Female sterilization

A guide to provision of services

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Preface

The primary purpose of these guidelines is to assist those responsible for the development and management of family planning and health programmes in initiating or expanding female sterilization services. This book is designed to serve the needs of various types of personnel, including managers, administrators, and service providers. It shows how to extend the accessibility of female sterilization through different types of services and delivery channels, and how to develop awareness of it as a contraceptive option. Basic technical information about tubal occlusion, its effects, and related medical issues is included so that service staff will have the necessary background and understanding. Although this publication is not intended to be a manual for training in the surgical techniques of female sterilization, it includes information that will be useful to those responsible for establishing and administering training programmes for female sterilization.

Every attempt has been made to make these guidelines of practical value for those who are establishing female sterilization services. Thus, chapters on organizing and managing services and on financial management and budgeting are included, along with several annexes that provide sample materials that can be adapted to local needs.

These guidelines are particularly timely because of the growing interest in and demand for female sterilization services in many parts of the world. The views summarized here represent a consensus of the members of an expert group that met in Rio de Janeiro in October 1988, and of experts from around the world who have reviewed the manuscript, including the review group that met in New Delhi in December 1991. The guidelines are meant to be flexible: the aim is to present important issues and to make suggestions that can be readily adapted to specific services within the social and cultural context of each country.

These guidelines are part of a series of technical publications on family planning that have been issued by the World Health Organization since 1976 (see inside back cover).

Comments and queries on this publication should be addressed to: Maternal and Child Health and Family Planning, Division of Family Health, World Health Organization, 1211 Geneva 27, Switzerland.

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Contents

1. General considerations

Introduction

Female sterilization is the most widely used contraceptive method in the world today. Over 100 million women of childbearing age have been sterilized, and it is estimated that more than 100 million women in the developing world alone will seek sterilization in the next 20 years.

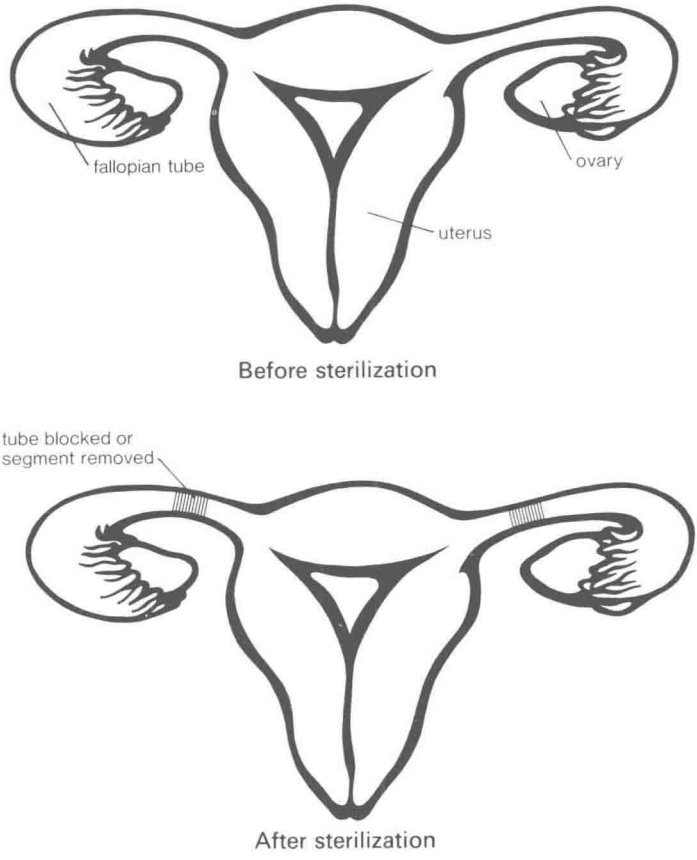
Female sterilization, which is also called tubal ligation or tubal occlusion, is a relatively straightforward surgical procedure in which the fallopian tubes are permanently occluded in order to prevent fertilization (see Fig. 1).

When correctly performed, female sterilization is highly effective and safe. In many cases the procedure may be carried out on an outpatient basis under local anaesthesia. However, as with any surgical procedure, certain risks are involved. The operation must, therefore, be performed by trained personnel in appropriate service-delivery settings and under conditions where medical quality can be assured. Nevertheless, an elaborate medical setting and expensive equipment are not essential.

Female sterilization may be an attractive contraceptive choice for couples who want no more children. However, because it is intended to be permanent, involves the risks associated with surgery, and has a small possibility of failure, it should be ensured that clients choosing female sterilization are making a fully informed voluntary decision. Other methods of contraception must also be available, without pressure or inducements, and information and counselling must be offered.

These guidelines are intended to help service providers and managers set up and maintain high-quality female sterilization services. Such services should be voluntary, medically safe and effective, appropriate to the health care setting, respectful of clients, and well managed and efficient. Attention to quality is the key to client satisfaction and success.

Fig. 1. Female sterilization



The role of female sterilization in regulating fertility

Female sterilization is one of several contraceptive options that can be provided through family planning, primary health, and maternal and child health care services. It should be available as one option to women or couples who have decided that they have had the number of children they want. In many countries this decision is often made by women less than 30 years of age (Ross et al., 1985). For these women the prospect of several

more years of reproductive capability may lead them to choose a fertility control method that is either permanent or long-acting.

For couples who have decided to end childbearing, sterilization for either the male or the female partner should be made available, in addition to long-lasting temporary methods (intrauterine devices, injectables, and implants) and other contraceptive choices. The availability of a wide range of contraceptive methods means that couples are more likely to find a method that suits them and hence, to plan their families. Couples should, therefore, have access to accurate information about all the methods available, including their characteristics, effects, benefits, and risks.

Health considerations

As a contraceptive method, female sterilization has both health benefits and risks. The health considerations are discussed briefly below.

Health benefits of family planning

The practice of family planning through the use of any contraceptive method provides health benefits, especially when one considers the morbidity and mortality associated with frequent pregnancy. Complications of pregnancy, childbirth, and abortion are a major cause of death among women of childbearing age throughout the world. Maternal mortality rates range from 300 to 800 per 100 000 births in developing countries (Starrs, 1987). In developed countries the average rate is 30 per 100 000 births (Ross et al., 1988). Women of high parity (three or more children) and those 30 years of age or older experience higher rates of maternal morbidity and mortality than do lower-parity and younger women (Maine, 1981). The risks associated with pregnancy are decreased for all women who practise family planning because of the pregnancies that are averted as a result. Experience suggests that, on a global basis, sterilization prevents an average of 1.5–2.5 births per woman (Ross et al., 1985), and thus the reduction in risk may be substantial.

Family size and maternal age also affect infant and childhood morbidity and mortality. Fetal and infant death rates increase with birth order, as does the incidence of low birth weight and its attendant problems. Children born to older mothers have a

higher risk of birth defects and fetal and neonatal death rates are higher for mothers over 30 years of age than for women in their 20s (Maine, 1981; Puffer & Serrano, 1975). The nutritional status of infants, mothers, and other family members is compromised by large family size, especially where resources are scarce (Maine, 1981). Thus, an effective family planning service—offering a wide range of contraceptive choices, including sterilization—can have a positive impact on infant health by reducing the incidence of high-order pregnancies and births to older women.

Health risks associated with female sterilization

Female sterilization compares very favourably with other contraceptive methods in terms of its safety. All contraceptives pose some health risks to users, although these risks are quite small in relation to those associated with pregnancy.

The specific health risks associated with female sterilization are limited mainly to complications occurring at the time of the surgical procedure or shortly thereafter. A detailed discussion of the side-effects and possible complications appears in Chapter 12. Studies from both developed and developing countries indicate that the mortality rate for female sterilization is less than 10 per 100 000.

History and current status

Female sterilization procedures were first performed in the late 1800s but did not become widely available until the 1930s, when the Pomeroy technique for ligating the tubes was introduced. Even then, and for several decades thereafter, most of these procedures were performed for medical or "eugenic" indications.

The 1960s brought an increasing interest in voluntary sterilization and the development of other modern birth control techniques. The introduction of new technology and simpler, safer, and more effective surgical techniques during the 1970s helped to bring the female sterilization procedure to its present position as the leading method of contraception worldwide.

Table 1 summarizes the available data on the use of female sterilization in 70 developing and developed countries or territories. Over 90 million women have been sterilized in these regions; the global figure is estimated to be about 140 million.

Table 1. Prevalence of female sterilization and number of women sterilized, for 70 countries or territories

Country or territory	Year	Prevalence[a] (%)	Estimated number of married women of reproductive age (in thousands)[b]	Estimated number of sterilized women (in thousands)[c]
Africa/Eastern Mediterranean				
Botswana	1984	1	85	0.9
Egypt	1988[d]	2	7310	146.0
Ghana	1988[d]	1	2164	21.6
Iraq	1974[e]	1	2000	20.0
Jordan	1983	3	291[e]	8.7
Kenya (15–49)	1989[d]	5	3279	163.9
Lesotho	1977	1	171	1.7
Liberia (15–49)	1986	1	342	3.4
Mauritius	1985	4	147	5.9
Morocco (15–49)	1987	2	3235	64.7
South Africa	1976[e]	5	4100[e]	205.0
Tunisia	1983	13	1731[f]	225.0
Turkey	1983	1	7304	73.0
Zimbabwe	1988[d]	2	1323	26.5
Total				966.3
Asia				
Bangladesh	1985	8	17596	1407.7
China	1985	27	163022	44015.9
Fiji	1978[e]	17	100	17.0
Hong Kong	1977	19	505[e]	96.0
India	1982	11	123407	13577.8
Indonesia	1987	3	29185	875.6
Republic of Korea	1985	32	5982	1914.2
Malaysia	1984	8	2284	182.7
Nepal	1986	7	2952	206.6
Pakistan	1985	2	14471	289.4
Philippines	1986	10	8108	810.8
Singapore	1983	22	354	77.9
Sri Lanka	1987	25	2307	576.8
Thailand	1987	22	8156	1794.3
Total				65842.7
Latin America/Caribbean				
Barbados	1981[e]	14	40[e]	5.6
Bolivia (15–49)	1989[d]	4	882	35.3
Brazil	1986	27	18928	5110.6

Table 1. (cont.)

Country or territory	Year	Prevalence[a] (%)	Estimated number of married women of reproductive age (in thousands)[b]	Estimated number of sterilized women (in thousands)[c]
Colombia (15–49)	1986	17	3 975	675.8
Costa Rica	1986	16	370	59.2
Cuba	1980[e]	16	1 700[e]	272.0
Dominican Republic (15–49)	1986	27	964	260.3
Ecuador (15–49)	1987	15	1 290	193.5
El Salvador	1988[g]	30	671	201.3
Guadeloupe	1976[e]	8	50[e]	4.0
Guatemala	1987	10	1 167	116.7
Guyana	1975	9	214	19.3
Haiti	1983	1	1 293[f]	12.9
Honduras	1984	12	540	64.8
Jamaica (15–49)	1983	11	568[h]	62.5
Martinique	1976[e]	9	50[e]	4.5
Mexico (15–49)	1987	19	11 544	2 193.4
Panama	1984	35	272	95.2
Paraguay	1987[g]	4	525	21.0
Peru (15–49)	1986	6	2 506	150.4
Puerto Rico	1982	40	400[e]	160.0
Venezuela	1977[e]	7	2 100[e]	147.0
Total				9 865.3
Developed countries				
Australia	1979[e]	22	2 400[e]	528.0
Austria	1982	1	1 882[f]	18.8
Belgium	1983	17	2 419[f]	411.2
Bulgaria	1976	1	1 700[e]	17.0
Canada	1984	31	4 353[f]	1 349.4
Czechoslovakia	1977	3	2 600[e]	78.0
Finland	1977	4	700[e]	28.0
France	1978	4	8 200[e]	328.0
Germany, Federal Republic of	1985	10	15 639[f]	1 563.9
Italy	1979	1	13 848[f]	138.5
Japan	1986	8	30 789[f]	2 463.1
Netherlands	1985	5	3 810[f]	190.5
New Zealand	1976	11	500[e]	55.0
Norway	1977	4	600[e]	24.0
Portugal (15–49)	1980	1	2 570[f]	25.7