



No-Scalpel Vasectomy: Scale-up Approach in Rwanda Shows Promise

Key Study Findings

- **Number of Vasectomies:** 2,523 vasectomies, 2010 – 2012, due to rapid scale-up activities initiated by Rwandan Ministry of Health (MOH).
- **Client Demographics:** Generally older, married, have used family planning methods, have very young children, and have attained or exceeded desired family size.
- **Primary Reasons for Vasectomy:** Avoiding the additional financial burden of supporting another child.
- **Challenge to Increasing Client Uptake:** Overcoming rumors in the community including: vasectomy is the same as castration, men will stop wanting sex, and men will not enjoy sex after the procedure.
- **Strengths of Scale-up Approach:** Integrated program led by MOH offering clinical training, funding, and public education about vasectomy.
- **Strengths of Demand Creation:** Radio broadcasts and community meetings led by health-care providers and MOH officials resulted in increased knowledge and communication about vasectomy.
- **Unexpected Benefit:** Many clients and their wives reported improvements in their sex life.

Background

Vasectomy, an underused family planning method in resource-poor settings, is safe, effective, and low-cost. The 10-20 minute procedure is also faster and safer than female sterilization. No-scalpel vasectomy (NSV) is the optimal technique because it decreases the risk of surgical complications such as bleeding and infections and has a low failure rate. NSV procedures that use thermal cautery plus fascial interposition (FI) further decrease failure rates and have been found to be appropriate for low-technology and low-resource settings.

The low use of vasectomy globally can be partially attributed to a lack of technical knowledge among health care professionals and lack of education on the procedure among citizens. Increasing the number of trained surgeons, nurses, and community health workers (CHWs) throughout the country can facilitate access and improve community knowledge. Successful promotion of

vasectomy as a permanent contraceptive method also relies on detailed and accurate counseling, including a discussion of culturally relevant motivators. There is also evidence that men are more likely to undergo vasectomy when they are motivated by a desire to share the family planning burden and relieve wives of side effects present in some methods.

The Rwanda Ministry of Health (MOH), with technical assistance from FHI 360, took initial steps to increase access to vasectomy as a family planning option by training three Rwandan physicians to become vasectomy master trainers in NSV with thermal cautery and FI in 2010. Due to early success and local demand, the MOH expanded the effort into a national scale-up approach. Initially, eight doctors and 10 nurses completed training of trainer (TOT) courses. Then, through the subsequent cascade of instruction, a total of 64 doctors and 103 nurses have

The national scale-up efforts in Rwanda since 2010 have focused entirely on no scalpel vasectomy (NSV) with thermal cautery plus fascial interposition. All physicians and nurses were trained to use this approach. In this article, "vasectomy" refers to this technique unless otherwise noted.

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been trained in 42 hospitals across all 30 districts in Rwanda to provide vasectomy. Scale-up also relied on vasectomy counseling services provided by CHWs and strategic messaging disseminated by the MOH through various media outlets.

Study Objective and Methods

The MOH asked FHI 360, through the PROGRESS project, to support it in monitoring several aspects of the scale-up program. The specific objective of the monitoring effort was to understand institutional, structural, and individual factors influencing the choice of vasectomy in Rwanda and to improve quality and efficiency of the nationwide program.

Data are being collected from four sources:

- Extracted client records
- Surveys with clients and wives, CHWs, and hospital staff
- In-depth interviews with MOH officials
- Observations of service delivery

Fifteen hospitals in the country with medical doctors trained in vasectomy were randomly selected for data collection. All client records of men receiving a vasectomy at those facilities (n=1053) were extracted for review. Clients from

each hospital were randomly selected from hospital records for interviews (n = 316), as were matched interviews with their wives (n=300). Surveys were conducted with 279 CHWs from the 15 randomly selected hospitals. Surveys were also administered to doctors (n=45), nurses (n=66), and hospital Directors (n=19). Key informant interviews and documentation of the implementation approach are ongoing and will provide additional data.

Results

Between 2010 and 2012, a total of 2,523 NSVs using thermal cautery with FI were completed in Rwanda (see back page). Table 1 highlights the demographic profile of the 316 clients and 300 wives of clients who were surveyed after receiving a vasectomy.

While most clients and wives were aware of other forms of family planning, information on vasectomy (this method in general) was new to many couples. The great majority of couples (85% clients, 87% wives) had used a family planning method previously. The most common methods couples reported using were injectables (58% clients, 66% wives) and pills (45% clients, 41% wives). The majority of couples learned of vasectomy as an option from radio broadcasts or health-care providers.

Deciding on Vasectomy

A number of factors facilitated clients' decision to choose vasectomy. Upon learning about vasectomy, most couples had a favorable first impression (80% clients, 82% wives) and reported open and easy discussion on the topic.

The most frequently reported reasons for selecting vasectomy for clients and wives were:

- Financial burden of more children (83%)
- Had met desired family size (66%)
- Side effects of hormonal methods (43%)

Table 1: Demographic Profile of Vasectomy Clients and their Wives

Category	Demographic
Age (Mean)	45.5 (Client), 38.3 (Wife)
Marital Status	94% Married
Years Married (Mean)	17.9
Religion	51% Catholic, 29% Protestant
Client Education	73% Primary, 6% Secondary
Wife Education	68% Primary, 18% Secondary
Used Family Planning Before Vasectomy	87%
Number of Children (Mean)	5.2
Children Under 3 Years Old	59%
Met or Exceeded Desired Number of Children	96%

The MOH played a strong role in raising awareness and educating the community and potential clients about vasectomy. The primary ways clients reported learning about vasectomy were through CHWs and health-care providers (98%), community meetings (89%), and radio broadcasts (29%).

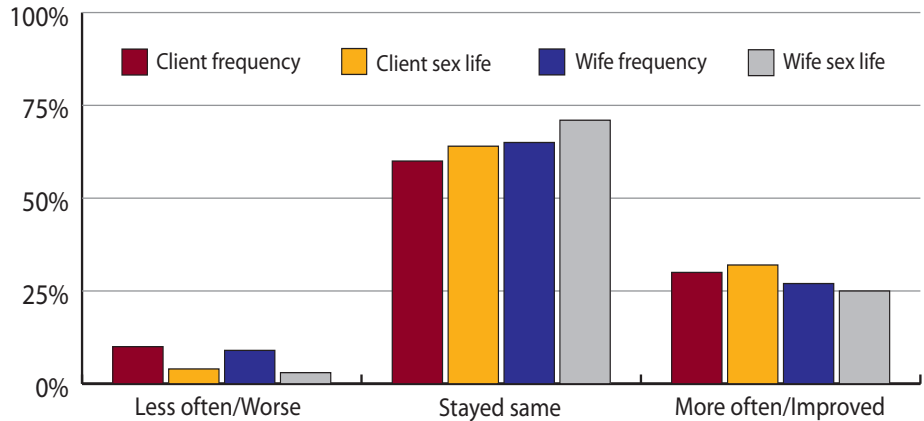
Vasectomy Procedure and Follow-up

The time between making a decision and having the vasectomy was commonly greater than 4 weeks (75% clients). Following the vasectomy procedure, few men (17%) reported lasting side effects; the most common were self-reported excessive swelling and abdominal pain. Only 13% sought medical attention for these symptoms. Most clients (71%) returned to work within a week. An unexpected outcome was the number of clients reporting more frequent and improved quality of sex after the vasectomy (clients, 30% and 32%, respectively).

Clients had moderate compliance with post-procedure recommendations. Only about half (52%) of clients reported using some form of “pregnancy avoidance” for the initial three-month period, as recommended. Nearly all (90%) reported waiting the recommended 7 days before resuming sex. By the third week post-vasectomy, 73% of couples had resumed sex.

Clients were asked to return for a semen analysis three months after the procedure. This analysis validates that the man is no longer fertile. Among hospital records that showed a semen analysis was conducted, no motile sperm (i.e., capable of moving) were recorded. Commonly reported reasons for not returning for a semen analysis included: lack of time to travel, not realizing it was required, not thinking it to be important, or discomfort in providing a semen sample. Only 29% of records showed a semen analysis was completed; this represented the greatest volume of missing data in this study.

Post-Vasectomy: Frequency of Sex and Quality of Sex Life as Reported by Clients and Wives



Barriers to Vasectomy Uptake

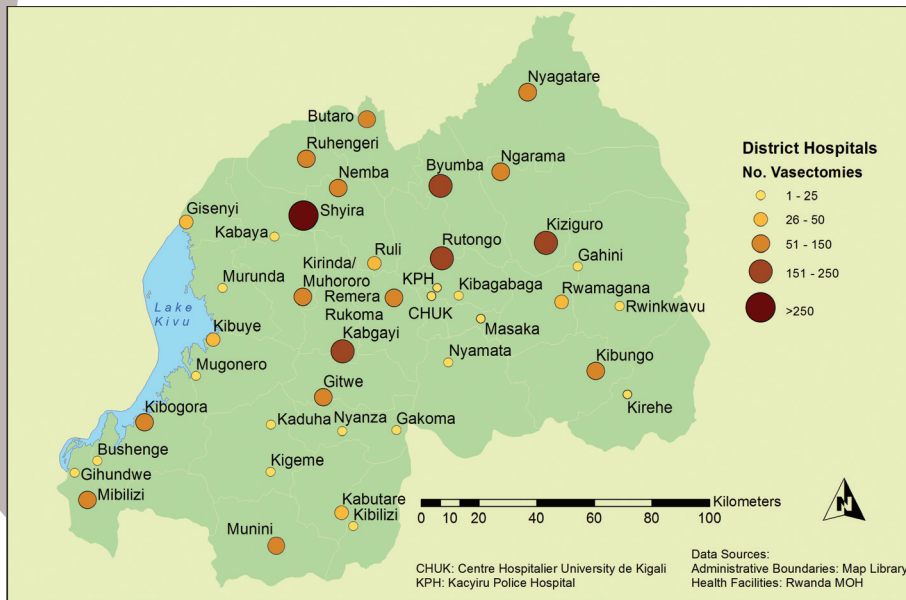
Rumors were the most commonly reported reason that clients avoid vasectomy (83% clients, 82% wives). The most common rumors associated with vasectomy were: vasectomy equals castration, will result in reduced sexual interest and or pleasure, men will not ejaculate, and post-vasectomy, a man becomes a woman. Other barriers included the limited engagement of men in the health system, and the fact that couples do not regularly discuss long acting and permanent methods of contraception. The transportation (walking, 74% of clients) and travel time (3+ hours, 41% of clients) for vasectomy services are potential structural barriers to access. Also, if sustained training is not maintained, staff turnover may result in a shortage of trained physicians as demand increases.

Conclusions

This monitoring study found that the approach the MOH has followed in scaling-up vasectomy has demonstrated early success in Rwanda with vasectomy accepted as a form of family planning. This study found that the scale-up approach successfully raised awareness and generated demand among clients and met this need through the providers trained at hospitals throughout the country. This study suggests several

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Number of vasectomies performed using NSV with cautery and FI in Rwanda, 2010-2012



recommendations for capitalizing on the success of the scale-up of vasectomy in Rwanda in both supply and demand.

To sustain and possibly increase supply, the following steps are recommended:

- Continue to train new physicians in NSV with thermal cautery and fascial interposition.
- Strengthen the community health worker capacity to follow-up with clients post-vasectomy.
- Increase the laboratory capacity for semen analysis.
- Explore the possibility of offering vasectomy training to private physicians.
- Investigate the feasibility of task shifting vasectomy to highly trained nurses (in Rwanda, level A0 and A1 nurses).
- Investigate the feasibility of providing vasectomy at the workplace, including seasonal periods when men are concentrated in particular employment areas.

To increase demand for the procedure, the following efforts are recommended:

- Increase vasectomy counseling opportunities for men, including during antenatal care or postpartum counseling.
- Increase couple capacity to discuss long acting and permanent methods through raising awareness about these methods.
- Tailor information, education, and behavior change communication messages to dispel persistent rumors and emphasize the benefits of vasectomy.
- Increase use of community meetings and radio broadcasts to raise awareness.

This monitoring study suggests that with strong leadership by the Ministry of Health, a potential role for vasectomy in the method mix can exist in African countries. While sustained efforts are needed on both the supply and demand sides, results of the scale-up effort could have an impact on method mix, male involvement, and gender roles in health-related decision-making. Rwanda may provide a model for other African countries in how to expand access to vasectomy for those couples who do not want another child.

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