

Natural family planning

A guide to
provision of services



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GENEVA

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Preface

Methods of natural family planning (NFP) are based on observation of naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle. Awareness of the fertile phase can allow a couple to time intercourse, either to avoid or to achieve pregnancy. Natural family planning thus provides an alternative for those who, for any reason, cannot or do not wish to use pharmacological or mechanical contraceptives.

The present guide is intended for use by programme managers, administrators, and service providers in family planning and health care systems who are responsible for developing or expanding NFP services. The guidelines given in this publication are not meant to be rigorously applied but should be adapted to the local situation.

Successful delivery of NFP services is essentially linked to education of potential users, and hence this guide includes specific recommendations on training of NFP teachers as well as on service delivery. A brief explanation of the current NFP methods is also provided. Several annexes provide complementary information: Annex 1 gives comparative data on the effectiveness of all family planning methods, including NFP; Annex 2 is a list of organizations from which information on NFP methods and training materials are readily available; Annex 3 presents sample report forms for use in NFP programmes; Annex 4 briefly describes some existing NFP programmes; and Annex 5 gives answers to a range of questions frequently asked about NFP.

This guide is one of a series of publications on family planning issued by the World Health Organization since 1976. It synthesizes the knowledge and experience of experts in NFP from around the world. The guide was developed by, among others, members of the International Federation for Family Life Promotion (IFFLP) who conducted special workshops in Mauritius, Hong Kong, and

Ecuador and at the Fourth IFFLP Congress in Ottawa, Canada, in 1986, and participants in an informal working group on natural family planning who met at the WHO Regional Office for the Americas in Washington, DC, in 1986. In addition, an extensive field review was conducted that included professionals with NFP experience from the IFFLP, the United States Agency for International Development, the Institute for International Studies in Natural Family Planning, Family Health International, the International Planned Parenthood Federation and staff from both WHO Headquarters and Regional Offices.

The financial support of the United Nations Population Fund (UNFPA) is gratefully acknowledged.

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

Other WHO publications on contraception and family planning

Female sterilization: guidelines for the development of services. 1976 (Offset Publication No. 26)

Induced abortion: guidelines for the provision of care and services. 1979 (Offset Publication No. 49)

Oral contraceptives: technical and safety aspects. 1982 (Offset Publication No. 64)

Intrauterine devices: their role in family planning care. 1982 (Offset Publication No. 75)

Barrier contraceptives and spermicides. Their role in family planning care. 1987

Mechanism of action, safety and efficacy of intrauterine devices: report of a WHO Scientific Group, 1987 (WHO Technical Report Series, No. 753)

Technical and managerial guidelines for vasectomy services. 1988.

1. General considerations

Natural family planning (NFP) is a term used to describe methods of planning or preventing pregnancy based on observation of naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle. People who use NFP to avoid or delay pregnancy abstain from intercourse on potentially fertile days. Those wanting to achieve pregnancy use NFP to identify the fertile phase and hence maximize the probability of pregnancy. Techniques include the basal body temperature method, the cervical mucus (Billings') method, the symptothermal method, and the calendar or rhythm method (Ogino-Knaus). It is important to note that NFP is not a method of contraception but rather a technique for determining the fertile period; abstinence during this period is what prevents pregnancy. The methods are thus likely to be of interest to people who, for any reason, do not wish to use mechanical or pharmacological contraceptives.

Advantages of NFP methods include the following:

- NFP can be used either to avoid or to achieve pregnancy.
- There are no physical side-effects.
- The correct use of NFP methods increases self-awareness and knowledge of human reproductive functions.
- Users develop self-reliance.
- NFP use can promote involvement of the man, and cooperation, communication, and shared responsibility of the couple for family planning.
- NFP services can be provided as a separate service or as part of an established health and family planning or community agency programme.

- Delivery of NFP services is not dependent on medically qualified personnel.

The disadvantages of NFP include the following:

- The instruction period for users is about 3 months.
- NFP techniques must be taught by trained NFP teachers.
- The commitment and cooperation of both partners are essential.
- The users must keep daily records of signs of fertility.
- When NFP is used to avoid pregnancy, some couples experience emotional stress as a result of the need to abstain from intercourse for between 8 and 16 days, depending on the method they use. Tension may also be caused by uncertainty about the effectiveness of the methods.

Development of NFP methods

The calendar or rhythm method was the first NFP method to be developed, between the 1920s and 1940s. It is based on the fact that ovulation occurs about two weeks before menstruation, regardless of the length of a woman's menstrual cycle. Studies conducted in several countries have shown that, of women using any form of family planning, up to 41% were using rhythm (1). However, the rhythm method is not completely reliable. Improved understanding of human reproductive physiology has led to the development of more reliable natural methods of family planning. Instead of using only calendar records of past cycle lengths to calculate the probable fertile period, recently developed NFP methods use day-to-day monitoring of physiological signs of fertility.

Effectiveness of natural family planning

The effectiveness of many reversible methods of family planning depends both on how well the users understand the method and on how well they use that knowledge.

Effectiveness is expressed in terms of how many pregnancies would occur in 100 women who used the method for 12 months; thus, one pregnancy would be equivalent to a failure rate of 1%. In some cases, the method itself may be theoretically extremely effective but the way it is used in practice may make it less so.

Most family planning methods have a theoretical failure rate of 5% or less (see Annex 1). Sterilization is the most effective, with a failure rate of less than 1%. Hormonal contraceptives (oral, injectable, or implantable) and the intrauterine device have theoretical failure rates of between 0.3% and 3%; barrier contraceptives and spermicides (e.g., condom, diaphragm, cervical cap, foam) between 1% and 5%. Natural family planning methods also have a theoretical failure rate of between 1% and 5%, depending on the method used.

Use-effectiveness rates for some methods (e.g., sterilization, hormonal implants, intrauterine device) are about the same as theoretical effectiveness rates. However, when the effectiveness of a method depends on action by the user—as do the contraceptive pill, condom, diaphragm, foam, and natural methods—use-effectiveness rates may be up to 10 times lower than theoretical effectiveness rates. Motivation is important in these user-dependent methods since the stronger the motivation of the user the more likely it is that the user will apply the method effectively. Actual failure rates for the contraceptive pill range from 1% to 8%; for condoms, from 3% to 15%; for diaphragms, from 4% to 25%; and for contraceptive sponges, from 15% to 30% (based on preliminary studies). Natural methods have an overall actual failure rate of 10–30% (see Table 1). Use-effectiveness rates for NFP methods depend to a large extent on whether they are being used to avoid or merely to delay pregnancy. For example, in one study, the actual failure rate for couples using the symptothermal method to avoid pregnancy was 2.8%, while the rate for those wishing to delay pregnancy was 13.3% (7).

Cost-effectiveness

There is little information on the cost of training NFP teachers and users and providing follow-up services, the

Table 1. Effectiveness of natural family planning methods

Source	Place	Details of study	No. of cycles (c) or months (m)	No. of unplanned pregnancies	Failure rate (per 100 woman-years)	Method used
Klaus et al. (1979) (2)	USA	Prospective study, 1090 new and experienced users	12 283 (c)	209	20.4	cervical mucus
Marshall (1985) (3)	England	Prospective study, 108 women	2 109 (c)	7	4.0	cervical mucus, basal body temperature
Mascarenhas et al. (1979) (4)	India	Prospective study, 3580 'acceptors' (not defined)	39 967 (c)	176	5.3	cervical mucus
McCarthy (1981) (5)	USA	Prospective study of 83 experienced users	NR ^a	45	NR ^a	cervical mucus, basal body temperature
Medina et al. (1980) (6)	Colombia	(a) Prospective study, randomized: 277 new users	1 967 (m)	61	37.2	cervical mucus
		(b) Prospective study, randomized: 286 new users	1 882 (m)	54	34.4	cervical mucus, basal body temperature, calendar calculation

Rice et al. (1981) (7)	Canada France Mauritius USA	Prospective study, 905 women	19 583 (c)	96	5.9	cervical mucus, basal body temperature, calendar calculation
		(a) substudy 341 spacers	6 142 (m)	68	13.3	cervical mucus/basal body temperature
		(b) substudy 548 limiters	12 069 (m)	28	2.8	calendar calculation
Wade et al. (1980) (8)	USA	(a) Prospective study, randomized: 573 new users	3 223 (m)	94	35.0	cervical mucus
		(b) Prospective study, randomized: 590 new users	3 399 (m)	47	16.6	cervical mucus, basal body temperature, calendar calculation
WHO (1983) (9)	El Salvador	(a) Prospective study, 869 new users	2 701 (c)	45	21.7	cervical mucus
	India				(13 months)	
	Ireland	(b) Prospective study, 725 successful users	7 514 (c)	130	22.5	cervical mucus
	New Zealand				(13 months)	
	Philippines					

* NR=not recorded.

difference between the cost of adding NFP services to an existing programme and that of creating a single-service programme, the number of NFP users who use the methods successfully over a number of years, and the cost of births avoided. NFP services have often been provided by volunteers and, in many cases, record-keeping has been sporadic. Most of the data that are available have been gathered recently on new NFP users; continued research is essential.

However, it is clear that NFP users must be taught to use the method, and this can be expensive. Often, one teacher teaches one user or couple at a time. Training can take 3–4 months (or cycles), and instructional materials (charts, booklets, user record charts, etc.) are required.

However, some aspects of natural family planning may offset costs of training. NFP instructors need not be medically trained. Often, successful NFP users will offer (or can be recruited) to become NFP teachers and to teach as unpaid volunteers. Once the methods have been learned, the cost of continued use is low since the user needs only a pencil, a paper chart and, for the basal body temperature and symptothermal methods, a thermometer. Some NFP service providers believe that there is only a limited need for follow-up to ensure that users continue to practise the method correctly, but further research on long-term NFP use is required.

Potential demand

Virtually all couples who want to plan their family can use NFP. A couple's chance of using NFP successfully increases if they are highly motivated and enjoy good mutual understanding and communication. The level of formal education does not appear to be a factor in a person's ability to learn NFP. In a WHO five-country study (10), 93% of the women, representing a wide range of socioeconomic and educational levels, were able to identify correctly fertile and infertile phases during the first cycle following instruction in the ovulation method. In one centre, 48% of the women were illiterate, and were as successful as women with postgraduate education in two other centres.

Breast-feeding mothers and women with irregular cycles (e.g., women who are premenopausal or women who have recently stopped using hormonal contraception) are also able to learn and use modern NFP methods which, unlike the rhythm method, do not depend on regularity of cycle length. Research is currently underway to examine more precisely the evidence for successful use of NFP by such women.

It is difficult to determine how many women currently use NFP, let alone how many would be interested in NFP if it were offered. Existing NFP services do not regularly report numbers of users to a central office, nor do they necessarily keep statistics on all users. Other users may learn NFP methods outside of organized services and, therefore, are not known to these services. A rough, and probably low, estimate of the total number of women using periodic abstinence is 10–15 million (11). However, the majority of these women probably use some version of calendar rhythm rather than the newer NFP methods.

Some data are available on the number of women using some form of contraception and using NFP (Table 2).

As information on use of NFP is more systematically gathered, it is possible that more NFP users will be identified. It is also likely that as NFP services are offered more widely the number of people using NFP will increase.

Table 2. Women using some form of contraception and natural family planning, as a percentage of the total female population of reproductive age^a

Country	Percentage of women of reproductive age using contraception	
	All types	NFP
Bangladesh	17	2
Brazil (State of Paraíba)	15	7
Haiti	22	4
Kenya	16	1
Peru	41	17
Philippines	24	9
Sri Lanka	24	13

^a From: LANCTOR, C. A. ET AL., ed. *Natural family planning: development of national programs*. Washington, DC, International Federation for Family Life Promotion, 1984

Service options

The provision of appropriate health services for all should be the goal of an active health care programme.

The strength of a maternal and child health and family planning programme lies in its ability to meet the varying needs of women and couples. NFP can add to this strength because it will allow the programme to offer an additional, safe, family planning option. Even if the need for NFP is not apparent in a community, the family planning provider should be sufficiently familiar with the methods to be able to explain them briefly to potential clients, and to refer those who express interest to an NFP service.

Comprehensive family planning programmes can add NFP services by training existing staff, hiring NFP instructors, coordinating development of services with local NFP service providers, or organizing a cross-referral system between maternal and child health care and family planning programmes and existing NFP services. Governments may wish to support the development or expansion of private or nongovernmental services.

NFP is a very practical alternative when professional health care resources are limited, equipment is in short supply, and contraceptive supplies are unavailable or unreliable. Personnel providing NFP services do not need to be medically qualified. In fact, most NFP services in both developed and developing countries over the last 15 to 20 years have been provided by volunteers who, for the most part, were NFP users who then trained to be teachers.

Support for NFP services, when available, has usually come from nongovernmental sources. Some government funding was provided to services in Australia, Canada, France, Kenya, Kiribati, Mauritius, New Zealand, Papua New Guinea, the Philippines, Tonga, the United Kingdom, and the United States of America, and NFP is specifically mentioned in family planning or related legislation in several countries, including Argentina, Brazil, Chile, Ireland, the United States of America, and Zambia. Further expansion of NFP services was encouraged by the United Nations during the 1984 International Conference on Population in Mexico, when delegates issued a formal recommendation advising governments to make information and education

related to family planning, including NFP, universally available. The recommendations also included a request for an allocation of resources for research leading to a better understanding of the woman's fertile period.¹

¹ *Report on International Conference on Population, 1984*. New York, United Nations (document no. E-Conf-76-19).

2. Natural family planning methods

All family planning methods, regardless of whether they are intended to prevent or achieve pregnancy, are based on what is known about fertility. Natural methods make use of the naturally occurring signs of fertility to help a couple choose when to avoid intercourse if they want to avoid having a child. The same signs can be used to help a couple choose when to have intercourse if they want to have a child. Successful natural family planning requires a good understanding of the process of human reproduction and of the signs of fertility in the woman.

Human reproduction

Reproduction depends on the fertilization of an egg by a sperm. Once the egg has been fertilized, it implants itself in the woman's womb and begins to develop.

Male reproductive physiology

The male reproductive organs are shown in Fig. 1. Once a male reaches puberty, his testicles begin to produce sperm, and continue to do so throughout his life. When a man has intercourse, sperm floating in semen are ejaculated out of his penis into the woman's reproductive tract. In most cases, a single sperm can live for anywhere from 24 to 120 hours. Millions of sperm are ejaculated at one time, but whether or not any one particular sperm can reach and fertilize an egg depends on many factors—whether the sperm is strong enough to survive the trip up the female reproductive tract, how quickly the sperm can move, whether the fluids in the female reproductive tract provide enough nourishment, and so on.

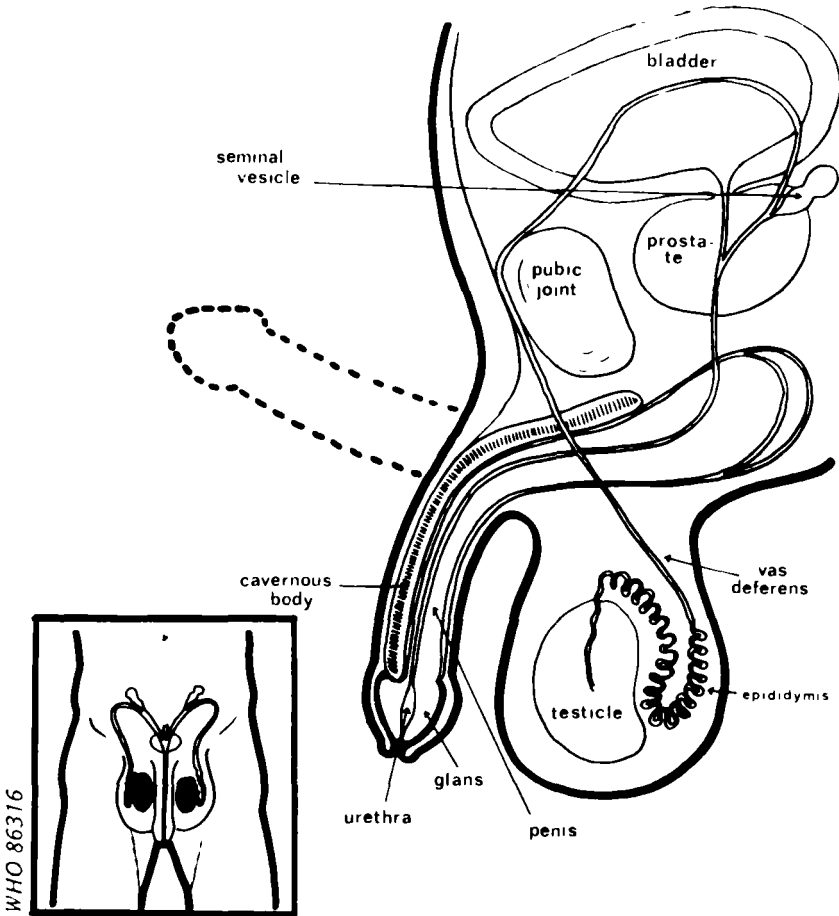


Fig. 1. Male reproductive organs.

Female reproductive physiology

Fig. 2 shows the female reproductive organs. A woman's ability to produce an egg and become pregnant varies from day to day in a cyclical manner. The first day of menstruation is taken as day 1 of the cycle.

During the early part of the cycle, small structures called follicles begin to develop in the woman's ovaries; these follicles secrete the female sex hormone, estrogen. The rising estrogen level causes glands in the cervix (the lower part of

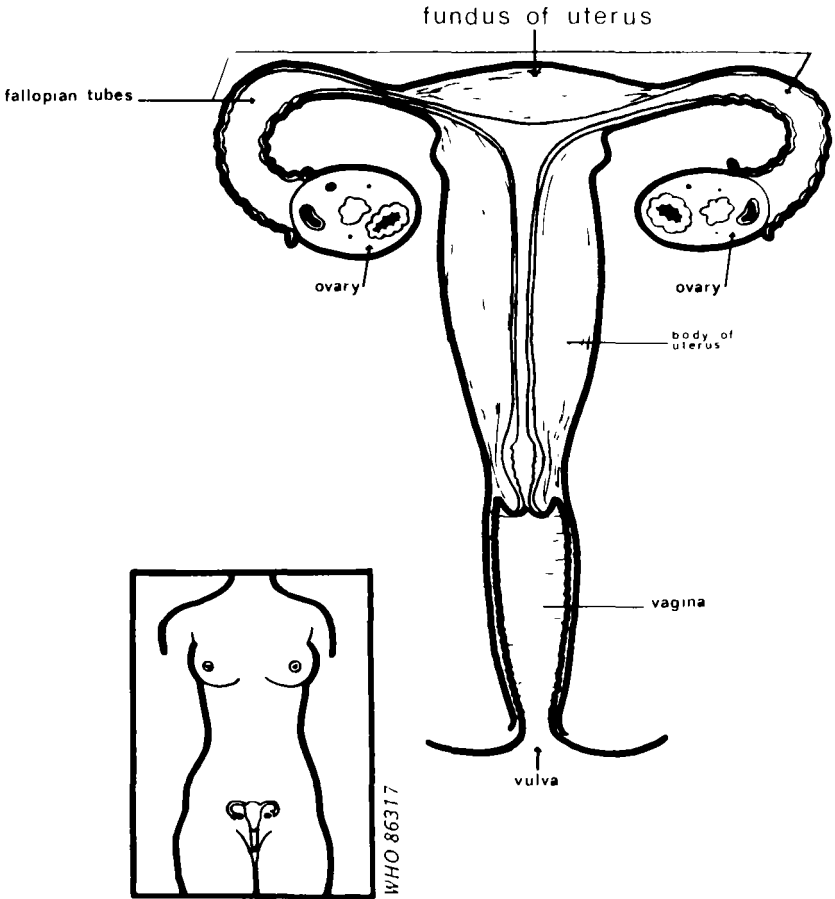


Fig. 2. Female reproductive organs.

the uterus that comes down into the vagina) to secrete a wet, stretchy and lubricative mucus. This is often called fertile mucus, and can usually be felt on the vulva several days before ovulation. As the estrogen level peaks, a hormonal action causes one, or sometimes more, of the follicles to rupture and release an egg. The life span of an egg is very short—usually about 12 hours and seldom longer than 24 hours. The egg enters one of the woman's fallopian tubes and is carried towards the uterus. If there are healthy sperm in the fallopian tube when the egg passes

through it, the egg may be fertilized by one of them. The higher estrogen level around the time of ovulation causes the cervix to become soft, higher in the vagina, and wet, and to open up. A woman may have some lower abdominal pain and experience some spotting or bleeding (called ovulatory or intermenstrual bleeding). If the egg is fertilized, it travels into the womb and implants itself into the wall of the uterus.

After ovulation, the follicle that released the egg develops into the corpus luteum, which secretes estrogen and progesterone. If fertilization has occurred, these two hormones help to maintain the lining of the uterus (the endometrium), in which the fertilized egg is implanted. Progesterone causes the cervical mucus to change from being wet and lubricative to thick and sticky. A woman may feel dry rather than wet in the area of the vulva as a result of this change. The increasing level of progesterone also induces a rise in the woman's basal body temperature (the temperature of the body at rest) of at least 0.2°C (0.4°F). If the egg is not fertilized, it disintegrates and the levels of estrogen and progesterone remain high for approximately 10–16 days before declining. This decline in hormone levels causes the body to shed the lining of the uterus. This is menstruation. The first day of menstruation is day 1 of a new menstrual cycle. Ordinarily, a woman's cycle lasts about 28–30 days, although some women's cycles may be shorter or longer.

Thus, a woman's menstrual cycle has three phases: (a) a relatively infertile (early infertile) phase that begins with menstruation; (b) a fertile phase, which includes the day of ovulation and those days immediately before and after ovulation during which intercourse may result in pregnancy, and (c) a postovulatory (or late) infertile phase, which begins when the fertile phase ends and lasts until menstruation starts (Fig. 3).

Combined male and female fertility

From what is known about male fertility (i.e., men produce sperm continuously and ejaculated sperm live for 24–120 hours) and female fertility (i.e., ovulation occurs

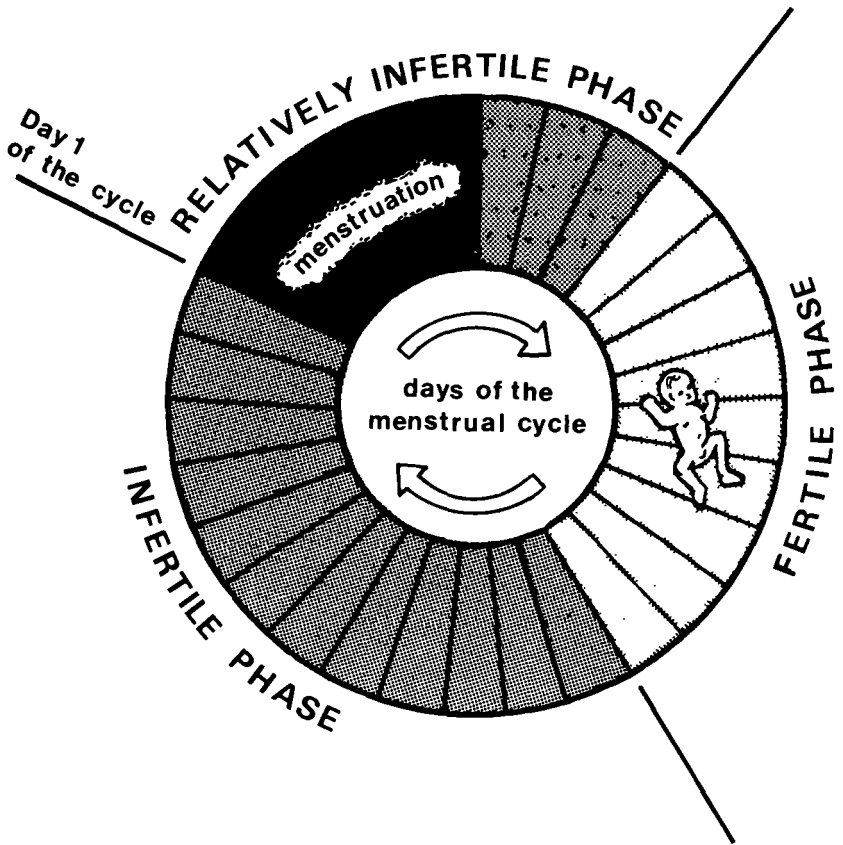


Fig. 3. Awareness of the fertile and infertile phases of the menstrual cycle can help a couple to avoid or to plan a pregnancy.

only once each cycle and eggs live for about 12–24 hours), it is possible to assess combined male and female fertility. The life span of both the egg and the sperm must be considered. Also, whether a sperm survives and is capable of ascending a woman's reproductive tract to reach the usual site of fertilization in the fallopian tube is affected by the quality of the cervical mucus that the woman secretes. Wet, stretchy cervical mucus helps the passage of sperm into the uterus and can act as a sperm reservoir. Thus, sperm ejaculated into wet, stretchy, fertile mucus several days before ovulation and for about 24 hours after ovulation may be able to fertilize the egg. The combined male and

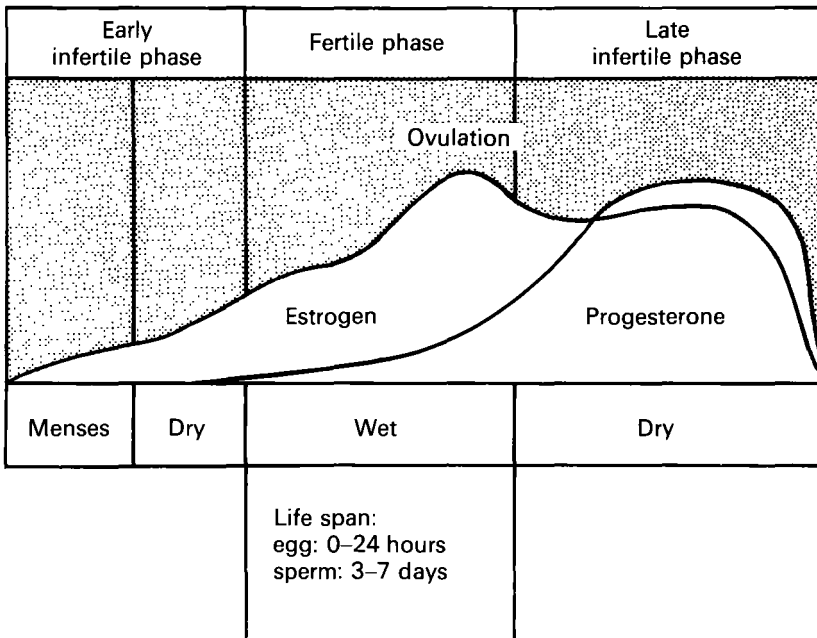


Fig. 4. The phases of the menstrual cycle.

female fertile period may therefore last for 2-6 or more days, depending on when fertile mucus is secreted in relation to ovulation. The chances of fertilization increase as a woman's estrogen level increases and the time of ovulation gets closer. Once ovulation has occurred, the likelihood of fertilization declines rapidly.

Fig. 4 illustrates the relationship between the phases of the cycle, hormone production, signs of fertility, and the life span of the egg and sperm.

Description of methods

At present, the four natural methods used for family planning are the rhythm, cervical mucus, basal body temperature, and symptothermal methods. The rhythm method involves calculation of the probable fertile period on the basis of the lengths of previous menstrual cycles. The

more recently developed methods identify the fertile period from either the basal body temperature or the characteristics of the cervical mucus or both. These primary signs may be complemented by other signs detected by the woman as recurring in her own pattern of fertility (for example, breast sensitivity, abdominal pain, intermenstrual bleeding, and changes in the position, opening, and texture of the cervix).

Rhythm

The rhythm or calendar method is one in which the probable days of fertility are estimated from the cycle records of the previous 6–12 months. The *earliest* day on which a woman is likely to be fertile is computed by subtracting 18 days from the length of her shortest cycle: the *latest* day on which she is likely to be fertile is determined by subtracting 11 days from the length of her longest cycle. These calculations therefore indicate the beginning and end of the woman's fertile period. For example, if the woman's menstrual records show that her shortest cycle has been 25 days and her longest cycle 31 days, her first fertile day will be day 7 of her cycle (25–18) and her last fertile day, day 20 (31–11). In other words, for this example, the fertile phase would be considered to last from about day 7 until day 20. During her fertile (unsafe) days she would have to abstain from intercourse to avoid pregnancy. This method, however, provides only a very rough estimate of the fertile time.

Cervical mucus method

In order to use the cervical mucus method (sometimes called the Billings' or ovulation method), a woman must learn to recognize the characteristic changes in the cervical mucus discharge that occur during the cycle. Most women experience a sensation of dryness in the vagina for a few days following the menstrual period (the relatively infertile or early infertile phase). Then, they notice the appearance of a sticky mucus, followed by several days during which the vagina feels increasingly wet. The last day of wetness or lubrication is called the peak day, and occurs when the estrogen is at its highest level. By this time, the cervical

mucus has become very wet, clear or cloudy, and slippery, and looks like raw egg white. After the peak day, the mucus rapidly changes under the influence of progesterone to become thick, or it may disappear completely, and the woman again experiences vaginal dryness. The fertile phase of the cycle begins at the time the wet mucus appears. The third day after the peak of wet mucus marks the end of the fertile phase. The postovulatory or late infertile phase of the cycle begins on the fourth day after peak mucus and continues until the first day of menstruation of the next cycle. When a couple wants to avoid pregnancy, they should abstain from intercourse from the day of appearance of wet cervical mucus until after the third complete day following the peak day of mucus. In addition, couples should avoid intercourse on consecutive days during the early 'dry' phase, since residual ejaculate may be confused with mucus.

The basal body temperature method

The basal body temperature method is based on the change in body temperature that occurs shortly after ovulation, associated with secretion of progesterone by the corpus luteum. After ovulation, the body temperature increases and remains at the higher level until the next menstruation. The postovulatory (late) infertile phase of a woman's cycle begins on the third day after the temperature shift is observed. Women using the basal body temperature method need to record their temperature at rest, at the same time each day, so that they can recognize the infertile time of each cycle. The method can be used only to identify the postovulatory infertile phase of the cycle. When a couple is using the method to avoid pregnancy, they must avoid intercourse until the third day after the rise in temperature.

The symptothermal method

The symptothermal method combines recording of the basal body temperature with the observation of the characteristics of the cervical mucus and other physiological indicators of ovulation, such as tenderness of the breasts, mid-cycle pain, spotting or bleeding, and abdominal

heaviness around the time of ovulation. Women may also observe changes in the position, degree of opening, and texture of the cervix, or include calendar calculations in their practice of the method. When a couple is using the symptothermal method to avoid pregnancy, they abstain from intercourse from the appearance of wet cervical mucus until the third day of elevated temperature or the fourth day after the peak day of mucus, whichever comes later.

Period of abstinence

The use of a natural family planning method requires a period of abstinence from intercourse at the time the woman is fertile. The length of abstinence varies depending on the length of the woman's cycle, the signs and symptoms in the cycle, and the method used. The longest period of abstinence is required in the strict application of the basal body temperature method, which requires that a couple have intercourse only during the postovulatory infertile phase. In the symptothermal method, the length of the period of abstinence varies according to whether the couple uses calculation of the fertile period, cervical mucus characteristics, changes in the cervix, or a combination of signs to identify the beginning of the fertile period. Fig. 5 illustrates the approximate length of abstinence required in a hypothetical 28-day cycle for each of the four methods. Although the actual fertile phase of the cycle is only about 6–8 days, the number of days of abstinence required varies from 8 to 17 days, depending on the method used.

Abstinence from intercourse can have positive and negative effects on a couple's relationship. These effects are discussed in Chapter 3.

Examples of application of the methods

Two examples of the use of the cervical mucus and symptothermal methods are provided below. These examples reflect the advice usually given to women and couples about the interpretation of a cervical mucus and/or symptothermal pattern.

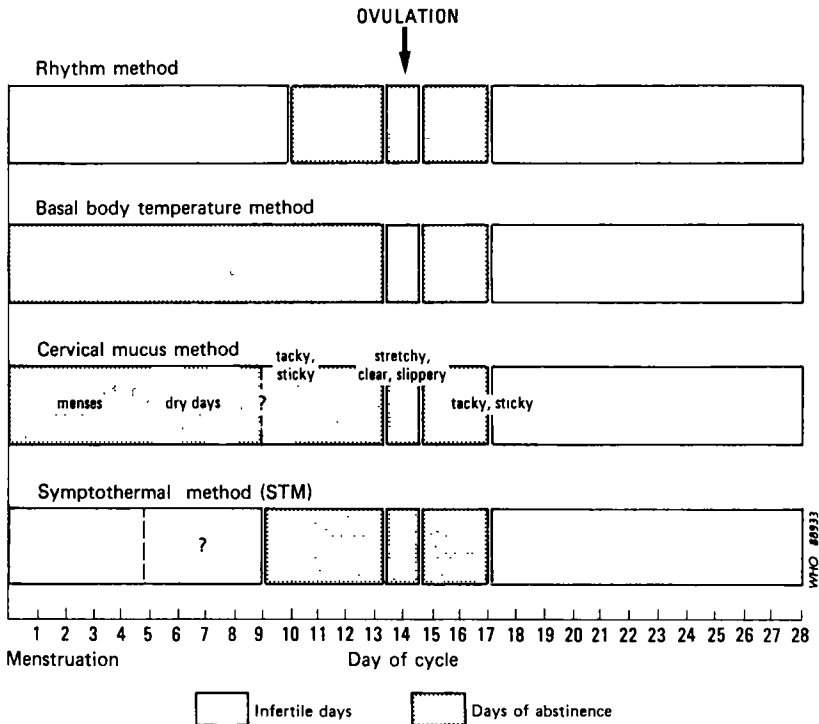


Fig. 5. Approximate length of abstinence required by different NFP methods for a 28-day cycle. (Reproduced by permission from reference 1.)

Example 1: Cervical mucus method

When cervical mucus patterns are used to identify the fertile and infertile phases of the cycle to avoid pregnancy, the following guidelines apply.

1. During the early infertile phase, women should avoid intercourse on:
 - days of menstrual bleeding (the cycle may be short or bleeding may indicate ovulation, if the previous cycle was not ovulatory);
 - consecutive dry days (cervical mucus may be confused with residual ejaculate during the following 24 hours).

2. Women must abstain from intercourse from the appearance of wet cervical mucus until three full days after the peak day (the fertile phase). (The peak day is the last day on which the mucus is lubricative, stretchy, cloudy or clear; it is followed by an abrupt change to sticky, thick mucus or a sensation of dryness.)
3. In the late infertile phase, all days are infertile from the fourth day after the peak day until the end of the cycle. Couples may engage in intercourse at any time during this phase.

Fig. 6 shows a sample chart for a 26-day cycle, completed using the cervical mucus method. The early infertile phase included days 1–4, the days of menses, and days 5–13, which were dry. From day 14 there was a build up of slippery or lubricative cervical mucus which reached a peak on day 17, and was followed by an abrupt change to a thick mucus and dry days (days 18–26).

The fertile days in this cycle were days 14–20. The late infertile phase occurred from day 21, the fourth day after the peak day, until the end of the cycle.

Couples who want to achieve pregnancy, using cervical mucus patterns to identify the fertile phase, should have intercourse on days when the mucus is slippery and like raw egg-white.

Example 2: Symptothermal method

When the symptothermal method is used to identify the fertile and infertile phases and a couple wishes to avoid pregnancy, the following guidelines apply.

1. In the early infertile phase, the couple may have intercourse:
 - during the first six days of the cycle, provided the woman's previous cycle showed a fertile mucus pattern and a biphasic basal body temperature profile (i.e., when the body temperature showed an upward shift in mid-cycle of 0.2–0.5°C or 0.4–1.0°F and then remained at the higher level until the onset of menstruation).
 - on alternate dry days until the appearance of wet mucus.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
Wet	Wet	Wet	Wet	Dry	Dry	Dry	Dry	Dry	Dry	Thick	Dry	Dry	Dry	4	3	2	1	L	W	W	W	W	D	D	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD				
Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses	Menses				

Fig. 6. Example of a chart completed for a 26-day cycle, using the cervical mucus method.

2. Women must abstain from intercourse from the appearance of wet cervical mucus until the third day after the temperature shift or the fourth day after peak mucus, whichever occurs later.
3. During the late infertile phase, couples may engage in intercourse at any time.

In some natural family planning programmes, calendar calculations to determine the beginning of the fertile phase and self-palpation of the cervix to identify changes are also taught to provide women with additional assistance in confirming fertile and infertile days.

Fig. 7 shows a symptothermal method chart completed for a 27-day cycle. Days 1–8 comprised the early infertile phase in this cycle. Days 9–16 were the fertile days of the cycle, as shown by a build up of cervical mucus to a peak on day 13, followed by a shift in body temperature to a higher postovulatory level on day 15. In this cycle, the third consecutive day of higher temperature coincided with the fourth day after the peak day of mucus, and these two signs marked the end of the fertile phase. Days 17–27 were the late infertile phase. Cervical changes recorded on the chart show that the cervix was low, firm, and closed on days 6–9, rising and opening on days 10–13, and was again low, firm, and closed after day 14. In this cycle, the changes in the cervix helped to confirm the fertile days of the cycle indicated by the mucus characteristics and the temperature shift.

Special circumstances

Menarche and adolescence

A girl's first menstrual period (called the "menarche") occurs when her body, central nervous system, and endocrine glands have matured sufficiently for her ovaries to begin functioning. This generally happens when the girl is around 11–14 years old. The actual age of menarche will depend on the girl's general health and nutritional status, and on genetic factors. Often, the initial menstrual cycles

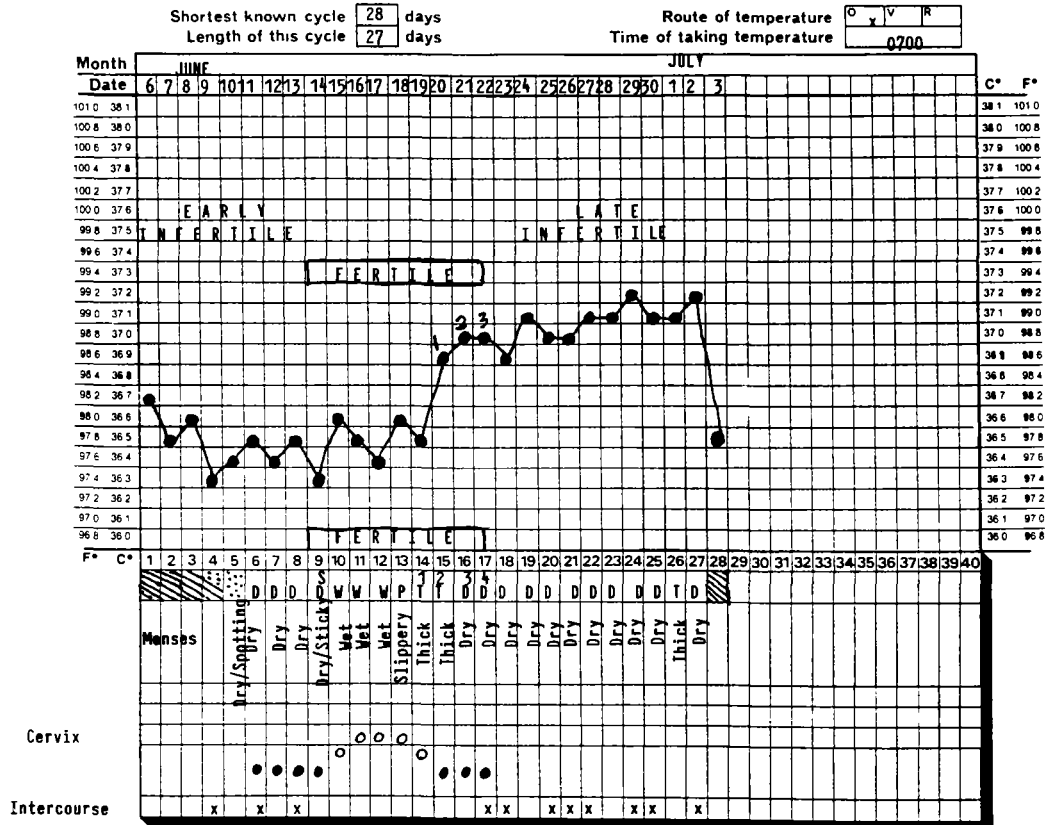


Fig. 7. Example of a chart cycle completed for a 27-day cycle, using the symptothermal method.

after menarche are anovulatory (that is, ovulation does not occur and the cycles are infertile) and menstruation occurs at irregular times. It usually takes 1–3 years for a girl to develop regular, ovulatory, menstrual cycles. Knowledge about what occurs during the menstrual cycle can help young women to understand the physical and emotional changes that occur during adolescence, and fertility awareness instruction for both adolescents and their parents can be helpful. When appropriate, the adolescent can begin to learn about natural family planning.

Premenopause

As women get older, they eventually stop menstruating. The end of menstruation is called the menopause. Typically, this is not a sudden occurrence. Several years before the menopause, the woman's ovaries begin to produce lower levels of hormones and her fertility decreases. The interval between menstrual periods begins to vary, sometimes quite significantly.

Follicular development and ovulation occur less regularly and anovulatory cycles become more common. During cycles in which ovulation and the release of an egg occur, secretion of progesterone by the corpus luteum is frequently inadequate and hence the endometrium does not develop sufficiently to allow implantation of a fertilized egg. Typically, in cycles without ovulation there is sparse or non-changing mucus and the body temperature does not show an increase. Although the fertility potential of a couple is markedly reduced in the premenopausal years, pregnancy can still occur.

Fig. 8 illustrates a cycle of 26 days in a premenopausal woman using the cervical mucus method. Days 14–20 were considered fertile because there was a progressive change from a dry pattern to two days of sticky mucus, followed by the appearance of mucus with fertile characteristics. Day 17 was the peak day, because there was wet mucus with a lubricative sensation, followed by a sudden change to thick mucus, and then by dry days for the rest of the cycle. The postovulatory infertile phase of this cycle was short, days 21–26. Menstruation and a new cycle began on day 27.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
///	///	///	///	D	D	D	T	D	D	D	D	D	S	S	W	W	L	T	D	D	D	D	D	D	D	D	///																
Menses	Menses	Menses	Menses	Dry	Dry	Dry	Thick	Dry	Dry	Dry	Dry	Dry	Sticky	Sticky	Wet	Lubricative / Wet	Thick	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Menses																
				x		x						x																															

Fig. 8. Example of a chart showing a premenopausal cycle, using the cervical mucus method.

Women who have difficulty conceiving

An understanding of the signs and symptoms of the fertile period can be useful for couples who are having difficulty in conceiving. A couple trying to achieve pregnancy would be advised to have intercourse during the high estrogenic phase, as shown by the appearance of wet lubricative mucus.

Fertility awareness can also help in determining if a woman is having anovulatory cycles. If the woman observes her cervical mucus, she may find that there is no typical pattern of fertile mucus and/or her cycles have a large number of dry days and no sign of a biphasic shift in body temperature. Women with repeated evidence of such abnormalities, as well as those with apparently normal cycles who have tried unsuccessfully to conceive for one year or more, should be referred to an infertility specialist.

Breast-feeding mothers

Breast-feeding is nature's way of spacing children, by delaying the return of menstruation and fertility. In many developing countries where family planning services are not widely available, breast-feeding is often the only way to space births. In addition, breast milk contains the mother's antibodies, and thus helps protect the baby from infection, as well as providing all the nourishment needed in the first six months of life. Breast-feeding should be encouraged for the health of both the infant and the mother.

A breast-feeding mother, whether she is breast-feeding exclusively, or giving other foods as well, or beginning to wean the baby, can use natural methods to identify her fertile days.

Fig. 9 is a symptothermal chart showing the typical fluctuations in mucus pattern experienced by a woman who is weaning her baby and whose cycles are beginning to return to a regular pattern. On days 6–9, there was a change from a vaginal dryness to the appearance of thick, sticky mucus. However, this was followed by a return to dryness. On days 15–18, mucus with increasingly fertile characteristics appeared. At this point, the woman began to take her basal body temperature to assess whether the appearance of fertile mucus would be followed by ovulation.

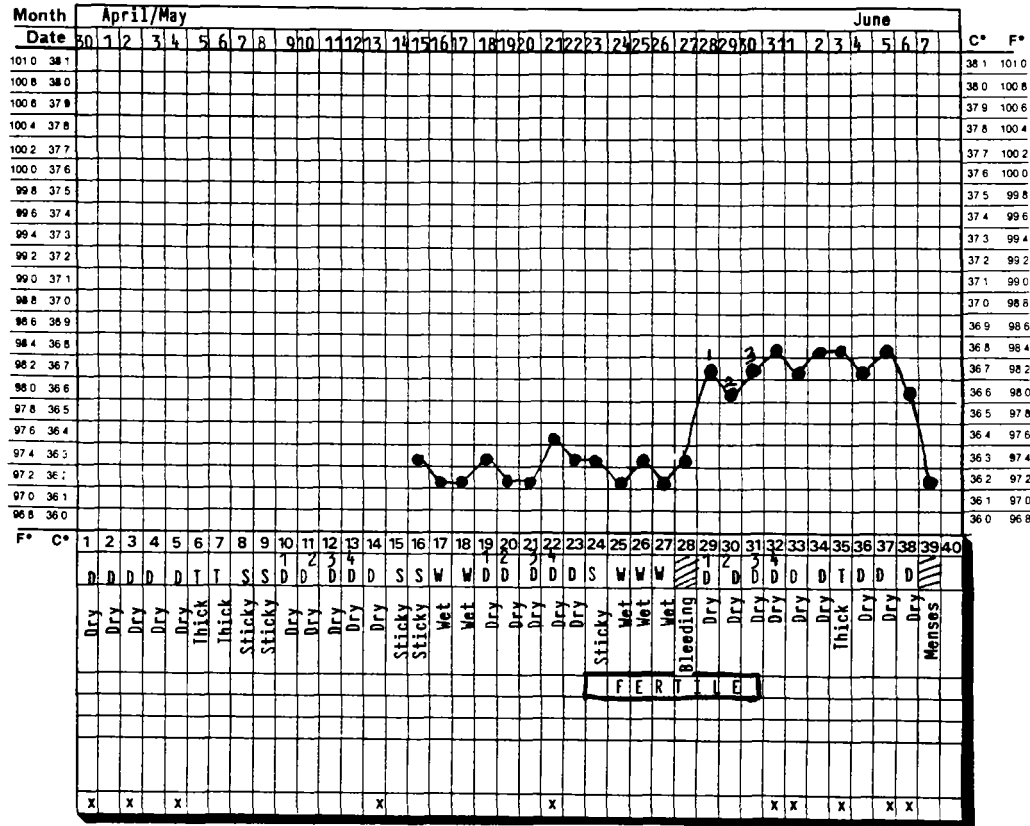


Fig. 9. Example of a symptothermal chart completed by a woman who is starting to wean her baby.

No temperature shift occurred and the mucus pattern reverted to dryness. The woman continued to take her temperature. Mucus again began to appear, and on days 24–28 mucus with fertile characteristics was observed and some bleeding occurred; the woman's body temperature shifted to a higher level, followed by a return to vaginal dryness. The second episode of fertile mucus (days 24–28), followed by bleeding and a shift in temperature, indicated that ovulation had taken place. This was confirmed by the onset of menstrual bleeding 11 days later.

During breast-feeding, all days of mucus should be considered as potentially fertile and intercourse should be postponed until the fourth evening after the last day of mucus. As more mucus appears, the body temperature can be used to confirm the return of fertility.

In most mothers, the return to fertility is heralded by the return of menstruation. However, conception without menstruation does occur in a small proportion of women. Signs and symptoms other than menstruation, particularly the return of typical cervical mucus patterns and a biphasic temperature shift, may provide an earlier indication of returning fertility.

Women with vaginal infections

Vaginal discharge is a normal occurrence in healthy women. However several bacteriological and viral agents can cause infections that produce an abnormal vaginal discharge. Often the discharge is whitish or yellow and may have an unpleasant odour. The presence of such discharges may make it more difficult to distinguish changes in the cervical mucus, and this may affect the woman's confidence in the method.

3. Psychosocial aspects

Successful use of natural family planning requires motivation on the part of both the man and the woman. People's approach to NFP will be affected by their attitudes about themselves and their relationship, and their moral and religious norms, as well as the standards of public and private behaviour prevailing in the society, the customary roles of men and women, and other sociocultural concerns.

Use of NFP requires self-awareness, discipline, and conscious decision-making each day. NFP users need to observe and record physiological signs and symptoms of fertility and to abstain from sexual intercourse for between 6 and 18 days in each cycle. It takes approximately 2–3 cycles to learn to use NFP correctly, and new users are usually more cautious than those who are more experienced. Some couples find NFP difficult to use while others feel that NFP enhances certain aspects of their relationship.

Motivation is an important factor in the choice, acceptance, continued use and effectiveness of any reversible family planning method, including NFP. This is clearly reflected in the wide range of reported use-effectiveness rates for NFP, and particularly by the difference in use-effectiveness rates observed between those who do not want more children and those who merely want to delay pregnancy (7).

Choosing and using NFP

Couples may become interested in using NFP for a variety of reasons related to its convenience, its acceptability in terms of their life-style or philosophy of personal health and well-being, a desire for self-reliance, fear of side-effects of other methods, a previous negative experience with other methods, religious beliefs, or a desire on the part of both partners to share the responsibility for family planning.

Frequently, both the woman and her partner learn the method, which can lead to more open communication about their family planning goals and the need to abstain from intercourse. In turn, this communication and understanding between partners can influence their long-range plans to avoid or achieve pregnancy. In comparison with other methods of family planning, NFP is much more dependent upon mutual respect, understanding, and communication between the man and the woman.

As a couple learns and uses NFP, the need to communicate openly and regularly about their family planning intentions may lead to improvements in communication and understanding in other aspects of their lives. Satisfied NFP users often report that the necessity for abstinence from intercourse at certain times has given them the opportunity to develop ways other than sexual intercourse to express love and affection. This, in turn, may actually improve their overall loving relationship, and influence other aspects of their lives such as their relationships with other family members.

For a variety of reasons, however, it can be difficult for some couples to use NFP. They may lack confidence in their ability to identify the fertile days of the cycle or have difficulty abstaining from intercourse. For some couples, abstinence, particularly if it is prolonged, can result in bitterness and resentment rather than improved personal relationships. Moreover, in societies that are strongly dominated by men, abstinence may not be acceptable as a family planning method.

Acceptability in different societies

In some societies, traditional methods of family planning and/or periodic abstinence are more readily accepted than in others. For example, some cultural groups in India accept abstinence as part of their life-style (12). Some cultures support abstinence from sexual intercourse following the birth of a baby, during breast-feeding, or when a woman becomes a grandmother. However, these traditional practices are changing with the development of different concepts of family life under the influence of urbanization and industrialization.

Factors such as the enlargement of women's role in society, stressful economic conditions, and transition from rural to urban societies may alter traditional practices related to conjugal life, childbearing, and abstinence. Clearly, the need for cooperation between partners is important in the successful use of NFP. The life-styles of people who have multiple partners concurrently or in succession, for example, would make it extremely difficult for them to use NFP effectively.

As discussed previously, NFP services have only recently been introduced into private and public sector health care systems and studies of users' needs, method acceptance, and user characteristics are limited both in number and extent and in the quality of their design. As NFP methods become more widely available and the number of users increases, there will be more opportunities to study the factors that influence the acceptability of NFP.

4. Teaching natural family planning

Natural family planning services are primarily educational, and a competent teacher is the key to success in delivering such services. Programme and service managers should therefore make sure that teachers are properly trained. It is important that programme managers who wish to add NFP to their programmes as a service option do not try to expand services too rapidly, before an adequately trained teacher or a sufficient number of teachers are available to meet client needs. Otherwise, the instruction given may be inadequate, users may be poorly taught or have to wait too long for training, and service development may be permanently compromised in the eyes of users and of those funding the services.

NFP can be taught by different kinds of people in different environments. Health care professionals (nurses, midwives, physicians, and others) can teach NFP. Often the NFP teacher is a female nurse working in a health care centre or family planning clinic. People who are not health care professionals can also be trained to teach NFP. It can be taught to small groups or to individuals; teachers can work in health centres or in villages, and may even make house-to-house visits in a neighbourhood. Regardless of who teaches NFP or where they teach, it is essential for the teachers to understand the needs, habits, and culture of potential users.

When establishing a service, it may be difficult to determine how many teachers are needed. Few data are available on how many clients can be taught a particular natural method by one NFP teacher in a given period, the number of hours needed for instruction and follow-up, and so on. A lot will depend on whether the instruction is to be offered in individual training sessions or group sessions, or a combination of both. In addition, there is no way to determine how great the demand for NFP services may be. It should also be borne in mind that the person available

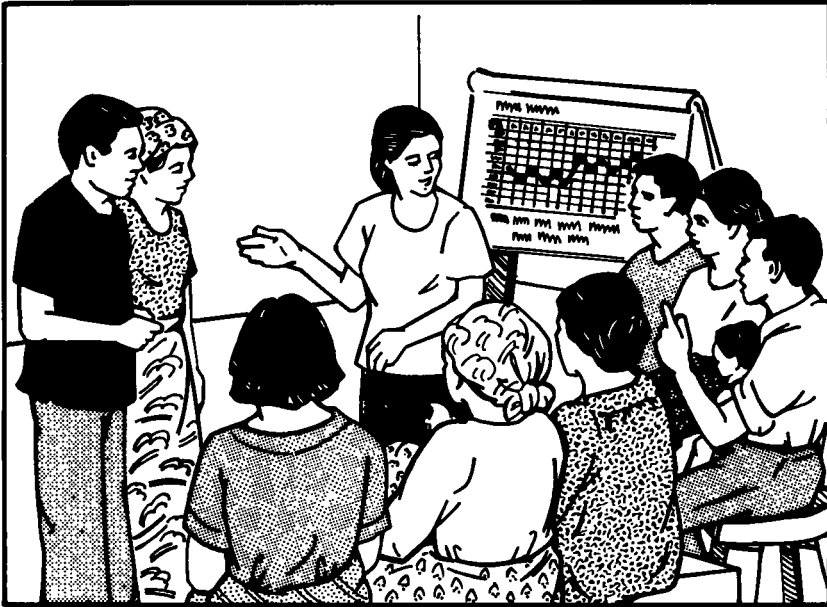


Fig. 10. Natural family planning methods can be taught in a variety of situations and by people who are not medically qualified, as well as by health professionals.

to provide NFP services may have other duties. In other words, it is not possible to say that an NFP service needs to have x teachers for every y clients. It is only possible to say that each NFP user needs to be taught by one teacher, and that the more NFP users there are, the greater will be the number of teachers required.

Giving instruction

NFP teachers help women and couples learn about their fertility patterns and how to use the information in deciding when to have intercourse. They also provide follow-up instructions so that clients receive support in using the methods until they reach full independence in NFP use, i.e., they can recognize the beginning and end of the fertile days of each cycle, time intercourse according to their family planning intention, are confident in the use of NFP, and

know when to seek additional help. Couples usually reach this stage about 4–6 cycles after they begin to learn a method.

During initial instruction, the teacher sees clients individually or in small groups and provides a general description of fertility awareness and natural family planning methods. He or she helps the potential users to choose an NFP method, discusses the importance of partner involvement, and teaches the couple how to observe and record the indications of fertility appropriate to the method (e.g., cervical mucus characteristics, basal body temperature patterns, and/or other signs of ovulation). The teacher also provides materials (e.g., charts, written instructions, and thermometers) as needed. Generally, couples are advised to postpone intercourse until the infertile phase in the first cycle has been confirmed by the teacher. The teacher also makes sure that there is a record of the clients' addresses, telephone numbers, and any other information needed to allow the teacher to monitor their progress.

During follow-up, the teacher sees clients individually or in small groups, and reviews their observations and records. For example, in teaching the cervical mucus method, the teacher should make sure that the woman has noted her mucus pattern and described fertile characteristics, and check whether approximately 2–5 days of mucus were observed before the peak day. He or she should note how the woman made the mucus observations and ensure that the notations on the chart reflect the woman's experience. The teacher should also review and clarify the couple's intention in using family planning. (Does the couple want to postpone pregnancy, i.e., to space births, or limit the size of their family, or to achieve a pregnancy?) The teacher should also review how the couple is practising the method to ensure that they can identify the beginning and end of the fertile period and that they are abstaining from intercourse on the appropriate days. At this time, the teacher should also discuss with the couple whether they are happy with the method, what they like about it and whether its use is causing any difficulty for either partner, particularly in regard to abstinence. As women chart their cycles, they are monitoring their general reproductive health, and in reviewing a woman's charts, the teacher may notice symptoms of health problems (e.g., vaginal infection or

ovarian dysfunction). If so, the woman should be referred to the care of health professionals, together with her charts and any other useful records. If a woman's chart suggests that she may be pregnant, the teacher should refer her to a health care facility for prenatal care as soon as possible.

Training of NFP teachers

NFP teacher training is the foundation of effective NFP service delivery. It must be structured so that the teacher acquires the necessary technical knowledge and teaching skills to teach NFP to women and couples and to provide adequate follow-up. Such training requires both formal teaching and supervised practical sessions in which the trainees are able to acquire initial skills in teaching natural family planning methods. Training of this kind (which is called "competency-based") usually requires considerable time. In reality, of course, a health care programme may have few resources or staff, and the ability to develop and deliver NFP services may be limited because of these two factors. In this case, it may be possible for one person to be trained in a nearby NFP service (private or government-supported) where training is available on some level, or for the prospective teacher to visit an active NFP service that provides complete formal training.

Some existing NFP services have developed excellent training materials for both instructors and NFP users. (See Annex 2 for a list of programmes from which materials are available, and Annex 3 which includes samples of forms used in NFP instruction and follow-up.) These materials may have to be adapted to meet the special needs of a particular group of users, but nevertheless provide a useful basis. One excellent resource is the WHO/BLAT "Family fertility education" resource package for teachers of natural family planning.¹

¹ Available from the British Life Insurance Trust for Health Education (formerly British Life Assurance Trust), BMA House, Tavistock Square, London WC1H 9JP, England.

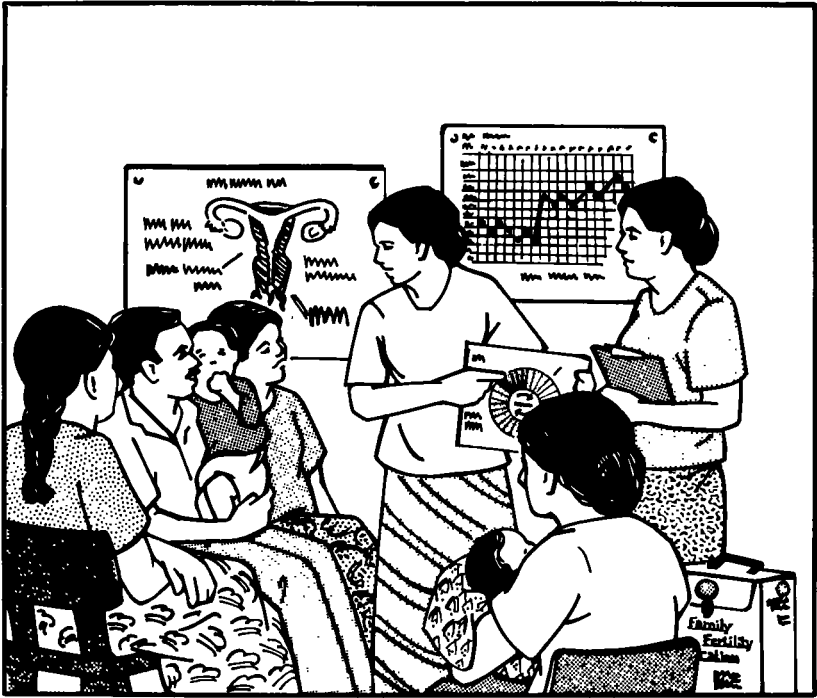


Fig. 11. Training of NFP teachers should include supervised practical sessions.

Requirements for teachers and teacher training

NFP teachers should be people who want to teach NFP, who display a respect for people wishing to use NFP, and who have personal experience in NFP or are willing to observe one or more of their own fertility signs. If employed by a clinic or government agency, they should have a formal agreement with their supervisor or administrator to provide NFP services as part of their job responsibilities after training.

NFP teacher training should include instruction in: reproductive physiology, with specific emphasis on current NFP methods, and an explanation of other family planning methods; methods of teaching clients to observe, chart, and interpret patterns of cervical mucus, basal body temperature, and other signs; how women with regular or irregular cycles can use NFP methods; individual and small-group learning

techniques and basic communication skills; skills necessary for recognizing and solving problems; how to use specific NFP records and service forms; how to use both the instructional materials and the materials that the clients will use; psychosocial aspects of family planning, which might include discussion of ethical considerations, family life and responsible parenthood; and how to gather and use service records and statistics to improve the programme and monitor NFP use.

Successful completion of a training programme implies that the NFP teacher: has completed full, formal NFP teacher training (usually about 40 hours of classroom instruction); has demonstrated knowledge of NFP by successfully completing objective tests; and has demonstrated ability to teach and provide follow-up instruction to a group of clients (preferably at least 6–10 women or couples), to enable them to reach independence in the use of the chosen NFP method.

The NFP teacher training programme should be able to produce competent and confident NFP teachers through standardized training, ensure that its teachers have developed adequate skills to provide NFP services, and provide appropriate NFP teaching materials consistent with the local culture.

Developing NFP teacher training

At all levels, from national to local, programme and service managers are likely to need assistance in training NFP teachers. Large NFP services usually train several NFP teachers to work in a variety of settings, ranging from small community and village-based efforts to health care centres in which NFP is one of many services provided. Some international organizations can provide training for teachers or their training can be integrated into the existing training for teachers of family planning methods within a country. There are a number of NFP resource centres, which can help those responsible for training NFP teachers to identify and, if necessary, adapt existing NFP teaching materials and training kits (see Annex 3).

The person who trains NFP teachers may be the programme or service supervisor, or a trainer from another

NFP service. If NFP services are well received and it is necessary to expand, one or more trainers who only teach NFP teachers may be needed. If there is an NFP service supervisor, the supervisor can then be freed to carry out supervisory, administrative, and management tasks.

The person who supervises the NFP teachers must have basic knowledge and experience in NFP method application and chart interpretation. During the practical training of a new teacher, the supervisory tasks may include assigning clients to each teacher; supervising the new teacher both in individual and small-group teaching situations; conducting group meetings with new and experienced NFP teachers to review charts and discuss teaching progress; and evaluating the abilities of new teachers.

NFP teacher trainer teams

If a country or region is planning to develop a large NFP service, it is extremely useful to establish NFP teacher trainer teams. These teams should issue statements of competency for the trained NFP teachers, that state clearly that the teacher has satisfactorily completed formal teacher training and is competent to provide client instruction in NFP. In this way, the teams maintain the standard of training and provide a quality control aspect for all NFP services. Again, there are organizations that can assist in developing teacher trainer teams and institutional programmes (see Annex 2).

Team members can be chosen from a wide variety of people who understand NFP. A team might include a physician or nurse who could provide information on reproductive physiology as related to fertility awareness and the NFP methods; experienced NFP teachers who could teach the use of NFP methods for women with regular and irregular cycles; an educator or counsellor who could provide training in communication, and counselling skills; and a person who is skilled in interpreting NFP user charts, who can supervise new teachers during the practical teaching phase following the formal classroom training.

Instruction for NFP teacher trainers should comply with the following guidelines.

- Effective instruction for NFP teacher trainers requires an appropriate curriculum and a plan for implementing

it; an experienced “master” trainer competent to conduct teacher training; and people willing and able to make up skilled trainer teams and to conduct NFP teacher training throughout the country or region.

- NFP teacher trainers should be selected from among persons who understand and, when possible, represent the ethnic and cultural background of the teacher candidates and clientele to be served; have instructed women or couples in the use of NFP methods; have successfully completed NFP teacher training; have knowledge and experience of current NFP methods and service delivery; and are committed to supporting NFP service development, including supervision of newly trained NFP teachers.
- Instruction for NFP teacher trainers should cover reproductive physiology, with specific emphasis on NFP and other family planning methods; methods of training NFP teachers using a basic core curriculum that includes fertility awareness and NFP methods (cervical mucus or ovulation, basal body temperature and symptothermal methods); techniques for training small groups of teachers, and approaches to client instruction; methods of evaluating teachers; counselling techniques; psychosocial aspects of family planning and responsible parenthood within the appropriate cultural context; current issues related to NFP methods; recent findings in research on NFP and related areas; service development; service monitoring; use of statistics for accountability and service improvement; programme evaluation techniques.
- Written and oral tests during formal training should demonstrate the trainees’ ability to apply problem-solving techniques in training, supervision, and service development and to conduct NFP teacher training, including evaluation of knowledge and of problem-solving skills, and of the teachers’ ability to provide NFP instruction and follow-up. When their training is completed, NFP teacher trainers should be able to develop an NFP teacher training curriculum, detailing instructional plans, content, and methods for evaluation of practical teaching.

5. Service delivery

The addition of natural family planning services to a health care or family planning system, or the expansion of existing NFP services, improves the ability of the system to meet the needs of the people it serves. However, careful consideration must be given to the nature of the methods in relation not only to the people who are being served, but also to the resources available for development.

NFP service development concerns

The first concern is always whether the natural methods will be accepted by potential family planning users. In some cultures, the social attitudes of the people may make NFP acceptable. Indeed religious and ethical beliefs may mean that NFP is the only option some people would consider using. In other societies, attitudes may make NFP either inappropriate as a method or, at best, difficult to introduce.

The second point to consider is whether there is likely to be a demand for services. This may be difficult to assess. It might be possible to survey potential family planning users, but many may not understand what is meant by natural family planning. It may be that service development is being considered because people have already asked for NFP. However, it is equally possible that there is no information on potential demand, and the only way to determine it is to begin to offer services on a small scale and to monitor their use.

Third, any other existing NFP services in the area must be taken into account. It is possible that NFP services are being offered on either a limited or an expanded scale by private organizations. A few local clinics may offer NFP independently of any organized effort, or there may already be a regional or national mandate to develop or expand NFP services. If so, and the NFP teachers and services are

reliable, they can provide a basis for expansion. If there are no existing services, development must begin from scratch.

Fourth, is fertility awareness already being taught in health care and family planning clinics or elsewhere? If so, is the information used as a basis for making a choice about family planning, or do clients have little choice as to which method they use? More than most methods, NFP depends on the understanding and motivation of the user and it may be necessary to develop instruction in fertility awareness that will help people to make an informed choice.

Fifth, what is the attitude of health care providers and those responsible for funding development? Are there health care providers who know about NFP and would welcome introduction of NFP services? If the providers do not understand NFP, are they willing to learn? Will they be willing to support its development and work to obtain the staff and resources needed to make the service effective? Or are there providers and administrators with strong objections to NFP, who still think in terms of the rhythm method, and do not consider NFP to be reliable? Can they be educated about NFP?

Sixth, what resources (staff, time, funding, facilities) are available? Any NFP service will need at least one staff member who is trained in one or all of the NFP methods. That person may have other duties or may have to travel long distances to deliver services. Teaching of NFP requires the use of instructional aids such as charts and booklets. NFP use requires, as a minimum, some kind of chart and, for the basal body temperature and symptothermal methods, a thermometer. Both instructional and user materials are relatively inexpensive, but their cost must be taken into account.

Literacy of the user population

The literacy level of the users will affect the way in which any family planning method is taught; in general, the more literate a population, the less difficult it is to teach a method. Perhaps more than any other method, NFP is based on education. However, this does not mean that a user must be able to read. Illustrated instructional and user materials have been developed for NFP and used

successfully with nonliterate clients. Carefully prepared booklets using drawings rather than words, and user charts on which the client can record signs and symptoms without using words are in use in several NFP services. One multicentre study (10) has shown that a group of women with varied educational levels, including women with advanced degrees and others who could not read, were able to learn and use NFP effectively. Those who were illiterate did as well as those who were well educated. A programme or service administrator must therefore be prepared to find or develop appropriate instructional and user materials for clients who cannot read.

Compensation and reward for teachers

For any service to be effective, the personnel must maintain their morale and skills. Generally, the strongest motivations for people to do their work well are associated with accomplishment and personal development. Good NFP teachers are likely to be motivated by the satisfaction they feel from teaching women and couples. However, as an employer of paid and volunteer workers, an NFP service can provide other motivations and support. Sometimes it is useful to offer incentives such as transportation, additional training, chances to interact with colleagues, and social and community recognition, especially when there is a heavy workload. Enthusiasm can be rekindled in teachers who have not worked in NFP for several years by providing refresher courses; this has the added benefit of updating the teachers' knowledge and boosting their confidence in their ability to teach.

Instructional materials

The NFP service must ensure that an adequate supply of appropriate materials for teaching and using NFP methods is available. The nature and quantity of the materials needed will vary from service to service and will depend on the method taught. Needed supplies could include client charts for the method being taught, thermometers, basic wall charts and table-top charts for use in individual or

small-group instruction, and instructional materials specially prepared for illiterate clients and for those with special language or other needs.

NFP teachers may need to have access to up-to-date resource publications on NFP methods and research. These can be obtained from international organizations that publish materials for a variety of programmes (see Annex 2). All regional and national NFP services should provide materials for professional health care personnel, community leaders, literate nonprofessional persons, and illiterate individuals. Experience indicates that visual aids must be easily understandable to the student, and this means that careful consideration must be given to a country's customs and values related to visual and linguistic depictions.

If materials are translated from one language to another, it is essential that the translation be done by a person who fully understands both the language and the culture of the potential users. Also, the materials must be tested by a teacher or user, who should work through them to see if anything has been left out or explained incorrectly.

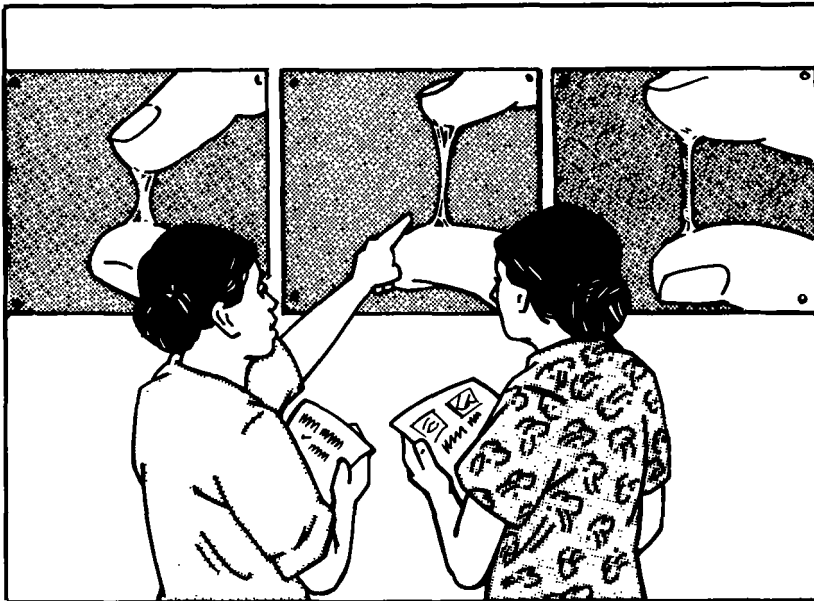


Fig. 12. Visual aids can be very useful in promoting understanding of NFP methods.

Guidelines for NFP services

Chapter 4 briefly described what an individual NFP teacher does, how teachers should be trained, and how to train the people who train teachers. The most important activities of any NFP service are teaching and ensuring that users use the methods correctly and with satisfaction; if teaching and follow-up are not done correctly and effectively, the service will be useless.

To be effective, the service needs to be run efficiently and, if it is to grow and improve, ways must be developed to assess the value of the service and to determine the direction it should take in the future.

If NFP services are to be part of a larger programme, many support activities can be merged with those already in place. If NFP services are set up separately, some structure will be necessary to carry out these tasks. If government-sponsored services are to be provided through an established private organization, it is reasonable to expect that the organization will meet at least minimal requirements of good administration and planning.

The guidelines that follow describe some of the administrative and supervisory tasks that need to be performed for effective delivery of NFP services.

- NFP services should meet the needs of the population that will use them. In some instances, this may mean preparing to serve people with common cultural and ethical concerns, and similar nutritional and health status. In other cases, people from a variety of backgrounds may want to use the methods.
- NFP instruction should be offered at times of the day and evening suitable to the clients, and in appropriate locations, to provide opportunities for all potential users to receive instruction.
- NFP service providers should have a good understanding of the family planning and health care services available to women, and should work to integrate NFP services into existing women's health care units, such as postpartum care and gynaecological outpatient services, primary health care centres and other family planning programmes. In some cultures, it may be useful to

develop links with midwives. Building up of links with the women's health care services, regardless of their stage of development, may encourage health care providers to refer potential users to the NFP service and will make it easier for the NFP staff to refer women with health problems to the appropriate health care unit.

- It is essential to monitor the quality of instruction and follow-up in NFP services. The service or the programme under which it operates must arrange for the recruitment and training of NFP teachers. Appropriate teaching materials must be provided for literate and illiterate clients, as well as charts and other materials for clients' use. If an NFP service has more than one teacher, it may be useful for the service manager and the teachers to meet to review charts, discuss teaching techniques, and share information on recent developments in research. Such meetings help reinforce good teaching methods, offer an opportunity for teachers to interact and learn from each other, and provide an opportunity for the service manager to evaluate a teacher's performance. If there is more than one group of teachers (e.g., some working in a government-sponsored service and others in a private NFP organization), it would be helpful for the groups to meet occasionally. This kind of interaction helps the NFP service providers to keep up with developments, ensures a consistent level of service, and promotes cooperative efforts.
- The NFP service should keep records on the number of clients served and the numbers of planned and unplanned pregnancies (see Chapter 6). Carefully maintained records enable service administrators to evaluate the level and effectiveness of NFP services and provide information that will assist planning for future needs.
- NFP service providers should also develop links with members of the health care delivery system and leaders of the community, and should ensure that they are well informed about NFP and its benefits. Such links will also help the NFP service provider keep up to date on

the concerns of the community and events that might affect service delivery, and to use the information, educational and teaching facilities and communication services in the community. This may make it easier to extend the service with less strain on limited resources.

- NFP service providers should develop links with any other NFP services in the community, region, or country. This will provide a means of sharing information on relevant issues and events, as well as on teaching and serving NFP users. Such links can extend the capacity of all NFP services to meet the needs of users, since clients can be referred to other services that teach different methods or that are more conveniently located for the user.

Number of methods to be taught

In any group of potential NFP users, there may be women who can use any of the three methods easily and effectively. Equally, there may be women who, for one reason or another, cannot use one method as effectively as another, or who simply prefer to use one method rather than another.

When planning NFP services, it is necessary to decide whether to offer instruction in one or in all of the methods. NFP services can offer all methods by training all teachers in every method, or by having each teacher learn to teach a different method. An NFP service might also concentrate its efforts on one method.

If only one method is offered, it is possible for the service to develop a very high level of expertise in that method. Services can be tightly focused, and facilities, resources, and staff can thus be used highly efficiently. If the method meets the needs of the clients in the area served, this approach may be more than adequate.

Instruction in all methods can be handled by one teacher provided that she or he is very flexible and has the time to prepare to teach all three methods. In this way, it is possible to operate a small but comprehensive service with limited staff. Having several teachers who can teach all three methods adds flexibility to the services, and is

especially important if teachers need to travel over a large area. If a service teaches all methods, more clients can be served, and more will be attracted by the broader range of services available.

Individual versus group instruction

The decision on whether to use individual or group instruction may be difficult, and depends on many factors. Most potential NFP users can learn as well in a group as they can individually. However, family planning is a rather personal topic, and some people may respond better to individual instruction.

Initially, an NFP service may have only a few clients, and one teacher may have enough time to teach women and couples on an individual basis. However, it is natural that if women and couples using NFP are satisfied, they will begin to discuss the methods with their friends and neighbours. More people will express a need for NFP services and as the service becomes known for providing effective family planning, there may be more referrals.

Group instruction offers the advantage of making efficient use of a teacher's time. One person can instruct several people and also provide individual counselling, if needed. The personalized nature of NFP instruction—which requires a review of a user's personal charts and discussion of misunderstandings and chart interpretations—makes it necessary to keep groups relatively small (ideally, not more than 10 people). Group instruction can foster community involvement and help reinforce motivation to use the method simply because each woman or couple will see others using NFP successfully and will realize that other people have the same concerns.

In areas where the teachers are making visits to the villages, all instruction may have to be on an individual basis, at least initially. If there are several users in a small area, group instruction may be possible.

In other words, there is no one “best” way to instruct; what is important is that the service should be flexible, and that instruction and follow-up can be personalized as needed. It is likely that the approach chosen will depend on service resources and the number of clients to be served.

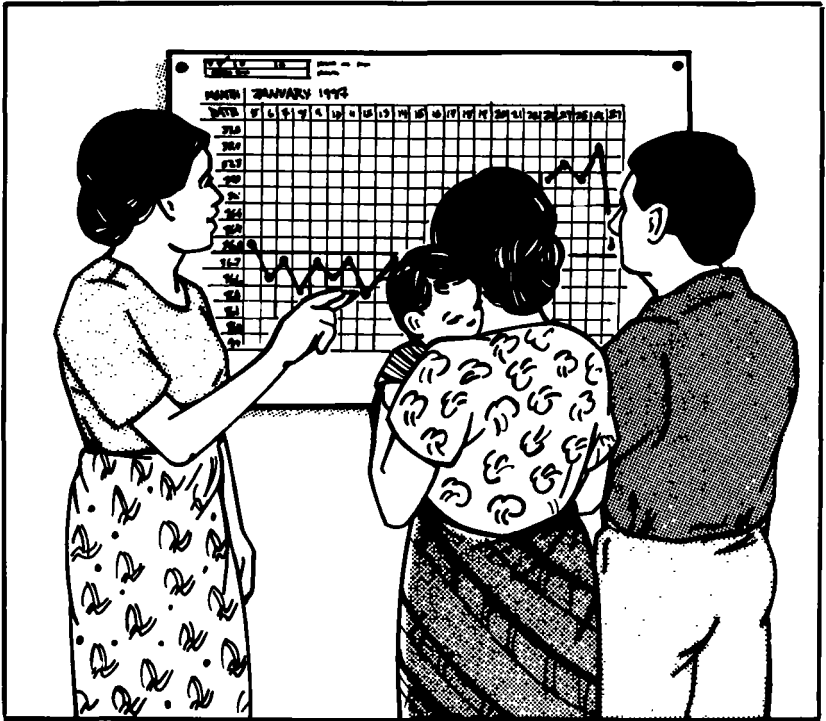


Fig. 13. Where the sociocultural setting hinders group discussion of sexual matters, instruction must be given to individual couples.

It may be useful, or even necessary, to structure the instruction to conform to the way in which people in an area are accustomed to being taught. If people are used to gathering in groups to receive news, discuss matters of joint concern, and so on, group instruction may be appropriate. If group (or individual) activities of all kinds are shunned, group (or individual) instruction may not work.

Structure of the service

Programme and service managers have several options when deciding how to begin to provide services. The level of service offered and speed of development will depend on local circumstances. For example, if a regional or national government is anxious to develop services, there may be

little concern about proving that NFP will work for the people in the area and great concern about quick development of services.

Small services

Small services can be very effective. If resources are limited or little is known about the need for NFP, it is possible to start teaching with only one or two teachers. As explained in Chapter 4, would-be NFP teachers can be sent for formal teacher training to an existing nearby service or to a national or international NFP organization. The services can be offered in a centre, or teachers could use the centre as a base and travel to towns, villages, and neighbourhoods in the area to provide services. When there are only one or two teachers, the time available for instruction and follow-up is likely to be very limited, especially if instruction and follow-up are done on an individual basis. If a teacher has to travel from one place to another, time will be even more limited. A small programme should be carefully monitored; user demand and the time available for teaching will eventually determine how many staff members should be teaching NFP on a full-time or part-time basis.

Incorporation into the family planning and health care system

Health services generally include a broad range of maternal and child health and family health care, including family planning services. While NFP methods are easily incorporated into a health care delivery system, a highly organized system is not essential to the delivery of NFP services. In many existing NFP services, health care providers, along with members of the community, including some who are illiterate, have been trained to teach NFP methods effectively. Moreover, many NFP teachers are volunteers rather than paid personnel.

If NFP is being introduced as a new service in a government health care system, a key factor in its success is that the introduction should be gradual, to ensure quality. Because there is little information on the demand or need for NFP, health care and family planning personnel may have limited knowledge of the methods, and educational



Fig. 14. Different women have different contraceptive needs; the addition of NFP methods to a family planning programme will improve the programme's ability to meet those needs.

efforts may be necessary if NFP is to be made accessible to potential users. An effort should be made to introduce information about current NFP methods into appropriate professional curricula and, possibly, to offer continuing education on the subject for doctors, nurses, and family planning personnel. As services become more effective, both the number of clients and the level of support needed to meet client needs will increase, and a more extensive teacher training system will be required.

Activities other than instruction and follow-up

In addition to providing instruction and follow-up to users, an NFP service is likely to become involved in service-oriented information activities. It is both necessary and valuable to inform members of the community being served about NFP and to develop good working relationships with community leaders and health care personnel outside the service.

Seminars and workshops for health care professionals could provide basic information on the methods being taught, up-to-date reports on research, data on effectiveness in the community, and so forth. The same information could be presented to community leaders in a less technical form than that used for health care professionals. NFP service providers could also encourage the inclusion of training in NFP in the formal curricula for health care professionals at all levels. Such actions would support existing NFP services, promote an interest in the methods on the part of health care professionals, and possibly identify future teachers and administrators of NFP services.

Another service that could be offered is fertility awareness education. Fertility awareness forms the foundation for the natural family planning methods, and both fertility awareness and NFP can be taught to and used by married or unmarried adolescents. If fertility awareness education is provided, those who teach it must be sensitive to the prevailing culture, ethics, and attitudes to family life in the community and particularly to the views of the parents of the children being taught. Parents are often very concerned about sex education being offered to unmarried young people. Individuals providing health care or other services in the community should help parents and young people establish healthy and responsible attitudes towards sexual behaviour. Instruction should cover personal and community health concerns, such as the consequences of sexually transmitted diseases and how they are transmitted and the responsibilities of young people regarding sexual behaviour outside marriage, including conception and child-rearing.

It is important to discuss NFP services in a way that community members will understand and that makes use of and supports their standards. It may be possible to involve community leaders in planning NFP services, discuss NFP with interested groups, make contacts with active community and women's groups, prepare and distribute information brochures, etc. Any form of communication can be useful in explaining the benefits of the methodology and in ensuring that the NFP services offered meet the community's needs.

Of course, all of this must be done within the framework of available resources. If NFP services are provided through a multiservice clinic, communication and outreach facilities may already be in place, and NFP information can be



Fig. 15. Contacts with community and women's groups can help to promote interest in natural family planning and to stimulate discussion of the methods.

distributed through these channels. If not, it may take time to develop effective information activities. Careful planning is necessary to make the best use of resources, but these activities, as well as others such as encouraging health care professionals to refer potential users, will support efforts to recruit new NFP users and teachers.

Another information activity that could be useful is the development of an NFP resource centre. In a small service, this may mean no more than gathering together instructional and informational materials on NFP, keeping track of research when possible, and making sure that those teaching NFP are kept up to date. In a large service, it could mean the establishment of a library, which would offer its services to staff from various sites. In a large

national service, a resource centre could offer library services and training, act as a quality control point, distribute up-to-date information to NFP teachers throughout the country, keep records, provide information to services outside the country, and so forth. Again, need and available resources would determine the size and role of a resource centre.

Managing NFP services in a regional or national health care system

Every country has some type of structure for delivering health care, and most include family planning services. If the system is well developed, all the elements required to administer and monitor the effectiveness of NFP services will be in place, with the possible exception of teacher recruitment and education and the quality control functions required to maintain the level of instruction and follow-up. In countries where health care delivery is limited, each NFP service may have to operate very much on its own or, because of limited staff and resources, with a restricted management structure. In some countries, there are national health care, religious, community development, and nongovernmental organizations (NGOs) that work with the government health services. Some countries have population councils or similar bodies on which such organizations are represented. Many NGOs have national offices and may be supporting several NFP service projects within a country. Such organizations (and individual projects) usually interact with appropriate government service offices at the local, district, regional and national levels.

Regardless of the size and resources of the health care delivery system and the NFP services within that system, efforts should be made to record the number of clients served, planned and unplanned pregnancies, users currently being followed up, and to keep notes of activities like community education meetings. Periodic reports should be prepared and, if possible, shared with other NFP services and with service supervisors and administrators at all levels of the hierarchy in the health care system. At each level—local, district, and national—administrators would be responsible for: gathering, evaluating, and summarizing data;

reporting to the next supervisory level; ensuring standards of service; maintaining quality control; etc. In other words, NFP services would be closely monitored, and those providing the services would be accountable for complying with standards for reporting and service delivery.

Existing NFP services

Up to this time, NFP services have been provided primarily by private organizations, alone or in collaboration with government agencies. Many have been supported by churches, others have been developed by individuals, and some services have developed in response to government demand. A few examples of different types of service are given in Annex 4. More details of these and other NFP services can be obtained from the International Federation for Family Life Promotion (see Annex 2).

6. Planning, implementing, and evaluating NFP services

When planning NFP services, consideration must be given to all aspects, including the individual services to be offered, the needs of the community, the resources required and those available, and the structure to be used to deliver the services. Any plan, even one for a small service with only one NFP teacher, should:

- describe what the service is intended to do;
- define policies;
- describe who the service users will be and outline important cultural and ethical considerations;
- describe how the service will be funded and the structure of the budget;
- describe the steps in and the time frame for development; and
- describe how the service will be evaluated.

Planning and implementing services

Before developing an NFP service plan, the person doing the planning should:

1. Learn about the natural methods of family planning. (Information is available from a variety of sources; see Annex 2.)
2. Consider how the methods will be used by the client population. Are the methods appropriate to the culture? What problems might be connected with promoting and teaching their use?

3. If possible, determine whether there is already a demand for NFP. This might mean carrying out some sort of survey of potential users.

The way demand is evaluated will depend on the resources available to the planner. If a survey is difficult to carry out, it may be feasible to set up a small service to gather information on demand for services. If NFP services are already offered by another agency in the area, additional services may not be necessary. It may be more practical to develop a referral system that would send users to the existing service. If there are aspects of service delivery in that agency that appear to be inadequately developed, the creation of a working relationship might make it possible to promote changes. Additional funding, for example, might permit the expansion of an existing service, and this can be less costly than creating an entirely new one.

NFP service development can be thought of as occurring in three phases. During the initial phase, the service is set up, the first teachers are trained, instructional materials are developed and/or adapted for the client population, and a system for instruction and follow-up is devised. At this time, a core group of teachers (and teacher trainers) would be developed, quality control and accountability standards established, and the demand for NFP identified. Throughout this phase (and at all times), data should be gathered on service use and effectiveness (see "Programme evaluation", page 57).

The second phase could be called either service development or service refinement. Once the basic services have been initiated and the process of defining both standards and delivery mechanisms has begun, the real development process begins. A larger training effort may be necessary; new sites for service delivery may be set up; services may be modified in line with user demands. As the plans are put into practice, standards may be refined, the way of teaching may change, and materials used for instruction may be modified. The type of staff providing service may change. The service may develop from having one or two part-time paid instructors to needing a larger staff of full-time and part-time, paid and volunteer workers. New user populations with special needs may be identified.

As all this is going on, there should also be an active effort to educate health care colleagues and the community about NFP and to expand the potential pool of users and teachers. At all points, the manner and effectiveness of delivery should be monitored and evaluated carefully.

Once a service is effectively delivering NFP instruction to the users that it was first designed to reach, it is likely that the third phase of development will begin—expansion. In a well planned, effective system, growth is natural and, indeed, necessary if the services are to continue to be effective. Expansion of NFP services could include offering the service through other health care providers in the community; developing formal training curricula for physicians, nurses, and community leaders; formulating or refining alternative funding policies (service fees, additional funding sources, etc.); implementing fertility awareness training for all family planning users; and developing a resource centre to provide centralized training and information services.

The speed with which any service grows is related to the interest in the service and the resources available for providing it. Because NFP is based on instruction and follow-up over a period of time, one of the major resources to be considered is the number of trained teachers available to deal with clients. Careful planning and evaluation of both the need for and the quality of services will allow a gradual development to take place and enable the quality of instruction to be maintained.

Programme evaluation

Evaluation is an important part of service management and administration, and each service provider, whether at local, regional, or national level, should recognize that evaluation is part of his or her job.

Evaluation is a systematic way of learning from experience and using the lessons learned to improve current activities and promote better planning by careful selection of alternatives for future action. This involves a critical analysis of different aspects of development and implementation for a programme and the activities that constitute the programme, its relevance, its formulation, its

efficiency and effectiveness, its costs, and its acceptance by all parties involved.

Evaluation permits service administrators to make rational decisions about the value, effectiveness, and future of the service. The quality of the evaluation and of the decisions based on it depends entirely on the quality of the information on which the evaluation itself is based. Some aspects of the service can be evaluated on the basis of numerical data, e.g., the number of people served initially, and the number of people continuing to use the services. This is called objective evaluation. Other service aspects can be evaluated on the basis of qualitative judgements; in this case, the nature of the service is judged. Such judgements combine both quantitative (objective) data and less easily defined information. A useful guide to the process and importance of evaluation in health care systems was published by the World Health Organization in 1981.¹

If the NFP service is part of a larger system of family planning and health care, that system may already have guidelines on how evaluation should be performed. In that case, the NFP service provider may be required to collect data and send it to a central evaluation service. It is, however, equally likely that the NFP service provider will have to do the full evaluation.

The full process of evaluation, which is similar for all types of service, will not be discussed here. We will instead concentrate on some specific aspects of evaluation of NFP services.

The most important consideration in carrying out an evaluation is that its quality is dependent on the accuracy and completeness of the information gathered and on the standards against which the service is evaluated. These standards comprise the overall objectives and goals of the service and the "rules" under which the service operates, including staffing levels, number of sites, performance standards, etc. It is not possible to conduct an evaluation if standards have not been defined or are not well understood. Thus, one of the most important aspects of NFP service delivery is the clear definition of the nature of the services

¹ *Health programme evaluation. Guiding principles for its application in the managerial process for national health development.* Geneva, World Health Organization, 1981 ("Health for All" Series No. 6).

to be provided and the way in which they are to be delivered.

The quantity and type of data that will be gathered will depend on who is running the service and whether it is part of a larger health care network. The NFP service provider should be prepared to gather data on at least the following aspects of service:

- number of sites (and type) used
- number of staff, by category (teachers, administrators, etc.)
- budget information, by kind of expense (staff, rent, transportation, etc.)
- the training of teachers and their level of expertise (including years of experience in teaching)
- number of hours each teacher spends delivering services
- nature of services provided
- number of clients who received initial information on NFP, including those who did not go on to have instruction
- number of clients who received instruction in NFP
- number of users who received follow-up and for how long
- number who dropped out of the service at each stage
- methods being taught
- number of teachers teaching each method
- number of people using each method (noting the number of users who started to learn one method and then changed to another, and why)
- how users came to the service (by referral from other services, neighbours, other users, as a result of information activities, etc.)
- expressed level of user satisfaction, by method
- number of planned and unplanned pregnancies among users

- number of users trained in a method who are still using it (this may require contacting of clients no longer using the service)
- support services used (medical and health care services, family life education, marriage counselling, nutritional counselling, etc.)
- nature, quality, and quantity of teaching materials used
- nature, quality and quantity of user materials used.

The evaluation of NFP services should include formal evaluation of the teachers and instructional methods. This should be done on a regular basis, and teachers should be provided with feedback as necessary to improve their performance.

Collecting this much information may appear to be an enormous task, and it can be very time-consuming. The use of standardized forms for registering users and monitoring instruction can be important in checking on a user's progress and evaluating the success of the service (see Annex 4 for sample forms). In well-funded services it may be possible to use small computers to store data; in services that are part of an extensive health care system, computers may already be available as a centralized service. Small services or services with limited resources may have to rely on manual recording and summarizing of data. Regardless of how the data are gathered and maintained, accuracy and completeness are vital.

There is one other aspect of evaluation that is essential to its success—feedback. Some individuals may feel threatened during evaluations, especially if they think that the purpose of the evaluation is to criticize rather than to help them improve their performance. It is important for the staff of the service being evaluated to accept the process and to look upon it as a valuable tool for improvement. At the same time, the people conducting the evaluation must provide feedback in a positive way and help the service staff use the information effectively. The collaboration of those being evaluated and those doing the evaluation can only be to the benefit of the people using the services.

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Annex 1. Effectiveness of family planning methods¹

Method ²	Failure rate ³	
	Theoretical	In practice
tubal ligation	0.05	0.2-1
vasectomy	0.15	0.2-0.5
implantable contraceptive	0.3	0.3
injectable contraceptives	0.25	1
combined oral hormonal contraceptives	0.5	1-8
progestin-only pill	1	3-10
intrauterine device	1-3	1-5
condom	1-2	3-15
diaphragm	2	4-25
foams, creams, jellies, and vaginal suppositories	3-5	10-25
periodic abstinence (rhythm, basal body temperature, mucus method, etc.)	2-5	10-30
sponge	11	15-30

¹ Extracted from: *A guide to modern contraceptive methods*. Washington, DC, Population Crisis Committee, 1985.

² More information on many of these methods is given in the publications listed on page vi.

³ No. of pregnancies per 100 users per year.

Annex 2. Sources of information and support for natural family planning

Private organizations

British Life Insurance Trust for Health Education (BLITHE)
BMA House, Tavistock Square, London WC1H 9JP,
England

Family Health International (FHI)
One Triangle Park, NC 27709, USA

Institute for International Studies in Natural Family
Planning
Georgetown University
3800 Reservoir Road, N.W.
Washington, DC 20007, USA

International Federation for Family Life Promotion (IFFLP)
Suite 700, 1511 K Street, N.W.
Washington, DC 20005, USA

International Planned Parenthood Federation (IPPF)
18-20 Lower Regent Street
London, SW1Y 4PW, England

Johns Hopkins Program for International Education in
Gynecology and Obstetrics (JHPIEGO)
The Johns Hopkins University, 550 North Broadway
Baltimore, MD 21205, USA

MISEREOR Geschäftsstelle
Postfach 1450/Mozartstrasse 9
5100 Aachen
Federal Republic of Germany

Pathfinder
1330 Boylston Street
Chestnut Hill
Boston, MA 02167, USA

Major multilateral organizations

United Nations Population Fund (UNFPA)
220 East 42nd Street
New York, NY 10017, USA

World Health Organization (WHO)
1211 Geneva 27
Switzerland

Major national governmental agencies

Canadian International Development Agency
200 Promenade du Portage
Hull, Quebec, K1A 0G4, Canada

Federal Ministry for Economic Cooperation
P.O. Box 120322
5300 Bonn 1, Federal Republic of Germany

Directorate for Development and Humanitarian Aid,
Eigerstrasse 73
3003 Bern, Switzerland

*Natural family planning centres**Africa*

Central African Republic Service d'Education à la Maîtrise de la
Fécondité,¹ Dispensaire du Foyer de
Charité, B.P. 335, Bangui (French-
speaking).

Kenya Family Life Counseling Association, P.O.
Box 18077, Nairobi (English-speaking and
tribal languages).
Kenya Catholic Secretariat
Department of Natural Family Planning
P.O. Box 48062
Nairobi

Mauritius L'Action Familiale,¹ Route Royale, Rose
Hill (French- and English-speaking).

¹ Major NFP centre, which can supply names of consultants and NFP materials.

Natural family planning

Rwanda Action Familiale Rwandaise (Centro Medico-Social Gikondo), B.P. 442, Kigali (French-speaking).

Zambia Family Life Movement,¹ P.O. Box 50796, Lusaka (English-speaking).

The Americas

Brazil Centro de Pastoral Familiar (CENPLAFAM),¹ Ave. Bernadino de Campos 110, 04004 São Paulo (Portuguese- and Spanish-speaking).

Canada SERENA CANADA,¹ 151 Holland Avenue, Ottawa, Ontario K1Y0Y2 (English- and French-speaking).

Chile Grupo de Trabajo NPF, University Hospital of Chile,¹ Ch. Hamilton 11051, Santiago (Spanish-speaking).

Universidad Católica (Medical School), Casilla 144-D, Santiago (Spanish-speaking).

Colombia CENPAFAL,¹ Avenue 28, 37-21 Bogotá, Colombia (Spanish-speaking).

Carvajal Foundation, Apartado Aereo 6178, Cali (Spanish-speaking).

Haiti Action Familiale d'Haiti,¹ Rue Paul VI 65, B.P. 531 (Archevêché), Port-au-Prince (French- and Creole-speaking).

USA Diocesan Development Program for NFP,¹ Seton Hall University, South Orange, NJ 07079 (English-speaking).
Los Angeles Regional Family Planning Council,¹ 3600 Wilshire Blvd., Suite 600, Los Angeles, CA 90010
Family of the Americas Foundation, Inc.,¹ 1150 Lovers Lane, P.O. Box 219, Mandeville, LA 70448 (English-speaking).

¹ Major NFP centre, which can supply names of consultants and NFP materials.

Pope Paul VI Institute for the Study of Human Reproduction,¹ 6901 Mercy Road, Omaha, NE 68106 (English-speaking).

Asia/Oceania

- Australia Australian Council of NFP, Inc.,¹ 372 Victoria Street, Darlinghurst, New South Wales 2010 (English-speaking).
Ovulation Method Research and Reference Centre of Australia,¹ 27 Alexandra Parade, Fitzroy North 3068, Victoria (English-speaking).
- Hong Kong Catholic Marriage Advisory Council,¹ 502 Caritas House, 2–8 Caine Road, Hong Kong (English- and Chinese-speaking).
- India Natural Family Planning Association of India,¹ 18 Satya, Niketan, Moti Bagh, New Delhi 110021 (English-speaking).
Tamil Nadu Family Development Centre,¹ 37 Allithusai Road, Aruna Nagar, Post Box 702, Puthur, Tituchirapalli (English- and Hindi-speaking).
- New Zealand New Zealand Association of Natural Family Planning,¹ Mater Hospital, Auckland 3 (English-speaking).

Europe

- United Kingdom Catholic Marriage Advisory Council,¹ 15 Lansdowne Rd., London W11 3AJ (English-speaking).
The National Association of Natural Family Planning Teachers,¹ NFP Centre, Birmingham Maternity Hospital, Birmingham B15 (English-speaking).
- France Centre de Liaison des Equipes de Recherche (CLER),¹ 65 Boulevard de Clichy, 75009 Paris (French-speaking).

¹ Major NFP centre, which can supply names of consultants and NFP materials.

Institut de Recherche sur l'Enfant et la Couple (IREC),¹ 16 Place Notre Dame, 38000 Grenoble (French-speaking).

Italy

Centre of Study and Research on NFP,¹ Università Cattolica de Sacro Cuore, Facoltà di Medicina e Chirurgia "A. Gemelli", Largo Agostino Gemelli 8, 00168 Rome (English- and Italian-speaking).

¹ Major NFP centre, which can supply names of consultants and NFP materials.

Annex 3. Sample report forms for use in NFP programmes¹

1. Registration form

Identification

Name _____

Address _____

Date of registration _____

Identification number _____

1. Age (in years) _____

2. Civil status

1. Married	3. Single
2. Engaged	4. Divorced/separated
5. Other (specify) _____	

3. If married, for how many years _____

4. If married, age of spouse last birthday _____

5. Number of living children: boys _____ girls _____

6. Date of end of last pregnancy _____

7. Religion _____

8. Number of years of schooling _____

¹ All the forms in this Annex are adapted from: GRAY, R. H. & KAMBIC, R. NFP program evaluation and accountability. In: Lanctor, C. A. et al., ed. *Natural family planning: development of national programs*. Washington, DC, International Federation for Family Life Promotion, 1984.

2. Follow-up form

Identification

Name _____

Date _____

Identification number _____

Charting

1. Follow-up form number _____

2. Place of follow-up visit: client's home _____
NFP clinic/centre _____
elsewhere (specify) _____

3. Date when charting began _____

4. Number of months since charting began _____

5. Number of complete cycles charted _____

6. Person mainly responsible for keeping the chart

self (client) _____ client memory _____
spouse _____ no record kept _____
instructor _____ N/A _____
other/friend _____

7. Signs recorded on

mucus _____ calendar _____
temperature _____ other minor signs (breast tenderness,
etc.) _____
cervix _____ no record _____

8. Analysis of chart

not every day charted—not enough information to interpret _____
every day charted—not enough information to interpret _____
every day charted—enough information to interpret _____
days necessary to interpret the fertile time are charted _____

9. Is there any difficulty in identifying the early infertile, fertile, and the late infertile phases

no difficulty _____
client has difficulty (specify) _____
teacher has difficulty (specify) _____
both have difficulty (specify) _____

3. Discontinuation form

Identification

Name _____

Date _____

Identification number _____

Discontinuation

1. Date of discontinuation _____

2. Reason for discontinuation

lost to follow-up _____

health related _____

personal _____

pregnancy _____

3. If lost to follow-up: whereabouts unknown _____
left area _____

4. If health-related: menopause _____
medical condition/medicine or drugs that prevent
charting _____
hysterectomy _____
deceased _____
other (specify) _____

6. If personal, related to: desire for privacy—does not want to be
followed _____
social/family pressure _____
lack of confidence in NFP _____
method too complicated _____
need for excessive abstinence _____
preference for other method _____
no need _____
other (specify) _____

7. If pregnancy, date of last menstrual period _____

Annex 4. Examples of development of NFP services

The examples given here are intended to show how services have developed in different parts of the world. Further details of these and other NFP services are available from the International Federation for Family Life Promotion (see Annex 2 for address).

1. Private service

In the Republic of Korea, there is an active NFP service that teaches only the cervical mucus method. The service started in the early 1970s as a small programme in one town. By 1974, after instructional materials had been developed, the service had expanded into church-run hospitals, clinics and extension services in parishes. By 1983, teacher training and service delivery were well established. Teacher training now includes a standardized curriculum and continuing education. A national NFP supervisor coordinates instruction, teaches the trainees and makes visits to the field. The service offers fertility awareness training twice a year and has helped one medical college incorporate NFP into its curriculum.

2. Private/government collaboration

In New Zealand, a few physicians began teaching NFP in several main centres. As activities expanded, national conferences were held (starting in 1974), the New Zealand Association of Natural Family Planning (NZANFP) was formed (1975) and, by 1977, the New Zealand government was subsidizing teacher training and providing a salary for the national coordinator of NZANFP. By 1981, the government was providing funding for all training, the national coordinator, and hourly salaries for NFP teachers. The NZANFP trains and accredits teachers, sponsors research, supervises NFP service centres, develops and maintains training materials, develops NFP clinic procedures for workers and supervisors, provides sample materials for

doctors, and conducts public education sessions. NFP services are well developed in New Zealand.

3. Government demand and private service delivery

In the Central African Republic, natural family planning services evolved from a service for infertile couples. These services, which are still being developed, began in 1979, as *Education à la Maîtrise de la Fécondité* (EMF), a service offering instruction in fertility awareness and NFP. EMF coordinates activities with private and government maternal and child health centres and school health programmes. About 100 volunteer teachers have been trained in the private sector and another 100 in government health and social agencies. Activities are being expanded through a project grant from USAID and the International Federation for Family Life Promotion, and programme evaluation systems have been developed with the help of Johns Hopkins University. UNICEF has funded the development of an NFP instructional text.

4. A privately funded service for the literate and illiterate

In India, one of the oldest and largest NFP services operates on a regional and national level. Funding comes only from the private sector. NFP began in 1952 using the rhythm method. A modification of the cervical mucus method is now most commonly used. The vast majority of women using NFP are poor, live in slums or in rural areas, and most are illiterate. The service is available to anyone, regardless of religion or caste. Many NFP service sites not only provide NFP instruction and follow-up, but also assist in nutrition education and in establishing small industries. Several research studies have been conducted to gather data on NFP users in India and the effectiveness of the methods used.¹ The Natural Family Planning Association of India, a secular organization founded in 1974, oversees NFP services in India.

¹ *Natural family planning in India*. New Delhi, Indo-German Social Service Society, 1981 (All India Documentation and Evaluation Report).

5. A successful cooperative effort

Mauritius provides an example of an NFP service developed in the private sector with the help of national and international agencies.¹ Government support for NFP in Mauritius began in the 1960s and in June 1965 the government provided grants-in-aid to support NFP development. In 1973, *L'Action familiale* (Family Action), a nongovernmental organization, was established to teach the basal body temperature method. Over a two-year period, instructors were trained and NFP services and sex education for young people were established. By 1986, more than 100 volunteer couples were teaching NFP in six urban and rural areas.

Since 1974, a representative of the Ministry of Health and Population Control has been on the board of *L'Action familiale*. *L'Action familiale* also sends a representative to the Health Ministry's National Family Planning Committee.

Administrative and service structures are well developed. By 1977, twelve regional areas, realigned to correspond to the nine standard geographical areas of the Ministry of Health's evaluation unit, had been formed. Teacher training is carried out almost every year. Training manuals and curricula have been developed, and support services such as medical and marriage counselling referral services are available. Government grants-in-aid, and funds from nongovernmental and international development agencies subsidize teacher salaries and support services. Outreach is systematic, with monthly television and radio programmes broadcast in two languages.

NFP service in Mauritius was evaluated in 1982 by outside experts. In 1983, *L'Action familiale* received funds and training from USAID to conduct an in-depth evaluation and to develop a process for service improvement. A systematic data collection system has been set up, and effectiveness studies of users are planned. In the NFP service, 68% of those using NFP use the symptothermal method. *L'Action familiale* has also provided NFP teacher training and service development assistance to other African countries.

¹ RAJCOOMAR, V. ET AL. Contraceptive prevalence survey: natural family planning in Mauritius. *Fourth IFFLP International Congress, Ottawa, 1986.*

Annex 5. Some frequently asked questions and answers about natural family planning

A. Questions asked by women and couples interested in NFP

How do new NFP methods differ from rhythm?

Rhythm is a family planning method based on the calculation of the fertile phase of a woman's cycle, taking into account the woman's past cycle lengths. It is based on the principle that a woman has regular cycles, and therefore cannot be used by women with irregular cycles. Rhythm is widely used, but more accurate NFP methods have been developed that allow for the fact that each woman's cycle is different from other women's cycles, and that cycles may vary from month to month. These more accurate methods are based on the daily observation of cervical mucus, basal body temperature, and other signs that give a reliable indication of the beginning and end of the fertile phase. They can be used by women with regular or irregular cycles because they are based on the natural physiology of the woman's body.

What is fertility awareness and does it differ from NFP as a method of family planning?

Fertility awareness derives from personal knowledge and experience in observing signs of mucus, basal body temperature, pain, bleeding or cervical changes related to ovulation. Fertility awareness is not a method of family planning. Once a woman has knowledge of the fertile and infertile phases of her cycles, she can then use NFP either to achieve or to avoid pregnancy by timing intercourse in relation to the fertile days.

Can women who are breast-feeding use NFP?

Yes. Women who are giving their babies breast milk usually remain infertile for some months after delivery. As the mother begins to supplement the baby's diet and

reduces the daily number of feedings or comfort episodes at the breast, her fertility begins to return. She can observe the appearance of slippery, wet cervical mucus before ovulation and a shift in the basal body temperature to a higher level after ovulation has occurred. NFP can be used when there is a change in the breast-feeding pattern and/or a change in the basic infertile dry or continuous mucus pattern.

Can women who are premenopausal use NFP?

Yes. Women who are approaching menopause (around the ages of 35–50 years) have fewer cycles that are fertile and fewer days of fertility in each cycle. Although there may be fewer days of slippery, wet mucus and fewer cycles when the body temperature shifts to a higher level, women can use NFP reliably to identify the potential fertility of each day of the cycle.

Why do NFP teachers talk about couples using NFP, whereas other family planning personnel teaching other methods usually speak about only women or men as users?

For successful use of NFP, the understanding and cooperation of both the man and the woman are essential. Other family planning methods usually depend on the woman or the man, but not both. In NFP, the woman is aware of potentially fertile days, and together the couple must use that information in deciding when to have intercourse.

Can women who have a continuous vaginal discharge use NFP?

Yes, but effective use is more difficult. When the woman has a continuous discharge, the discharge usually remains the same day after day, whereas the cervical mucus discharge changes and becomes more slippery and lubricative as ovulation is about to occur. If a woman is confused by the combined cervical mucus discharge and vaginal discharge, it may be helpful if she takes her basal body temperature. She will notice that it shifts to a higher level

after ovulation, indicating the infertile phase of the cycle. Some NFP teachers advise the woman to test the quality of the discharge by placing some in a glass of water. The vaginal discharge usually dissolves, whereas the cervical mucus secretion will not totally dissolve in the water. It is important for the woman to be able to distinguish pathological discharge from the mucus discharge that occurs each month before ovulation. This fertile-type mucus produces a distinctive feeling of wetness and lubrication.

What is the usual length of abstinence required in the practice of NFP?

For women whose cycles are of regular length, the actual fertile phase is generally about 6–8 days. However, the length of abstinence required depends on the method of NFP used. When cervical mucus and body temperature, as well as cycle length, are taken into consideration, the first 6–8 days of the cycle are usually available for intercourse. The mucus symptom usually lasts about 4–6 days, and the third day following the shift in body temperature to the higher level marks the end of the fertile days. A couple who wish to avoid pregnancy would therefore need to abstain from intercourse for about 9 days. A couple using the cervical mucus or ovulation method (i.e., avoiding intercourse during menstruation, using alternate days during the early infertile time, and abstaining from the appearance of fertile mucus until the third full day after peak mucus) would have to abstain from intercourse on about 16 days in a 28-day cycle.

Do people who use NFP have to be “special” or highly motivated?

Yes. A person has to be highly motivated to learn and use NFP. People become interested in NFP for many reasons. Some do not wish to take pills or receive injections or chemical implants. Others have religious reasons for preferring NFP. Others simply feel that NFP is more convenient than having to depend on supplies of contraceptives.

Can sexual intercourse during the menstrual period ever result in pregnancy?

Yes, although such an occurrence is very rare. If the previous cycle showed a build-up of mucus to the peak day, followed by a shift in the basal body temperature to a higher level, the first 6 days of the cycle are considered infertile. If the previous cycle was not ovulatory, it is possible that what is thought to be the menstrual period may, in fact, be bleeding associated with ovulation and, therefore, a very fertile time. Usually menstrual bleeding lasts longer than the spotting or bleeding that occurs at the time of ovulation, so it is usually easy to differentiate the two. If there is a heavy mucus-type discharge at the end of menstruation, the woman may be experiencing early ovulation and should abstain from intercourse until the late infertile phase of that cycle. Women who normally have short cycles should be especially aware of this possibility.

Do all women have signs of the fertile time that they can easily observe?

Yes. Women who are ovulating usually have signs of cervical mucus changes and shifts in basal body temperature to a higher postovulatory level. The amount of cervical mucus discharge may vary from woman to woman, but generally the signs are easily observed once a woman learns about them. In a study of over 800 women learning the ovulation method, it was found that over 93% of the women could learn to observe an interpretable cervical mucus pattern in the first cycle of learning.¹ Women with vaginal infections may have difficulty in learning to observe the cervical mucus pattern, but they can usually learn with assistance from a good teacher and after treatment of the vaginal infection; alternatively, the basal body temperature is a reliable indicator.

¹ WORLD HEALTH ORGANIZATION. A prospective multicenter trial of the ovulation method of natural family planning. 1. The teaching phase. *Fertility and sterility*, 36: 152-158 (1981).

Are NFP methods effective in preventing pregnancy?

Yes. The individual effectiveness of practical everyday use ranges between 70% and 90%, depending on many factors. The primary factor is that the couple must learn to identify the fertile days accurately and, when pregnancy is not desired, avoid intercourse during those days.

Can couples use methods such as the condom, diaphragm or withdrawal at the fertile time and still successfully use NFP?

When used to avoid pregnancy, NFP is defined as abstaining from sexual intercourse during the fertile time. However, couples who find it difficult to abstain during the fertile period may wish to use some form of contraception.¹

Does successful use of NFP require good communication and joint decision-making between the couple?

NFP does not require perfect sexual dialogue and communication; however, a couple using NFP is taking combined or shared responsibility, and good relationships are always an asset in accomplishing any mutual goal. One of the benefits of NFP is that its use can foster the development of better communication between the couple about their sexual life, family planning intention, and feelings about their sexual relationship.

B. Questions asked by health care and family planning workers

Is it possible for illiterate people to learn NFP?

Yes. There have been very successful NFP services that have demonstrated that NFP can be taught to illiterate people. In one programme in New Delhi, India (see Annex 4), poor women in urban slums were taught fertility awareness and a modified cervical mucus method. Most of the 2601 women in this study had rejected family planning

¹ See, for example: *Barrier contraceptives and spermicides. Their role in family planning care.* Geneva, World Health Organization, 1987.

methods in general and were attempting to space children by reducing the frequency of intercourse. Many found the modified mucus method acceptable in their married lives. Of these women, 63% were illiterate. A key to the successful learning and use of NFP was the choice of a teacher or motivator who could easily communicate with them, and whom the women trusted.

Is NFP effective when the couple does not want any more children?

Yes. NFP, like other family planning methods, has good effectiveness when the couple has decided to limit the size of their family. One study has indicated that the pregnancy rate among 341 couples using NFP to space their children was 13.29%, and the pregnancy rate among 548 couples who had decided that they did not want any more children was 2.78%.¹

How can the health care provider be sure that the couple using NFP will use it correctly?

Correct use of NFP implies that the couple has intercourse during the fertile period if they want to achieve pregnancy, and avoids intercourse on fertile days if they want to avoid pregnancy. The health care provider is responsible for ensuring that the couple has learned correctly how to identify the beginning and end of the fertile phase, and that they understand the rules of the NFP method used. After the couple demonstrates that they can use the method correctly, the health care provider may assume that they are self-reliant. The NFP service should provide follow-up support for learning couples to assist them in achieving their goals. If a couple consistently uses NFP incorrectly, the provider should discuss their family planning needs.

What criteria should be used in selecting an NFP teacher?

A potential NFP teacher must be willing to commit time to learn about NFP, to undergo a supervised teaching

¹ RICE, F.J. ET AL. Effectiveness of the sympto-thermal method of natural family planning. An international study. *International journal of fertility*, 26: 222-230 (1981).

period, and to teach NFP for several years after training. Because the recognition of the beginning of the fertile phase of the cycle requires a familiarity with changes in cervical mucus characteristics, the majority of NFP services recommend that the NFP teacher be a woman who is able to observe her own signs of fertility. Experience suggests that women who use NFP make very successful teachers. Some of the personal attributes of NFP teachers that are important to the successful implementation of an NFP service are that the teacher be able to teach others, be willing to work within the aims of the service organization, be supportive of NFP, and be able to obtain the trust of the clients.

Can a family planning worker who is trained in NFP teach NFP as well as providing instruction in other family planning methods?

Yes. However, it should be remembered that NFP methods are educational rather than medical and are based on behavioural changes in sexual habits. It is thus important to recognize that NFP does not need to be taught by a medically trained professional. In many cases, therefore, the teaching can be done by a specially trained, non-medical worker, while the physician or nurse assumes more of a supervisory and administrative role.

Can young couples who have intercourse frequently use NFP?

Yes. Depending on the motivation of the couple and their reasons for learning and using NFP. In a study of urban poor, couples who had intercourse on a daily basis accepted NFP without much difficulty. Few studies have been done to compare the age, frequency of intercourse, and effectiveness of NFP.

When a couple uses the cervical mucus method, why is it necessary to refrain from intercourse on alternate early dry days before the cervical mucus symptom begins?

The guidelines for using the ovulation or cervical mucus method suggest that the couple should not have intercourse on consecutive dry days during the early infertile phase.

This is primarily to avoid confusion between any residual ejaculate in the vagina and the appearance of wet cervical mucus. Some NFP services do not consider this to be a rigid requirement of the method. In most instances, the ejaculate is absorbed within several hours following intercourse.

Can a woman use a vaginal douche and still use NFP?

No. Douching can alter the appearance of the cervical mucus. In addition, practices such as douching and use of drying agents remove the normal bacterial flora that fight infection, and should be discouraged. In some cultures, manual cleansing of the vagina is used by some women as the only means of hygiene. In these cultures, the ability to observe the quality of the cervical mucus, as well as the position and texture of the cervix, can be readily taught.

How long does it take for a couple to learn to use NFP?

Experience indicates that it takes about three cycles for a woman to feel relatively confident about identifying the fertile and infertile days of her cycle. Most women require about six or more cycles to use NFP with complete confidence, and most couples learn to adjust their conjugal needs within this period of time. However, for some, learning to regulate sexual behaviour according to the observed signs of fertility may take longer.

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Methods of natural family planning (NFP) are based on observation of the naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle. Using these observations, a couple can time intercourse either to avoid or to achieve pregnancy. Successful delivery of NFP services depends essentially on effective education of potential users, and these guidelines include specific recommendations on training of NFP teachers as well as general guidance on provision of services. The guidelines are intended for use by programme managers and administrators who are interested in introducing or expanding natural family planning services, and should be adapted to local conditions.