Trends in Prevalence

Sterilization: The world’s most widely used method

Sterilization is the world’s most widely used contraceptive method, in developing and developed countries alike. It accounts for nearly half of all contraceptive use. Today, one out of four couples worldwide use sterilization as their family planning method. However, the number of female sterilization users exceeds the number of vasectomy users by five to one. Worldwide an estimated 43 million couples rely on vasectomy; by comparison, nearly 210 million couples rely on female sterilization.

The prevalence of vasectomy equals or exceeds that of female sterilization in only five countries—Bhutan, Denmark, the Netherlands, New Zealand, and the United Kingdom. In Belgium, Canada, Nepal, Norway, Switzerland, and the United States, the ratio is less than one to two. Elsewhere, the ratio of male sterilizations to female sterilizations ranges from one to three in China and the Republic of Korea to an incalculable ratio in most of Africa.

The number of couples relying on vasectomy appears to have plateaued in the past decade (Figure 1). Whereas the prevalence of vasectomy increased from 33 million to 41.5 million from 1982 to 1991, by 2001, the number of couples protected from unintended pregnancy by vasectomy had increased by only 1.4 million, to an estimated 42.9 million. By comparison, the number of couples relying on female sterilization rose from nearly 140 million in 1991 to more than 210 million in 2001.

Asia

Asia accounts for 77% of vasectomy users worldwide, with China and India alone representing more than 70% of the world’s vasectomy users. (Figure 2) Except for Nepal and the Republic of Korea, vasectomy prevalence in Asia has declined over the past decade. In Nepal, as alternative methods have become available over the past 25 years, vasectomy’s percentage of overall contraceptive prevalence has declined steadily, from 67% in 1976 to 41% in 1981, to 19% in 1996, and to 16% in 2001.
Latin America
Vasectomy use in Latin America has increased four-fold in the past 10 years (Figure 3). However, prevalence remains at 1% or less everywhere except in Brazil, Costa Rica, Mexico, and Puerto Rico. The highest prevalence rate is found in Sao Paolo State, where vasectomy prevalence is 6.1%.

Africa
In much of Africa and the Middle East, vasectomy prevalence rarely exceeds 0.1% and has remained mostly constant over the past decade. Researchers have suggested that vasectomy is unacceptable to most African men and probably will long remain so. However, similar predictions in the late 1980s that female sterilization would never be an acceptable method in Africa proved unfounded. There are pockets of interest in vasectomy in Ethiopia, Ghana, Kenya, South Africa and Tanzania. The highest prevalence in the region is in Free State, South Africa, which has a vasectomy prevalence of 4.8%.

Developed countries
Vasectomy prevalence is highest in Oceania, in North America, and in parts of Western Europe. In New Zealand, one couple in four who use contraception couples relies on vasectomy. Vasectomy’s share of overall contraceptive prevalence is about 20% in Canada, the United Kingdom, and the United States. One in eight contracepting couples rely on vasectomy in Australia, whereas one in 10 couples in the Netherlands and Switzerland rely on the method.

Why Is It Underutilized?
For many years, the blame for the underutilization of vasectomy has been placed on men—that they do not want to take responsibility for family planning. Yet experience suggests otherwise—men do care about avoiding pregnancy and want to share the responsibility for family planning with their partners. One illustration of men taking on the responsibility for family planning is that worldwide, one in every four couples who are using contraception use a contraceptive method—vasectomy, condoms, withdrawal, or periodic abstinence—that requires the active cooperation or participation of men.

Lack of information
Vasectomy is the least-known of all modern family planning methods. Among currently married women in Demographic and Health Surveys conducted in 46 countries over the past five years, fewer women reported knowledge of vasectomy than they did knowledge of pills, IUDs, injectables, condoms, or female sterilization. In Africa, fewer than one in four women had heard of vasectomy in 14 of the 24 countries surveyed. While men’s knowledge of vasectomy is usually greater than women’s, in Africa, with the exception of Kenya, Malawi, Uganda, and Zimbabwe, the majority of men had not heard of vasectomy.

Incomplete or incorrect information
Even when men and women are “aware” of vasectomy, the information they have frequently is incomplete or incorrect. In one study in rural India, while nine out of 10 men and women reported being aware of vasectomy, less than half of the men and only one-fourth of the women had correct information on vasectomy (Khan & Patel, 1997). Vasectomy is frequently equated with castration.
Lack of access
Vasectomy is more difficult to obtain than other family planning methods. A 1999 survey of key informants from 89 developing countries reported that access to vasectomy lagged behind that of other methods in almost every country (Ross & Stover, 2001). In Bangladesh, access to vasectomy has actually declined over the past 20 years. Whereas a 1986 assessment indicated that vasectomy was available at all thana (county) health complexes, a 1994 assessment reported that vasectomy was only available at 68% of thana health complexes (Piet-Pelon & Rob, 1996).

Provider indifference
Even if vasectomy services are available, health care providers may devote little or no attention to vasectomy when discussing family planning options with clients. This is often a result of health professionals’ lack of knowledge, misinformation, personal dislike of vasectomy, or untested presumptions about what men think and want (Jezowski et al., 1995). Clinic staff may hold prejudices against men and may even discourage them from seeking family planning information and services (Muhondwa et al., 1997; Wilkinson et al., 1996). Providers of reproductive health and family planning services are accustomed to working with women and may not be comfortable with or know how to talk to men or provide them with care. A 1996 assessment of 309 service delivery points in Ghana noted that no new family planning clients received information about vasectomy and that only 29% received information on female sterilization, even though two-fifths indicated they wanted to use contraceptives to limit further births (Ghana Statistical Service, 1998).

Why Pay Attention to Vasectomy?
Sterilization is currently the world’s most widely used contraceptive method, in developing and developed countries alike, and it is projected to remain so over the next decade. Sterilization accounts for nearly half of all contraceptive use. The prevalence of sterilization will rise substantially in the next 15 years in many countries, as part of a rise in overall contraceptive use, and the absolute number of users will increase as well, due both to climbing prevalence and to growing populations. Today, one out of four couples worldwide use sterilization as their family planning method, and this proportion is projected to increase to one in three or greater by 2015 (Bongaarts & Johansson, 2002; Ross, Stover, & Willard, 1999).

As we advance into the 21st century, national programs will have the challenge of meeting the family planning needs of a growing population while being constrained by shrinking health resources. Donor assistance for family planning is projected to decline, and more of the costs of family planning services will likely be passed on to consumers. Vasectomy is not only one of the most cost-effective contraceptive methods that a health care system can provide, it but also has a low cost for clients over time. Vasectomy is safer, simpler, less expensive, and just as effective as female sterilization, yet the number of female sterilization users exceeds the number of vasectomy users by five to one.

Thus, national programs will need to focus on cost-effective services that clients find accessible. For example, the health-sector reform movement emphasizes services that can be provided at the primary-care level; since vasectomy is simpler than female sterilization, it can be offered in a wider variety of settings, including in treatment rooms at primary health care clinics and in private physicians’ offices (World Health Organization, 1988).
Moreover, while research on contraceptive costs per couple-year of protection shows that female sterilization is significantly less costly than hormonal methods and condoms and is on par with IUDs (Janowitz, Measham, & West, 1999), the cost of providing vasectomy is significantly less than the cost of performing female sterilization (EngenderHealth, 2002) (Figure 4, page 3). While price should not be the only reason an individual or couple chooses a particular method, it is an important consideration that health care providers should discuss with each client. Vasectomy is an excellent method, and though it will not meet the needs of all couples who do not want any more children, vasectomy’s advantages over female sterilization—in terms of safety, simplicity, and cost—will become very important in the coming decades.

**Effective Promotion**

**Multiple communication channels create a synergistic effect**

Effective vasectomy programs use several channels to deliver their messages. Vasectomy promotion through community talks and home visits and mass media (billboards, newspaper and magazine advertisements, and radio and television spots) has been instrumental in informing men about vasectomy. Program experience shows that individuals who are exposed to a message from multiple sources—such as mass and community-based media and interpersonal communication—are more likely to take action than are those exposed to a message from a single source (JHU/CCP, 1997).

Mass media constitute an effective channel for creating awareness and for providing information about vasectomy. The media are particularly good at informing those who are in need and are already motivated about where to go for a particular service. If, however, the objective is to bring about a fundamental change in people’s attitudes and beliefs about the desirability of vasectomy, the mass media must be supplemented with other methods that allow for more interpersonal communication.

**Men have better access to mass media**

Men are frequently easier to reach with multiple, reinforcing messages because they generally have better access and more exposure to mass-media and community-level communication than women. A study in rural India found that 90% of men interviewed had been exposed to mass-media messages, compared with only 30% of women interviewed (Khan & Patel, 1997).

Programs in Brazil, Colombia, and Guatemala were able to double their vasectomy caseload through multimedia campaigns (Kincaid et al., 1996; Vernon, Ojeda, & Vega, 1989; Bertrand et al., 1987). Telephone hotlines have been effective in Kenya and the United States in increasing vasectomy caseloads. The hotlines offered a means of private and confidential counseling (Ruminjo et al., 2002).

**Satisfied vasectomy clients often can recruit new clients**

Men have less contact with health workers than do women, and personal contacts—friends, relatives, and coworkers—are key to introducing new ideas and provide support for behavior change (Green et al., 1995; Karra et al., 1997). In programs in Asia, Latin America, and Africa, satisfied vasectomy clients have been especially influential in helping other men decide to have a vasectomy.

> “Vasectomy is as much an IEC operation as a surgical operation.”
> —R. C. M. Kaza, Indian urologist

**Messages must be relevant to men’s perceived concerns**

To reach men directly, successful projects use spokespeople and media that men trust and address issues that they feel are important. The key to increasing men’s participation is to develop messages that are relevant to their perceived concerns. These may not always coincide with the messages that family planning programmers believe men should hear. Men must be approached on their own terms and in their own words.
Focus must be on factual information
Successful communication campaigns focus on factual information and perceptions to overcome myths or rumors that sometimes lead men to oppose vasectomy and other family planning methods. In Latin America, themes have included the following: Vasectomy has many advantages over female sterilization and over temporary methods; men select vasectomy out of love for their wife and concern for her health; men choose vasectomy out of a desire to take responsibility; and vasectomy confers peace of mind and greater sexual enjoyment by eliminating worries about unintended pregnancy (Vernon, 1996). In Kenya and Tanzania, these themes have addressed prevailing misconceptions—such as that men could become impotent as the result of vasectomy—and have acknowledged economic pressures, particularly the rising costs of education (Wilkinson et al., 1996; Muhondwa et al., 1997).

Messages need to be targeted to women as well
Partners can be a barrier to men’s acceptance of vasectomy and often have more misconceptions and concerns about vasectomy. In the tea districts of West Bengal, India, “mothers’ clubs” were instrumental in mobilizing clients for vasectomy (Kaza, 1998).

Attention to Providers’ Needs
Since few programs have experience working with men, training clinic staff to ensure that male clients receive high-quality care is especially important. Clinic staff may hold prejudices against men and may even discourage them from seeking family planning information and services. Thus, training needs to focus on changing attitudes, not just on imparting information.

What do providers need?
As part of a study in rural Kenya, a COPE® quality improvement exercise was undertaken in clinics to understand what kinds of assistance and support providers need, to enable them to provide higher-quality services to men and couples (Fapohunda & Rutenberg, 1999). Providers indicated that they needed:

- Updates on developments in men’s reproductive health service delivery
- More staff, particularly male providers, and more time with clients
- More space in existing clinics to accommodate male clients
- Training and support to provide vasectomy
- Regular condom supplies
- Information, education, and communication materials aimed at men
- Counseling skills for resolving differences within couples.

Site training—creating ‘male-friendly services’
A common strategy among programs initiating vasectomy services has been to conduct short-term centralized surgical training, usually for doctors only. Trainees then frequently faced serious obstacles while introducing the technology at their home sites and trying to change the knowledge, attitudes, and behavior of their fellow workers. As an alternative to this approach, in the late 1980s, the Instituto Mexicano del Seguro Social (IMSS) introduced “site training.” This approach involved several activities conducted in steps over a period of weeks. The intervention treated the local service-delivery site as a system and the personnel as members of a team who make the system function. Training was conducted on-site under conditions that the trainees would face later. The goals of site training were not only to transfer knowledge and develop critical skills, but also to forge an effective, smoothly functioning service-delivery system and effective local teamwork. Staff who have supervisory and technical support responsibility, as well as managers, doctors, nurses, and social workers from other sites who may provide information to clients or who may refer them to the vasectomy service site, were oriented to the services as well (Jezowski, et al. 1995). Since the training was introduced, the annual number of vasectomies performed has risen from fewer than 6,300 in 1989 to more than 22,000 in 2001.
This training model has been replicated in Ghana, Kenya and the Philippines to create “male-friendly” services. On-site training focuses on counseling and referral skills, client satisfaction, and increasing the engagement and motivation of all levels of clinic staff.

**Strong leadership**

In large programs, the effect that a single enthusiastic person can have on the number of vasectomies performed is often noticeable. At the head of almost every energetic “vasectomy program” is a director who is personally interested in involving men in family planning and who is committed to the program’s success. But this can also be a double-edged sword: When a champion leaves a program or site, vasectomy provision can be set back. The Family Planning Association of Pakistan (FPAP) clinic in Faisalabad had an active outreach program in the late 1980s and early 1990s, and the number of procedures performed there increased 10-fold between 1986 and 1993. In 1993, however, the original men’s services team (which included a physician and a local coordinator) left, and over the subsequent two years, the number of vasectomies performed annually declined by 28% (AVSC International & FPAP, 1997).

In Brazil, the Santa Barbara municipal vasectomy project was threatened when a new mayor, elected from an opposition party, decided to discontinue the project, since it was linked to his predecessor. The mayor reconsidered, though, in part because 100 men were on the waiting list to receive services and the mayor perceived that closing the project could have negative political repercussions (Penteado et al., 2001).

Similarly, the introduction of vasectomy at IMSS facilities in Mexico suffered a setback when the leaders of the Reproductive Health Department and Family Planning Division were changed at the midpoint of the program in 1996. Their replacements ordered a global evaluation of the program, and all training and supervision activities were suspended for almost 12 months. After the 12-month pause, the program was reinstated, but the new senior-level officials’ priorities were different, and the program became less visible (Cisek, 2002).

**Attention to the Needs of Men**

*What is it that men need/want?*

*Thorough and sensitive counseling*—Men are more likely to return to facilities where they are made to feel welcome and valued as a client. Counseling is especially important to men’s perceptions of being well-treated.

*Privacy and confidentiality*—Men are especially concerned about confidentiality when discussing reproductive health matters. Some men prefer to travel to a distant site, to avoid being seen entering a reproductive health facility in their community.

*Convenience and comfort*—Men are more likely to use services that have convenient hours (i.e., that are open evenings and weekends). Male-only clinics, separate waiting areas or hours, and male providers make men feel more comfortable.

*Array of services*—Men prefer to visit facilities that offer an array of services, including general medical care and treatment for urological problems, sexual dysfunction, sexually transmitted infections (STIs), and infertility. Offering a broad spectrum of reproductive health services for men not only brings in new clients, but also may generate additional revenue.

**Male-only versus integrated services**

Ten years ago, when men reported that they were intimidated by and uncomfortable about entering waiting rooms filled with women, Profamilia was motivated to open male-only clinics. From the beginning, Profamilia knew that male-only clinics with separate entrances and staff members were only cost-effective in cities, where there are large numbers of clients. These separate clinics saw dramatic increases in the number of men reached for reproductive health services. However, in smaller cities, where separate services for men were not provided,
Profamilia saw the number of male clients increase when staff members were sensitive to men’s needs and made a conscious effort to reach them by having certain hours for male-only services. Profamilia’s experience suggests that male-only clinics are one way—but not the only way—to attract more male clients.

Operating separate clinics has been an important way to serve men, but it is often an expensive option. Such clinics are not the only way, however. With few exceptions, programs have integrated services for men within existing services rather than establishing independent services for men. For instance, providers can alter existing clinical services to meet men’s needs by offering separate hours for men, by training staff in men’s reproductive health needs, by ensuring the availability of educational materials for men, and by implementing other relatively simple changes.

### Making services ‘male-friendly’

Making family planning programs for women friendlier to men as well can be an affordable approach. Sensitive, knowledgeable staff and a welcoming environment can attract more men to reproductive health services, even when they are offered along with services for women. However, in countries where cultural norms mandate the segregation of men and women, it may be more appropriate to organize male-only clinics, to generate interest among potential male clients (Wegner et al., 1998).

Many family planning clinics already are encouraging men’s participation to a degree. One simple way is to treat men more cordially. A number of other low-cost activities can make existing services friendlier to men—for example, encouraging women to bring their male partners for counseling and services, establishing evening and weekend hours for men, and offering counseling about STI prevention along with family planning counseling. Besides requiring convenient locations and hours, this can mean hiring male staff and offering broader men’s reproductive health services (such as urology, infertility treatment, testing for and treatment of STIs, and counseling for sexual problems). Men in Ghana and Rwanda noted that privacy was a particular concern: In Ghana, men worried that they would be gossiped about in the village if they were seen at the family planning clinic, while in Rwanda men having a vasectomy would travel to a hospital in another community to have the procedure done (AVSC International, 1998; Muhondwa et al., 1997).

### References


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