

Contraceptive
Sterilization:
Global Issues
and Trends



ENGENDERHEALTH

Improving Women's Health Worldwide

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Preface

The publication in 1985 of *Voluntary Sterilization: An International Fact Book*, by John Ross, Sawon Hong, and Douglas Huber, was a landmark event: Never before had such a broad range of important information on the worldwide practice of contraceptive sterilization been gathered in one source. That volume was for many years an irreplaceable resource for researchers, clinicians, and public health figures when they needed essential facts about sterilization.

As time passed, however, the world described in the fact book changed. Surveys collected new data about women's and men's contraceptive behavior. The spread of HIV and other sexually transmitted infections affected both contraceptive practices and service priorities. And the Cairo Programme of Action brought about new perspectives on the provision of reproductive health services. All of these changes led us, a few years ago, to decide that a new version of the fact book was needed. We knew before we even began that a great deal of hard work was ahead; this volume is the product of that effort.

A large number of individuals contributed to the writing of this book; all were with EngenderHealth when the book was written, unless otherwise noted. Evelyn Landry oversaw the development of the entire book, with the invaluable assistance of Ines Escandon throughout the project. Evelyn Landry wrote Chapter 1, with the assistance of Karen Beattie and Georgeanne Kumar. Chapter 2 was written by Carol Camlin and Ines Escandon. Lyn Nguyen Henderson (consultant) and Ines Escandon wrote Chapter 3, and Reed Boland (Harvard School of Public Health) wrote Chapter 4. Chapter 5 was written by Ines Escandon and Shailaja Maru (consultant), and Jean Ahlborg, Carmela Cordero, Vanessa Cullins, Martha Jacob, and Kelly O'Hanley collaborated on the writing of Chapter 6. Mark Barone wrote Chapter 7; Carol Camlin, Lyn Nguyen Henderson, and Evelyn Landry together wrote Chapter 8.

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Evelyn Landry, for the writing team

Executive Summary

Why a Book on Contraceptive Sterilization?

Contraceptive sterilization is one of the oldest modern methods of fertility control, dating to the 19th century. Yet, as we advance into the 21st century, contraceptive sterilization (hereafter referred to as sterilization) continues to warrant considerable attention and study by those involved in the field of family planning and reproductive health care. Why? The answer is simple: Despite the development and introduction of many new contraceptive methods over the last 15 years, sterilization is the most widely used method in the world, in developing and developed countries alike.

Couples and individuals around the world choose sterilization because they want to limit or end childbearing, rather than space future births. For some women, reversible methods are unavailable or inconvenient; for others, contraceptive use may begin only after they have achieved or surpassed their desired fertility. For many, then, sterilization is their first method. The method requires no action on the part of the user beyond election of the initial surgical procedure. It produces a minimum of side effects, while generally offering a lifetime of contraceptive protection. Moreover, female sterilization requires no ongoing cooperation by the sexual partner or spouse, thereby representing a contraceptive option for women who may be powerless to ensure such cooperation. Thus, quality sterilization services will always be a crucial component of any comprehensive family planning service.

As we move into the 21st century, however, two key challenges have emerged for those working to ensure access to quality family planning services. First, over the past 10 years it has become clear that family planning does not stand in a vacuum. Near the close of the 20th century, the international community reached consensus on a broader approach for supporting sustainable development, health, and equity, one that was fully articulated in the Programme of Action of the International Conference on Population and Development, held in Cairo in 1994. The Programme of Action reflected a shift from a focus on population stabilization to a focus on the rights and needs of people, especially women. Realization of this broader approach requires that family planning be fully integrated with comprehensive sexual and reproductive health services. However, adaptation to this new paradigm requires resources, skills, and a policy mandate, all of which remain insufficient in many national contexts. The result is that the paradigm shift called for in Cairo has yet to be fully achieved.

The second challenge is that the world confronts a public health threat like none before, with AIDS having already devastated Africa and now on the threshold of wreaking similar havoc in China, India, Russia, and many other countries. Other sexually transmitted infections (STIs) long neglected in service-delivery settings now appear to increase the likelihood of HIV transmission. Yet sterilization, like all other modern methods of contraception other than the condom, affords users no protection from HIV or other STIs. Thus, programs must intensify efforts to promote barrier methods because of the dual protection they afford and must determine how best to meet the noncontraceptive reproductive health needs of sterilization users.

Regardless of how these challenges are met, safe and effective means of limiting family size will always be needed. For couples who do not want more children, sterilization will continue to be a vital and relevant option. Furthermore, the contraceptive decision making and the social realities that underlie the fact of sterilization's high prevalence are likely to remain largely unaltered for years to come. Thus, it is imperative that we continue to closely study developments in sterilization technology, policy, service delivery, and usage. This is the knowledge base upon which the consensus for change is

built and upon which assurances of access, safety, and protection of individual rights in existing services lie.

Voluntary Sterilization: A Snapshot of Developments

In 1985, EngenderHealth (then the Association for Voluntary Sterilization) published *Voluntary Sterilization: An International Fact Book*, written by John Ross, Sawon Hong, and Douglas Huber. That was the first source book on sterilization ever to have been published, bringing together the results of clinical studies and social science research to provide a comprehensive overview of the practice of contraceptive sterilization worldwide. This book, the successor to the 1985 volume, is intended to serve as an album depicting the state of contraceptive sterilization as the 21st century began. The following are some of the highlights from this effort.

Delivering quality services

Among the many factors that affect the quality with which contraceptive sterilization services are delivered, three require special attention: actual service-delivery modalities, fees and compensation programs, and the cost of service provision. For instance, while sterilization services are provided in an inherently medical context, men's and women's access can be broadened if services are offered during the postpartum period, through mobile outreach, or in male-only clinics (for vasectomy). Likewise, while fees and compensation for providers have led to concern over the potential for coercing clients into accepting sterilization, there is little evidence that such approaches have promoted reliance on this method (see Chapter 1).

The provision of quality sterilization services hinges on the client's ability to make a well-informed, voluntary decision (informed choice), his or her authorization to proceed with the surgical procedure (informed consent), and the client's participation in true two-way communication with a health care worker about the risks and benefits of the procedure (counseling). In helping a client make an informed decision, providers need to assess the client's needs, offer appropriate method options, fill in knowledge gaps, help the client make his or her own choice, and encourage utilization of other appropriate reproductive health services.

The spread of HIV and other STIs across the globe since 1985 has important implications for women and men considering or already using sterilization. Like most contraceptive methods, sterilization fails to offer any protection against STIs, including HIV. Thus, it is imperative for family planning providers to ensure that men and women seeking to use sterilization understand safer-sex practices and how to protect themselves and their partners from these diseases (see Chapter 1).

Incidence and prevalence

Reliance on both male and female sterilization has grown substantially since 1980, when 99 million couples were estimated to be using sterilization; by 1995, this number had climbed to about 223 million couples—180 million women using female sterilization and 43 million men using vasectomy. The number of female sterilization users in 1995 was 42 million higher than 1990 estimates; in contrast, in 1995, the number of vasectomy users was only 1 million more than 1991 levels (see Chapter 2).

Use of female sterilization services seems to have increased in regions where it had been low, particularly in Sub-Saharan Africa. Thus, in nations such as Botswana, Cape Verde, Kenya, Mauritius, Namibia, South Africa, and Swaziland, sterilization prevalence rates are now 5% or higher. The introduction of minilaparotomy services into family planning programs in Sub-Saharan Africa may account for some of this increase in use.

Who uses female sterilization?

Since only individuals and couples who want no more children elect to be sterilized, it is not surprising that sterilization is more common among older women. Nevertheless, the prevalence of female sterilization and the age at which women obtain a sterilization are inversely related: In countries where prevalence is high, the median age is generally low, while in low-prevalence countries, women often are not sterilized until older ages (Chapter 3).

In high-prevalence regions such as Asia and Latin America and the Caribbean, half of sterilized women have 3–4 children. Yet overall, the number of births among sterilized women ranges from a median of two or fewer in China and the United States to five or more in Africa. In Asia and Sub-Saharan Africa, most sterilization users reside in rural areas, while in North America, North Africa, and Latin America and the Caribbean, the majority of users live in urban locales.

Sterilization procedures performed at some time unrelated to a pregnancy (known as interval sterilizations) are more common than postpartum sterilizations in many countries located in North Africa, Sub-Saharan Africa, and South Asia. In contrast, postpartum sterilizations are more common in some countries in Latin America and the Caribbean. Regardless of when a sterilization is performed, though, for many women it is their first experience with modern contraception: It is often the case that more than 50% of women using female sterilization have never used a modern contraceptive method before having the sterilization procedure done.

Legal and policy issues

National laws and policies governing sterilization provision have been liberalized or made clearer in a number of nations. As of 2001, 74 countries had laws explicitly permitting voluntary sterilization for contraceptive purposes, while in 55 the legal situation was unclear. In just eight countries, access to sterilization was restricted by law (either explicitly or by interpretation) except for therapeutic, medical, or eugenic reasons in 2001, far fewer than the 28 countries with such restrictions in 1985 (see Chapter 4).

Yet a number of nations qualify the ability of some groups (most often women) to choose sterilization. Twenty-five countries require a spouse, parent or guardian, physician, or medical committee to grant their consent before at least some sterilization procedures are performed. Moreover, 24 countries have age or parity requirements that must be met prior to sterilization.

What makes people choose sterilization?

The prevalence of contraceptive sterilization varies among different social groups, yet socioeconomic status generally does not appear to be associated with the decision to choose sterilization. Nevertheless, the likelihood of sterilization is greater among couples of lower socioeconomic status in countries such as Bangladesh and India, while higher socioeconomic status is associated with a greater likelihood of sterilization use in Latin America and the Caribbean (Chapter 5).

Users of sterilization frequently say that they chose the method for economic reasons or because they had all of the children they wanted. But other factors also clearly play a role. In particular, friends, relatives, other sterilization users, and health care workers can be important influences on the decision. Misconceptions and misinformation may either encourage or discourage individuals from choosing sterilization. Likewise, gender issues, cultural issues, and degree of empowerment affect the decision making of women and men. Power dynamics within couples appear to play an especially strong role in the choice of sterilization and the type of permanent method selected.

Informed choice and lack of coercion are key factors in ensuring that sterilization clients are satisfied with the method. Regret over being sterilized is generally low among users, but rates vary by region, from around 7% in Colombia and the United States to

about 17% in Bangladesh and the Dominican Republic. Risk factors for regret can generally be divided into three categories: client characteristics (such as age at sterilization and marital stability), circumstances at the time of sterilization, and changes in clients' characteristics or circumstances after the procedure is done.

Female sterilization

Even though tubal sterilization usually involves abdominal surgery, it is one of the safest operative procedures: Complications are rare and occur in fewer than 1% of all female sterilization procedures. Moreover, the likelihood of failure is very low, at less than 2% even 10 years after surgery (see Chapter 6).

There are two broad elements in the performance of female sterilization: the means of reaching the fallopian tubes, and the methods used to occlude the tubes. The selection of a procedure is determined by such factors as the timing of sterilization in relationship to pregnancy; the need for other gynecological procedures; the woman's health; the provider's training, expertise, and experience; the cost and logistics of maintaining equipment; and the availability of back-up services.

Female sterilization results in few long-term side effects. The overall risk of ectopic pregnancy is low (although if a pregnancy occurs, the probability that it will be ectopic is high). Perceived alterations in women's menstrual flow, length, or pain following tubal sterilization (referred to as poststerilization syndrome) have been debated and studied, but research carried out in the United States has shown no strong evidence for the existence of such a syndrome (see Chapter 6).

Male sterilization

The situation with male sterilization is similar to that of female sterilization: Vasectomy is one of the safest and most effective contraceptive methods, with very low complication rates (especially with no-scalpel vasectomy) and failure rates generally thought to be in the range of 2–4 per 1,000 (see Chapter 7).

While potential physiological effects and long-term sequelae of vasectomy have been studied extensively over the past few decades, research has offered reassurance that this method has no serious long-term negative effects on men's physical or mental health. There is little evidence for a causal association between prostate cancer and vasectomy, and a panel of experts convened by the U.S. National Institute of Health in 1993 concluded that no change was necessary in the practice of vasectomy.

No-scalpel vasectomy, which requires local anesthesia and only a small incision, has helped to revitalize vasectomy provision in many countries (Colombia, Mexico, Thailand, and the United States among them), and was the impetus for introducing vasectomy services in others (such as Kenya and Turkey). However, experimental non-surgical methods of occluding the vas are unlikely to become available in the near future, as a result of questions not only about their efficacy, but also about their ability to be offered in low-resource settings.

Future trends in sterilization usage

Projections suggest that sterilization reliance will increase substantially through 2015, especially in areas of Latin America and the Caribbean and in Sub-Saharan Africa (see Chapter 8). In Asia, by contrast, the prevalence of sterilization is likely to decline as reversible methods become more widely available, particularly in countries (such as China, India, and South Korea) where sterilization usage is currently greatest.

Countries where sterilization prevalence is moderate, such as Bangladesh and Pakistan, will see more modest declines to 2015. Method prevalence is also expected to rise modestly in Vietnam and more dramatically in the Philippines between 2000 and 2015, however, and Indonesia can anticipate a slight rise in prevalence as well.

Potential users of sterilization (defined as fecund women who are in union, want no more children, are not using a contraceptive method, and report that they are considering sterilization as their preferred method) have characteristics similar to women already using sterilization: About half are age 30 or older, their mean number of children and educational level vary widely by country, and they are more often rural residents.

Overall, sterilization prevalence over the next 15–20 years is not likely to differ dramatically from levels seen at the beginning of the century, although the numbers of sterilization users may increase simply as a factor of population growth. Future levels of reliance on contraceptive sterilization in any particular country may vary as a result of unpredictable factors, however, such as changes in sterilization's legal status, the development of new contraceptive methods, or shifts in economic circumstances affecting family planning programs. Continued monitoring of these factors, as well as of societal attitudes toward sterilization and fertility regulation, will be crucial to understanding and anticipating demand for contraceptive sterilization services in both developed and developing countries.

