September 1997

OPERATIONS RESEARCH
TECHNICAL ASSISTANCE
AFRICA PROJECT II
THE POPULATION COUNCIL

Effects Of The Vasectomy Promotion Project On Knowledge, Attitudes, And Behaviour Among Men In Dar es Salaam, Tanzania

The Population Council
Eustace Muhondwa
Naomi Rutenberg

Africa OR/TA Project II

The overall objective of the Africa OR/TA Project II is to broaden understanding of how to improve family planning services in Sub-Saharan Africa, and to apply operations research and technical assistance to improve services by:

- increasing access to a full range of family planning services and methods;
- developing service delivery strategies that are client-oriented and acceptable to various population groups;
- improving the operations of programs to make them more efficient and financially sustainable;
- improving the quality of services;
- strengthening the capabilities of family planning program managers to use operations research to diagnose and solve service delivery problems.

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EXECUTIVE SUMMARY

Vasectomy is unique among the array of modern methods of contraception as it requires the male partner to take primary responsibility for fertility control. Its availability broadens the choice of methods for family planning users and contributes to promoting male involvement in family planning. Experience indicates that the promotion of vasectomy by the media and service providers coupled with high-quality services draws clients and increases adoption rates. Tanzania is among the countries where, until recently, vasectomy was not offered and was virtually unknown. The Tanzania Family Planning Association (UMATI) began to offer vasectomy services in 1991. UMATI was joined by Population and Health Services (PHS) -- an affiliate of Marie Stopes International -- in offering vasectomy in 1994. Uptake of vasectomy, however, was poor, and between 1991 and September 1995 only 35 men throughout the country had availed themselves of the service (Rukonge, 1996).

Recognizing the need to promote the availability of vasectomy services, PHS in collaboration with UMATI launched a six month pilot project between October 1995 and March 1996 to promote vasectomy in Dar es Salaam. The Vasectomy Promotion Project utilized three main information, education, and communication (IEC) channels -- the mass media, namely the radio, television and newspapers; posters and leaflets; and talks given to men at workplaces -- as well as training vasectomy counselors and surgeons at PHS and UMATI clinics.

The Africa Operations Research/Technical Assistance (OR/TA) Project II of the Population Council supported the Vasectomy Promotion Project by carrying out a study to determine the project's impact on the demand for vasectomy among the male population of Dar es Salaam and the utilization of the vasectomy services offered by PHS and UMATI. The immediate study objective was to address the question: To what extent was the Vasectomy Promotion Project effective in increasing knowledge of, changing attitudes towards, and in creating demand for vasectomy in Dar es Salaam? The study was comprised of four interrelated research activities: a household survey of men, a Situation Analysis of PHS and UMATI' clinics where vasectomy services were offered, Mystery Client visits, and in-depth interviews with men who elected to have a vasectomy during the promotion period. The results of this activity are expected to inform the planning and implementation of vasectomy promotion in other urban centres of Tanzania, and ultimately throughout Tanzania.

The study showed that the Vasectomy Promotion Project messages reached slightly over 60 per cent of the sample population of men in Dar es Salaam, mainly through the radio, the newspapers, and stimulating discussion. While the vasectomy promotion project raised awareness about vasectomy, future efforts to promote vasectomy still have to reckon with widespread negative attitudes towards vasectomy including equating vasectomy with the practice of castrating bulls and goats. Promotional material and messages have to explain how vasectomy differs from castration both in terms of purpose and procedure, in order to allay fears about loss of libido, sexual potency and obesity.

The study results also show that there is still a considerable need for improving the accessibility and quality of the vasectomy services in Dar es Salaam. Few survey respondents

knew where one could go to have vasectomy, most family planning clients were unaware that vasectomy services were offered at the clinic at which they were attended, and the mystery clients found it difficult to reach most of the clinics participating in the Vasectomy Promotion Project. Within the clinics, the mystery clients found that some service providers who provided counseling services had misinformation or prejudices about vasectomy and that counseling sessions often lacked privacy and a conducive atmosphere for discussing sensitive topics. The participants in the Mystery Clients study concluded that only 10 out of the 24 counseling sessions were adequate.

Only one-half of the service providers offering vasectomy counseling had been trained and half of those trained felt that they were not adequately prepared to provide vasectomy services. Consequently out of the 95 men who were sufficiently motivated to go to the clinics for information about vasectomy, the service providers were only able to help eleven men cross the bridge from intention to action.

Despite the limited duration of the project and number of promotion activities, the Vasectomy Promotion Project has made vasectomy a salient feature of the family planning debate and a realistic choice for men who wish to take full responsibility for limiting the size of their families. With adequate preparations, more concerted implementation efforts and resources, as well as the involvement of a wider network of clinics the results are bound to be more substantial. Lessons learned from the Africa OR/TA Project study of the Vasectomy Promotion Project include:

1. The mass media constitute an effective channel for creating awareness and providing information about vasectomy in Dar es Salaam . If the objective however is to bring about fundamental changes in attitudes and beliefs in the population about the desirability of vasectomy, the mass media have to be supplemented with other methods which allow for interpersonal communication.

2. The project seems to have placed greater and emphasis on, and achieved greater success in, generating demand than in readying the clinics and their staff to meet the demand adequately and satisfactorily.

3. Some of the problems encountered in promoting vasectomy could have been anticipated from the experience of providing or failing to provide vasectomy since 1991. Future interventions should be informed by the results of this study and other experience in Tanzania.

The results of this study are contributing to the introduction of vasectomy services in other urban centers of Tanzania. Since the completion of the Vasectomy Promotion Project, PHS has developed a strategic plan to expand a full range of family planning services, with a special emphasis on long-term and permanent methods including vasectomy, to 21 clinics nationwide.

I. BACKGROUND

Vasectomy is unique among the array of modern methods of contraception as it requires the male partner to take primary responsibility for fertility control. Its availability broadens the choice of methods for family planning users and contributes to promoting male involvement in family planning. Furthermore, vasectomy is highly effective in preventing pregnancy independent of subsequent behavior modification by the vasectomized man. It is safer than female sterilization and the recently introduced non-scalpel vasectomy procedure is convenient for the client and simple to perform. While sterilization is the most widely used family planning method worldwide, in most settings the number of women sterilized for contraceptive purposes far exceeds the number of men. The lowest rates of sterilization in the world are found in Africa where fewer than three percent of married women of reproductive age rely on sterilization to avoid pregnancy and the use of male sterilization is negligible (Ross and Frankenberg, 1993).

Male attitudes are often blamed for the under-utilization of vasectomy. Frequently cited examples of attitudes which discourage the use of vasectomy include men's lack of interest in or responsibility for avoiding pregnancy, the association of vasectomy with castration, and fear of the procedure. However, some advocates of vasectomy believe more than negative attitudes among potential male adopters underlie the low levels of use. A recent review of male involvement in family planning concluded that "modern male methods (condoms and vasectomy) are underutilized, particularly in Africa, not because men oppose family planning, but because providers are unwilling or unable to provide men information and services to meet men's needs" (Danforth and Jezowski, 1994). Policy-makers and providers lack of attention to the method, and sometimes even prejudices against it, are often the biggest obstacles to vasectomy services. Experience indicates that the promotion of vasectomy by the media and service providers coupled with high-quality services draws clients and increases adoption rates (Liskin, Benoit, and Blackburn, 1992; Kincaid et al., 1996; Wilkinson et al., 1996).

Tanzania is among the African countries where, until recently, vasectomy was not offered and was virtually unknown. The 1991/92 Tanzania Demographic and Health Survey found that only 21 percent of the men interviewed knew of vasectomy. The survey also found that none of the men interviewed had been vasectomized (Ngallaba et al., 1993).

The Tanzania Family Planning Association (UMATI) began to offer vasectomy services in 1991. UMATI was joined by Population and Health Services (PHS) -- an affiliate of Marie Stopes International -- in offering vasectomy in 1994. These organizations anticipated that once surgeons were trained to perform the procedure, men would come forward and ask for the service. Uptake of vasectomy, however, was poor, and between 1991 and September 1995 only 35 men throughout the country had availed themselves of the service (Rukonge, 1996).

Recognizing the need to promote the availability of vasectomy services, PHS in collaboration with UMATI launched a six month pilot project between October 1995 and March 1996 to

Box 1
PHS and UMATI Vasectomy Promotion Project Activities

- A five minute interview on non-scalpel vasectomy in October 1995 was featured on Radio Tanzania's MAJIRA programme.
- Four half-hour questions and answer sessions on vasectomy and male involvement in family planning were aired by the English and Swahili services of Radio Tanzania in October and November 1995.
- 78 30-second radio spots were broadcast by the independent radio station, Radio One, before the 8.00 p.m. news broadcast.
- 166 30-second television spots were broadcast in both English and Swahili by the ITV and DTV Television channels.
- An interview with a vasectomized man was aired twice on television.
- Four feature articles were published in the English daily (The Guardian) and the Swahili daily (Majira) in November and December 1995.
- 10,000 leaflets in both English and Swahili on vasectomy were produced and distributed in Dar es Salaam.
- 20 posters were printed and were displayed in strategic locations during the vasectomy week celebration.
- Talks were organized in 10 workplaces.
- Four doctors were trained and certified to perform vasectomy. Another three were still undergoing onsite training when the project came to an end.
- 22 Counselors were trained in vasectomy counseling during the project period.

promote vasectomy in Dar es Salaam. The Vasectomy Promotion Project utilized three main information, education, and communication (IEC) channels -- the mass media, namely the radio, television and newspapers; posters and leaflets; and talks given to men at workplaces -- as well as training vasectomy counselors and surgeons at PHS and UMATI clinics. The activities implemented as part of the Vasectomy Promotion Project are listed in Box 1.

The Africa Operations Research/Technical Assistance (OR/TA) Project II of the Population Council supported the Vasectomy Promotion Project by carrying out a study to determine the project's impact on the demand for vasectomy among the male population of Dar es Salaam and the utilization of the vasectomy services offered by PHS and UMATI. The results of this activity are expected to inform the planning and implementation of vasectomy promotion in other urban centres of Tanzania, and ultimately throughout Tanzania.

II. RESEARCH OBJECTIVES

The ultimate objective of the study was to provide information for planning and implementing activities aimed at increasing the acceptability and use of vasectomy as a male family planning method in Tanzania.

The immediate study objective was to address the question: To what extent was the Vasectomy Promotion Project effective in increasing knowledge of, changing attitudes towards, and in creating demand for vasectomy in Dar es Salaam?

In order to address this objective, the research activities undertaken had the following specific objectives:

- To measure the coverage of various vasectomy promotion activities and whether messages were understood by the target population.

- To assess knowledge about and attitudes towards vasectomy among men in Dar es Salaam, and whether there is an association between increased knowledge and/or improved attitudes and exposure to the Vasectomy Promotion Project.

- To determine the accessibility and quality of services available at the clinics where staff were trained in vasectomy counseling and clinical procedures during the project.

- To measure if there was an increase in clients for vasectomy information and services associated with the promotion activities at the participating clinics.

- To explore the decision making process leading to the uptake of vasectomy.

III. STUDY DESIGN AND RESEARCH ACTIVITIES

This study was comprised of four interrelated research activities: a household survey of men, a Situation Analysis of PHS and UMATI' clinics where vasectomy services were offered, Mystery Client visits, and in-depth interviews with men who elected to have a vasectomy during the promotion period.

1. Household Survey

The first research activity was a household survey of the male population in Dar es Salaam to measure the coverage of various vasectomy promotion activities, whether messages were understood by the target population, to assess knowledge about and attitudes towards vasectomy among men in Dar es Salaam, and ultimately whether men report increased knowledge and/or improved attitudes as a result of the project activities.

The survey of the male population in Dar es Salaam selected respondents with the intent of representing the full range of socioeconomic strata in each of the three districts of Dar es Salaam. Four hundred men were chosen using a multi-stage sampling design. In the first stage, in consultation with district officials all of the urban wards in the three districts of Dar es Salaam were stratified into high, medium and low socioeconomic status categories. One ward from each socioeconomic status category in each district was then randomly selected. This yielded nine wards. In the second stage, within each of the selected nine wards, two locations--the nearest and farthest from the ward headquarters--were identified. In the third stage, 23 households in each of the 18 selected locations were visited in order to get at least 400 respondents. The head of household or another male over the age of 18 who was a resident of the location was interviewed. Where the man refused to be interviewed or if there was no eligible man in that household, another household within the location was substituted.

The interview schedule covered the following topics:

- District, ward, and location of residence and socioeconomic status category of the ward
- Demographic and socioeconomic characteristics of the respondents
- Family size preferences
- Use of family planning methods
- Favorite newspapers, magazines, radio and television stations
- Frequency of reading, listening, and viewing of newspapers, radio, and television
- Usual times for listening to the radio or watching television
- Exposure to vasectomy promotion in the mass media and other communication channels
- Knowledge about vasectomy and the places where vasectomy was performed
- Discussions about vasectomy
- Attitudes towards family planning and vasectomy

Visits were made in the afternoon and evening during work days and by appointments on Saturdays and Sundays. Six research assistants were involved in the survey and were supervised by Mr. Z. Msokwa from the Eastern African Statistical Training Centre (EASTC). Data collection was completed in 24 days in February and March 1996. The data were entered into computers at the Population Council Tanzania office. EpiInfo was used for data entry and cleaning. SPSSPC was used for tabulations.

2. Situation Analysis Study

The second research activity was a modified Situation Analysis study. A Situation Analysis study collects data directly from clinical service points on a number of indicators which describe the availability of facilities, equipment, and supplies for health services; the functioning of service delivery sub-systems; and the quality of services provided. Data are also collected on client load and the mix of services and contraceptive methods utilized by clients. The Situation Analysis conducted as part of the Vasectomy Promotion Project activities examined the preparedness of the PHS and UMATI clinics to offer a full range of family planning services including vasectomy services as well as the quality of the vasectomy services.[1]

The study involved taking an inventory of the facilities available at the clinics, conducting interviews with service providers, observing the interactions of service providers and family planning clients, and interviewing the clients after the interaction. The measurement of quality focused on the training and attitudes of counselors and the quality of counseling. Technical competence to perform vasectomy procedures was *not* assessed. Fifteen service providers who were directly involved in vasectomy services and who were at the clinic during the day of the study and 46 female family planning clients were interviewed. Five research assistants were involved in this activity who were supervised by Dr. Mbuji from the Ministry of Health. They visited each clinic as a team. They arrived before the clinic opened, spent the full day at the clinic, and left when the clinic closed.

3. The Mystery Client Study

Unobtrusive observations of family planning (and other health) services are useful for collecting information on the quality of client-provider interactions (e.g., Huntington, Lettenmaier, and Obeng-Quaidoo, 1990). In this study we adopted the "mystery" or "simulated" client approach where actors and actresses visited each of the participating project clinics and posed as clients interested in getting more information on vasectomy. An additional advantage to the "mystery client" approach over observation of actual clients is that

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[1] Five clinics--the UMATI Family Planning Clinic in Muhimbili, the TMS Private Clinic, the Mwenge Marie Stopes Clinic, Mabibo Marie Stopes Clinic and Kariakoo Marie Stopes Clinics--were involved in the Vasectomy Promotion Project. However, the Situation Analysis study did not cover the TMS Private Clinic because unlike the Marie Stopes Clinics which offered the full range of MCH services in addition to family planning and the UMATI clinic which offered the full range of family planning methods, TMS only offered surgical contraceptive methods.

only a small number of clients were likely to request information on vasectomy during the week in which the Situation Analysis Study was carried out and the use of "mystery clients" ensured that specific items of information on the quality of services was obtained from all of the clinics.

The Mystery Clients study was undertaken by five artists, four men and one woman, from the National Arts Council (BASATA). Each actor/actress was assigned to a role which encompassed a problematic situation for the acceptability of vasectomy. These profiles were developed on the basis of a literature review and discussions with family planning service providers about the concerns and fears people express about vasectomy. These roles or profiles are described in Box 2.

BOX 2
PROFILES OF MYSTERY CLIENTS

1. ***Woman. 32 years old.*** Married. Has 5 children. She does not want any more. Husband is ambivalent. She wanted to go for female sterilization but fears her husband might have children with other women. She has heard about vasectomy and needs all the information she can get about it so that hopefully she can convince her husband to be vasectomized.

2. ***Middle aged man. 50 years old. Executive.*** Has 5 grown children from previous marriage. Wife died and he remarried a younger wife. They have one child. Wife wants at least 4 children but he does not want any more. Wants a quick and clandestine operation.

3. ***Man aged 35-40. Graduate Secondary School Teacher.*** Happily married with an active sex life. Has 5 children. Wife is currently on the pill. He is concerned that long term use of the pill may have serious effects on her health later on in life. They were considering female sterilization but do not know much about the method. Now he has heard about vasectomy. Both he and his wife are concerned about the possible impact of vasectomy on libido and virility. Wants to talk to the surgeon and to get literature on the subject.

4. ***Man. 40 years. Businessman.*** Married with 6 children. Highly motivated. Wife supportive. In fact, his wife was planning to be sterilized until he heard about vasectomy. He no longer wants to subject his wife to the procedure.

5. ***Young man 35. Policeman.*** Has 2 wives. First one has 5 children. Second one has 3 children. He has also has 2 children with two mistresses. None of them uses any contraceptive method of which he is aware. He is concerned:
- about how long it will take after the operation before he can resume sexual activity.
- about reduced libido and virility given that he has to perform adequately with his two wives and mistresses.
- that his wives should not know that he has been vasectomized lest they desert him.

Each "mystery client" visited all five clinics and planned their visits in such a way that no two clients visited a clinic on the same day. They were required to use their ingenuity as performing artists to appear as genuine prospective vasectomy clients while paying particular attention to issues relating to the quality of services. Following each clinic visit, they reported on their observations and experiences using a checklist.

4. In-depth Interviews with Vasectomized Men

The fourth research activity addressed the decision-making process leading to the uptake of vasectomy through in-depth interviews of men who had decided to have a vasectomy and had the procedure carried out. The interview reviewed important features of the decision making process, i.e., who is involved, what factors are taken into account, the extent of discussion between the man and his partner(s), and whether pros and cons of both vasectomy and female sterilization are discussed before arriving to the decision for the man to go for vasectomy.

The protocol for this activity required that vasectomy clients be asked for their consent to be followed up and interviewed after the procedure by the study's Principal Investigator. It appears that the early vasectomy acceptors in Dar es Salaam have a great desire for confidentiality and do not want to disclose their status to the public. Only two of the eleven men who had a vasectomy during the project gave their consent to be followed up and were successfully interviewed. Due to the small number of respondents and high degree of selectivity, these data are not reported here.

5. Service Statistics

The design of the study also provided for the use of clinic service statistics from April 1995 to March 1996 (the six month period prior to the project plus the six months of the project) regarding the number and profiles of clients who visited the clinics and were counseled and those who were vasectomized. The profiles of clients drawn from the statistics were to be compared with the profiles of survey respondents who had positive attitudes towards vasectomy and, particularly, the groups which seem more likely to seek vasectomy in order to get a better understanding of the target group for vasectomy services.

Implementation of the Vasectomy Promotion Project proved to be a complex undertaking and record keeping was inadequate. Records were kept for only 29 men who made inquiries about vasectomy at the participating clinics (service providers interviewed for the Situation Analysis Study indicated they had provided counseling to a total of 95 men). Furthermore, the records for the 29 prospective vasectomy clients were not complete; information about education was available for only 15 of the 29 clients, occupation was available for only 14 men, and family size was available for only 15 men. Similarly the records kept for the eleven men who were vasectomized during the project period were not complete. Consequently, it has not been possible to develop profiles of men seeking counseling and vasectomy acceptors on the basis of the service statistics.

IV. SURVEY RESULTS

A. Socioeconomic and demographic characteristics of the sample

The survey included a sample of 435 men from nine urban wards of Dar es Salaam's three districts. Table I presents the demographic characteristics of the sample. The age of the respondents ranged from 18 to 95; one-half of the respondents were between 18 and 34 years old and one-quarter between age 35 and 44. Almost three-quarters of the sample were married or living with a partner. Nearly all of married men were in monogamous unions with only 15 married men reporting that they had more than one wife. The number of living children among the respondents ranged from none to seven with an average of 2.2 living children. One-third of the sample had no living children and less than one-fifth had five or more. Just over one-half of the sample population were Moslems. One-quarter of the sample were Catholic, 15 percent were Protestants or other Christians, and five percent were Hindus.

Table I: Demographic Characteristics of the Sample Population (n=435)

	Number of Respondents	Percent of Sample
Age		
18-25	76	17
25-34	142	33
35-44	110	25
45-54	60	14
>54	47	11
Current Marital Status		
Single	127	29
Married	274	63
Cohabiting	34	8
Number of Wives (among married respondents, N= 274)		
One	265	94
Two	10	4
Three	4	2
Four	1	0.4
Number of Living Children		
0	147	34
1	67	15
2	62	14
3	46	11
4	35	8
5	26	6
6	15	3
7	37	8
Religion		
Moslem	242	56
Catholic Christian	107	25
Protestant Christian	53	12
Other Christian	12	3
Hindu	21	5
Total	435	100

Table II presents the socioeconomic characteristics of the sample. The level of education among the sample population is low -- three fifths of the men had only primary level or no formal education. Most of the men interviewed (75 percent) were engaged in semi-skilled and/or clerical economic activities. While three-fifths of the households had electricity, less than half had running water and only one-fourth had a flush toilet. Most of the households had a radio (87 percent) but less than one-quarter of the households owned televisions, refrigerators, or cars.

Table II: Socioeconomic Characteristics of the Sample Population (n=435)

	Number of Respondents	Percent of Sample
Education		
None	18	4
Primary	244	56
Secondary	130	30
High School	24	6
University	14	3
Other	5	1
Occupation		
Skilled job or big business	79	18
Semi-skilled job or clerical	324	74
Student	32	8
House has:		
Electricity	257	59
Running water	209	48
Flush toilet	117	27
Household member owns:		
Radio	377	87
Television	117	27
Fridge	143	33
Vehicle	54	12

To gauge how well this sample represents the general male population of Dar es Salaam, we compared our respondents' characteristics with those from two recent surveys of men in Tanzania which contained sub-samples for Dar es Salaam: the 1991/1992 Tanzania Demographic and Health Survey (TDHS) and the 1994 Tanzania Knowledge, Attitudes and Practices Survey (TKAPS). The TDHS covered a sub-sample of 151 men from Dar es Salaam while the TKAPS covered a sub-sample of 325 men from Dar es Salaam.

Table III presents the percent distribution of the respondents in the TDHS, TKAPS, and vasectomy survey by age, marital status, number of living children, and education. The men in the vasectomy survey are considerably older than those interviewed in the TDHS and TKAPS, and, by inference, the general male population. In these surveys, almost one-half for the sample was younger than 25.[2] The greater age of the men interviewed in the vasectomy survey

[2] The differing age distributions between the TDHS and TKAPS on the one hand and the vasectomy

is associated with a larger proportion married and a greater number of living children in comparison with the TDHS and TKAPS. A comparison of the education characteristics shows a similar distribution by education between this sample and that of the TKAPS with both samples containing more better educated men than the 1991/92 TDHS.

Table III: Percent Distribution of Dar es Salaam Males from the Vasectomy Survey, the TKAPS, and the TDHS According to Age, Marital Status, Number of Living Children, and Education

	Vasectomy Survey 1996	TKAPS Dar es Salaam sub-sample 1994	TDHS Dar es Salaam sub-sample 1991/92
Age			
<25	18	41	47
25-34	33	27	21
35-44	25	17	18
45-54	14	13	12
>54	11	2	2
Marital Status			
In union	71	52	42
Not in union	29	48	58
Number of Living Children			
None	34	80	66
1-4	48	9	18
>4	18	11	17
Education			
No education	10	10	20
Primary	68	70	71
Secondary +	22	20	9
Total Sample	435	325	151

B. Access to Mass Media

As the mass media were one of the main channels used by the Vasectomy Promotion Project for communicating information about vasectomy, the household survey collected information on the proportion of the male population which had access to various media and the times of day when respondents listened to radio and television.

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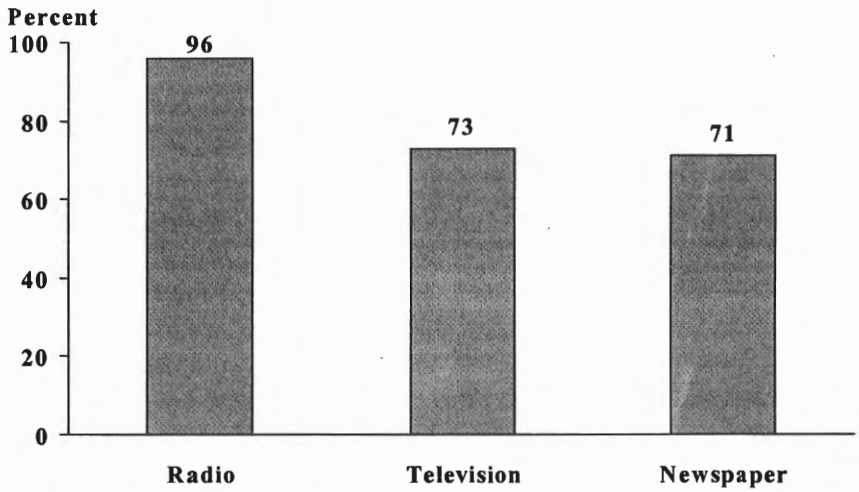
survey on the other is likely to be due to the differing selection criteria for the surveys. Interviewers in the vasectomy survey selected the head of the household for the interview. In the TDHS and TKAPS, all men between the ages of 15 and 59 in the household were interviewed, thus the sample extends beyond the household heads to include adult sons and other younger male members.

Respondents had considerable access to various types of media. Most members of the sample population reported that they listen to the radio, watch television and read newspapers at least once a week, as can be seen in Figure 1. The most popular radio station is Radio Tanzania Dar es Salaam, reported by 54 percent of respondents. The most popular television channel is Independent Television, which is regularly viewed by 53 percent of men in Dar es Salaam. Dar es Salaam has several daily and weekly newspapers, but only the MAJIRA daily was reported by a substantial population of respondents (38 percent) as the newspaper they read regularly.

Figure 1: Percent of Men in Dar es Salaam who listen to the Radio, watch Television or read a Newspaper at least once a week



A comparison of the media exposure of the three samples of Dar es Salaam men (shown in Table IV) reveals the rapid spread of television viewing among men in Dar es Salaam in the last two years during which television stations have been established in Tanzania. The ascension of television appears to have been accompanied by a decline in newspaper reading.

Table IV: Percent of Dar es Salaam Males from the Vasectomy Survey, the TKAPS, and the TDHS who Read a Newspaper, Listen to the Radio, or Watch Television at Least Once a Week

	Vasectomy Survey 1996	TKAPS Dar sub-sample 1994	TDHS Dar Sub-sample 1991/92
Newspaper	71	90	93
Radio	96	96	99
Television	73	60	7
Number of Respondents	435	325	151

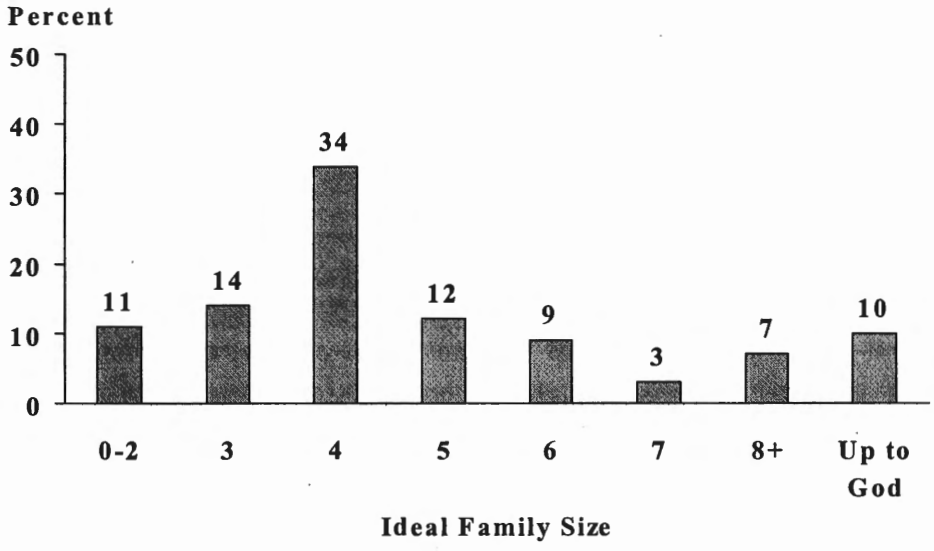
Most respondents watch television between 7.00 p.m. and midnight. This is also the most popular time to listen to the radio. This would be expected as most respondents are economically active and working outside their homes during the day.

As noted earlier, nine out of 10 of the men interviewed reported having a radio in the house but only one-quarter have televisions. The fact that almost three-quarters of men regularly watch television but only one-quarter have a television in their house suggests that men gather together to watch television at public places and neighbors' houses. This finding is worthy of further exploration and exploitation in the design of subsequent promotion activities as these informal gatherings provide a forum where men can discuss, and perhaps endorse, within their own social group the messages of the vasectomy promotion. In models of the effects of communication activities on behavior change, this kind of discussion and endorsement is an important step.

C. Family Size Preferences

Information on ideal family size was collected to gauge the degree to which controlling fertility has been accepted by men in Dar es Salaam and at which parity men might be interested in a permanent method of contraception. Figure 2 depicts the respondents' ideal family sizes. More than half (59 percent) of the men interviewed reported an ideal family size of four or fewer children. The modal category was four children, reported by one-third of the respondents. Fourteen percent reported an ideal family size of three children, ten percent reported an ideal family size of two children, and fewer than one percent of men (N=3) reported zero or one children to be ideal. Only 10 percent reported that they would have all the children God cares to give them or gave another non-numeric response to the question on ideal number of children.

Figure 2: Percent Distribution of Men in Dar es Salaam according to Ideal Family Size



The responses to three questions on the value of children also suggest that a small family size norm is gaining ground. Over two-thirds of the respondents rejected the notions that a large family is prestigious and that many children constitute old age security. Furthermore, over 90 percent of the respondents endorsed the view that it is easier to raise a small number of children properly.

Vasectomy is likely to be of greatest interest to men who have already or nearly reached their ideal family size. This group would be an immediate target for the vasectomy promotion messages. Among the men interviewed, the current number of living children was equal to their ideal for 16 percent of the men and the current number of children exceeded their ideal number for only three percent. Thus the current potential pool of vasectomy clients is (at most) about one-fifth of men in Dar es Salaam.

D. Male Involvement in Family Planning

In order to gauge the respondents' attitudes towards their responsibilities for and benefits from family planning, the respondents were asked to agree or disagree with a few short statements regarding husbands' and wives' involvement in the use of family planning. The results are presented in Table V.

Table V: Male Involvement in Family Planning: Percent Distribution of Respondents According to Their Responses to Statements Regarding Responsibilities for and Benefits from Family Planning (n=435)

STATEMENT	% AGREE	% DISAGREE	% NO OPINION
Husband decides on desired number of children	60	38	2
Using family planning is a woman's responsibility	59	35	6
Family planning improves relations between husband and wife	88	9	3

The majority of the sample (60 percent) maintain that it is the man who decides on the number of children a couple should have. However, when asked if they think their wife or partner wants the same number or a different number of children, nearly three-quarters of the respondents thought that their spouse desired a similar family size. It is not clear whether this is because the couple has discussed the number of children they would like to have or whether men presumed that their wives would follow their own desires in this matter. Most of the remaining respondents (21 percent) did not know their wife's preference. These results could be interpreted as supporting a male role in family planning, i.e., if it is the husband who decides on fertility control, or at least is involved in the decision to use family planning, it shows that men recognize that they have some responsibility for family planning. However, the responses could also be indicative of men's controlling role where the wife has less or no say in reproductive decisions.

Once the man has agreed with his partner or decided to space or stop having any more children, the responsibility for using family planning in order to implement the decision is given to the wife. Fifty-nine percent of the men interviewed agreed that it is the wife's responsibility to use family planning. Even among men using a method of family planning which requires active male participation (condom, withdrawal, periodic abstinence, and prolonged abstinence), the majority (57 percent) still agreed that family planning was the woman's responsibility. These

men could be eschewing responsibility for family planning or ceding the issue to their wives who may feel that they should have the larger role in the decision as the use of family planning methods, pregnancy, and unwanted births have greater implications for their health and lives than for their male partners. Regardless, the widely held belief that it is the wife who should use family planning methods might impede the acceptability of vasectomy.

It is noteworthy that close to 90 percent of the respondents endorse the view that family planning improves the relationship between spouses. There was not an opportunity in this survey to follow up what underlies such a favorable attitude. We speculate that avoiding unwanted births makes it easier for the couple to plan for and take care of the children they have, thus reducing a potential source of friction in the relationship. This result merits further research as this widely held positive attitude towards the use of family planning could be exploited to strengthen male commitment to and involvement in family planning.

Respondents were asked whether they themselves currently used any family planning methods and, if so, what methods they used. They were also asked whether their spouses or partners currently were using family planning methods and, if so, what methods they used. Table VI shows the use of family planning by the survey respondents and their partners. The survey findings on contraceptive use suggest that the norm that the man decides that family planning should be used and the wife or partner implements the decision by actually seeking and using family planning may be the ideal rather than the reality. One-quarter of men claim sole responsibility for using family planning with their wife (or wives) or possibly non-marital partners through the use of condoms or withdrawal. Nine percent reported that they and their wife or partner both (jointly) practice periodic abstinence and another ten percent reported use of dual methods, i.e., either the condom or withdrawal and a female method. In total, 44 percent of men reported currently using a method which required substantial male participation or cooperation (condom, withdrawal, periodic abstinence, and prolonged abstinence) to delay or to avoid having a child.

Table VI: Use of family planning by men and their wives/partners (n=435)

Man only uses	25 %
Both use	19 %
Woman only uses	18 %
Neither Uses	38%

Thirty-seven percent of men reported that their partner used a method, with slight more than half (19 percent) reporting that they used the same method, e.g., periodic abstinence, or used a second, different method (dual methods) and the rest (18 percent) reporting that their wife was the only user. The fact that men who reported using family planning outnumber those who reported that their partners are using could be because a substantial proportion of men do not know whether their partners use family planning.

The pill was used by the spouses of 16 percent of the respondents while the calendar method was used by 13 percent. Of the 69 men who reported that their wives were using the pill, 30 also said they used a condom. These men may use condoms with a second wife or outside partner and it is possible that the motivation may be disease control as well as or instead of family planning. Other family planning methods -- each used by less than 5 percent of the partners of the men interviewed -- included the IUD, injectables, Norplant®, spermicides and female sterilization. Thirty-eight percent of the respondents reported that neither he or his partner was using a method of family planning. No one in the sample said he had had a vasectomy.

E. Effects of Vasectomy Promotion

The approach adopted by this study to measure the effect of the vasectomy promotion follows the hierarchy of communication effects model proposed by Kincaid et al. (1993). This model is based on classic diffusion theory which postulates that when an individual adopts an new behavior he or she passes through four stages of information gathering and action: knowledge, persuasion, decision, and confirmation. Kincaid et al. further distinguish implementation of the decision from confirmation. Here we consider four stages of effects of the vasectomy promotion: knowledge, persuasion, decision, and implementation. The measures for each stage are shown in Box 3. The indicators of knowledge, persuasion, and decision are population-based indicators and measured as the proportion of the target audience, i.e., men in Dar es Salaam, or the subset of men who were exposed to the Vasectomy Promotion Project activities. The implementation indicators, i.e., the number of men who sought information and had a vasectomy are based on interviews with providers and service statistics from the participating clinics and are reported in Section VI.

BOX 3
HIERARCHY OF EFFECTS OF VASECTOMY PROMOTION

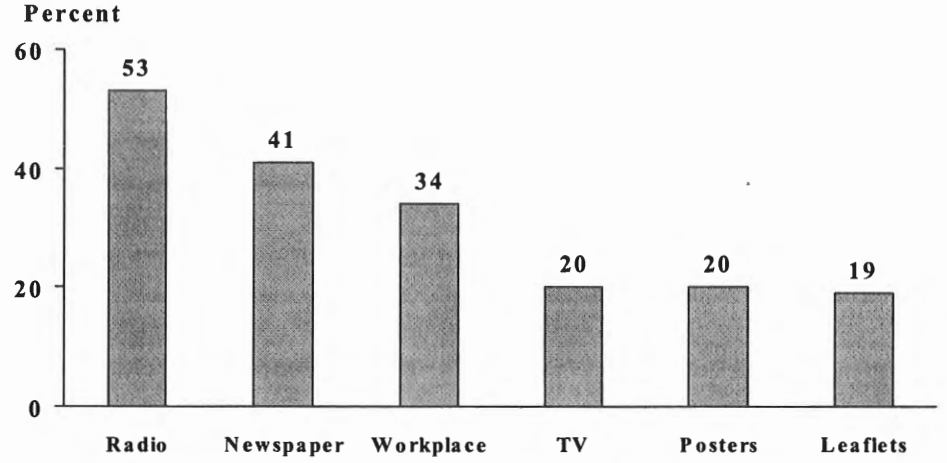
Proportion of the Intended Audience who:	
Knowledge Stage	• Heard and recalls vasectomy messages • Comprehends vasectomy messages correctly, i.e., can remember term "vasectomy", paraphrase main idea, name recommended action (e.g., go to PHS clinic for more information)
Persuasion Stage	• Has a positive image of vasectomy • Discusses message content and vasectomy with friends and relatives
Decision Stage	• Intends to seek information • Intends to use vasectomy
Implementation Stage	• Seeks information and advice on vasectomy • Has a vasectomy

Knowledge Stage: Recall and Comprehension of Vasectomy Promotion Messages

The Vasectomy Promotion Project featured three main channels for its IEC campaign: the mass media, namely the radio, television and newspapers; posters and leaflets; and talks given to men at workplaces. Respondents were asked if they had come across information about "the operation for men to stop them having any more children" through these channels or from people generally since October 1995. Sixty percent of the sample population had heard or read about the operation while 40 percent had seen or heard nothing.

The degree of exposure to information about the operation through the various channels used for the IEC promotion is shown in Figure 3. The radio was reported as the source of information about the operation for the largest proportion of the respondents (53 percent). Newspapers were also a major source of information; 41 percent of the sample recalled reading something about vasectomy in the newspaper during the promotion period. One-third of respondents recalled a talk in their workplace about vasectomy. It is not clear whether they were recalling an educational talk by a speaker or simply informal discussion. The latter is suggested by the relatively large proportion, 27 percent (not shown), who reported they heard something about vasectomy in a general conversation (from "people generally"). Television, posters and leaflets were the least recalled sources of information. More than half of the respondents had heard about vasectomy from two or more sources. Twenty-three respondents (5 percent of the sample) had come across information about the operation in all the seven media inquired about.

Figure 3: Percent of Men in Dar es Salaam who heard or saw various vasectomy promotion project activities



During the campaign, specific media activities were undertaken. These included a interview with a vasectomized man on television and interviews with doctors on radio and television. The survey examined whether the sample population heard these interviews and whether they had found the spokesmen to be convincing when they discussed vasectomy.

At least one of these media events was seen and recalled by one-quarter of the sample. Of the three types of media events, the most frequently mentioned event (104 men or 24 percent of the sample) was the doctor on the radio. This was not surprising as radio was the most important source of information on vasectomy for the study population. Thirty-four respondents (8 percent) said they saw the doctor on television but only 12 respondents (3 percent) remembered seeing the vasectomized man on television.

As most of the men only saw one event and have no reference for comparison, we interpret the responses to our question on "who was most convincing" as whether the respondent found the person being interviewed as credible or influential rather than as an endorsement of one source over the another.[3] As a percentage of those who had seen the event, the doctor on television was the most influential with 29 of the 34 respondents (85 percent) who saw him saying he was the most convincing person they had seen talking about vasectomy. The doctor on the radio was singled out by 70 of the 104 respondents (67 percent) as most convincing. Of the 12 people who saw the vasectomized man on television, only one respondent thought he was the most convincing.

Another activity undertaken as part of the vasectomy promotion were talks at workplaces. Eleven percent of the sample (49 respondents) reported that they were present at one of these talks. However, these speakers were rarely identified as "the most" convincing when they talked about vasectomy. Nearly half of the men who attended one of these talks identified the doctor on the television or the doctor on the radio as the most convincing source of information about vasectomy.

The Vasectomy Promotion Project appears to have created awareness about vasectomy but many respondents lacked knowledge of the basic facts that would assist them in seeking information and services. As shown in Figure 4, even though 60 percent of the sample population had heard or read about "the operation for men to stop them having anymore children" since the Vasectomy Promotion Project was launched, only one-third of them or 20 percent of the sample could recall the term used for the operation, i.e. vasectomy. Not even all those who had come to know about the operation from all the seven sources could recall the term vasectomy. There were 23 such people and only 12 of them could recall the name.
Some sources of information seemed more successful than others in communicating the term vasectomy. Table VII shows that while radio and newspapers were the most common sources of information on the vasectomy promotion, the men who heard about "the operation to not have any more children" during the promotion period from television or saw a poster were more likely to recall the term vasectomy than those who heard about the operation from other sources.

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[3] Among the 23 men who did see more than one media event, 14 men thought the doctor on the television was most convincing, seven men preferred the doctor on the radio, and the remaining two men named other sources of information.

Figure 4: Coverage and effectiveness of Vasectomy Promotion Projects Activities among Men in Dar es Salaam

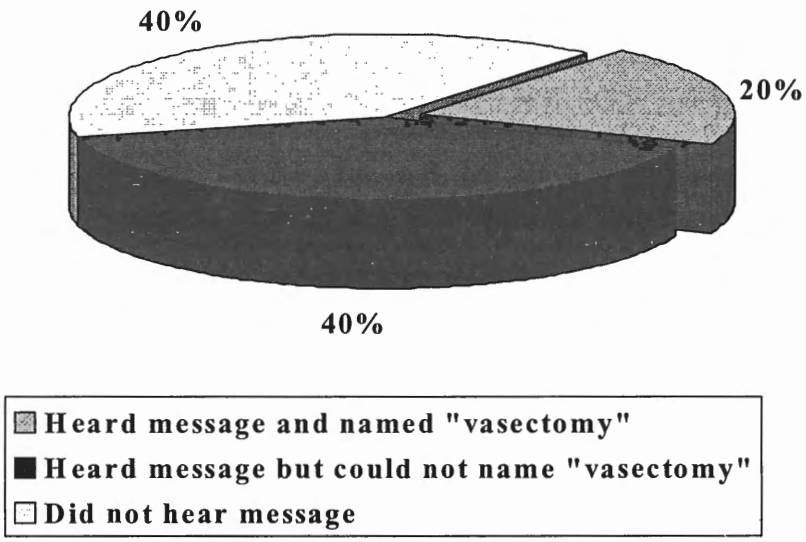

Table VII: Percent of Respondents who Heard or Read about Vasectomy Promotion who Could Recall the Term Vasectomy, according to their Source of Information on Vasectomy (n=263)

Source of information	Percent who knew term "vasectomy"
Radio	32
Newspapers	35
People at work	31
People generally	35
Television	51
Posters	46
Leaflets	34

Two of the basic messages of the vasectomy promotion campaign were that vasectomy is not castration and that vasectomy does not reduce a man's potential for sexual performance. All of the men in the survey were read out some statements "which people make about vasectomy" and the respondents were asked whether they agreed or disagreed with the statements or if they had no specific opinion on the matter. One statement was "Vasectomy is the same as castration." There was a significant difference in the responses to this statement between men who had heard of the promotion of the operation not to have anymore children and those that had not. Fifty-seven percent of men who had heard the vasectomy promotion disagreed that vasectomy is castration compared with 37 percent of the men who had not heard the campaign.

There was also a difference, though not statistically significant, between these two groups in their responses to the statement: "Vasectomy reduces a man's sexual potential." Thirty-four percent of men who heard the promotion disagreed with the statement compared to only 26 percent of the men who had not heard any of the promotion messages.

Another message of the vasectomy promotion campaign was that interested men (and women) could seek further vasectomy information, counseling, and services at five sites in Dar es Salaam: three Marie Stopes Clinics, UMATI's clinic which is located on the grounds of Muhimbili Medical Centre but is independent of the hospital, and the TMS Clinic. Men who had heard a talk about vasectomy on television, the radio, or at the workplace were asked where in Dar es Salaam can one go for vasectomy. Only 25 respondents, or 17 percent, of the men who had heard a talk about vasectomy mentioned any of the Marie Stopes Clinics in Dar es Salaam. Another 92 (64 percent) mentioned Muhimbili Medical Centre, but one cannot be certain that they referred to the UMATI clinic in Muhimbili or merely guessed that the largest hospital with the greatest number and diversity of services in Dar es Salaam would provide this service. Twelve percent named clinics or hospitals which were not part of the promotion and the remaining said they did not know where in Dar es Salaam one could go.

Persuasion Stage: Attitudes towards and Discussions of Vasectomy

The survey respondents were read a list of positive and negative statement about vasectomy and family planning and were asked whether they agreed or disagreed with each statement. Responses to four statements specifically addressing vasectomy give some indication of the attitudes of the population towards vasectomy. The analysis here is restricted to the 263 men who heard or saw one of the vasectomy promotion activities as they are more likely to have recently informed attitudes about vasectomy.

While many men continue to hold negative attitudes about vasectomy, some men view the choice positively. Sixty eight percent believe that vasectomy makes sex more enjoyable because a man does not have to worry about making his partner pregnant; 56 percent disagreed that vasectomy amounts to castration; 39 percent disagreed with the statement that sterilization is all right for women but not for men (though 57 percent though it is better for a woman to be sterilized than for a man to have a vasectomy); and 31 percent rejected the notion that vasectomy reduces a man's sexual potential (30 percent agreed and 37 percent had no opinion).

Many men who had heard a doctor or vasectomized man talk or attended a workplace talk (n=144) thought vasectomy would be appropriate for men with many children (32 percent), middle aged and older men (12 percent), and men with four or more children (8 percent). Eight percent had no parity or age criteria and thought vasectomy was an appropriate choice for any one who wished to have one.

Some of these men even appear to be ready to be advocates for vasectomy. Respondents were asked what they would tell someone if they were trying to persuade him to go for vasectomy. Fifteen percent of the men who heard a talk gave responses indicating that they would attempt to persuade someone to consider a vasectomy by highlighting some positive aspects of vasectomy. (A low percentage is to be expected given that only a small proportion of men in Dar es Salaam have first hand experience of vasectomy or know someone who has, e.g., only three percent or seven men who had knowledge of the vasectomy promotion activities knew a man who had a vasectomy.)

Models of communications effects and diffusion assign a key role to the influence of discussions with one's friends and relatives on the adoption of a new technology or other kinds of behavior change. Through these discussions, individuals may gather additional information but probably more importantly they can judge their friends' and relatives' own reaction to the innovation and evaluate with the people whose opinions they value whether the proposed innovation is good or bad. In this study, the men who had heard a talk on vasectomy were asked if they had discussed vasectomy with their friends or relative and whether they think many or some of the men they know have heard of vasectomy.

The promotion seems to have stirred some men to discuss and to consider the pros and cons of vasectomy. Twenty percent of the respondents reported that they had discussed vasectomy with their friends since October 1995. As noted above, personal communications were an important source of information about "the operation not to have any more children" with 27 percent of the total sample of men reporting they had heard something about vasectomy in a general conversation.

Slightly more than one-third (38 percent) of the men who had heard a vasectomy talk thought that many of the men they know have heard about vasectomy. The rest said they did not know what other people were saying or had not heard anyone talking about it. Among those who had heard others discussing vasectomy, 16 percent said that people were saying vasectomy was a good method of family planning and another 16 percent said that other people did not understand what vasectomy was. Four percent said that people are concerned that vasectomy is castration.

Decision Stage: Motivation for Vasectomy

Two questions in the survey instrument explored the respondents' motivation to seek vasectomy information or services. One asked if the respondent had made any specific efforts to find out more information about vasectomy, while the other one asked if the respondent would consider having a vasectomy when he has had all the children they want. Among those

who had been exposed to the vasectomy promotional material, nine percent had made an effort to find out more about vasectomy and 58 percent said they would consider having a vasectomy when they have had all the children they want.

Characteristics of Men with Knowledge of and Interest in Vasectomy

In order to improve the targeting of vasectomy promotion activities towards the sub-populations most likely to be interested in and utilize vasectomy information and services, it is useful to examine which population characteristics are associated with positive attitudes and actions towards vasectomy. Two positive attitudes and actions are examined here: 1) recall of the vasectomy promotional material and messages and 2) an affirmative response to the question on whether the respondent would consider vasectomy after they have attained their desired family size.

Sixty percent (n=263) of the sample population reported that they had been exposed to the promotional material and messages about vasectomy, i.e., these are the men who reported that they had heard or had read about "the operation for men to stop them having more children" regardless of the source of the information. Many of the remaining 172 respondents reported hearing or reading about family planning during the same period; they may have heard or read about the operation but for some reasons it did not register in their mind.

The subgroup which noted hearing or seeing the vasectomy promotion messages differs significantly ($p < .05$) from those which did not in terms of the following:

- They had more education.
- Their partners had more education.
- More likely to be Christian (than Moslem or Hindu).
- They read newspapers or magazines at least weekly.
- They owned a refrigerator.

Among those who were exposed and recalled the vasectomy promotion and messages, 134 or 58 percent (the question was only asked of 232 of the 263 respondents who heard/saw the vasectomy promotion) said they would consider vasectomy after they had attained their desired family size. They differed significantly ($p <= .05$) from those who recalled the promotion but said they would not consider vasectomy in terms of the following:

- They were more likely to be single.
- They had less education (primary school level education or no formal schooling).
- Younger than 35 years old and have four or fewer children.
- More likely to be Moslems.
- Lived in houses which had no electricity or refrigerator.

In sum, more educated and better off men, presumably with greater access to media, were more likely than less education and less well-off men to note the messages of the vasectomy promotion project. However, within the total group of men who recalled the messages, it was younger men who were single and/or have few children as well as less educated and less well-

off men who were more likely to say they would consider vasectomy after achieving their desired family size.[4] It may be that this group has less overall knowledge and experience of family planning methods and thus gave more consideration to vasectomy as a primary means of fertility control while older and/or better educated men view vasectomy as one option among many.

[4] Seven of the eleven men who made enquiries about vasectomy and were ultimately operated had secondary level or higher education.

V. SITUATION ANALYSIS STUDY FINDINGS

A. Inventory of Family Planning Service Facilities and Staff

As part of the Situation Analysis study, an inventory of facilities and staff was taken at four of the five clinics participating in the Vasectomy Promotion Project. All the clinics were judged by the interviewers to have adequate waiting rooms and working toilets for clients. All the clinics also had counseling and examination rooms which were rated by the observers as having adequate auditory and visual privacy.

B. Interviews with Vasectomy Service Providers

The staff working in these clinics consisted of specialists, general duty doctors, nurses, clinical officers, a counselor and CBD Agents. A total of 15 service providers, five men and ten women, who reported that they provide vasectomy services (counseling and/or perform vasectomies) were interviewed. Two service providers were interviewed at both the Mwenge Marie Stopes Clinic and at the TMS private hospital. Mabibo Marie Stopes Clinic and the UMATI Clinic at Muhimbili yielded three service providers each for the interview. The remaining five service providers were interviewed at Kariakoo Marie Stopes Clinic. This group of service providers was comprised of three doctors, three nurses, three counselors, one doctor who also doubled as a counselor, and five nurses who also doubled as counselors.

1. Service Provider Characteristics

Men had an average age of 45.8 years compared to women whose average age was 36.2 years. All the men were married. Seven women were married, one was cohabiting, one was divorced and another one was single and never married. The men had between two and five children with an average of 3.6 children. The women had an average of 1.8 with a range of zero (one woman) to four. Seven service providers were Catholic Christians and the other eight were Christians of other denominations.

These service providers had been in the health profession for an average of 14.5 years ranging from 1.5 years to 24 years. The majority (11) had been in service for more than ten years. Although the group is composed of veteran service providers most of them were relatively new in their current duty stations, ten had been there for two years or less.

2. Provider Training and Experience

Only eight service providers reported that they had received specific training in counseling for vasectomy, and five of these eight had been trained during the project period. One provider was trained 12 months earlier, another one was trained two years previous, and the last one was trained four years earlier. Half of the trained vasectomy counselors reported that the training

they received was inadequate. Even though only eight service providers indicated that they had received specific training in counseling for vasectomy, all the service providers reported that they counseled prospective vasectomy clients. All four doctors reported that they had received training to perform non-scalpel vasectomy. Two of them were trained four and five years ago, respectively, and the other two were trained during the project period.

Seven service providers reported that some of the clients they counseled had gone on to have a vasectomy. Only two of the doctors trained to perform vasectomy had actually performed the operation on any client during the vasectomy promotion project period.

3. Service Providers' Attitudes Towards Vasectomy

Although the Vasectomy Promotion Project did not put any age or parity requirements for obtaining vasectomy services, some of the service providers at the participating clinics appear to have some reservations about for whom vasectomy is an appropriate method. Six service providers specified an age criterion for eligibility for vasectomy. Four specified a minimum age of 18, 20, 20 and 30 and four specified a maximum age of 35, 53, 55 and 70 years. (Two providers specified only a minimum age, two specified only a maximum age, and two specified both a minimum and maximum.) This group included one doctor who also provided counseling and five nurse/counselors, and they came from all the five clinics. Only one service provider specified a family size criterion for eligibility for vasectomy. According to this service provider a prospective vasectomy client had to have at least one child. All the service providers, except one, said they would recommend vasectomy to those who did not want any more children.

Vasectomy was rated as one of the most effective contraceptive method by five service providers. Furthermore vasectomy was rated as one of the safest methods by six providers. One service provider, however, included it among the most unsafe contraceptive methods.

4. Suggestions from Service Providers for Improving the Effectiveness of Vasectomy Promotion

The service providers were asked for suggestions on how to make vasectomy promotion more effective. The most frequently given suggestion, supplied by 12 of the 15 providers, called for putting more effort in educating the general public about vasectomy. (When asked about the concerns and fears which prospective vasectomy clients expressed during counseling, all the service providers mentioned loss of sexual desire and/or of the ability to perform sexually. In addition, five service providers mentioned castration and subsequent obesity.)

Nine providers wanted to see more attention paid to equipping service providers with counseling skills and eight wanted more staff to be deployed for vasectomy promotion. Five mentioned the need for clinic facilities to be improved. Three providers identified a need to improve the scheduling of vasectomy operations, one called for the use of vasectomized men as peer educators, and one suggested that all service providers be given more education about vasectomy.

C. *Family Planning Clients*

1. Family Planning Client Characteristics

Forty six female family planning clients were interviewed during the Situation Analysis study. The age of the respondents ranged between 19 and 39 and all the women except one were married or cohabiting. Two women were in polygamous marriages. All of the women except one had children. Their number of children ranged from one to seven with most (80 percent) having four or fewer children. Twelve women, 26 percent, said they did not want any more children and one was not certain whether she wanted more children.

The majority of the women (72 percent) had primary level education. Moslems constituted 54 percent of the sample. The next biggest group was Catholics who made up slightly over a quarter of the sample. Protestants and other Christians made up the remaining 17 percent of the sample.

2. Knowledge of Vasectomy Promotion among Female Family Planning Clients

Most of the family planning clients interviewed (39 of the 46) knew about vasectomy. The respondents reported the family planning clinic personnel and mass media (radio, television, and newspapers) as their primary sources of information. In one case the husband was reported to be the source of information about vasectomy. Table VIII shows the number and percentage of women who got their information from various sources.

Table VIII: Sources of Information about Vasectomy for Family Planning Clients (n=46)

Source	Number of Clients	Percent
Family Planning Clinic	21	46
Radio	20	44
Newspapers	11	24
Television	10	22
Friends	5	11
Posters	3	6
Some other people	2	4
Spouse	1	2

One-half of the women reported that they had discussed vasectomy with their partners and three-quarters said they would consent to their partners going for vasectomy. However, only eleven, or less than one-quarter of the women interviewed, knew that vasectomy could be performed at the clinic where they were interviewed.

VI. SERVICE STATISTICS FOR STERILIZATION SERVICES PROVIDED

In order to look at the uptake of vasectomy before and during the Vasectomy Promotion Project, the study compiled the records on the number of clients who were counseled and vasectomized during the project period as well as service statistics for vasectomy in the six months prior to the Vasectomy Promotion Project and statistics on female sterilizations (mini-laparoscopy) for the comparable 12 month period.[5] As seen in Table IX, 95 men were counseled about vasectomy during the Vasectomy Promotion Project (based on the interviews with the service providers) and 11 men had a vasectomy. Of the sixteen vasectomies performed in Dar es Salaam in the 12 month period up to the end of the Vasectomy Promotion Project, eleven of those procedures were carried out during the six month project period, possibly reflecting the project's inputs. However, Table IX shows that the number of vasectomies is still negligible compared to the number of female sterilizations (16 versus 538) performed in the same 12 month period.

Table IX: Number of Men Counseled and Vasectomies Performed during Vasectomy Promotion Project period , Number of Vasectomies Performed in six month period before project, and Number of Minilaparoscopies Performed in same 12 Month Period

Clinic	Counseling October 95- March 96 (project period)	Vasectomies October 95- March 96 (project period)	Vasectomies April 95- September 95	Minilaparo-scopies April 95- March 96
UMATI-Muhimbili	28	6	4	277
Mwenge - Marie Stopes	10	3	1	183
Kariakoo-Marie Stopes	34	2	0	40
Mabibo-Marie Stopes	13	0	0	38
TMS Hospital	10	0	NA	NA
Total	95	11	5	538

The study found a wide range in fees between clinics and also for male and female sterilization. The three Marie Stopes clinics (Mabibo, Mwnege, and Kariakoo) charged TSH. 5,000/= for vasectomies while the charge at the UMATI clinic was only TSH. 1,000/=. Fees for Minilaparoscopies were TSH. 3,000/= at Mabibo, 2,500/= at Mwenge, 2,000/= at Kariakoo, and 1,500/= at UMATI. Thus the Marie Stopes clinics charge higher fees for vasectomy even though it is said to be easier to do than minilaparoscopy and despite the fact that vasectomy was the subject of a special promotion project.

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5 Service statistics for the 6 months prior to the Vasectomy Promotion Project were not collected from the TMS Hospital as this site was excluded from the Situation Analysis study.

VII. THE MYSTERY CLIENT STUDY

The Mystery Client Study was used to evaluate the quality of reception and counseling for clients seeking vasectomy information and services and covered all the five clinics involved in the Vasectomy Promotion Project.

A. Accessibility of the Clinics

Except for the Mabibo Marie Stopes Clinic, every clinic was found to be poorly sign-posted by all the mystery clients; the mystery clients reached the clinics only after varying degrees of wandering around and asking for directions. The mystery clients observed that:

- The Mwenge Marie Stopes clinic was difficult to find if one started off at the Mwenge bus stop.
- The UMATI Clinic at Muhimbili was even more difficult to find. There was no sign post within the vicinity or even at the door of the clinic building.
- The address for the Kariakoo Marie Stopes Clinic as shown in the promotional leaflet was misleading. The clinic is not situated within the Kariakoo Market complex, as stated in the leaflet.

B. Quality of Reception

The clinics did not provide a very welcome reception with many of the mystery clients reporting that the clinics were unclean and lacked a comfortable waiting area. This result contradicts the judgment of the Situation Analysis observers who found that the waiting rooms were "adequate", and highlights how simulated clients who actually utilize rather than passively observe the services can provide different information and insights on service quality. One clinic was found to be clean by four of the five clients, one other clinic was judged to be clean by three clients, and a third was found to be clean by two clients. The remaining two clinics were found to be clean by one client each.

Only one clinic was also judged by most (four of the five) mystery clients to have a comfortable waiting room and seats. Three clients reported the same about another two clinics. Only two clients were impressed by the waiting room and seats at one other and only one client reported the same for the fifth clinic.

In general, the mystery clients did not have long waits before seeing a service provider. The time the mystery clients had to wait before a service provider attended them ranged from no waiting to one hour. Table X shows the pattern of waiting time at the five clinics. The client who waited for one hour had to leave without seeing the appropriate service provider who had not arrived during that time. For three visits, the mystery clients were asked to return later during the day in order to see a provider; each returned and saw the service provider at that time.

Table X: Waiting Time Spent by Mystery Clients at the Five Clinics

CLINIC	Number of Clients who did not have to wait	Number of clients who waited 1-14 minutes	Number of clients who waited 15 minutes or longer
A	3	1	1
B	3	2	0
C	3	1	1
D	3	1	1
E	1	1	3

C. Quality of Counseling Services

All of the mystery clients received counseling at four of the clinics. At the fifth clinic, one client had to leave without being attended because the counselor was not in. The counseling sessions lasted between seven minutes and just over one hour. The range is shown in Table XI.

Table XI: Duration of Counseling Sessions attended by the Clients.

Clinic	Number of clients whose sessions lasted 1-10 minutes	Number of clients whose sessions lasted 11-30 minutes	Number of clients whose sessions lasted 31-60 minutes	Number of clients whose sessions lasted 61+ minutes
A	0	2	3	0
B	0	1	3	1
C	0	0	3	2
D	0	2	3	0
E	1	2	1	0

Table XII: Quality of Counseling Sessions as Perceived by Mystery Clients

Clinic	CLINIC A		CLINIC B		CLINIC C		CLINIC D		CLINIC E	
Status of Counselor	Nurse	Doctor	Nurse	Doctor	Nurse	Doctor	Nurse	Doctor	Nurse	Doctor
Number of:										
Sessions conducted	4	1	4	1	2	3	5	0	1	3
Interrupted sessions	3	0	3	0	1	1	2	-	0	0
Session with visual aides	3	1	3	1	2	3	4	-	0	0
Sessions perceived adequate	2	0	3	0	2	1	2	-	0	0

The clients reported that most counseling sessions were marred by interruptions and lack of both audio and visual privacy (Table XII). Again the observations of the mystery clients contrast with those of the Situation Analysis observers. The Situation Analysis observers noted that the clinics had counseling rooms with doors that could be closed for privacy. The mystery clients, however, observed that doors weren't closed -- doors to the counseling rooms were kept open during five sessions -- nor did a closed door guarantee that a counseling session would not be interrupted. The lack of privacy was a problem in all the clinics except one, where the session was conducted by the doctor in his office. Some of the interruptions were found by the clients to be very disturbing. Here are some descriptions from the mystery clients of those interruptions:

- *"A staff member came in the room twice while the counseling session was in progress to produce photocopies. She left the door open during the process."*
- *"The door to the counseling room was kept open. Some people who were passing by would stop and speak to the counselor."*
- *"Even though the counselor told every staff member that she was going to use the room for counseling and did not want to be disturbed, one staff member entered the room while the session was still in progress."*
- *"A staff member came in to clean the room and the counseling session continued in her presence."*
- *"The counselor locked the door but all the same her colleagues tried to get in on three occasions during the session; the counselor ignored their loud knocks."*

The mystery clients rated each counseling session in terms of the extent to which it addressed "their concerns" about vasectomy. Only 10 out of the 24 sessions were deemed to have been adequate. In one clinic, the female mystery client was told to consider female sterilization instead of trying to convince her partner to get vasectomized. But in another session this same "client" found the counselor to be very empathetic. The counselor urged her to try and get other women to talk to their spouses and to find ways of convincing them to go for vasectomy, saying women "should not be the ones who always give in and get sterilized".

In another session, the counselor told the mystery client that a man who wants to be vasectomized had to make three visits on different occasions before he could perform the operation on him. He stated that this was to make sure that such a client understands that vasectomy is a permanent and irreversible method of contraception. Another mystery client reported that he was rushed and was not given time to reflect on what the counselor was saying. Yet another mystery client reported that the counselor was only interested in the technicalities of vasectomy and did not want to get into the interpersonal and social implications of vasectomy.

Two mystery clients were primed specifically to explore the issue of the partners' consent, and a third raised it inadvertently. Some counselors were adamant in their stance that the client had to discuss the subject with his wife and obtain her consent. Other counselors did not see any problem with a man who does not wish his wife to know he has been vasectomized. One counselor said she would have to seek a second opinion on the matter. It is noteworthy that two counselors who were conducting one session jointly told the mystery client that this issue was not dealt with during the counseling training, but they realized that some women were opposed to the idea of their husbands being sterilized. They therefore agreed with the client that in some cases a client may prefer not to inform the wife. This lack of consensus among service providers as to whether or not a partner's consent for vasectomy was needed is contrary to the official policy of not requiring the partner's consent.

VIII. DISCUSSION

The findings of this study and the available service statistics indicate that the Vasectomy Promotion Project was moderately successful in promoting the availability and adoption of vasectomy. The project showed that some men in Dar es Salaam would choose to have a vasectomy if service providers established the service and made concerted efforts to educate people about its nature and purpose and inform them about its availability. Even though the number of men who went for the operation is small, the significance of this modest achievement lies in demonstrating that the contraceptive method many men find unpalatable is actually acceptable to others like them. The project also demonstrated to donor agencies and service providers that it is possible to make vasectomy acceptable even in the context of strong pronatalist norms. Furthermore, because the Vasectomy Promotion Project was largely a mass media campaign its effects were felt beyond Dar es Salaam and during the project period an additional 24 men were vasectomized in different parts of the country (Rukonge, 1996).

The Vasectomy Promotion Project messages reached slightly over 60 per cent of the sample population of men in Dar es Salaam, mainly through the radio, the newspapers, and stimulating discussion. The least successful events were the talks by the vasectomized man and the doctor on television. This could be due to the fact that these events were not aired often enough or that too few men had access to television.

While the vasectomy promotion project raised awareness about vasectomy, future efforts to promote vasectomy still have to reckon with widespread negative attitudes towards vasectomy including equating vasectomy with the practice of castrating bulls and goats. Promotional material and messages need to explain how vasectomy differs from castration both in terms of purpose and procedure, in order to allay fears about loss of libido, sexual potency and obesity.

While only one in five in the sample population could recall the term vasectomy, it is debatable whether it is important that people know the term, especially in English. What is important is that they should know that there is such a thing as an operation for men to stop them having any more children. Rates of use of tubal ligation are going up even though the women do not go to the family clinic asking for tubal ligation. They ask for "kufunga kizazi"-- an operation to stop them from having more children. It is possible to coin new Kiswahili terms and to popularize vasectomy, as has been the case for UKIMWI - the Kiswahili term for AIDS.[6] Given the ongoing debate in the country about the need to use Kiswahili it may be appropriate to collaborate with the National Kiswahili Council (BAKITA) in coining appropriate Kiswahili terms for male contraceptive sterilization.

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[6] On the other hand, AIDS educators can now talk about the condom without having to use long winded expressions to describe the device because they have popularized the English term condom.

The study results show that there is considerable room for improving the accessibility and quality of the vasectomy services in Dar es Salaam. Few survey respondents knew where one could go to have vasectomy, most family planning clients were unaware that vasectomy services were offered at the clinic at which they were attended, and the mystery clients found it difficult to reach most of the clinics participating in the Vasectomy Promotion Project. Within the clinics, the mystery clients found that some service providers who provided counseling services had misinformation or prejudices about vasectomy and that counseling sessions often lacked privacy and a conducive atmosphere for discussing sensitive topics. The participants in the Mystery Client study concluded that only 10 out of the 24 counseling sessions were adequate.

Only one-half of the service providers offering vasectomy counseling had been trained and half of those trained felt that they were not adequately prepared to provide vasectomy services. Consequently out of the 95 men who were motivated enough to go to the clinics, the service providers were only able to help eleven men cross the bridge from intention to action.

IX. LESSONS FROM THE AFRICA OR/TA PROJECT STUDY OF THE VASECTOMY PROMOTION PROJECT

1. **The mass media constitute an effective channel for creating awareness and providing information about vasectomy in Dar es Salaam (and beyond, see below).** The media are particularly good for informing those who are in need, and are already motivated, where to go for a particular service. **If the objective however is to bring about fundamental changes in attitudes and beliefs in the population about the desirability of vasectomy, the mass media have to be supplemented with other methods which allow for interpersonal communication.**

   The Vasectomy Promotion Project did not invest adequately in supplementary communication methods. For instance very few talks in work places were organized, and it appears that the few which were organized were just that -- talks to the workforce, and not discussions in small groups. Consequently despite the wide coverage of the project's promotion activities, negative attitudes towards and erroneous beliefs about vasectomy persisted among many of the men who were reached by the project.

2. Both the Situation Analysis and the Mystery Clients Studies indicate that neither the clinics nor service providers were adequately prepared to provide high quality vasectomy services. **The project seems to have placed greater and emphasis on, and achieved greater success in, generating demand than in readying the clinics and their staff to meet the demand adequately and satisfactorily.** For example, it would have been preferable to train counselors and surgeons before launching the project rather than during project implementation. Also continuing to charge higher fees for vasectomy than for tubal ligation during the project was inconsistent with the promotional objective of broadening method choice and promoting vasectomy as a viable alternative to female sterilization.

3. **Some of the problems encountered in promoting vasectomy could have been anticipated from the experience of providing or failing to provide vasectomy since 1991.** The Vasectomy Promotion Project appears to have been implemented as if vasectomy was being introduced in Dar es Salaam and Tanzania for the first time and was little informed by previous experience. Even though that experience may not have been properly documented, the Vasectomy Promotion Project had the advantage of being managed by the same organizations and individuals who have been trying to provide the service since 1991 for UMATI and 1994 for PHS. It should have been possible, for instance, to anticipate the problems of confidentiality and privacy by prospective and actual vasectomy clients. This experience should also have informed the choice of communication media appropriate for dealing with the ideational barriers to the acceptability of vasectomy. Future interventions should be informed by the results of this study and other experience in Tanzania.

4. **By their very nature the mass media attain coverage beyond the intended target population. Therefore the project triggered action among those who were already motivated to seek out vasectomy services outside as well as within Dar es Salaam.** This outcome of the project does not appear to have been anticipated. It seems to have been purely fortuitous that UMATI and PHS clinics in some parts of the country were able to perform the procedure to a record number of clients during the project period. Unfortunately, no information was collected about these clients or prospective clients who asked for more details about vasectomy. Such information would have been useful for understanding how the vasectomy promotion messages played in different parts of the country as well planning for an expansion of activities.

X. CONCLUSION

It is gratifying that despite the limited duration of the project, as well as the limited number of promotion activities, that the Vasectomy Promotion Project reached a significant proportion of men in Dar es Salaam. Not only has it made vasectomy a salient feature of the family planning debate, it has made vasectomy a realistic choice for men who wish to take full responsibility for limiting the size of their families. Admittedly the number of men who accepted and went for vasectomy during the project period is very small. The significance of this small number however lies in its demonstration effect. With adequate preparations, more concerted implementation efforts and resources, as well as the involvement of a wider network of clinics the results are bound to be more substantial.

The results of this activity are contributing to the introduction of vasectomy services in other urban centers of Tanzania. Since the completion of the Vasectomy Promotion Project, PHS has developed a strategic plan to expand a full range of family planning services, with a special emphasis on long-term and permanent methods including vasectomy, to 21 clinics nationwide.

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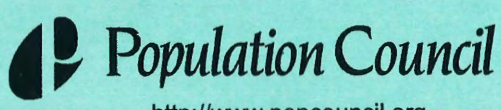

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