demand for VMMC services, reports from the public indicate confusion, disinterest, and distrust in the approach. Given that MC practices are part of secretive puberty rites ceremonies, most men are not eager to disclose details of their circumcision status when asked. However, prolonged engagements with college students in the capital city of Maseru and in the rural town of Thaba-Tseka reveal that many young men who elect not to be circumcised through the traditional route, are also unwilling to consider VMMC (see Bulled 2015). In Lesotho, modernity, as evidenced by education and economic status, has become increasingly associated with non-circumcision. Although VMMC has

become recognized locally as a modernized/medicalized/remedicalized (Carpenter, 2010) form of a traditional practice, the relationship between VMMC/MC and HIV risk remains unclear and the surgery is unappealing.

In addition to concerns from the public, traditional leaders, and members of the Council of Initiators (responsible for managing puberty rites ceremonies), have voiced concerns about the VMMC agenda in Lesotho. Current VMMC scale-up efforts in Lesotho have not included the traditional sector, particularly traditional leaders and those responsible for MC practices. International agents operating locally to address HIV refuse to consider *lebollo*-MC, supporting only VMMC as the “safe and proper” form. By implication, this positions traditional MC as unsafe and improper and in stark contrast to the progressive and sanitary practice of the modern procedure (Vincent 2008, p. 81).

According to the Swaziland Demographic Health Survey conducted in 2006, only four in ten men who were not yet circumcised indicated an interest in VMMC (MoEPD 2008). In 2007, encouraged by the VMMC movement and external donors, the government of Swaziland introduced their national VMMC policy. This policy aimed to make VMMC services available to men of all ages as part of the national comprehensive HIV prevention package. To stimulate greater movement towards VMMC, PEPFAR funded an ambitious plan in 2010 to quickly circumcise 80% of Swazi males. The program was implemented through a partnership between the Ministry of Health and Social Welfare and the US-based Futures Group. By 2011, a survey commissioned by the Futures Group found 91% national awareness of VMMC. However, by 2012 only 16-20% of the targeted boys and men of Swaziland were reached, at a cost of 15.5 million USD, or 484 USD per circumcised male (Adams and Moyer 2015; SHIMS 2014).

Numerous factors have been identified that contributed to the failing of this ambitious program (Swaziland Ministry of Health 2012; Masinga 2012; Adams and Moyer 2015). The program felt imposed from the outside, with King Mswati III ‘roped into’ the VMMC issue. Approval and buy-in from the King was necessary to initiate the project, but locals felt he was pushed into supporting VMMC by foreigners rather than of his own accord. As VMMC services were delivered free of charge, locals became suspicious, linking what they perceived as an externally imposed biomedical intervention to the numerous HIV conspiracy theories that circulate in the region (Stadler 2003; Kalichman 2009; Niehaus and Jonsson 2005). In addition to concerns about pain, physical changes involved, and tradition/religion, there was and remains uncertainty regarding the need to practice safe-sex (use condoms) following surgery. In Swazi society, largely unfamiliar with MC for a century and a half, fear of permanent damage to one's manhood is a main concern. Reports of botched (non-medical) MC procedures in the South African press have become more frequent and circulate widely in local media, stimulating much trepidation and concern (e.g., *Mail & Guardian* August 16, 2013 and July 8, 2013; and *Reuters/IOL* July 28, 2005). Many young men note that if condoms are still needed, then the procedure offers no benefit, being only an unnecessary costly, burdensome, painful, and risky process with an uncertain outcome.

The widespread and continued belief in witchcraft in Swaziland has also proven an unanticipated barrier to the promotion of VMMC. Health Minister Xaba alluded to this

when he told the *Times of Swaziland*, “Some men feared that the foreskin could end up in wrong hands, being used by some unscrupulous people for their ulterior motives” (quoted in *IRIN: Humanitarian news and analysis*, May 13, 2013). Human body parts are used to make strengthening potions. Victims, usually children or older people, are found with organs and other body parts missing, with genitalia highly sought after. Consequently, the uncertain endpoint of the removed foreskin is of grave concern for men contemplating VMMC procedures; as noted one young Swazi man, “That's also what I wanted to know, and they wouldn't tell me – what happens to my foreskin once it is cut off?” Yet, as the program director of a faith-based HIV initiative in Manzini explained,

This is embarrassing and nobody wants to talk about it... The circumcision initiative failed because of this arrogance on the part of its promoters. It would have been easy to be honest and explain to the Swazi men that their foreskins would be incinerated like all surgical refuse. But the promoters said, ‘Oh, no, we can't talk about witchcraft. What will the donors say?’

These factors reveal the lack of clarity in communications to the public regarding VMMC as an HIV prevention strategy. Misunderstandings fuel negative rumours that complicate the process of implementing policies and limit demand for such disease prevention services (*IRIN: Humanitarian news and analysis* 2013).

The accounts from Swaziland, a country where MC practices are being re-introduced, and Lesotho, a country where VMMC is attempting to replace long-held traditions of *lebollo*-based MC, highlight the barriers to VMMC scale-up. Although resource capacity is limited in both locations, significant international donations and technical skill have ensured that VMMC procedures can be conducted at least in urban areas. Locals, however, remain unconvinced. Given these accounts, we suggest that the traditional and biomedical health sectors consider ways to work together to address public uptake of VMMC. While we do not suggest that every boy and man should be forced to consider VMMC, it could be an available option, one that is safe and effective, and offered in manner that values diversity of understandings and perspectives.

A synergistic approach to implementing male circumcision

The failure of the VMMC initiative is a consequence of inadequate attention to local socio-cultural concerns and contexts, undue emphasis on evidence-based medicine, and desperation for a new and effective approach to HIV prevention (Bell 2014). Global policy developers assumed that VMMC would be readily accepted as a cheap, one-time, relatively simple HIV prevention strategy. Instead, negative reactions from the public and complaints from opinion leaders who themselves do not really know why “they are taking our young men for circumcision” are spreading. Thus, the complexity and deeply meaningful act of MC is forgotten, disregarded as insignificant, or ignored. Furthermore, ignoring and circumventing traditional leaders and healers as potential allies in VMMC efforts is turning proponents into critics and undermining good intentions.

We suggest the need for more direct and equitable engagement with the traditional health sector which continues to serve important roles as social leaders and health care providers.

Traditional healers remain a primary source of health care for many in southern Africa (Furin 2011; Kale 1995; Knox 2010; Mills et al. 2006). We argue that engagement with traditional community leaders is imperative for the positive promotion of new, more effective disease prevention strategies, while at the same time offering a partial solution to manpower shortages in the health sector of developing countries.

There is an extensive history of collaboration between traditional healers and biomedical personnel with a view toward achieving public health objectives (Green 1999, 2003; King 2002). Efforts have also been made to work with the traditional sector to address HIV prevention, specifically in relation to MC. There have been attempts to regulate and control traditional MC procedures that are conducted by either healers or unique circumcisers. Under South Africa's 2001 *Application of Health Standards in Traditional Circumcision Act No. 6*, “[The registration of a traditional circumcision event should] include, among other requirements, the presence of experienced traditional surgeons and the utilization of safe, modern and sterile equipment” (SAPA 2013). Alternatively, in communities in Zimbabwe (Harmon 2011), South Africa (Vincent 2008), and Kenya (WHO 2009), where traditional MC is performed, initiates schedule VMMC surgeries immediately prior to embarking on their rites, or male health practitioners attend the initiation ceremonies to conduct the circumcision. While effective, these approaches limit and jeopardize the practices of traditional healers/circumcisers, threaten to devalue their role in their communities (Vincent 2008) and place them in an antagonistic rather than a cooperative role in relation to VMMC programs.

We propose a collaborative strategy that offers more freedom and empowerment to the traditional sector. Similar collaborations have been successfully attempted with various ethnic groups in the Eastern Cape Province of South Africa. In these engagements, traditional healers/circumcisers improved their knowledge of HIV prevention strategies and attitudes towards collaborations with biomedical health care providers and consequently adopted safer and more effective MC strategies (Kanta 2004; Peltzer et al. 2008).

In Lesotho, tribal chiefs have identified the restoration of traditional cultural practices and values as a vital component of HIV prevention efforts. To elaborate, ceremonial elders expressed an interest and need for training and education to bring them up-to-date on issues related to HIV and sexual health, which they can then integrate into their cultural practices including initiation rites. Traditional leaders and members of the Council of Initiators view a training approach as empowering as it ensures that: an important cultural practice is maintained in a way that retains its importance and function in society; practices of traditional healers do not contribute to the transmission of HIV; and traditional circumcisers will perform a service that offers some protection to the people of Lesotho based on best known practices and methods that are clinically safe (Bulled 2013).

New devices, such as the PrePex and Shang Ring, which employ radial elastic pressure causing distal necrosis for easier removal of the foreskin (Mutabazi et al. 2013), will make these collaborations even more successful. This non-surgical VMMC approach takes significantly less time than surgical methods, does not require injections or sterile settings, is bloodless, has been deemed safe, and seems suitable for trained traditional surgeons to

utilize (Bitega et al. 2011; Mutabazi et al. 2012). Deploying these new technologies would increase VMMC accessibility throughout southern Africa and cause less disruption to existing social and healthcare practices.

For this integrative approach to prove successful, both sides would have to accept new ways of thinking. Medical professionals, governments, and donors would need to overcome existing prejudices against collaborating with non-biomedical representatives of the traditional sector, a sector which has been routinely ignored, circumvented or condemned. Concurrently, traditional healers/circumcisers/surgeons would have to agree to *change* what might be considered a crucial element in a centuries-old rite of passage endorsed by ancestral spirits (in groups that practice MC), or agree to promote the approach (in groups that do not practice MC).

Conclusion

Irrespective of mathematical models indicating the potential for MC to have a significant influence on the future of the HIV epidemic, public demand for VMMC as an HIV prevention strategy is limited. In this commentary, we echo the sentiments of Bell (2014), in suggesting that we expand beyond the either/or scenarios of VMMC/MC and consider alternative parameters. We argue that for the VMMC strategy to prove effective for HIV prevention, ‘out of the box’ thinking is necessary, including greater understandings of targeted cultures and ethnic groups, and better and more equitable engagement with traditional gatekeepers. Ignoring and circumventing the traditional health sector as potential allies in VMMC efforts may turn potential proponents into critics and undermine the good intentions of VMMC programs. Furthermore, not engaging traditional healers/circumcisers directly can only result in the continued practices of risky or incomplete MC surgeries. Simple training and provision of new technological devices could take advantage of long established and trusted institutionalized services.

Success cannot be in any way guaranteed, but the potential benefits justify modifications to current attempts, both those practiced by communities and those outlined by global health institutions. Resistance should be expected from both sides. Such resistance points to the conclusion that introducing or reintroducing any health strategy into societies is not nearly as simple as assumed and requires nuanced understandings of social, cultural, political, historical, economic and ethical contexts.

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